The 60th Annual Meeting of the International Society of Electrochemistry

Emerging Trends and Challenges in Electrochemistry

August 16 to 21, 2009
Beijing, China
中国·北京

PROGRAM

International Society of Electrochemistry
Rue de Sébeillon 9b
1004 Lausanne
Switzerland

Printed in China

Welcome Address

On behalf of the organizing committee of the 60th Annual Meeting of the International Society of Electrochemistry, we warmly welcome you to Beijing and look forward to your participation in the meeting, from 16-21 August, 2009. The host city of Beijing is not only the capital city of China and its political, cultural, and scientific centre, but it is also one of the largest and most rapidly developing cities in the world. This makes it a perfect venue for our chosen theme of Emerging Trends and Challenges in Electrochemistry.

Beijing has a recorded history of over 3,000 years and it has been the Chinese capital for over 800 years. More recently, on 1 October, 1949, Beijing became the capital of the People's Republic of China. It is a city rich in culture relics, including many World Cultural Heritage Sites such as the Great Wall, the Temple of Heaven, the Forbidden City and the Peking Man Site. Beijing boasts 3,550 cultural relic sites and a total of 3.24 million cultural relics kept in 131 museums. Today's Beijing is a vibrant mixture of tradition and modernity, with interest for the visitor at every turn. The city is now familiar with visitors from all over the world, having hosted the 29th Olympic Games in August 2008.

ISE has visited China previously for its major scientific meetings. The University of Xiamen acted as host to the ISE Annual Meeting in 1995 and the ISE Spring Meeting in 2004. Our Society has a tradition of strong participation from members in China and the flourishing of electrochemistry in modern China makes it appropriate that this connection is further strengthened by ISE members from all over the world visiting Beijing in 2009.

As a society, we face many challenges and opportunities, ranging from energy, resources and the environment on a global scale to healthcare for the individual. Electrochemistry has a prominent and multi-dimensional role to play in all these areas and, through its scientific activities, ISE will be a significant contributor to this effort. Accordingly, the 60th Annual Meeting will involve all the scientific Divisions of ISE, emphasizing the links between fundamental understanding at the nanoscale and application on an industrial scale.

We welcome scientists from chemistry, physics, biology, engineering and materials science and invite you to work together to explore new areas of electrochemistry, discuss common challenges and propose innovative solutions.

Lijun Wan, Zhongfan Liu & Robert Hillman
Co-Chairs, Organizing Committee, ISE Annual Meeting 2009

Organizing Committee

Co-Chairs

Lijun Wan, *China (co-chair)*
Zhongfan Liu, *China (co-chair)*
Robert Hillman, *UK (co-chair)*

Members

Christopher Brett, *Portugal*
Hasuck Kim, *Korea*
Juntao Lu, *China*
Tianhong Lu, *China*
Petr Novak, *Switzerland*
Zhongqun Tian, *China*
Masahiro Watanabe, *Japan*

Local Organizing Committee Members

Secretaries General: Yongfang Li and Jin Zhang, *China*

Symposium Organizers

Symposium 1: **From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells**
Lo Gorton, *(Coordinator) Lund University, Germany*
Huangxian Ju, *Nanjing University, China*
Wolfgang Schuhmann, *Ruhr University, Germany*
Woonsup Shin, *Sogang University, Korea*
Xiu-Rong Yang, *Changchun Institute of Applied Chemistry, CAS, China*

Symposium 2: **Corrosion Science and Technology**
Nick Birbilis, *(Coordinator), Monash University, Australia*
Rudy Buchheit, *Ohio State University, USA*
En-Hou Han, *Institute of Metals Research, CAS, China*
Chang-Jian Lin, *Xiamen University, China*
Mary Ryan, *Imperial College, United Kingdom*
Masahiro Seo, *Hokkaido University, Japan*
Chuanwei Yan, *Institute of Metal Research, CAS, China*

Symposium 3: **Electroanalysis and Electrochemical Sensors**
Xinghua Xia, *(Coordinator) Nanjing University, China*
Salvatore Daniele, *University of Venice, Italy*
Zhiqiang Gao, *Institute of Bioengineering and Nanotechnology, Singapore*
Baohong Liu, *Fudan University, China*

Symposium 4: **Electrocatalysis**
Shi-Gang Sun, *(Coordinator) Xiamen University, China*
Enrique Herrero, *University of Alicante, Spain*
Pei Kang Shen, *Sun Yat-Sen University, China*
Peter Strasser, *Technical University Berlin, Germany / University of Houston, USA*
Marcin Opallo, *Inst. of Physical Chemistry, Polish Acad. of Sciences, Poland*
Jeff Greeley, *Argonne National Laboratory, USA*

Symposium 5: **Electrochemical Energy Conversion and Storage**
Yongyao Xia, *(Coordinator) Fudan University, China*
Kwang-Bum Kim, *Yonsei University, Korea*
Minoru Inaba, *Doshisha University, Japan*
Marina Mastragostino, *University of Bologna, Italy*

Symposium 6: **Electrodeposition for Nanoelectronic Applications**
Yongfang Li, *(Coordinator) Institute of Chemistry, CAS, China*
George Zheng Chen, *University of Nottingham, UK*
Dieter M. Kolb, *University of Ulm, Germany*
Jay Switzer, *Missouri University of Science and Technology, USA*
Mu Wang, *Nanjing University, China*

Symposium 7: **Electrochemical Engineering and Technology**
Christos Comninellis, *(Coordinator) Swiss Federal Institute of Technology, Switzerland*
Achille de Battisti, *University of Ferrara, Italy*
Won Il Cho, *Institute of Science & Technology, Korea*
Zi-Feng Ma, *Shanghai Jiao Tong University, China*

Symposium 8: **Electrochemical Nano/Micro-Science**
Shengli Chen, *(Coordinator) Wuhan University, China*
Juhyoun Kwak, *Korea Advanced Inst. of Science and Technology, Korea*
Takeo Ohsaka, *Tokyo Institute of Technology, Japan*
David Schiffrin, *University of Liverpool, UK*

Symposium 9: **Interfacial Electrochemistry**
Yuanhua Shao, *(Coordinator) Peking University, China*
Marc Koper, *Leiden University, The Netherlands*
Ezequiel P. M. Leiva, *Cordoba National University, Argentina*
Bingwei Mao, *Xiamen University, China*

Symposium 10: **Molecular Electrochemistry: In its Own Right and in Service to Related Research Areas**
Lin Zhuang, *(Coordinator) Wuhan University, China*
Ole Hammerich, *University of Copenhagen, Denmark*
Takayuki Homma, *Waseda University, Japan*
Jiri Ludvik, *J. Heyrovsky Institute of Physical Chemistry, Czech Republic*

Symposium 11: **General Session**
Zong-Rang Zhang, *(Coordinator) Shanghai Normal University, China*
Takashi Kakiuchi, *Kyoto University, Japan*
Yoon-Bo Shim, *Pusan National University, Korea*
Wenbin Cai, *Fudan University, China*

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About the International Society of Electrochemistry

Tutorial Lectures

Sunday August 16, 2009

Lecture 1 14:30 to 16:00
Lecture 2 16:30 to 18:00

Session I:
Nanoscopic Processes in Fuel Cells

Prof. Ulrich Stimming
Technische Universität München, Germany

Prof. Masahiro Watanabe
Clean Energy Research Center & Fuel Cell Nanomaterials Center, Japan

Location
Room 101, 1st Floor
Lee Shau Kee Building

Session II:
Principles and Applications of Diffusion at Ultramicroelectrodes

Prof. Christian Amatore
Ecole Normale Supérieure, France

Prof. Andrew Ewing
Penn State University, USA

Location
Room 105, 1st Floor
Lee Shau Kee Building

Opening Ceremony

Monday 17 August 2009, 08:50 to 09:20, University Hall

Chair: Zhongfan Liu

Rob Hillman, President of ISE
Chunli Bai, President of the Chinese Chemical Society
Qifeng Zhou, President of Peking University
Li-Jun Wan, Co-chair of the 60th Annual Meeting of ISE

Plenary Lecturers

Monday 17 August 2009, 09:25 to 10:15, University Hall

Alan J. Heeger *(University of California, USA)*

"Plastic" Solar cells: Self-Assembly of Bulk Heterojunction

Tuesday 18 August 2009, 08:30 to 09:20, University Hall

Philip N. Bartlett *(Southampton University, UK)*

Molecular Electrochemistry: Modification, Mediation and Design of Electrode Surfaces

Wednesday 19 August 2009, 08:30 to 09:20, University Hall

Shi-Gang Sun *(Xiamen University, China)*

Electrochemically Shape-Controlled Metal Nanoparticle Electocatalysts of Open Surface Structure and High Performances

Thursday 20 August 2009, 08:30 to 09:20, University Hall

Zempachi Ogumi *(Kyoto University, Japan)*

Lithium Ion Batteries for Green Energy Systems

Friday 21 August 2009, 08:30 to 09:20, University Hall

Dieter M. Kolb *(University of Ulm, Germany)*

Electrochemical Surface Science: The Present and Future

ISE Prize winners 2008

Oronzio and Niccolò De Nora Foundation Prize of ISE on Environmental Electrochemistry

Monday 17 August 2009, 10:35 to 11:15, Room 307

Agnieszka Kapalka, *EPFL Lausanne, Switzerland*
A DEMS Study of the Electrochemical Oxidation of Organic Compounds on Boron-doped Diamond Electrodes

For her achievements in the field of environmental electrochemistry especially for her discoveries regarding the importance of electrode material in environmental electrochemistry, the role of formation and reactivity of free hydroxyl radicals, the elaboration of advanced oxidation processes for water treatment, the oxidation of organic pollutants on BDD anodes using modulated current electrolysis, as well as kinetic modelling of the electrochemical mineralization of organic pollutants for wastewater treatment.

Bioelectrochemistry Prize of ISE Division 2

Monday 17 August 2009, 10:35 to 11:15, Room 102

Frieder Scheller, *University of Potsdam, Germany*
Contributions to Electro Enzyme Technology

For his outstanding contributions to bioelectrochemistry mainly in the field of amperometric biosensors, protein electrochemistry and his contribution to the development of bioelectroanalytical devices.

Brian Conway Prize for Physical Electrochemistry

Monday 17 August 2009, 10:35 to 11:15, Room 203

Juan Feliu, *University of Alicante, Spain*
The Role of Anion Adsorption in Electrocatalysis

In recognition of his outstanding recent contributions to the understanding of relationships between electrode surface structure and reactivity at electrode-solution interfaces.

Electrochimica Acta Gold Medal

Tuesday 18 August 2009, 08:30 to 09:20, University Hall

Philip N. Bartlett, *Southampton University, UK*
Molecular Electrochemistry: Modification, Mediation and Design of Electrode Surfaces

For his recent outstanding contributions to diverse fields of electrochemistry such as bioelectrochemistry, nanostructured materials, sensors, and interfacial kinetics, characterized by a combination of innovation, intellectual rigour, experimental precision and practical relevance.

Hans-Jürgen Engell Prize

Tuesday 18 August 2009, 15:40 to 16:00, Room 105

Ismael Díez-Pérez, *Arizona State University, USA/University of Barcelona, Spain*
In situ Probing Fe Passivity and Breakdown by ECSTM/ECTS

For developing an *in-situ* STM (ECSTM) in the tunneling spectroscopy mode (CTS) and applying this technique to the *in-situ* characterization of dynamics of passive film growth at the nanoscale on different systems such as Fe, Sn, Cu and Ni.

Oronzio and Niccolò De Nora Foundation Prize of ISE on Applied Electrochemistry

Tuesday 18 August 2009, 09:35 to 09:55, Room 205

Adam Z. Weber, *Lawrence Berkeley National Laboratory, USA*
Impact of Gas-Diffusion Layer Wettability on Polymer-Electrolyte-Fuel-Cell Performance

In recognition of his outstanding record of published research results with high impact related to understanding engineering and diagnostics of fuel cell performance through experimental and modeling studies. And, to recognize his achievements of significance as indicated by the large number of invitations to lecture on his research at prominent international meetings, universities, national laboratories, and fuel cell companies. And, to recognize his demonstrated leadership in symposia planning related to industrial electrochemistry and electrochemical engineering.

Tajima Prize

(unable to attend)
Yang Shao-Horn, *Massachusetts Institute of Technology, USA*

For her outstanding achievements in the field of electrochemical energy conversion and storage, especially for developing novel nanostructured materials for fuel cells and batteries.

Oronzio and Niccolò De Nora Foundation Young Author Prize

(unable to attend)
Patrick Wolfgang Ruch, *Paul Scherrer Institute, Switzerland*

Author of the article "*In situ* X-ray diffraction of the intercalation of $(C_2H_5)_4N^+$ and BF_4^- into graphite from acetonitrile and propylene carbonate based supercapacitor electrolytes" published in Electrochimica Acta 53 (2007) 1074-1082 (co-authors M. Hahn, F. Rosciano, M. Holzapfel, H. Kaiser, W. Scheifele, B. Schmitt, P. Novák, R. Kötz, A. Wokaun).

Exhibition and Poster Sessions

Exhibition

Monday: 10:00-20:00
Tuesday: 10:00-20:00
Wednesday: 10:00-12:00
Thursday 10:00-18:00
Friday: 10:00-11:30

Poster Session 1: Monday / Tuesday Lunch

Symposium 1: From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells
Symposium 2: Corrosion Science and Technology
Symposium 3: Electroanalysis and Electrochemical Sensors
Symposium 4: Electrocatalysis
Symposium 5: Electrochemical Energy Conversion and Storage
keyword: *battery*

Poster set-up Monday 08:00-11:30

Poster DispayTimes

Monday: 12:15-14:00
Monday Poster Presentation Session 1: 16:20-18:40
Tuesday: 12:15-14:00

Poster take-down Tuesday 14:00

Poster Session 2: Tuesday / Wednesday / Thursday

Symposium 5: Electrochemical Energy Conversion and Storage
keywords: *electrolyte, energy conversion and storage, fuel cell, supercapacitor*
Symposium 6: Electrodeposition for Nanoelectronic Applications
Symposium 7: Electrochemical Engineering and Technology
Symposium 8: Electrochemical Nano/Micro-Science
Symposium 9: Interfacial Electrochemistry
Symposium 10: Molecular Electrochemistry: In its own right and in service to related research areas
Symposium 11: General Session

Poster set-up Tuesday 14:00-16:00

Poster DispayTimes

Tuesday Poster Presentation Session 2: 16:20-18:40
Wednesday: 12:15-14:00
Thursday: 12:15-14:00

Poster take-down Thursday 14:00

Special Meetings

Monday 17 August

Division Officers Meeting- Luncheon Meeting
12:30 to 13:45, Room 210, 2nd Floor, Lee Shau Kee Building

Monday 17 August

Regional Representatives Meeting - Luncheon Meeting
12:30 to 13:45, Room 308, 3rd Floor, Lee Shau Kee Building

Tuesday 18 August

Council Meeting -Luncheon Meeting
12:30 to 13:45, Room 311, 3rd Floor, Lee Shau Kee Building

Thursday 20 August

General Assembly
11:15 to 12:15, Room 101, 1st Floor, Lee Shau Kee Building

Division Luncheon Meeting

Division 1 Analytical Electrochemistry - Luncheon Meeting
12:30 to 13:45, Room 311, 3rd Floor, Lee Shau Kee Building

Division 2 Bioelectrochemistry - Luncheon Meeting
12:30 to 13:45, Room 313, 3rd Floor, Lee Shau Kee Building

Division 3 Electrochemical Energy Conversion And Storage - Luncheon Meeting
12:30 to 13:45, Room 314, 3rd Floor, Lee Shau Kee Building

Division 4 Electrochemical Materials Science - Luncheon Meeting
12:30 to 13:45, Room 315, 3rd Floor, Lee Shau Kee Building

Division 5 Electrochemical Process Engineering And Technology - Luncheon Meeting
12:30 to 13:45, Room 316, 3rd Floor, Lee Shau Kee Building

Division 6 Molecular Electrochemistry - Luncheon Meeting
12:30 to 13:45, Room 317, 3rd Floor, Lee Shau Kee Building

Division 7 Physical Electrochemistry - Luncheon Meeting
12:30 to 13:45, Room 319, 3rd Floor, Lee Shau Kee Building

Social Program

Sunday 16 August

Welcome Reception (included with registration fee)
19:00 to 20:00, Yingjie Exchange Center

Monday 17 August

Monday Reception (included with registration fee)
19:00 to 20:00, Lee Shau Kee Building

Wednesday 19 August

Excursions

The Great Wall

The Great Wall is 6350 km long and was in China's feudal years a mammoth defense bulwark that snaked its way across mountains and valleys in the northern part of the country. Construction of the Great Wall began in the 7th century BC. But it was Qinshihuang, the founding emperor of the first unifying dynasty Qin, who brought it to completion. Repeated extensions were constructed in later dynasties until the Ming. The 600-year-old Badaling Fortification in Yanqing County in northwest Beijing is representative of Ming sections of the Great Wall.

The Forbidden City

The Forbidden City, now known within China as the Palace Museum, occupies the central part of Beijing Municipality and was the imperial palace of the Ming and Qing dynasties. Its construction began in 1406. Over the years after its completion, 24 emperors ruled the whole country from here for nearly 500 years. With many halls and pavilions, marble railings and steps, red walls and yellow tiles, the Forbidden City looks resplendent and magnificent. It occupies an area of over 720,000 square meters with 9,000 bays of halls and rooms.

Acrobatic Show

The history of acrobatics in China can be traced back to Neolithic times. As the world economy developed, acrobatics has grown into a kind of interactive performance art without language barrier and cultural border. It is a comprehensive show with high requirements for lighting, music, action and costuming. When you watch a Chinese acrobatics show, you will be strongly impressed, both mentally and physically. It is truly an unforgettable experience.

Thursday 20 August

Banquet

Date: 20 August, 2009
Time: 19:00pm - 21:00pm
Place: Beijing Friendship Hotel

General Information

Registration

On Sunday 16 August the Registration Desks and ISE Desk will be located in the Yingjie Exchange Center of Peking University
From Monday 17 August to Friday 21 August the Registration Desks and ISE Desk will be located in the Lee Shau Kee Building.

Registration Hours during the Meeting

Sunday 16 August 14:00-19:00
Monday 17 August ..... 10:15-13:00 and 14:00-19:00
Tuesday 18 August ..... 08:30-13:00 and 14:00-18:00
Wednesday 19 August 09:30-12:00
Thursday 20 August ..... 09:30-13:00 and 14:00-18:00
Friday 21 August 09:30-11:00

On site Registration Fees

Regular (ISE non-members) ..... 470 Euros
Regular ISE members ..... 390 Euros
Student (ISE non-members) ..... 170 Euros
Student ISE members ..... 140 Euros

Regular and Student Registration fees include: Admission to all scientific and exhibition sessions, 4 Lunches (Monday, Tuesday, Wednesday, Thursday), Welcome Reception and Exhibition Reception, Conference bag, Program book, CD-ROM with all Abstract, and coffee breaks.

Lunch

Lunch will be provided from Monday to Thursday with Registration Fee and will be served at the Nongyuan Restaurant. ..... 12:15 – 14:00

Coffee breaks

Morning Coffee Break ..... 10:15 – 10:35
Afternoon Coffee Break (except Wednesday) ..... 16:00 – 16:20

Publications

A special issue of the Society's journal, Electrochimica Acta, is planned to be based on selected original contributions made at the conference. Selection will be made by an international editorial Committee comprising Guest Editors, one for each of the Symposia in which the meeting is articulated.
The action of the editorial Committee will be co-ordinated by Sergio Trasatti, Editor-in-Chief of Electrochimica Acta.
The Special Issue will accommodate ca. 100 papers. Submission will only be upon invitation by one of the Guest Editors. Deadline for submission: 31 October 2009.

Sightseeing

A half-day city excursion and a three-day accompanying-persons' tour will be provided during the conference for the sightseeing of Beijing. In addition, two post-conference tour packages at special rates are available for your choice if you are taking the opportunity to make a brief visit in China. Please make the reservations online http://oec.pku.edu.cn/ise2009 or send an email to oec238c@pku.edu.cn.
For the city excursion and accompanying persons tours, it is suggested that you make online reservations before August 1. On-site registration will be considered but not guaranteed.
For the post-conference tours, only online reservations before 16 July are accepted. Please be aware that all payments will be made on-site using Chinese currency only.

Money

RMB(¥), is the sole currency in the People's Republic of China. The exchange rate is about Euro 1=RMB¥ 8.5, US$ 1 = RMB¥ 6.7. The rate may float slightly. You can go to a bank on PKU campus or to the exchange counter of your hotel (except Zhongguanyuan Global Village).

Transportation

Shuttle Buses
During the conference, shuttle buses are arranged for delegates who stay at Friendship Hotel.

Taxi
The price is ¥2/kilometer. This price would be 50% higher after 15 kilometers and 20% higher during the nighttime (11pm – 5am). The initial price will be ¥10 before 11pm, and it will be ¥11 from 11pm to 5am.

Electricity

Electricity in China is 220V, 50 cycles AC. Please make sure of the voltage when you use your own computer, razor, hairdrier, etc. Plug shapes vary, but dual prongs similar to North American plugs are common.

Hotel

Payment
Lake View Hotel and Friendship Hotel accept both cash and credit card while Zhongguanyuan Global Village accepts RMB cash only.

Check-out Time
At both hotels check-out time is 12:00 noon. After that, you will be charged one extra day's room rate.

Water and Sanitation
Please make sure that tap water is boiled before drinking. It is not safe to drink directly from the faucet.

Internet and Computer
Computers and Internet service are available in Room 206 on the second floor of the Lee Shau Kee building for you to check emails during the conference.
Wireless Internet service is available in the Lee Shau Kee building during the conference.
To access the Internet, you need to input user's name and password, which will be announced at the information desk.
Moreover, Internet is also available in the designed hotels. Please contact the hotel's information center for more details.

Breakfast
Breakfast is available to guests at hotels.

Tipping and Taxes

Tips are not necessary and not expected in China. Still, it is a good way to show your satisfaction with the service you have received. Taxes are usually included in stated prices.

Security

Public security is quite good in Beijing. Still, please pay attention to your safety, especially late at night, and take care of your valuables.

Air Flight

Airport Transportation

To catch an international air flight, you should arrive at the airport three hours in advance, so it's suggested that you set off four hours in advance from your hotel to the airport. As for domestic flights, three hours is suggested so that you can arrive at the airport two hours in advance. If you take a taxi from the hotel to the airport, it will cost about ¥120 RMB.

Flight Reconfirmation

Some airlines have demanded that departure air tickets should be reconfirmed 72 hours in advance through telephone calls. Please be aware that airline offices are not open on weekends.

Code	Airline	Telephone	Reconfirmation
AC	Air Canada	6468 2001	not needed
AF	Air France	400 880 8808	not needed
AY	Finnair	6512 7180	not needed
BA	British Airways	8511 5599	
BR	EVA Air	6563 5000	not needed
CA	Air China	6601 6667	
CI	China Airlines	6510 2671	
CO	Continental	8527 6686	
CX	Cathay Pacific	8486 8532	not needed
CZ	China Southern	950333	
FM	Shanghai Airlines	6456 9018	not needed
JL	Japan Air Lines	6513 0888	
KA	Dragonair	6518 2533	not needed
KE	Korean Air	400 658 8888	
KL	KLM	6505 3505	
LH	Lufthansa	6468 8838	not needed
LY	El Al	6597 3388–2906	not needed
MU	China Eastern	951081	not needed
NH	All Nippon Airways	6590 9191	
NW	Northwest Airlines	6505 3505	not needed
OS	Austrian Airlines	64622161	not needed
OM	MIAT Mongolian	65077397	not needed
OZ	Asiana Airlines	6468 4000	not needed
PK	Pakistan Int'l	6505 1681	
PR	Philippine Airlines	65102991	not needed
QF	Qantas	6467 4794–3337	
SK	SAS	8527 6100	not needed
SQ	Singapore Airlines	65052233	not needed
SU	Aeroflot – Russian	65002412	
TG	Thai Airways	85150088	not needed
TK	Turkish Airlines	64651867	
UA	United	64631111	not needed

Dinning

Lake View Hotel
Chinese and western food is available inside the hotel.

Friendship Hotel
All kinds of food are available inside the hotel at relatively higher prices and service charges. There are also restaurants of various flavors outside the hotel. Some of them are located along the road opposite the hotel's east gate while some are at the northeastern and southeastern corners of the crossing 50 meters north of the east gate.

Zhongguanyuan Global Village
Only breakfast is provided. There are a variety of restaurants to the east of the Village with ain 5-minute walk.

Near Peking University Campus
If you walk towards the east from the east gate of Peking University for about 15 minutes, you will see plenty of restaurants of Chinese, American, Korean and Japanese styles. There are some restaurants along the roadside opposite to the south gate of PKU, and most of them serve Chinese food. If you go out of the southwest gate of PKU, a newly-built food street with restaurants in all styles are just across the street.

Local Restaurants

If you have both time and interest to venture into the city, the following restaurants are recommended. More expensive as they might be, you will find them worth going.

Quanjude Roast Duck Restaurant全聚德烤鸭店
As the most famous duck restaurant, Quanjude has been serving up fowl since 1864.
Address: 32 Qianmen Da Jie, Chongwen District, Tel: 65112418 (Reservation advised)

Donglaishun Hot-pot Restaurant 东来顺火锅店
Address: #198, Wangfujing Street, Tel: 65139661 (Reservation advised)

Laoshe Tea House老舍茶馆

You can enjoy traditional Chinese performing arts like magic shows, puppetry, "cross talk", and Peking Opera at 7:50-9:30 every evening as well as delicious local snacks.
Address: 3 Qianmen Xi Da Jie, Xuanwu District, Tel: 63036830 (Reservation required)
Address: go out of the south gate of Peking University; turn left, at the corner ahead.

Useful Chinese Addresses

You can show the notes below to the taxi driver if you do not speak Chinese.

You can show the notes below to the taxi driver if you do not speak Chinese.

Please take me to:	请送我到：
The Lake View Hotel	北大博雅国际会议中心（由北京大学东门沿中关村北大街往北约200米路西，由直隶会馆北侧小路口左转进入）*beida boya*
Zhongguanyuan Global Village	中关新园(海淀区中关村北大街126号，北京大学东门沿成府路往东50米路南，从中关园居民小区进入，沿路标，9号楼)*Zhongguanxinyuan Global Village(with directions)*
Friendship Hotel	友谊宾馆*Youyi binguan*
Peking University	北京大学*Beijing daxue*
Yingjie Exchange Center	北京大学英杰交流中心（位于北大校内，从东门进入）
Capital Int'l Airport	首都国际机场*Shoudu guoji jichang*
Sights	
Summer Palace	颐和园*Yiheyuan*
Old Summer Palace	圆明园*Yuanming yuan*
Temple of Heaven	天坛*Tiantan*
Lama Temple	雍和宫*Yonghe gong*
Forbidden City	故宫*Gu gong*
Great Wall	长城*Chang cheng*
Theaters	
Chaoyang Theater for Acrobatics	朝阳剧场(京广中心附近)*Chaoyang juchang*
Laoshe Tea House	老舍茶馆*Laoshe chaguan*
Shopping	
Wangfujing St.	王府井大街*Wangfujing dajie*
Oriental Plaza	东方广场*Dongfang guangchang*
Liulichang Cultural St.	琉璃厂*Liulichang*
Silk Market/Street	秀水街*Xiushui jie*
Bar Street	
Houhai Lake Bar Street (Bars along the lake)	后海酒吧街*Houhai Jiubajie*
Sanli-Tun Bar Street	三里屯酒吧街*Sanlituan Jiubajie*
Works' Stadium Bar Street	工体酒吧街*Gongti Jiubajie*

The City of Beijing

A Brief Introduction

As a cradle of human civilization, Beijing has a history of over 700,000 years; Peking man, or Peking Ape-Man, a primitive caveman, lived some 500,000 to 700,000 years ago in the Beijing area. As a city, Beijing has a history of over 3,000 years. According to historical records, the year of 1045 BC is considered to be first appearance of Beijing as a city. As a capital city, Beijing has a history of over 1,000 years. In 938, the city became one of the five capitals of the Kingdom of Liao. Since then, the city had changed gradually from a city of military strategic importance to the political center of the entire country. It had been the capital city for five dynasties—Liao, Jin, Yuan, Ming, and Qing—until the 1911 Revolution led by Dr. Sun Yat-sen.

Now Beijing, the capital of the People's Republic of China, is a modern and international metropolis of historic significance. It is the political, economic, cultural, and communications center of the country as well as the center for foreign trade. The capital is also the country's scientific center.

The Forbidden City, the Great Wall, the Peking Man Site at Zhoukoudian, the Temple of Heaven, and the Summer Palace are all on the UNESCO World Heritage list.

Geography

Beijing is situated at 40 degrees north latitude and 116 degrees east longitude. It lies at about the same latitude as Rome, Madrid, and New York. Beijing occupies a total area of 16,800 square kilometers. It is surrounded by mountains to the east, west, and north. The mountainous area covers 62 percent of the total area, and the rest is flat land. The average elevation of Beijing is 43.71 meters.

There are six "ring" roads that run around the city, with the Forbidden City as the center. Peking University is near the North Fourth Ring Road, and the Friendship Hotel is near the North Third Ring Road.

Climate

Located in the northern temperate zone, Beijing enjoys a typical moderate continental climate. It is a typical city in which the four seasons are distinct: spring in Beijing is warm with flowers but dry, dusty, and windy, sometimes even with sandstorms; summer is hot, sometimes humidly hot and rainy; autumn is cool, pleasant, and comfortable with bright sunny skies; and winter is clear but cold with some snow, although sometimes it is severely cold with strong northern winds.

Citizens

Beijing is a metropolis with a huge population. Especially since 1949, the population of Beijing has grown rapidly. According to the fifth national census carried out in 2000, Beijing has 13.8 million permanent residents, with more than 3 million additional transients each year. Beijing is the third largest city in China, next to Chongqing (30.9 million) and Shanghai (16.7 million).

As the capital of a unitary state, Beijing has citizens of all nationalities, among which Han nationality is by all means the largest. The language spoken in Beijing is Mandarin Chinese, and the most popular foreign language is English.

Etiquette and Customs

People in Beijing are warm-hearted, easy-going, and hospitable. They share the belief that a host is ready to do everything for the convenience of a guest. Because of China's huge population, note that standards and expectations of privacy in public are different from many other places in the world.

Shopping

Works of Fine Art. Liulichang Cultural Street has a history of five hundred years and is known throughout China and the world for its ancient books, calligraphy, paintings, rubbings, ink stones and ink. The street, which is only 750 meters (less than half a mile) long, is located south of Hepingmen (Peace Gate). Silk Street is a good place to purchase Chinese costumes, and Panjiayuan is a famous numismatics market.

Shopping Centers. Beijing has more than 100 shopping centers, the best known of which is an area called Wangfujing, which is both traditional and modern. Oriental Plaza, which has a history of 100 years, is one of the biggest commercial complexes in Asia.

Entertainment

Peking Opera. Known in Chinese as Jingju, Peking opera is a special Chinese art genre with a history of 200 years. It is called “the quintessence of China,” combining stylized acting with singing, dancing, musical dialogue, martial arts, colorful facial makeup, and fantastic costumes. Female roles are called Dan, male roles Sheng, and clowns Chou. Each role, according to their sex, age, and position, is characterized by different designs of facial makeup, so the audience can easily tell what kind of characters the actors are portraying.

Chang’an Theatre, Hu-guang Club, and Laoshe Tea House are three most famous theaters for you to enjoy Peking opera.

Bars and Nightclubs. Houhai Lake Bar Street is known for the harmony of modern trends and traditional culture. Moreover, standing on Yindian Bridge there is a famous scenery looking towards the West Hill.

Peking University

A Brief Introduction

Peking University is a comprehensive national research university. It consists of 31 colleges and 12 departments, with 93 specialties for undergraduates, 2 specialties for the second bachelor’s degree, 199 specialties for master’s candidates, and 173 specialties for doctoral candidates. While still laying stress on basic sciences, the university has paid special attention to the development of applied sciences. The university has made an effective combination of the research on important scientific issues with the training of personnel with high-level specialized knowledge and professional skill as demanded by the country’s socialist modernization. It strives not only for the simultaneous improvements in teaching and research work, but also for the promotion of interaction and mutual promotion among various subjects. Thus Peking University has become a center for teaching and research and a university of the new type, consisting of diverse branches of learning such as pure and applied sciences, social sciences and the humanities, and sciences of management and education. It is the most prestigious university in China, with excellent infrastructure and eminent students.

Peking University is situated at the western suburbs of Beijing. Its total area is 2,707,853 square meters. At present, Peking University has over 4,574 teachers, 2,691 of whom are full or associate professors. It has 46,074 students. Among them are: 15,001 undergraduates, 8,119 master candidates, 3,956 doctoral candidates, 18,998 candidates for correspondence courses or study at the night school, and 1,776 international students from 62 countries and regions.

History and Present

Founded in 1898, Peking University was originally named as Jingshi Daxuetang (the Imperial University of Peking). It was the first national comprehensive university in China, as well as the supreme administrative organ for education in China at that time. The establishment of this university marked the beginning of China’s modern history of higher education. It was in 1912, after the Revolution of 1911, that the university came to adopt its present name. With an efficient and democratic administration

laying emphasis on scientific research and academic freedom, the university has hitherto trained a large number of people with various specialties. A large proportion of prestigious Chinese scholars in the fields of humanities and social sciences have also been connected with Peking University. A whole array of significant research achievements and works of scholarship find their cradles here on the campus. With the incorporation of the former Beijing Medical University, a completely new Peking University came into being on April 3, 2000. Its aim is to rank among the world's best universities.

University Library

The library was founded in 1902 under the name of Capital University Book Collection Building. After the revolution of 1911, it gained its present name. The new library opened at the end of 1998. The total building area amounts to 51, 000 square meters, with 4,000 seats. The collection capacity has reached 6,500,000 items, making it the biggest university library in Asia.

An Overview of the Campus

Peking University, the campus of which was part of the former imperial garden, is famous for its Chinese traditional buildings and surroundings.

The Unnamed Lake and Boya Pagoda

The Unnamed Lake and the Bo Ya Pagoda are located in the north part of the campus. The lake was originally constructed in the Qianlong Period of the Qing Dynasty, and renovated in the early years of China. The Pagoda was built in 1924. The two characters, Bo (erudite), and Ya (elegant), embody the spiritual appeal of Peking University. The lake and pagoda together form the symbol of Peking University.

Authur M. Sackler Museum of Art and Archaeology

As a medical researcher, publisher and art collector extraordinary, Dr. Sackler made major contributions to the Arts, Sciences and Humanities. Authur M. Sackler Museum of Art and Archaeology at Peking University is the first college museum of Archaeology in China. It has several tens-of-thousands of collections and is a must see when you come to Peking University.

Oral Presentation Program

General Conference Overview

	16th August Sunday		17th August Monday	18th August Tuesday	19th August Wednesday	20th August Thursday	21st August Friday
		08:30-09:20		Plenary lecture	Plenary lecture	Plenary lecture	Plenary lecture
		08:50-09:20	Opening Ceremony				
		09:25-10:15	Plenary lecture	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)
		10:15-10:35	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
		10:35-12:15	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)
						General Assembly	11:30 to 11:50 Closing Ceremony
		12:15-14:00	Lunch / Posters	Lunch / Posters	Lunch	Lunch / Posters	
14:00-18:00	Registration	14:00-16:00	Oral Presentations (all Symposia)	Oral Presentations (all Symposia)		Oral Presentations (all Symposia)	
14:30-16:00	Tutorial Lectures 1 Lecture 1						
16:00-16:20	Coffee Break	16:00-16:20	Coffee Break	Coffee Break		Coffee Break	
16:30-18:00	Lecture 2	16:20-18:40	Oral Presentations	Oral Presentations		Oral Presentations (all Symposia)	
			Poster Presentations Symposium 1,2,3,4,5a	Poster Presentations 5b,5c,6,7,8,9,10,11			
19:00	Reception		Reception			Banquet	

Monday 17 August 2009 - Morning Sessions

Plenary

Location: University Hall

Chair: Zhong-Qun Tian

09:25 to 10:15

Alan J. Heeger (University of California, Santa Barbara CA, USA)

"Plastic" Solar cells: Self-Assembly of Bulk Heterojunction

10:15 to 10:35

Coffee Break

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Wolfgang Schuhmann, Xiaowei Yang

10:35 to 11:15 *Keynote*

Frieder W. Scheller (University of Potsdam, Department of Analytical Biochemistry, Potsdam-Golm, Germany), R. Spricigo, L. Peng, S. Leimkühler, F. Lisdat, H. Möhwald, F. F. Bier, U. Wollenberger

Contributions to Electro Enzyme Technology

11:15 to 11:35

Tingting Gu (School of Chemical Engineering, University of Science and Technology Liaoning, Anshan, China), Yasushi Hasebe

Novel Glucose Biosensor Based on Coupled Glucose Oxidase to Copper Ion Embedded Polyion Complex Membranes Composed of DNA and Poly(allyamine)

11:35 to 11:55

Jie Zhang (Institute of Bioengineering and Nanotechnology, Singapore, Singapore), Jackie Ying

Ultrasensitive Electrochemical Biosensors Based on the Detection of Highly Characteristics Solid-state Ag/AgCl Process

11:55 to 12:15

Fred Lisdat (Biosystems Technology Wildau University of Applied Science, Wildau, Germany), Wolfgang Parak, Kirsten Schubert

Photo-switchable quantum dot electrodes for the detection of enzyme substrates

Lunch

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Nick Birbilis

10:35 to 11:15 *Keynote*

Philippe Marcus (Laboratoire de Physico-Chimie des Surfaces ENSCP, Paris, France), Vincent Maurice, Boubakar Diawara

Passivity, passivity breakdown and localized corrosion at the nanoscale : experiments and modelling

11:15 to 11:35

David Warren (Materials Research Centre, School of Engineering, Swansea University, Swansea, United Kingdom), Hamilton McMurray, Arnoud de Vooys

Application of 3D SVET to Assess Forming Induced Corrosion of PVD Coated Sheet Steel

11:35 to 11:55
Adam Holder (Materials Research Centre, Swansea University, Swansea, United Kingdom), Neil McMurray, Geraint Williams
Investigation of Filiform Corrosion on AA6111 Using Scanning Electrochemical Techniques

11:55 to 12:15
Xiaoning Qi (Department of Coatings and Polymeric Materials, North Dakota State University, Fargo, USA), Victoria Gelling, Brian Hinderliter
Impedance Measurement Using a Two Cell EIS Configuration and Its Modeling with Electrolyte Diffusion Incorporated

Lunch

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Erkang Wang

10:35 to 11:15 *Keynote*
Erkang Wang (Stste Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China)
Solid-state Electrochemiluminescence Analysis with Tris(2,2'-bipyridyl) Ruthenium

11:15 to 11:35 *Invited*
Yuanhua Shao (Institute of Analytical Chemistry, College of Chemistry and Molecular Engineering, Beijing, China)
Charge Transfer Processes at Soft Interfaces and Their Applications in Bioassay

11:35 to 11:55 *Invited*
Gordon Wallace (ARC Centre of Excellence for Electromaterials Science, Intelligent Polymer Research Institute, University of Wollongong, Wollongong, Australia), Jun Chen, Peter Innis
Nanostructured Organic Electrodes

11:55 to 12:15 *Invited*
Zhiqiang Gao (Institute of Bioengineering and Nanotechnology, Singapore, Singapore)
Mass-Produced Nanogap Sensor Arrays for Ultrasensitive Detection of DNA

Lunch

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Ulrich Stimming, Shi-Gang Sun

10:35 to 11:15 *Keynote*
Juan M. Feliu (Instituto de Electroquímica Universidad de Alicante, Alicante, Spain), Víctor Climent, Jorge Mostany, Enrique Herrero
The role of anion adsorption in Electrocatalysis

11:15 to 11:35 *Invited*
Ulrich Stimming (Technical Universtiy of Munich, Department of Physics E19, Garching, Germany), Odysseas Paschos, Holger Wolfschmidt, Tine Brülle
Substrate Effects in Electrocatalysis

11:35 to 11:55
Andrzej Lasia (Departement de Chimie Universite de Sherbrooke, Sherbrooke, Canada), Bozena Losiewicz, Rafal Jurczakowski, Nawel Amorkane
Kinetics of Hydrogen UPD at Ruthenium

11:55 to 12:15

Xie Quan (School of Environmental and Biological Science & Technology, Dalian University of Technology, Dalian, China), Xie Quan, Chunyue Cui, Zhenlin Qin, Shiyan Zhao, Shuo Chen

Electrocatalytic Dehalogenation of Polyhalogenated Organic Compounds with Palladium Loaded Carbon Nanotubes Electrode

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Bing-Joe Hwang, Minoru Inaba

10:35 to 11:15 *Keynote*

Jiu-Jun Zhang (National research Council of Canada (NRC-IFCI), Vancouver, Canada)

PEM Fuel Cell Catalysis: Challenges and Perspectives

11:15 to 11:35 *Invited*

Bing-Joe Hwang (Department of Chemical Engineering, National Taiwan University of Science & Technology, Taipei, Taiwan)

Synthesis, Characterization and the Corresponding Applications of the Core/Shell Nanoparticles

11:35 to 11:55

Minoru Inaba (Dept. Molecular Chemistry and Biochemistry, Doshisha University, Kyotanabe, Japan), Daisuke Shimoda, Hiroyuki Ito, Hiroaki Tsuji, Hirohisa Yamada, Akimasa Tasaka

Oxygen Reduction Activity and Durability of Pt/Au/C Core-Shell Catalysts for PEFCs

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: François Béguin, Daniel Bélanger

10:35 to 11:15 *Keynote*

François Béguin (CRMD, CNRS/Orléans University, Orléans, France)

Optimised nanoporous carbons for high performance electric double-layer capacitors

11:15 to 11:35

Quan-Hong Yang (School of Chemical Engineering and Technology, Tianjin University, Tianjin, China), Wei Lv

Graphene supercapacitors

11:35 to 11:55 *Invited*

Daniel Bélanger (Université du Québec à Montréal Département de Chimie, Montréal, Canada), Grégory Pognon, Thierry Brousse

Chemical modification of carbons by reduction of diazonium cations for application in electrochemical capacitors

11:55 to 12:15

Xu Bin (Research Institute of Chemical Defense, Beijing, China), Peng Lu, Wang Guoqing, Cao Gaoping, Yang Yusheng

Nitrogen-enriched mesoporous carbon as electrode materials for EDLCs

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Jun Chen, Frank C. Walsh

10:35 to 11:15 *Keynote*

Tetsuya Osaka (Graduate School of Advanced Science and Engineering, Waseda University, Tokyo, Japan), Satoshi Tominaka, Hiroki Nara, Toshiyuki Momma, Jandee Kim

Nano-technological approach to next generation materials for energy conversion

11:15 to 11:35

Frank C. Walsh (Electrochemical Engineering Laboratory, School of Engineering Sciences, University of Southampton, Southampton, United Kingdom), Derek Pletcher, Xiaohong Li, Ravi Tangirala, C T John Low

Developments and Challenges in Redox Flow BAtteries: The Lead Dioxide Electrode in Soluble Lead Acid Cells

11:35 to 11:55 *Invited*

Jun Chen (Intelligent Polymer Research Institute, University of Wollongong, Wollongong, Australia), Yushi He, Zi-Feng Ma, Xiao-Zhen Liao, Gordon Wallace

Enhanced High-Rate Cyclic Performance of Conducting Polymers Functionalised $LiFePO_4$/C in Li-ion Battery

11:55 to 12:15 *Invited*

Masaki Yoshio (Department of Advanced Research Center, Saga University, Yoga-machi, Japan)

Development of Novel Type of Energy Storage Devices

Lunch

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Bingwei Mao, Shuji Nakanishi

10:35 to 11:15 *Keynote*

Reginald Penner (University of California, Irvine, Irvine, USA)

Lithographically Patterned Nanowire Electrodeposition (LPNE)

11:15 to 11:35 *Invited*

Louzhen Fan (Department of Chemistry/Beijing Normal University, Beijing, China), Yue Zhao, Yang Zhang

Pt/Carbon Nanotubes and Pt/ C60 Hollow Nanobowls: Electrodeposition and Enhanced Electrocatalytic Activity for Methanol Oxidation

11:35 to 11:55

Peter Schmidt-Zhang (Technische Universität Berlin, Fakultät II, Institut für Chemie, Sekretariat C 2, Berlin, Germany)

The influence of sputtered thin Au-deposit films on the O_2 and NO sensing behaviour of porous Pt/YSZ electrodes

Lunch

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Yuri Pleskov, Yoshio Takasu

10:35 to 11:15 *Keynote*

Agnieszka Kapalka (Group of Electrochemical Engineering, Ecole Polytechnique Fédérale, Lausanne, Switzerland), Helmut Baltruschat, Christos Comninellis

A DEMS Study of the Electrochemical Oxidation of Organic Compounds on Boron-doped Diamond Electrodes

11:15 to 11:35 *Invited*

Yasuaki Einaga (Department of Chemistry, Keio University, Yokohama, Japan)

Recent Advances in Electrochemical Application of Boron-doped Diamond Electrodes

11:35 to 11:55

M.E. Henry Bergmann (Anhalt University, Koethen/Anh., Germany)

Charge Distribution and Reaction Competition in BDD Anode Processes

11:55 to 12:15

Wenjuan Teng (State Key Laboratory Breeding Base of Green Chemistry-Synthesis Technology, College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Chunan Ma, Xinbiao Mao

Preparation and electrocatalytic activity of WC/C nanocomposites for p-nitrophenol

Lunch

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Patrick Unwin

10:35 to 11:15 *Keynote*

Nongjian Tao (Center for Bioelectronics and Biosensors, Biodesign Institute, Tempe, USA)

Electrochemical Gate Controlled Electron Transport and Quantum Capacitance in Graphene

11:15 to 11:35 *Invited*

Zhongfan Liu (College of Chemistry and Molecular Engineering, Beijing, China), Guoming Zhang, Jing Kong, Zhongfan Liu

Photocatalytic Paper-cutting for Graphene Electronics

11:35 to 11:55

Sang-Hoon Park (Department of Material Science and Engineering, Yonsei University, Seoul, Korea)

3D Macrostructure CNT electrode for 3D Architecture Power Source

11:55 to 12:15

Michael Snowden (Chemistry Department, University of Warwick, Coventry, United Kingdom), Julie Macpherson, Patrick Unwin, Martin Edwards

Probing the electrochemical activity of single walled carbon nanotubes using slow diffusion

Lunch

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Marc Koper

10:35 to 11:15 *Keynote*

Jacek Lipkowski (Department of Chemistry University of Guelph, Guelph, Canada), Ian Burgess, Maohui Chen, Slawomir Sek

Potential controlled surface aggregation of surfactants at electrode surfaces – a molecular view

11:15 to 11:35

Nuria Garcia-Araez (Instituto Universitario de Electroquimica, Universidad de Alicante, Alicante, Spain), Victor Climent, Juan Feliu

Potential-dependent water orientation on Pt(111), Pt(100) and Pt(110) as inferred from laser-pulsed measurements. Electrostatic and chemical effects.

11:35 to 11:55 *Invited*

Wen-Bin Cai (Shanghai Key Laboratory for Molecular Catalysis and Innovative Materials and Department of Chemistry, Fudan University, Shanghai, China), Chao Wang, Jin-Yi Wang

Facile Fabrication of Metallic Films on Silicon for Electrochemical ATR-IR Spectroscopy Application

11:55 to 12:15

Roman Marsalek (University of Ostrava, Ostrava, Czech Republic), Zuzana Navratilova

Comparative study of CTAB adsorption on bituminous coal and clay mineral

Lunch

Symposium 10 : Molecular Electrochemistry: In its own right and in service to related research areas

Location: Room 309

Chair: Jiri Ludvik

10:35 to 11:15 *Keynote*

Marc Robert (Université Paris-Diderot, Paris Cedex 13, France), Cyrille Costentin, Marc Robert, Anne-Lucie Teillout

Proton-Coupled Electron Transfers in Biomimetic Water Bound Metal Complexes. Insights from electrochemistry

11:15 to 11:35

Jan S. Jaworski (Faculty of Chemistry University of Warsaw, Warsaw, Poland), Monika Kosiñska, Dietmar Kuck

Reductive Bond Cleavage of Chloro-Substituted Fenestrindanes: Solvent and Substituent Effects on the Mechanism Change

11:35 to 11:55

Romana Sokolova (J. Heyrovský Institute of Physical Chemistry, v.v.i., Academy of Sciences of the Czech Republic, Prague, Czech Republic), Magdalena Hromadova, Jiri Ludvik, Lubomir Pospisil, Stefania Giannarelli

The Autoprotolysis in Reduction Mechanism of Substituted Benzonitriles

11:55 to 12:15

Lothar Dunsch (IFW Dresden Dep. Electrochemsitry and Conduct. Polymers, Dresden, Germany) Alexey Popov, Peter Rapta, Michal Zalibera

Spectroelectrochemistry of C84 fullerene isomers

Lunch

Monday 17 August 2009 - Afternoon Sessions

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Mao Lanqun, Frieder W. Scheller

14:00 to 14:40 *Keynote Invited*

Jun-Jie Zhu (School of Chemistry, Nanjing, China), Xinghua Li, Xiaojun Chen

Fabrication of Electrochemical Impedance Immunosensors Based on Three-Dimensionally Ordered Macroporous Films

14:40 to 15:00

Frank Nelson Crespilho (Universidade Federal do ABC, Santo André, Brazil), Alexandre Lanfredi

Development of Individual Semiconductor Nanowire for Biolectrochemical Device at Low Overpotential Conditions

15:00 to 15:20

Nengqin Jia (Department of Chemistry/Shanghai Normal University, Shanghai, China), Yanli Wen, Guofeng Yang, Hebai Shen

Direct Electrochemistry and Enzymatic Activity of Hemoglobin Immobilized in Ordered Mesoporous Titanium Oxide Matrix

15:20 to 15:40

Zheng Jia (Department of Applied Chemistry, College of Chemical Engineering, Harbin Institute of Technology, Harbin, China), Pengli Yan, Wenjiang Zhang

Direct electrochemistry of hemoglobin immobilized on porous anodic alumina/gold nanorod modified electrodes

15:40 to 16:00

Dan Shan (College of Chemistry & Chemical Engineering, Yangzhou University, Yangzhou, China), Jing Zhang, Xue Huai-Guo, Serge Cosnier

Colloidal laponite nanoparticles: Extended application in direct electrochemistry of glucose oxidase and reagentless glucose biosensing

16:00 to 16:20

Coffee Break

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Sannakaisa Virtanen

14:00 to 14:20 *Invited*

Rudolph Buchheit (Fontana Corrosion Center Department of Materials Science and Eng. The Ohio State University, Columbus, USA), Nikitas Birbilis

Electrochemical Microscopy: An Approach for Characterizing and Understanding Localized Corrosion in Microstructurally Complex Metallic Alloys

14:20 to 14:40

Boyu Yuan (Department of Physics, Xuzhou Normal University, Xuzhou, China), Chao Wang, Liang Li, Shenhao Chen

Investigation of the Anodic Dissolution of Copper in NaCl Solution with the Digital Holography

14:40 to 15:00

Alda Simoes (DEQB/IST/TULisbon, Lisbon, Portugal), Danilo Custódio

EIS and SVET assessment of corrosion resistance and self-healing of thin zinc-rich primers after controlled deformation

15:00 to 15:20

Gregory Odemer (CIRIMAT/ENSIACET, Toulouse, France), Christel Augustin, Eric Andrieu, Christine Blanc, Jerome Delfosse

Stress corrosion cracking susceptibility of 2024 aluminum alloy in chloride media

15:20 to 15:40

Kevin Ralston (Materials Engineering, Monash University, Clayton, Australia), Nick Birbilis, Chris Hutchinson, Simon Ringer

Localised Corrosion on the Nanoscale of Medium Strength Al-Cu-Mg Alloys

15:40 to 16:00 *Invited*

Mary Ryan (Department of Materials Imperial College London, London, United Kingdom), Eleanor Schofield, Bridget Ingham, Benoit Illy, Micheal Toney, Alan Turnbull

Synchrotron Diffraction Studies of Nanoporous Metals Formed by Dealloying

16:00 to 16:20

Coffee Break

16:20 to 16:40

Esma Senel (Norwegian University of Science and Technology, Department of Materials Science and Engineering, Trondheim, Norway), Kemal Nisancioglu

Segregation of Trace Element Gallium in Aluminium Alloys

16:40 to 17:00

Juan Tan (Material Science and Engineering, Trondheim, Norway), Kemal Nisancioglu

Passivity Breakdown of Aluminum Alloys by Trace Element Tin

17:00 to 17:20

Köksal Kurt (Department of Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway), Kemal Nisancioglu

Anodic Activation Of Aluminium Rolled Products

17:20 to 17:40

Xu Shanna (South Campus,Institute of Metal Research,Chinese Academy of Sciences, Shenyang, China), Dong Junhua

Effect of magnesium hydride on the corrosion behavior of pure magnesium in 0.1MNaCl solution

17:40 to 18:00 *Invited*

Sannakaisa Virtanen (University of Erlangen-Nuremberg Department of Materials Science WW-4, LKO, Erlangen, Germany)

Electrochemical Corrosion Aspects of the Use of Magnesium in Medicine

18:00 to 18:20

Chang-Jian Lin (State Key Laboratory of Physical Chemistry of Solid Surfaces, and College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China) Rong-gang Hu, Yan Li, Xiang-dong Zhou

A Hybrid Scanning Probe Technique for In Situ Imaging Surface Topography and Corrosion Activity

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Christopher Brett, Huangxian Ju

14:00 to 14:20 *Invited*

Christopher Brett (University of Coimbra, Coimbra, Portugal), Madalina Barsan, Edilson Pinto, Carla Gouveia-Caridade, Mariana Ghica, Rasa Pauliukaite

New Nanostructured Carbon Electrodes and Modified Carbon Electrodes for Electrochemical Sensors

14:20 to 14:40

Jae-Joon Lee (Department of Applied Chemisrty, Konkuk University, Chungju-si, Korea), A. J. Saleh Ahammad, Yong Yuan, Sunghyun Kim

Comparative Study of Two Poly(thionine) Films on Glassy Carbon Electrode For The Determination of Dopamine in The Presence of Ascorbic Acid And Uric acid.

14:40 to 15:00

Qingji Xie (Key Laboratory of Chemical Biology and Traditional Chinese Medicine Research (Ministry of Education of China), College of Chemistry and Chemical Engineering, Hunan Normal University, Changsha 410081, Changsha, China)

Electrochemical quartz crystal microbalance study on covalent tethering of carboxylated thiol to polyaniline for electrocatalyzed oxidation of ascorbic acid in neutral aqueous solution

15:00 to 15:20

Yasushi Hasebe (Department of Life Science and Green Chemistry, Saitama Institute of Technology, Fukaya, Japan), Munenori Tsuchiya, Hironori Matsuhisa

Interference-Free Amperometric Glucose Biosensor Using Biomolecule-hybrid Sol-Gel Silicate Film as Novel Interference-Eliminating Layer

15:20 to 15:40

Yue-Hua Dou (Postgraduate Medical Institute, Department of Biological sciences,, Kingston-up-on Hull, United Kingdom)

Development of Nitric Oxide Sensor for Perfusion of Cardiac Tissue

15:40 to 16:00

Adam Lesniewski (Department of Electrode Processes/Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland), Joanna Niedziolka - Jönsson, Juliette Sirieix - Plenet, Laurent Gaillon, Marcin Opallo

Electrode Modified with Silicate Appended Ionic Liquid Submicroparticles for Electroanalysis

16:00 to 16:20

Coffee Break

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Nicolas Alonso-Vante, Yanxia Chen

14:00 to 14:40 *Keynote*

Jan Rossmeisl (Center for Atomic-scale Materials Design (CAMD) Department of Physics, Lyngby, Denmark)

Searching for Electro-Catalyst Materials

14:40 to 15:00 *Invited*

Jeffrey Greeley (Center for Nanoscale Materials Argonne National Laboratory, Argonne, USA)

First principles investigations of Electrocatalysis and corrosion

15:00 to 15:20
Li Li (Chongqing University, Chongqing, China), Zidong Wei, Xueqiang Qi, Xingli Mann, Yaoqiong Wang, Jie Zhang
DFT Study of Structure Sensitivity about Water Activation and CO Oxidation on Electrode Pt

15:20 to 15:40
Vladislav Ivaništšev (Institute of Chemistry, University of Tartu, Tartu, Estonia), Renat Nazmutdinov, Enn Lust
A DFT study of the water adsorption at a Bi(111) electrode surface

15:40 to 16:00
Marten Bjorketun (Center for Atomic-scale Materials Design (CAMD), Department of Physics, Technical University of Denmark, Kongens Lyngby, Denmark), Jan Rossmeisl, Egil Skúlason, Vladimir Tripkovic, Jens Nørskov
First-Principles Insight into the Hydrogen Evolution and Oxidation Reactions

16:00 to 16:20
Coffee Break

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Ken-Ichiro Ota, Jiu-Jun Zhang

14:00 to 14:40 *Keynote*
Ken-ichiro Ota (Chemical Energy Laboratory Yokohama National University, Yokohama, Japan), Akimitsu Ishihara
Challenge of Non-Precious Metal Oxide-Based Cathode for Polymer Electrolyte Fuel Cell

14:40 to 15:00 *Invited*
Tomoyuki Tada (Tanaka Kikinzoku Kogyo K. K., Hiratsuka, Japan), Yumi Yamamoto, Koichi Matsutani, Katsuichiro Hayakawa, Tatsunori Namai
Current progress of catalyst R&D in TKK

15:00 to 15:20
Chunxin Ji (Fuel Cell Research Lab, General Motors Corporation, Honeoye Falls, USA), Yuxiu Liu, Roland Koestner, Tina Salguero, Ping Liu, Sky Van Atta, Chaoyin Zhou, Maryam Behroozi, Amanda Phelps
Pt/Carbon Electrocatalysts Functionalized with Phenylsulfonic Acid and Perfluorooctylphenyl Groups

15:20 to 15:40
Jian Chen (Dalian Institute of Chemical Physics, Dalian, China), Xin Liu, Li Zhang, Huamin Zhang
Improving the Long-term Durability of PEMFC Cathode by Employing $Pt/TiO_2/C$ and $Pt/IrO_2/C$ Catalysts

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Enn Lust, Nick Nae-Lih Wu

14:00 to 14:20 *Invited*
Nick Nae-Lih Wu (Department of Chemical Engineering Nationa Taiwan University, Taipei, Taiwan), Fatemeh Ataherin, K. T. Lee
Study on Long-Term Cycling Behaviors of Aqueous MnO2 Supercapacitors

14:20 to 14:40

Enn Lust (Institute of Chemistry, University of Tartu, Tartu, Estonia), Alar Janes, Thomas Thomberg, Heisi Kurig, Ann Laheaar, Kerli Tonurist

Gas Phase Synthesis and Characterisation of Carbide Derived Micro/mesoporous Carbons and Energy and Power Densities of Nonaqueous Electrochemical Double Layer Supercapacitors

14:40 to 15:00

Xiaojun He (School of Chemistry and Chemical Engineering / Anhui University of Technology, Ma'anshan, China), Yejing Geng, Mingdong Zheng

Effect of KOH/coke ratio on activated carbon properties for electrochemical capacitor

15:00 to 15:20

Qi Zhang (State Key Laboratory for Physical Chemistry of Solid Surface; Chemistry Department, Xiamen University, Xiamen, China), Yining Shi

The Improvement of Coulombic Efficiency of Vanadium Redox Battery Systems by Anion Selective Membrane

15:20 to 15:40

Kuo-Hsin Chang (Department of Chemical Engineering, National Tsing Hua University, Hsin-Chu, Taiwan), Chi-Chang Hu

Microwave-Assisted Hydrothermal Synthesis of $RuO_2.xH_2O$ Nanocrystallites: Effects of Temperature, Microwave Power, and Reaction Time

15:40 to 16:00

Peng Yu (Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China), Xiong Zhang, Yanwei Ma

A self-template strategy to synthesize layered MnO_2 hollow structures and their electrochemical properties

16:00 to 16:20

Coffee Break

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Xiangming He, Kiyoshi Kanamura

14:00 to 14:20 *Invited*

Guozhong Cao (Department of MSE,University of Washington, Seattle, USA), Dawei Liu

Nanostructured Oxide Electrodes for Li-ion Batteries

14:20 to 14:40

Jianguo Ren (Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, China), Tengbo Ma, Xiangming He, Hailei Zhao, Li Wang, Chunrong Wan, Changyin Jiang

Nano silicon/pyrolytic polyacrylonitrile composite anode materials for lithium ion batteries

14:40 to 15:00

Xiangming He (Institute of New Energy Technology, INET, Tsinghua University, Beijing, China), Li Wang, Jianguo Ren, Weihua Pu

Investigation of The Electrochemical Properties of Modified Natural Graphite Anode By Electrochemical Impedance Spectroscopy (EIS)

15:00 to 15:20 *Invited*

Kiyoshi Kanamura (Department of Applied Chemistry Graduate School of Urban Environmental Sciences Tokyo Metropolitan University, Hachioji, Japan), Sang-Wook Woo, Munakata Hirokazu

Sn-Ni Alloy with Ordered Domain Structure for Rechargeable Lithium Ion Batteries with High Capacity

15:20 to 15:40

Xianyou Wang (School of Chemistry, Key Laboratory of Environmentally Friendly Chemistry and Applications of Minister of Education, Xiangtan University, XiangTan, China), Wen Wu, Quanqi Chen, Xin Wang, Xiuming Liu

Preparation and Electrochemical Performance of $FeF_3(H_2O)0.33/MoS_2$ Composite Cathode Material for Lithium-ion Battery

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: George Z. Chen, Louzhen Fan

14:00 to 14:20 *Invited*

Constanze Donner (Atotech Deutschland Gmbh, Berlin, Germany), Kay Thiel, Moritz Hintze, Antje Vollmer

The Role of Organic Additives in Metal Deposition

14:20 to 14:40

Shantang Liu (Key Laboratory for Green Chemical Process of Ministry of Education, School of Chemical Engineering and Pharmacy, Wuhan Institute of Technology, Wuhan, China), Moumei Wu, Lei Qi

In Situ Electrodeposited Silicate Shell on Gold Nanoparticles Assembled on Solid Substrate

14:40 to 15:00

Iwao Mogi (Tohoku University, Institute for Materials Research, Sendai, Japan)

Chirality of Magnetoelectrodeposited Ag Films

15:00 to 15:20

Liu Run (Department of Chemistry, Zhejiang University, Hangzhou, China), Liu Run, Kang Honglan, Chen Keli, Xu Zhude

Electrochemical Growth and Characterization of Highly Oriented CuI Thin Film

15:20 to 15:40

Qingming Shen (Chemistry, Nanjing, China), Jun-Jie Zhu, Wenhua Hou

Sonoelectrochemical Deposition of Noble Nanoparticles and Their Electrochemical Applications

15:40 to 16:00 *Invited*

Philippe Allongue (Physique de la Matière Condensée, Palaiseau, France), Alexis Damian, Hugo Jurca, Robert Cortès, Fouad Maroun, Dominique Thiaudière

Electrochemical growth of ultrathin alloy films

16:00 to 16:20

Coffee Break

Chair: Li Niu, Reginald Penner

16:20 to 16:40 *Invited*

Shuji Nakanishi (RCAST, The University of Tokyo, Tokyo, Japan)

Increased free energy of electrochemical interfaces during electrodeposition of metals

16:40 to 17:00

Shuihua Tang (Department of Material Science and Engineering, Trondheim, Norway), Geir Martin Haarberg, Karen S. Osen

Electrodeposition of Solar Grade Silicon in Molten Salts

17:00 to 17:20

Paula Cojocaru (Politecnico di Milano, Milano, Italy), Luca Magagnin, Thomas Lampke, Dagmar Dietrich

Synthesis of Nickel–Carbon Nanohorn Composite Films by an Electrodeposition Technique

17:20 to 17:40

Giovanni Zangari (Department of Materials Sceince and Engineering, University of Virginia, Charlottesville, USA), Defu Liang, Jonathan Mallett

Electrodeposited FePt Alloys by Underpotential Co-deposition of Fe with Pt from Citrate/Glycine solutions

17:40 to 18:00

Keguan Ouyang (College of Chemistry and Materials Science, Fujian Normal University, Fuzhou, China), Rongfang Liu, Jianhe Liang, Yu Jia

Calcium Titanate Nanotube Arrays Fabricated by the Alkali-heat Treatment

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Christina Bock, Günther Scherer

14:00 to 14:20 *Invited*

Didier Devilliers (Universite Pierre et Marie Curie UPMC, Paris, France), Eric Mahé

Modified titanium electrodes: fundamentals and applications

14:20 to 14:40 *Invited*

Alexandros Katsaounis (Department of Environmental Engineering / Technical University of Crete, Chania, Greece), Erika Calderon, Rolf Wüthrich, Philippe Mandin, György Fóti, Christos Comninellis

Effectiveness factor of isopropanol oxidation and various redox couples on IrO_2 based electrodes of different loading

14:40 to 15:00

Masatsugu Morimitsu (Department of Environmental Systems Science, Doshisha University, Kyoto, Japan), Masatsugu Morimitsu, Naoyuki Oshiumi

Suppressed Anodic Deposition of Mn Oxides and Accelerated O_2 Evolution on IrO_2-Ta_2O_5/Ti Electrodes

15:00 to 15:20

Jiming Hu (Department of Chemistry, Zhejiang University, Hangzhou, China), Xiaomei Wang, Jianqing Zhang, Chunan Cao

Enhanced Electrocatalytic Activity and Stability of Ti/IrO2 Electrode For Oxygen Evolution By SiO_2 Incorporation

15:20 to 15:40

Tatsuya Ohashi (Shinshu University, Ueda, Japan), Yi Cao, Masashi Takana, Yoshinori Nishiki, Wataru Sugimoto, Yoshio Takasu

Coating of IrO_2-Ta_2O_5 layer over BDD electrode

15:40 to 16:00 *Invited*

Yoshio Takasu (Shinshu University, Ueda, Japan), Masatoshi Suzuki, Hongsheng Yang, Wataru Sugimoto, Ryoujin Obinata

Activated Carbon and DSA®-type Oxide Coatings as Non-platinum Cathode Catalysts for PEFCs and Electrolysis Processes

16:00 to 16:20

Coffee Break

16:20 to 16:40 *Invited*

Sandra Rondinini (Department of Physical Chemistry and Electrochemistry /The University of Milan, Milan, Italy), Alberto Vertova, Alessandro Minguzzi, Gabriele Aricci, Cristina Locatelli

Multiphase electrocatalysts for energy conversion and environmental protection

16:40 to 17:00 *Invited*

Ignacio González (Chemistry, Universidad Autónoma Metropolitana – Iztapalapa, México, D.F, Mexico), Gretchen Lapidus, José Luis Nava, Ricardo Benavides, Carlos Lara

Integrated Process for Precious Metal Extraction and Recovery Based on Electro-Oxidized Thioure

17:00 to 17:20

Djamal-Eddine Akretche (USTHB, Algiers, Algeria), Nassila Sabba

Cell modification in an electroleaching of copper ore

17:20 to 17:40

John Gustavsson (School of Chemical Science and Engineering, Applied electrochemistry, KTH, Stockholm, Sweden), Ann Cornell, Goeran Lindbergh

In-situ Activated Hydrogen Evolution by Cations in pH-Neutral Electrolytes

17:40 to 18:00

Janet Baron (Department Chemistry, University of Guelph, Guelph, Canada), Jeffrey Mirza, Grzegorz Szymanski, Jacek Lipkowski

Spectroelectrochemical studies of the gold-electrolyte interface under thiosulfate based leaching conditions

18:00 to 18:20

Bernhard Mollay (CEST, Centre of Competence in Electrochemical Surface Technology, Wiener Neustadt, Austria), Volodymyr Nedashkivskyi, Roland Scharf, Peter Raffelstetter, Hermann Kronberger

A Modeling Study on the Role of Alkaline Films in High-Speed Deposition Processes

18:20 to 18:40

Peter Raffelstetter (CEST, Centre of Competence in Electrochemical Surface Technology, Wiener Neustadt, Austria), Bernhard Mollay

Modeling of the Effect of an Auxiliary Electrode on Shape Evolution in Through-Mask Electrochemical Micromachining of a PCB Design

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Juan M. Feliu, Ezequiel P. M. Leiva

14:00 to 14:40 *Keynote*

Nenad Markovic (Materials Science Division, Argonne, USA), Dusan Strmcnik, Kensaku Kodama, Dennis Van der Vliet, Jeffery Greeley, Vojislav Stamenkovic

Catalysts at electrochemical interfaces: a challenge for experiment and theory

14:40 to 15:00 *Invited*

Andrea E. Russell (School of Chemistry University of Southampton, Southampton, United Kingdom), Sarah L. Hudson, Peter P. Wells, Richard J.K. Wiltshire, Sarah Ball, David Thompsett

The challenges of *in situ* structural characterisation of PEM fuel cell nanoparticle catalysts

15:00 to 15:20

Xingxing Chen (Analytische Chemie – Elektroanalytik & Sensorik, Ruhr-Universität Bochum, Bochum, Germany), Michael Bron, Wolfgang Schuhmann, Leonard Stoica

Oxygen Permeability of Gas Diffusion Electrodes. Visualization by Means of Scanning Electrochemical Microscopy (SECM)

15:20 to 15:40

Shengqi Zhou (National Physical Laboratory, London, United Kingdom), Andrew J. Wain, Patrick Nicholson, Alan Turnbull

Physical and Electrochemical Imaging of Model Proton Exchange Membrane Fuel Cell Catalyst Films

15:40 to 16:00

Akari Hayashi (AIST, FC-Cubic, Tokyo, Japan), Ken'ichi Kimijima, Hideo Notsu, Junichi Miyamoto, Ichizo Yagi

Electrochemical Reactions Occurring in the Pores of Mesoporous Carbon (MC)

16:00 to 16:20

Coffee Break

16:20 to 16:40 *Invited*

Timo Jacob (Institute for Electrochemistry, University of Ulm, Ulm, Germany), John A. Keith

Understanding Pd island formation on self assembled 4-mercaptopyridine monolayers on Au(111)

16:40 to 17:00 *Invited*

Chuan-Jian Zhong. (State University of New York at Binghamton, Binghamton, New York 13902, USA)

Design and Nano-engineering of Electrocatalysts for Fuel Cell Reactions

17:00 to 17:20 *Invited*

Enrique Herrero (Instituto de Electroquímica Universidad de Alicante, Alicante, Spain), Carlos M. Sánchez-Sánchez, José Solla-Gullón, Vicente Montiel, Antonio Aldaz, Juan M. Feliu

Scanning Electrochemical Microscopy for Electrocatalysis on Shape-Controlled Gold Nanoparticles and Nanorods

17:20 to 17:40

Na Tian (Department of Chemistry, Xiamen University, Xiamen, China), Zhi-You Zhou, Shi-Gang Sun

Shape-controlled synthesis of Pd nanocrystals

17:40 to 18:00

Iwona A. Rutkowska (Department of Chemistry, University of Warsaw, Warsaw, Poland), Sylwia Zoladek, Pawel J. Kulesza

Structure and Electrocatalytic Reactivity of Network Films Utilizing Polyoxometallate-Modified Gold Nanoparticles

18:00 to 18:20

Pradyumna S. Singh (Kavli Institute of Nanoscience, Delft University of Technology) Marcel A. G. Zevenbergen, Edgar D. Goluch and Serge G. Lemay

Electrochemistry in Nanoscale Channels: Probing Rapid Electron-Transfer Kinetics and Amperometric Fluctuations

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Stephan Breuer, Shaojun Dong

14:00 to 14:20

Guocheng Yang (School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore, Singapore), Guocheng Yang, Erjia Liu, Nay Win Khun, San Ping Jiang

EIS Study on Interface Reactions of Diamond like Carbon Thin Film Electrodes

14:20 to 14:40

Stephan Breuer (Institute of Physical and Theoretical Chemistry, University of Bonn, Bonn, Germany), Duc Thanh Pham, Nguyen Thi Minh Hai, Klaus Wandelt

Combined SXPS and EC-STM study on structural and redox state of adsorbed porhyrins on chloride covered copper electrodes

14:40 to 15:00 *Invited*

Juhyoun Kwak (Department of Chemistry KAIST, Daejeon, Korea), Kyungsoon Park

Au Nanocatalyst-Based Imaging of DNA Hybridization using Scanning Electrochemical Microscopy

15:00 to 15:20

Valentina Lazarescu (Institute of Physical Chemistry “Ilie Murgulescu”, Bucharest, Romania), Rares Scurtu, Mihai Lazarescu, Ana Toader, Elena Volanschi

Passivation Effects of 4, 4’ Thio-bis-benzene-thiolate Adsorbed Layers on Semiconducting Electrodes

15:20 to 15:40 *Invited*

Bin Ren (Department of Chemistry, Xiamen University, Xiamen, China), Yi-Fan Huang, Nai-Ning Yin, Guo-Kun Liu, De-Yin Wu, Zhong-Qun Tian

Are the Signals Detected by Surface-enhanced Raman Spectroscopy for p-Aminothiophenol on Ag and Au Still from the Molecule?

15:40 to 16:00

Carl Albrecht Schiller (Zahner elektrik, Kronach, Germany), Patrik Schmuki

The Oxide Layer on Ta Metal - a Model System for the Investigation of Dielectric Behavior and Semiconductor Properties of Non-Uniform Passive Films. EIS and Dynamic Photo-Electrochemical Measurements.

16:00 to 16:20

Coffee Break

Chair: Juhyoun Kwak, Jacek Lipkowski

16:20 to 16:40 *Invited*

Qijin Chi (Department of Chemistry Technical University of Denmark, Lyngby, Denmark), Jens Ulstrup

Isotope Effects in Interfacial Electrochemistry

16:40 to 17:00

Annick Hubin (Electrochemical and Surface Engineering Group/Vrije Universiteit Brussels, Brussels, Belgium), Kitty Baert, Orlin Blajiev, Herman Terryn

Identification of the surface molecular complex formed upon adsorption of amino-mercapto-thiadiazole on silver by means of SERS on flat surfaces

17:00 to 17:20

Victor Safonov (Department of Electrochemistry, Faculty of Chemistry, Moscow State University, Moscow, Russia), Maria Choba

Segregation processes in the renewed surface layer of an Au-Ag-Sn alloy electrode at the formation of its equilibrium interface with a surface inactive electrolyte solution

17:20 to 17:40 *Invited*

Jingdong Zhang (Department of Chemistry Technical University of Denmark, Lyngby, Denmark), Jens Ulstrup, Anna C. Welinder, Yifan Hu

Interfacial assembling: from amino acid to bacterial

17:40 to 18:00

Jianlin Yao (Chemistry/Suzhou University, Suzhou, China), Tianchao Niu, Yaxian Yuan, Feng Lu, Renao Gu

The Structure of Metal/Ionic Liquid Interface Probed by Electrochemical Surface Enhanced Raman Spectroscopy

18:00 to 18:20

Jingyuan Chen (Department of Applied Physics, University of Fukui, Fukui, Japan), Koichi Aoki, Tomohiro Imamura, Hirokazu Toda, Masanori Satoh

An electrochemically driven air bubble on the OIW interface under the three-phase boundary reactions of ferrocene

18:20 to 18:40

MengJuan Li (Department of Applied Physics, University of Fukui, Fukui, Japan), Koichi Aoki, Jingyuan Chen

Potential-dependent motion by the charged droplets at the water/oil interface

Symposium 10 : Molecular Electrochemistry: In its own right and in service to related research areas

Location: Room 309

Chair: Hector Abruna, James Y. Becker

14:00 to 14:20
Jiri Ludvik (Molecular Electrochemistry Dept. J. Heyrovsky Institute of Physical Chemistry, Academy of Sciences, Prague 8, Czech Republic), Alan Liska
Electrochemical Investigation of Mono-, Di-, Tri and Tetranitrocalix-[4]-arenes and Their Models

14:20 to 14:40
Carlos Frontana (Centro de Investigación y Desarrollo Tecnológico en Electroquímica, S. C., Pedro Escobedo, Mexico), Lindsay Hernández, Felipe González, Ignacio González, Fabiane de Abreu, Adriana Santos, Marcelo Navarro, Marilia Goulart
Revisiting an Old Subject: Position-Modulated One and Two Successive Electron Processes in Dinitrobenzenes

14:40 to 15:00
Tarmo Tamm (Institute of Technology, University of Tartu, Tartu, Estonia), Terje Raudsepp, Urmo Visk, Margus Marandi, Jüri Tamm
Importance of the initial stage: a comparative study of the development of polypyrrole properties

15:00 to 15:20
Frantisek Hartl (School of Chemistry, University of Reading, Reading, United Kingdom), Antonin Vlcek, Paul J. Low
Electron Transfer in Photo- and Redox-Responsive Coordination Compounds with Multiple Redox Centers

15:20 to 15:40
Irena Hoskovcova (Institute of Chemical Technology Prague, Prague, Czech Republic), Jiri Ludvik, Dalimil Dvorak, Stanislav Zalis
Correlation between Electronic Properties and Ligand Substitution of Cr(0) and Fe(0) Aminocarbene Complexes

15:40 to 16:00
Alexander Pasynskii (N.S. Kurnakov Institute of General and Inorganic Chemistry of the RAS, Moscow, Russia), Sergey Konchenko, Nikolay Pushkarevsky
The Electrochemical Behavior of Mixed-Metal Chalcogenide Clusters

16:00 to 16:20
Coffee Break

Chair: Armando Gennaro, Pospisil Lubomir

16:20 to 17:00 *Keynote*
Kingo Itaya (Department of Applied Chemistry, Tohoku University, Sendai, Japan)
Atomic and Molecular Aspects of Solid/Liquid Interfaces

17:00 to 17:20
Mohamoud Mohamoud (Department of Chemistry University of Leicester, Leicester, United Kingdom), Rob Hillman, Graeme Cooke
Electrochemically Tuneable Multivalent Surfaces: Read-Write-Erase Molecular Machines

17:20 to 17:40
Alexander Nekrasov (Frumkin Institute of Physical Chemistry and Electrochemistry, RAS, Moscow, Russia), Oxana Gribkova, Victor Ivanov, Anatoly Vannikov
Nanostructured Films of Interpolymer Complexes of Polyaniline with Polyamidosulfonic Acids: Electrosynthesis, Morphology, Spectroelectrochemistry and Possible Applications

17:40 to 18:00

Fetah Podvorica (Laboratoire Environnement et Chimie Analytique, CNRS-ESPCI, Paris, France), Catherine Combellas, Jean Pinson, Frederic Kanoufi

Electrografting of organic moieties from conductive surfaces: control of the thickness of the grafted layer by the chemical structure

Symposium 11 : General Session

Location: Room 301

Chair: Shuping Bi, Takashi Kakiuchi

14:00 to 14:40 *Keynote*

Zhaowu Tian (Chemistry Department, Xiamen, China)

From Electrochemical Reaction Layer to New Technology for Three Dimensional Micro/Nano Structure Fabrication

14:40 to 15:20 *Keynote*

Masahiro Watanabe (Clean Energy Research Center, University of Yamanashi, Kofu, Japan)

Challenge to the development of new materials for the next generation PEFCs

15:20 to 15:40

Simon Leijonmarck (Department of Applied Electrochemistry, Stockholm, Sweden), Ann Cornell, Carl-Ola Danielsson, Mats Fredlund, Göran Lindbergh

Controlled delamination of materials using electrochemistry

15:40 to 16:00

Stacey Handy (University of Wolverhampton, Wolverhampton, United Kingdom), Chike Oduoza, Craig Williams

Characterisation of White Bronze Plating as a Replacement for Nickel in Decorative Chromium Plating

16:00 to 16:20

Coffee Break

Chair: Hasuck Kim, Masahiro Watanabe

16:20 to 16:40

Shaolin Mu (Department of Chemistry, Yangzhou University, Yangzhou, 225002, China, Yangzhou, China)

Copolymerization of aniline and 2,4-diaminophenol

16:40 to 17:00

Jesús Daniel Robles Salas (Instituto Politécnico Nacional ESIME - Zacatenco Departamento de Química, México City, Mexico), María de Lourdes Elizalde Aguilar

Determination of the corrosion rate in turbulent flow using rotating cylindrical geometry

17:00 to 17:20

Chih-Wei Hu (Institute of Polymer Science and Engineering, National Taiwan University, Taipei, Taiwan), Wei-Kai Chen, Jen-Yuan Wang, Chih-Yu Hsu, Kuo-Chuan Ho

A Complementary Electrochromic Device Based on Carbon Nanotubes-Polyaniline and PProDOT-Et_2 Polymer Films

17:20 to 17:40

Wei-Kai Chen (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Chih-Yu Hsu, Jen-Hsien Huang, Chuan-Pei Lee, Kuo-Chuan Ho

Cycling Stability of a Complementary Electrochromic Device Based on PANI/SiO_2 and PProDOT-Et_2

Tuesday 18 August 2009 - Morning Sessions

Plenary

University Hall

Chair: Rob Hillman

08:30 to 09:20

Philip Bartlett (School of Chemistry, Southampton, United Kingdom)

Molecular Electrochemistry: Modification, Mediation and Design of Electrode Surfaces

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Lo Gorton, Renata Bilewicz

09:35 to 09:55

Ulla Wollenberger (Analytical Biochemistry, Institute for Biochemistry and Biology, University Potsdam, Golm, Germany), Roberto Spricigo, Artavazd Badaljan, Frieder Scheller, Stefano Frasca, Silke Leimkühler

(Bio)electrochemistry and application of molybdoenzymes

09:55 to 10:15

Sunita Kumbhat (Biosensor Laboratory, Department of Chemistry, J. N. V. University, Jodhpur, India), Harmeet Dhillon, Kavita Sharma, Rakhee Gehlot

Spectral and Redox Models for Blue Copper Proteins

10:15 to 10:35

Coffee Break

Chair: Ana Maria Oliveira-Brett, Jun-Jie Zhu

10:35 to 11:15 *Keynote*

Isao Taniguchi (Department of Applied Chemistry and Biochemistry, Kumamoto, Japan)

Recent Developments In Biofuel Cells Using Direct Electron-Transfer Reactions Of Enzymes At Functionallized Au And Au Nano-Particles Electrodes

11:15 to 11:35

Marcin Opallo (Institute of Physical Chemistry, Warszawa, Poland), Katarzyna Szot, Martin Jonsson-Niedziolka, Wojciech Nogala, Anna Celebanska, Joanna Niedziolka-Jonsson, Jerzy Rogalski

Carbon nanoparticles or nanotubes modified with sulfonate groups for mediatorless bio Electrocatalysis of dioxygen reduction

11:35 to 11:55

Federico Tasca (Analytical Chemistry Department, Lund University, Lund, Sweden), Lo Gorton, Wolfgang Harreither, Dietmar Haltrich, Roland Ludwig, Gilbert Nöll

Comparison of Direct and Mediated Electron Transfer for Cellobiose Dehydrogenase from Phanerochaete sordida

11:55 to 12:15

Masato Tominaga (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Isao Taniguchi, Shingo Sakamoto, Hiroyuki Yamaguchi, Shiori Kaneko

Electron Transfer Reactions of Fructose Dehydrogenase and Bilirubin Oxidase Immobilized onto UV-Ozone-Treated Carbon Nanotubes Modified Gold Electrodes

Lunch

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Mary Ryan

09:35 to 10:15 *Keynote*
Tim Burstein (Department of Materials Science and Metallurgy, University of Cambridge, Cambridge, United Kingdom), Ben Daymond, Jeremy Moloney
Cyclic Thermammetry of the Passive State and the Processes Leading to Breakdown

10:15 to 10:35
Coffee Break

10:35 to 10:55
Manuel Lohrengel (University of Duesseldorf Physical Chemistry, Duesseldorf, Germany), Benjamin Walther
Kinetics of Ti-based hard metal dissolution

10:55 to 11:15
Marco Musiani (IENI CNR, Padova, Italy), Sandro Cattarin, Bernard Tribollet, Vincent Vivier
Impedance of Passive Oxide Films with Graded Thickness: Influence of the Electrode and Cell Geometry

11:15 to 11:35
Sifeddine Amara (Laboratory of Electrochemistry-Corrosion, Metallurgy and Inorganic Chemistry, USTHB, Algiers, Algeria), Farida Haddad, Abdelkader Benchettara, Rafika Kesri
Relation between microstructure and electrochemical behaviour of based iron FeCoC ternary alloys

11:35 to 11:55
DaLei Zhang (Institute of Oceanology/Chinese Academy of Sciences, Qingdao, China)
Monitoring Galvanic Corrosion of Zinc/Steel Couple in Sea Mud by Using Hybrid Wire Beam Electrode Technique

11:55 to 12:15
Guozhe Meng (Corrosion and Protection Laboratory, Key Laboratory of Superlight Materials and Surface Technology (Harbin Engineering University), Ministry of Education / Harbin Engineering University, Harbin, China), Feilong Sun, Yawei Shao, Tao Zhang, Fuhui Wang, Chaofang Dong, Xiaogang Li
Influence of nano-scale twin (NT) structure on passive film formed on nickel

Lunch

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Xiurong Yang, Shaowei Chen

09:35 to 10:15 *Keynote*
Hubert Girault (Laboratoire d'Electrochimie Physique et Analytique, Lausanne, Switzerland), Jean-Marc Busnel, HongYan Bi, Michel Prudent, Manuel Mendez, Qiao Liang, Baohong Liu
Electrochemical aspects of proteomics and mass spectrometry

10:15 to 10:35
Coffee Break

10:35 to 10:55 *Invited*
Huangxian Ju (Key Laboratory of Analytical Chemistry for Life Science (Education Ministry of China), Nanjing University, Nanjing, China)
Nanobiotechnology for Electrochemical Biosensing

10:55 to 11:15 *Invited*

Xiurong Yang (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Zhanxia Zhang

A sensitive impedimetric thrombin aptasensor based on polyamidoamine dendrimer

11:15 to 11:35

Alison Downard (Department of Chemistry, University of Canterbury, Christchurch, New Zealand), Xianming Liu, Keith Baronian

Thermal Chemical Vapour Deposition of Patterned Arrays of Vertically Aligned Carbon Nanotube Microelectrodes on Carbon Films

11:35 to 11:55

Yu-Hui Bai (Department of Chemistry Nanjing University, Nanjing, China), Hong-Yuan Chen, Jing-Juan Xu

Selective Sensing of Cysteine on Manganese Dioxide Nanowires Composite Film Modified Electrodes

11:55 to 12:15

Yang Tian (Department of Chemistry, Tongji University, Shanghai, China)

Biomimetic Surfaces for Electrochemical Assay of Reactive Oxygen Species (ROS): From Principle to Applications in Living Cells

Lunch

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Andrzej Wieckowski, Masatoshi Osawa

09:35 to 10:15 *Keynote*

Akira Fujishima (Kanagawa Academy of Science and Technology, Kanagawa Kawasaki, Japan)

TiO_2 Photocatalysis and Related Surface Phenomena

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Andrzej Wieckowski (Dept. of Chemistry, Urbana,, USA)

The Use of Spectroscopy in Research on Electrocatalysis and Fuel Cell Catalysis

10:55 to 11:15 *Invited*

Masatoshi Osawa (Catalysis Research Center, Hokkaido University, Sapporo, Japan), Gabor Samjeske, Kei-ichi Komatsu

Dynamics of CO Electro-Oxidation on a Pt Electrode: A Time-Resolved Infrared Study

11:15 to 11:35 *Invited*

Yanxia Chen (University of Science and Technology of China, Hefei, China)

Dissociative Adsorption and Oxidation of Methanol at Pt and PtRu Film Electrodes under Controlled Mass-transport Conditions, an *in-situ* ATR-FTIR Spectroscopic Study

11:35 to 11:55 *Invited*

Zhiyou Zhou (Department of Chemistry, Xiamen University, Xiamen, China), Shigang Sun

In Situ FTIR Studies of Electrocatalytic Oxidation of Small Organic Molecules

11:55 to 12:15

Piotr Ochal (Department of Materials Science and Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway), Jose L. Gomez de la Fuente, Mikhail Tsypkin, Svein Sunde

CO stripping as an electrochemical tool for core-shell catalysts characterization.

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Edson Ticianelli, Siyu Ye

09:35 to 10:15 *Keynote*

Edson Ticianelli (Instituto de Quimica de São Carlos - USP, São Carlos, Brazil), Adriano Fernandes, Guillerme Saglietti, Pietro Lopes

Analysis of the stability of carbon supported Pt-alloy catalysts for proton exchange membrane fuel cells

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Hansung Kim (Dept. of Chemical and Biomolecular Engineering Yonsei University, Seoul, Korea), Hyung-Suk Oh

Development of carbon supports resistant to carbon corrosion and sintering of Pt particles in polymer electrolyte membrane fuel cells

10:55 to 11:15

Adam Weber (Lawrence Berkeley National Laboratory, Berkeley, USA)

Impact of Gas-Diffusion Layer Wettability on Polymer-Electrolyte-Fuel-Cell Performance

11:15 to 11:35 *Invited*

Siyu Ye (Ballard Power Systems Inc., Burnaby, Canada)

Tailoring the Electrocatalyst Layer Designs for Different PEM Fuel Cell Applications

11:35 to 11:55

Xueliang (Andy) Sun (Mechanical and Materials Engineering University of Western Ontario, London, Canada), Madhu Sudan Saha, Ruying Li, Yougui Chen, Mei Cai, Siyu Ye, Hao Liu

Novel One-Dimensional Nanomaterials as Catalyst Support for PEM Fuel Cells: Synthesis, Characterization and Applications

11:55 to 12:15

Lorenz Gubler (Electrochemistry Laboratory Paul Scherrer Institut, Villigen PSI, Switzerland), Nicolas Linse, Alexander Wokaun, Günther G. Scherer

Start/Stop Induced Degradation in Polymer Electrolyte Fuel Cells and Mitigation Strategies

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Elzbieta Frackowiak, Chi-Chang Hu

09:35 to 10:15 *Keynote*

Elzbieta Frackowiak (Poznan University of Technology, Poznan, Poland), Grzegorz Lota

Exceptional Capacitance Behavior of Carbon/Iodide Interface

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Chi-Chang Hu (Department of Chemical Engineering, National Tsing Hua University, Hsin-Chu, Taiwan), Hsin-Yi Guo, Kuo-Hsin Chang, Ching-Chun Huang

Anodic Composite Deposition of RuO_2xH_2O-TiO_2 for Electrochemical Supercapacitors

10:55 to 11:15
Kwang-Heon Kim (Department of Material Science and Engineering, Yonsei University, Seoul, Korea)
Synthesis of Carbon Coated Manganese Oxide Nanocomposites by Solvothermal Carbonization for Supercapacitor Applications

11:15 to 11:35
Hyung Seob Min (Korea Institute of Science and Technology, Seoul, Korea), Hyung-Sup Min, Sangsig Kim, Won-Kook Choi, Young-Jei Oh
Role of Porous Electrodes in Microstructural Control of Lead and Lead Oxide Deposit for Soluble Lead-acid Flow Battery

11:35 to 11:55
Ling-Bin Kong (State Key Laboratory of Gansu Advanced Non-ferrous Metal Materials, Lanzhou University of Technology, Lanzhou, China), Jun-Wei Lang, Jing Zhang, Yong-Chun Luo, Long Kang
Porous Template Based Composite Electrode Materials for Electrochemical Capacitors

11:55 to 12:15
Changzhou Yuan (College of Material Science & Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Xiaogang Zhang
Facile Synthesis and Self-assembly of Hierarchical Porous NiO Nano/Micro Spherical Superstructures for High Performance Supercapacitors

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Petr Novak, Won-Sub Yoon

09:35 to 10:15 *Keynote*
Joachim Maier (Max Planck Institute for Solid State Research, Germany)

10:15 to 10:35
Coffee Break

10:35 to 10:55 *Invited*
Won-Sub Yoon (School of Advanced Materials Eng., Kookmin University, Seoul, Korea), Kisuk Kang, Yun-Sung Lee, Kyung-Wan Nam, Xiao-Qing Yang
Thermal Behavior of charged Cathode Materials Studied by X-ray Diffraction and Absorption Techniques

10:55 to 11:15
Alexander Skundin (Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow, Russia)
Vanadium Oxide Based Materials for Positive Electrodes of Lithium-ion Batteries

11:15 to 11:35 *Invited*
Zi-Feng Ma (Shanghai Jiaotong University, Shanghai, China)
Opportunity and challenge of the energy storage system for hybrid electric vehicle Application

11:35 to 11:55
Yang Dai (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, China, Shanghai, China), Ke Wang
Electrochemical Studies of Polynorbornene Derivative Organic Radical Cathode Material in Aprotic and Ionic Liquid Electrolytes

11:55 to 12:15
Hong-Yu Chen (School of Chemistry and Environment, Guangzhou, China), He Li, Yan-Long Liu
The development status of Chinese chemical and physical power source industries

Lunch

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Dieter Kolb

09:35 to 10:15 *Keynote*

Robert Hillman (Department of Chemistry, University of Leicester, Leicester, United Kingdom), Mohamoud Mohamoud, Qizhi Dong

Characterization and Manipulation of Mechanical Properties of Electrodeposited Polyaniline / Carbon Nanotube Nanocomposite Films

10:15 to 10:35

Coffee Break

Chair: Jianyong Ouyang, Jay Switzer

10:35 to 10:55 *Invited*

Jianyong Ouyang (Department of Materials Science and Engineering, National University of Singapore, Singapore, Singapore), Benhu Fan, Kuan Sun

High-Performance Dye-Sensitized Solar Cells with Cheap Counter Electrodes Prepared by Simple Processes

10:55 to 11:15 *Invited*

Huixin He (Chemistry Department, Rutgers University, Newark, USA)

Conducting Polymer/Single Walled Carbon Nanotube Composites for Electrochemical Biosensors

11:15 to 11:35

Ruirui Yue (Jiangxi Key Laboratory of Organic Chemistry, Jiangxi Science and Technology Normal University, Nanchang, China), Congcong Liu, Baoyang Lu

Electrochemical Copolymerization of Thiophene and Benzanthrone in Acetonitrile Containing Boron Trifluoride Diethyl Etherate

11:35 to 11:55

Jingkun Xu (Jiangxi Key Laboratory of Organic Chemistry, Jiangxi Science and Technology Normal University, Nanchang, China), Yukou Du, Guangming Nie, Weiqiang Zhou

Boron Trifluoride Diethyl Etherate and its Mixed Electrolytes: Application to the Electrochemical Syntheses of Inherently Conducting Polymers

11:55 to 12:15

Chuang Peng (Department of Chemical and Environmental Engineering and Fuels and Power Technology Research Division, Faculty of Engineering, The University of Nottingham, Nottingham, United Kingdom), George Z. Chen

Electrodeposition of Composites of Conducting Polymers and Carbon Nanotubes for Supercapacitors

Lunch

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Karel Bouzek, Bernard Tribollet

09:35 to 10:15 *Keynote*

Bernard Tribollet (LISE, UPR 15 du CNRS, Paris cedex 05, France)

Localized galvanic corrosion: effect of current and potential distribution

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Yunny Meas (CIDETEQ, Centro de Investigación y Desarrollo Tecnológico en Electroquímica, Pedro Escobedo, Mexico), Alfredo Ramirez, Mario Villalon, Thomas Chapman

Treatment of Industrial Wastewaters by Electrocoagulation

10:55 to 11:15 *Invited*

Romeu C. Rocha-Filho (Department of Chemistry, S. Carlos Federal University, S. Carlos, Brazil), José M. Aquino, Luís A. M. Ruotolo, Nerilso Bocchi, Sonia R. Biaggio

Electrochemical degradation of different classes of dyes on a Ti-Pt/β-PbO_2 anode assessed by factorial design

11:15 to 11:35 *Invited*

Onofrio Scialdone (Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Palermo, Italy)

Anodic abatement of organic pollutants. Effect of some operative parameter

11:35 to 11:55

Karine Groenen Serrano (Laboratoire de Génie Chimique, Toulouse cedex, France), Elsa Weiss, André Savall

Potentialities of boron doped diamond anode for the removal of oil-in-water

11:55 to 12:15

Ulker Bakir Ogutveren (Anadolu University, Dept. of Environmental Engineering, Eskisehir, Turkey), Suheyla Erez, A. Savas Koparal, Yusuf Yavuz

Anodic Oxidation of Basic Blue 3 Dye by Using BDD electrode

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Tomokazu Matsue, Chuan-Jian Zhong

09:35 to 10:15 *Keynote*

Hong-Yuan Chen (Department of Chemistry, Nanjing University, Nanjing, China), Jing-Juan Xu

Electrochemiluminescence based on Semiconductor Nanocrystals

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Dai-Wen Pang (Wuhan University, Wuhan, China), Ran Cui, Hui-Hui Liu, Qiao-Ling Zhao, Hai-Yan Xie, Zhi-Ling Zhang, Yi-Ran Yang, Zhi-Xiong Xie, Bei-Bei Chen, Bin Hu, Ping Shen

Preparation of fluorescent biolabeling nanomaterials by electrochemical method or using living yeast cells

10:55 to 11:15

Petra Cameron (Department of Chemistry University of Bath, Bath, United Kingdom), Wolfgang Knoll, Xinhua Zhong

Electrochemically Controlled Surface Plasmon Enhanced Fluorescence Response of Surface Immobilized CdZnSe Quantum Dots

11:15 to 11:35

P.S. Pa (Department of Digital Content Design, Graduate School of Toy and Game Design, National Taipei University of Education, Taipei, Taiwan)

Yield Enhancement for Solar-Cells Silicon-Wafers Surface by Electromechanical Micromachining

11:35 to 11:55 *Invited*

Dongsheng Xu (College of Chemistry and Molecular Engineering/Peking University, Beijing, China)

Hierarchical Nanostructures of Metal Oxides: Synthesis and its Application in Dye-Sensitized Solar Cells

11:55 to 12:15

Jiao-Jiao Gong (Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen, China), Yue-Kun Lai, Chang-Jian Lin

Highly Efficient Photoelectrocatalytic Water Splitting Using a Highly Ordered Nanoporous TiO_2 Array Films

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Annick Hubin, Carl Albrecht Schiller

09:35 to 09:55 *Invited*

Shuehlin Yau (Chemistry, National Central University, Jhongli, Taiwan)

Conformations of Polyaniline Molecules Adsorbed on Au(111) Probed by *In Situ* STM and *Ex Situ* XPS and NEXAFS

09:55 to 10:15

Yukio Ouchi (Department of Chemistry, Nagoya University, Nagoya, Japan), Wei Zhou, Takashi Iwahashi, Soya Inoue, Yasushi Katayama, Hajime Matsumoto

Interface structure of neat ionic liquids on electrode studied by *in situ* IR-visible sum frequency generation spectroscopy

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Kohei Uosaki (Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, Japan), Toshihiro Kondo, Takakusagi Satoru

In situ real time investigation on the structure at electrode/electrolyte interfaces by surface X-ray scattering

10:55 to 11:15

Soichiro Yoshimoto (Priority Organization for Innovation and Excellence, Kumamoto University, Kumamoto, Japan)

In situ STM Study of Rodium Porphyrin Adlayer at Electrochemical Interface

11:15 to 11:35

Chen Li (Departement of Chemistry and Biochemistry, Bern, Switzerland), Artem Mishchenko, Carlos Arroya, Thomas Wandlowski

Gold Monatomic Contacts – An Electrochemical STM Study

11:35 to 11:55 *Invited*

Philippe Hapiot (Sciences Chimiques de Rennes, Université de Rennes 1, CNRS, UMR 6226, Rennes, France), Aifang Wang, Càtia Ornelas, Jalal Ghilane, Fanny Hauquier, Didier Astruc, Bruno Fabre

SECM Investigations of Ferrocenyl Entities Immobilized on Non-Conducting Surfaces

11:55 to 12:15

Xiaowei Cao (Department of Chemistry, Shanghai Normal University, Shanghai, China), Weiqin Deng, Qingqing Qian, Xinran Li, Zongrang Zhang

Potential and pH Dependent Surface-Enhanced Raman Scattering Spectroscopic Study of Dopamine on Electrochemically Roughened Silver Electrodes

Lunch

Symposium 10 : Molecular Electrochemistry: In its own right and in service to related research areas

Location: Room 309

Chair: Kingo Itaya, Michael Mirkin

09:35 to 09:55

Frederic Lafolet (Département de Chimie Moléculaire, UMR CNRS-5250, Institut de Chimie Moléculaire de Grenoble FR-2607, CNRS-Université Joseph Fourier, Grenoble 1, Grenoble Cedex 9, France)

Electrochemical characterization of the step by step elaboration of a Rh-Rh bonded-coordination-polymer on gold surface

09:55 to 10:15

Patrizia Romana Mussini (Department of Physical Chemistry and Electrochemistry, University of Milano, Milano, Italy), Francesco Sannicolò, Tiziana Benincori, Sergio Rampinini, Valentina Bonometti, Luigi Falciola

Electrochemistry of spider-like multithiophene oligomers: redox properties and electrochemical polymerization

10:15 to 10:35

Coffee Break

10:35 to 11:15 *Keynote*

Hector Abruna (Department of Chemistry and Chemical Biology, Ithaca, USA)

Electrochemistry and Conductance of Molecular Assemblies

11:15 to 11:35

Pospisil Lubomir (Molecular Electrochemistry, Prague, Czech Republic), Miroslav Gal, Magdalena Hromadova, Jana Bulickova, Romana Sokolova, Yougmin Zhang, Andre Rassat, Sergio Filippone, Juan Yang, Zhu Guan

Water-Soluble Fullerene Compounds Facilitate Nitrogen Fixation

11:35 to 11:55

Tatiana Magdesieva (Dept. Chemistry, M.V. Lomonosov Moscow State University, Moscow, Russia), Eugenia Kornienko, Alexey Goryunkov, Oleg Nikitin, Andrey Vorobiev, Lev Sidorov

Electrochemical and ESR studies of the unique [6,6]-opened $C_{60}(CF_2)$, cis-2-$C_{60}(CF_2)_2$ and their anions

Lunch

Symposium 11 : General Session

Location: Room 301

Chair: Koichi Aoki, Wen-Bin Cai

09:35 to 10:15 *Keynote*

Alan Bond (School of Chemistry Monash University, Clayton, Australia)

New Insights Gained from Use of Fourier Transform Based Voltammetry

10:15 to 10:35

Coffee Break

Chair: Su-Moon Park, Yoon-Bo Shim

10:35 to 11:15 *Keynote*

Hasuck Kim (Department of Chemistry, Seoul National University, Seoul, Korea), Jeong-Wook Oh, Yeon Ok Lee, Tae Hyun Kim, Kyoung Chul Ko, Jin Yong Lee, Jong Seung Kim

New Ways to Improve the Electrogenerated Chemiluminescence Efficiency

11:15 to 11:35

Genxi Li (School of Life Sciences, Shanghai University, Shanghai, China)

Electrochemical Approach to Detect Apoptosis

11:35 to 11:55

Keiji Tsukada (Okayama University, Okayama, Japan), Fumiyuki Kobayashi, Hiroyuki Arai, Yasuhiro Manji, Toshihiko Kiwa

Magneto-electric Differential Pulse Voltammetry for Evaluation of Charging and Faradaic Current in the Electrolyte

11:55 to 12:15

M. V. Koudriachova (University College London, London, United Kingdom)

Mechanism of Enhanced Li-Insertion in TiO_2-B Nanowires: A Computer Simulation Study

Tuesday 18 August 2009 - Afternoon Sessions

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Jean-Louis Marty, Nabil El Murr

14:00 to 14:20

Gilbert Nöll (Siegen University, Siegen, Germany), Federico Tasca, Lo Gorton, Magdalena Kujawa, Ilabahen Patel, Wolfgang Harreither, Clemens Peterbauer, Roland Ludwig

Increasing the Coulombic Efficiency of Glucose Biofuel Cell Anodes by Combination of Redox Enzymes

14:20 to 14:40

Jen-Yuan Wang (Institute of Polymer Science and Engineering, Taipei, Taiwan)

A Novel Starch/H_2O_2 Biofuel Cell based on Bienzyme Bioelectrodes

14:40 to 15:00

Po-Chin Nien (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Lin-Chi Chen, Jen-Yuan Wang, Po-Yen Chen, Kuo-Chuan Ho

Co-immobilization of mediator and enzyme in a conducting polymer: Applications in oxygen-free glucose sensor and glucose biofuel cell

15:00 to 15:20

Ivanov Ivan (Physical and Chemical Process Engineering, Max-Planck-Institute for Dynamics of Complex Technical Systems, Magdeburg, Germany), Tanja Vidakovic, Kai Sundmacher

A flow-through glucose-oxygen fuel cell based on enzymatic anode and Pt cathode

15:20 to 15:40

Xun Wei (Nanotechnology Group Department of Mechanical and Process Engineering ETH Zürich, Zürich, Switzerland), Miho Sakai, Andreas Stemmer

Development of a new biofuel cell system harvesting electricity from human cells

15:40 to 16:00

Yvonne Ackermann (Ruhr-Universität Bochum Analytische Chemie – Elektroanalytik & Sensorik, Bochum, Germany), Dimitrii Guschin, Thomas Erichsen, Sergey Shleev, Wolfgang Schuhmann

Evaluation of biofuel cell cathode libraries by means of redox competition scanning electrochemical microscopy (RC-SECM) and an electrochemical robotic system

16:00 to 16:20

Coffee Break

Chair: Ulla Wollenberger, Matsuhiko Nishizawa

16:20 to 16:40 *Keynote*

Mao Lanqun (Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, The Chinese Academy of Sciences, Beijing, China)

Enzymatic Biofuel Cells: Challenges and Opportunities

16:40 to 17:00

Ting Shu (School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, China), Shijun Liao

Investigation of Glucose Fueled Bio-fuel Cell with Enzyme as Anode Promoter

17:00 to 17:20
Wolfgang Harreither (Department of Food Sciences and Technology, Division of Food Biotechnology, BOKU–University of Natural Resources and Applied Life Sciences, Wien, Austria), Vasile Coman, Federico Tasca, Dietmar Haltrich, Lo Gorton, Roland Ludwig

Novel Cellobiose Dehydrogenases for Biosensors and Biofuel Cells

17:20 to 17:40
Lehua Zhang (School of Resources and Environmental Engineering, East China University of Science and Technology, Shanghai, China), Yan-ping Mao, Lan-kun Cai

Electricity Generation from a Bio-cathode Microbial Fuel Cell based on the Biocatalysis of Ferro/Manganese-Oxidizing Bacteria

17:40 to 18:00
Woonsup Shin (Department of Chemistry and Interdisciplinary Program of Integrated Biotechnology, Inorganic and Bio-Materials Center of BK21, Sogang University, Seoul, Korea), Jieun Song, Zhen Yu Hong, Minji Park

Electrochemical Reduction of Carbon Dioxide to Formate by Clostridium formicoaceticum

18:00 to 18:20
Renata Bilewicz (University of Warsaw, Faculty of Chemistry, Warsaw, Poland), Agnieszka Wieckowska, Ezbieta Jablonowska, Dorota Matyszewska, Ewa Rogalska

Probing lipid membrane structure by doxorubicin as the electroactive marker

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Kevin Ralston, Masahiro Seo

14:00 to 14:20 *Invited*
Masahiro Seo (Graduate School of Engineering, Hokkaido University, Sapporo, Japan), Koji Fushimi, Hiroki Habazaki, Takenori Nakayama

Polarization Behavior of Nickel in Acidic Perchlorate and Acetate Buffer Solutions Containing Small Amount of Pb^{2+}

14:20 to 14:40
Sadaf Tahmasebi (Polymer Engineering Department, Amir Kabir University, Tehran, Iran), Mohammad Reza Mohammad Zade Attar

Investigating the Effect of Chemical Treatments on Corrosion Behavior of Carbon Steel Via Electrochemical Noise and Polarization methods

14:40 to 15:00
Kevin Ogle (Ecole Nationale Supérieure de Chimie de Paris, Paris, France), Meriem Mokaddem, Polina Volovitch

Atomic Emission Spectroelectrochemical Study of the Anodic Dissolution of zinc

15:00 to 15:20
Genesis Ankah (Max-Planck-Institut für Eisenforschung, Duesseldorf, Germany), Aparna Pareek, Frank Uwe Renner, Michael Rohwerder

The influence of additives to the electrolyte on the initial selective dissolution of Cu-Au binary alloys

15:20 to 15:40
Ismael Diez Perez (*Arizona State University, USA/University of Barcelona, Spain*)

In situ Probing Fe passivity and breakdown by ECSTM/ECTS

15:40 to 16:00 *Invited*
En-Hou Han (Institute of Metal Research, Chinese Academy of Sciences, Shenyang, China), Xinqiang Wu

Electrochemical Corrosion of Alloy 625 in High Temperature Pressurized Water

16:00 to 16:20

Coffee Break

16:20 to 16:40
Mengyan Nie (national Centre for Advanced Tribology at Southampton, School of Engineering Sciences, University of Southampton, Southampton, United Kingdom), Julian A. Wharton, Andy W. Cranny, Robert J. K. Wood, Nick R. Harris, Keith R. Stokes

Crevice Corrosion Solution Analysis by Capillary Electrophoresis with Contactless Conductivity Detection

16:40 to 17:00
Andrei Ionut Mardare (Max-Planck Institute for Iron Research, Duesseldorf, Germany), Alan Savan, Alfred Ludwig, Andreas Dirk Wieck, Achim Walter Hassel

High throughput Investigation of Anodic Oxides on Combinatorial Hf-based Material Libraries

17:00 to 17:20
Roman Kodym (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic)

Progress in Mathematical Simulation of Processes Taking Place in Vicinity of Cathodically Protected Metal Surface

17:20 to 17:40
Junxi Zhang (Shanghai University of Electric Power, Shanghai, China)

Prevent or Cure

17:40 to 18:00
Mahmood Aliofkhazraei (Materials Engineering Department, Tarbiat Modares University, Tehran, Iran), Alireza Sabour Rouhaghdam

A Novel Process for Fabrication of SIALON Based Nanocomposite Coatings (Evaluation of Corrosion and Process Characteristics)

18:00 to 18:20
Li-Der Liu (Materials Science and Engineering/National Taiwan University, Taipei, Taiwan), Chao-Sung Lin

Combined Microstructural and Electrochemical Characterization of Cr-free Magnesium Anodic Coatings

18:20 to 18:40
Hidetaka Asoh (Department of Applied Chemistry, Faculty of Engineering, Kogakuin University, Tokyo, Japan), Sachiko Ono

Composition and Microstructure of Anodic Films Formed on Magnesium by Dielectric Breakdown

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Quan Cheng, Hubert Girault

14:00 to 14:20 *Invited*
Shaowei Chen (Department of Chemistry and Biochemistry, Santa Cruz, USA), Wei Chen, Feizhi Ding, Haobin Wang, Lauren Brown, Joseph Konopelski

Nanoparticle-Mediated Intervalence Transfer

14:20 to 14:40 *Invited*
Chunhai Fan (Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Shanghai, China), Dun Pan, Xiaolei Zuo, Shiping Song, Lihua Wang

An electrochemical approach for aptamer-based detection of small molecules

14:40 to 15:00
Yuwu Chi (Department of Chemistry, Fuzhou University, Fuzhou, China), Jiefeng Rong

Electrochemiluminescence of Luminol at Au-ionic Liquid/Water Interface

15:00 to 15:20
Ali A. Ensafi (Chemistry, IUT, Isfahan, Iran), Ali R. Allafchian

Rapid Determination of Pentazocine in Human Plasma and Urine by Potentiometric Method

15:20 to 15:40

Yong-Da Chiu (Department of Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Transference and Burial of a Disulfide Adlayer during Cu Electrodeposition and Stripping

15:40 to 16:00

Elham Asadian (Chemistry Department,Sharif University of Technology, Tehran, Iran), Saeed Shahrokhian

Electrochemical Determination of L-dopa on the Surface of the Glassy Carbon Electrode Modified by a Bilayer of Multi-Walled Carbon Nanotube and Polypyrrole Doped with Tiron

16:00 to 16:20

Coffee Break

Chair: Salvatore Daniele, Tomokazu Matsue

16:20 to 16:40 *Invited*

Quan Cheng (Department of Chemistry, University of California, Riverside, USA)

Characterizing Protein Transmembrane Pore Formation in Supported Lipid Membranes with Electrochemistry and SPR Spectroscopy

16:40 to 17:00

Libuse Trnkova (Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic), Frantisek Jelen, Vojtech Adam, Rene Kizek

Elimination Voltammetry as an Analytical Tool for the DNA sensors

17:00 to 17:20

Sibulelo Vilakazi (Mintek, Johannesburg, South Africa)

Electrocatalytic behaviour of cobalt phthalocyanine complexes towards the detection of pesticides

17:20 to 17:40

Christian Hammer (University of Duesseldorf Physical Chemistry, Duesseldorf, Germany), Benjamin Walther, Manuel M. Lohrengel

Oxygen detection and quantification during anodization

17:40 to 18:00

Binh Thi Thanh Nguyen (Department of Chemistry, Faculty of Science, National University of Singapore, Singapore, Singapore), Jin Qiang Ang, Li Yan Clara Toh, Chee-Seng Toh

Development electrode-membrane-electrode system for sensing chemical and biological species

18:00 to 18:20

Mohammed Boujtita (University of Nantes -CNRS - CEISAM UMR 6032, Nantes, France), Erwann Luais, Pierre-Yves Tessier, Christine Thobie-Gautier, Mohamed Djouadi, Agnes Granier, Dominique Dobarnot, Fabienne Poncin-Epaillard, Agnes Granier, Mohamed Djouadi

Preparation and Modification of Carbon Nanotubes Electrodes by Cold Plasmas Processes toward the Preparation of Amperometric Biosensors

18:20 to 18:40

Yunchao Li (Department of Chemistry, Beijing Normal University, Beijing, China), Hua Zhong Yu

Inkjet printed gold electrode arrays for on-chip potential modulation of the molecular orientation and hybridization of DNA self-assembled monolayers

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Jeffrey Greeley, Pei Kang Shen

14:00 to 14:20 *Invited*

Lin Zhuang (Department of Chemistry Wuhan University, Wuhan, China)
Juntao Lu, Yange Suo, Li Xiao, Cuixia Yang

The Strain Effects and Ligand Effects in Pd-Alloy Catalysts for Fuel Cell Reactions

14:20 to 14:40 *Invited*

Claude Lamy (Laboratory of Electrocatalysis, LACCO, UMR 503, CNRS-Université de Poitiers, Poitiers, France), Christophe Coutanceau, Hui Yang, Roger Koffi, Cédric Grolleau, Jean-Michel Léger

Development of Alcohol Tolerant Pt-based Electrocatalysts for the Oxygen Reduction Reaction (ORR)

14:40 to 15:00

Zidong Wei (Chongqing University, Chongqing, China), Chao Liao, Mengbo Ji, Li Li, Yao Tan, Mingjia Liao, Huan Zhang

Synergistic Effect of PAn Modified Pd/C Catalysts on Formic Acid Oxidation in a Weak Acid Medium $(NH_4)_2SO_4$

15:00 to 15:20

Sakthivel Mariappan (Institute of Chemical Process Engineering, Clausthal University of Technology, Clausthal-Zellerfeld, Germany), Alicja Lezniak, Ulrich Kunz, Thomas Turek

Preparation of CNT Supported Pt Nanoparticles via an Improved Microwave-Assisted Chemical Reduction for DMFC Applications

15:20 to 15:40 *Invited*

Pei Kang Shen (School of Physics and Engineering, Sun Yat-Sen University, Guangzhou, China), Pei Kang Shen

Preparation and Performance of Nanometer Sized Tungsten Carbides for Electrocatalysis

15:40 to 16:00 *Invited*

Wei Xing (Changchun Institute of Applied Chemistry, Changchun, China), Zhonghua Zhang, Junjie Ge, Yunjie Huang, Tianhong Lu, Changpeng Liu, Jianhui Liao

Recent Progress on the Anodic Catalysts for the Direct Formic Acid Fuel Cells

16:00 to 16:20

Coffee Break

Chair: Claude Lamy, Zidong Wei

16:20 to 16:40

Ying Chen (Department of Interface Chemistry and Surface Engineering, Max-Planck-Institut für Eisenforschung GmbH, Düsseldorf, Germany), Srdjan Milenkovic, Achim Walter Hassel

Methanol Oxidation on Au Nanobelts with Unique 110 Surface

16:40 to 17:00

Vladimir Tripkovic (Center for Atomic-scale Materials Design (CAMD) Department of Physics, Technical University of Denmark, Copenhagen, Denmark), Jan Rossmeisl, Egill Skúlason, Mårten E. Björketun, Jens K. Nørskov

Theoretical Study of the Activation Barriers in the Oxygen Reduction Reaction

17:00 to 17:20 *Invited*

Yining Zhang (Dalian Institute of Chemical Physics, Dalian, China), Huamin Zhang, Haipeng Ma

A Novel Bi-functional Oxygen Electrode Electrocatalyst for a Unitized Regenerative Fuel Cell

17:20 to 17:40

Nicolas Alonso-Vante (Lab. Electrocatalysis, UMR-CNRS 6503, Poitiers, France), Yongjun Feng, Souad Mokrane, Laure Timperman

Catalyst Site Density Effect on Oxygen Reduction Reaction

17:40 to 18:00

Raheleh Partovinia (Chemistry, Lausanne, Switzerland), Bin Su, Fei Li, Hubert Girault

Proton Pump for Oxygen Reduction Catalyzed by 5, 10, 15, 20 tetraphenylporphyrinatocobalt (II)

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Yoshiharu Uchimoto, Hong Zhao

14:00 to 14:20 *Invited*

Yoshiharu Uchimoto (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Yuki Orikasa, Koji Amezawa, Tatsuya Kawada

In situ Electrochemical XAFS Study on ORR Mechanism of Perovskite-type Oxide Catalyst as SOFC Cathode

14:20 to 14:40

Hui Zhao (Laboratory of Functional Material, School of Chemistry and Materials Science, Heilongjiang University, Harbin, China), Qiang Li, Liping Sun, Lihua Huo, Jean-Claude Grenier

Electrochemical performance of $La_{1.6}Sr_{0.4}NiO_4$-Ag composite cathodes in intermediate temperature SOFCs

14:40 to 15:00

Haitao Gu (College of Materials Science and Engineering, Nanjing University of Technology, Nanjing, China), Han Chen, Ling Gao, Lucun Guo

Electrochemical properties of $LaBaCo_2O_{5+\delta}$ cathode for intermediate-temperature solid oxide fuel cells

15:00 to 15:20

Chao Su (State Key Laboratory of Materials-Oriented Chemical Engineering, College of Chemistry & Chemical Engineering, Nanjing University of Technology, Nanjing, China), Yuzhou Wu

The Electrochemical Performance of a Solid Oxide Fuel Cell Operating on Carbon Monoxide

15:20 to 15:40

Liang Zhenxing (School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, China), Liao Shijun

Noble Metal Nanowires: Assembling Methanol-Crossover-Suppression Membrane and a Novel 1-D Anode Structure for Direct Methanol Fuel Cells

15:40 to 16:00

Amar Prasad Yadav (Dept. of Metallurgy and Ceramics Science, Tokyo Institute of Technology, Meguro-ku, Tokyo, Japan), Yuu Sugawara, Atsushi Nishikata, Tooru Tsuru

Effect of the Potential Cycle and Potential Step on the Dissolution Behavior of Platinum in Acidic Solution

16:00 to 16:20

Coffee Break

16:20 to 16:40

Ruiying Miao (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Fang Yong, Haojie Wei, Jianling Li, Xindong Wang, Hailei Zhao

Preparation and Characterization of Non-hydrated Ionic Liquid Composite Membranes for DMFC

16:40 to 17:00

Huaneng Su (School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, China), Shijun Liao

Preparation of membrane electrode assembly with extra low platinum loading and investigation of its electrochemical properties

17:00 to 17:20
Rémy Sellin (University of Poitiers - LACCO, Poitiers, France), Christophe Coutanceau, Jean-Michel Léger
XRD, TEM and thermogravimetric studies of the degradation of Pt/C catalyst under conditions close to those of a PEMFC

17:20 to 17:40
Hong Zhao (College of Environmental and Chemical Engineering, Dalian Jiaotong Univ., Dalian, China), Ying Liu, Gongquan Sun
Synthesis and Characterization of Methanol-Tolerant PdCo/C Eletrocatalysts for Oxygen Reduction Reaction

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Kwang-Bum Kim, Wataru Sugimoto

14:00 to 14:20
Sachio Yoshihara (Graduate School of Engineerig, Utsunomiya University, Utsunomiya, Japan), Shuuichi Sasaki
The Performance of Active Carbon Adsorbed with Cu(II)-picolinic Acid Complex or Hydroquinone as Electric Double Layer Capacitor

14:20 to 14:40 *Invited*
Wataru Sugimoto (Shinshu University, Department of Fine Materials Engineering, Nagan, Japan), Katsutoshi Fukuda, Yoshio Takasu
Assembly of RUO_2 Nanosheets for Advanced Functional Electrodes

14:40 to 15:00
Xiao-Xia Liu (Chemistry Department, Shenyang, China), Liang Chen, Li-Jie Sun
Composites of Polyaniline and Manganese Oxides for Supercapacitor

15:00 to 15:20
Seung-Beom Yoon (Department of Material Science and Engineering/Yonsei university, Seoul, Korea), Sang-Bok Ma
Novel PEDOT/MnO_2/CNT Nanocomposites for Electrochemical Capacior Application

15:20 to 15:40
Lijun Gao (Department of Chemistry, Nan Chang University, Nan Chang, China), Nengfei Yu
Electrodeposited PbO_2 thin film as positive electrode in PbO_2/AC hybrid capacitor

15:40 to 16:00
Chaoqing Bian (Department of Chemistry, Shanghai Key Laboratory of Molecular Catalysis and Innovative Materials, Fudan University, shanghai, China), Haoqing Wu
Hierarchical Porous Polyaniline with Micropores for High-Rate Aqueous Redox Supercapacitors

16:00 to 16:20
Coffee Break

16:20 to 16:40
Di Wei (Nokia Research Centre c/o Nanoscience Centre, University of Cambridge, Cambridge, United Kingdom)
Flexible and solid state supercapacitor based on nanocarbon electrodes

16:40 to 17:00
Roberto Torresi (Instituto de Química Universidade de São Paulo, São Paulo, Brazil), Tania M. Benedetti, Vinicius R. Gonçales, Denise F. S. Petri, Susana I. Cordoba de Torresi
Wettability Effects on Nanoporous MnO_2 Electrodes by Hydrophobic or Hydrophilic Ionic Liquids

17:00 to 17:20
Alar Janes (Institute of Chemistry, University of Tartu, Tartu, Estonia), Heisi Kurig, Ann Laheaar, Enn Lust
High Energy Density Electrical Double Layer Supercapacitors based on Ionic Liquid | Carbide Derived Carbon Interface

17:20 to 17:40
Qiujie She (Xiamen University, Xiamen, China)
Polytriphenylamine used as a novel material for electrochemical capacitors

17:40 to 18:00
Jun-Wei Lang (State Key Laboratory of Gansu Advanced Non-ferrous Metal Materials, Lanzhou University of Technology, Lanzhou, China), Yong-Chun Luo, Long Kang, Ling-Bin Kong
$Ni(OH)_2$/Ultra-Stable Y Zeolite Composite for Supercapacitors

18:00 to 18:20
My Loan Phung Le (LEPMI/INP-Grenoble/UJF/CNRS, Saint Martin d'Hères, France), Fannie Alloin, Strobel Pierre, Patrick Judeinstein, Carlos Pérez de Valle
Physicochemical and electrochemical properties of ionic liquids for high voltage lithium batteries

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Joachim Maier, Yong Yang

14:00 to 14:20 *Invited*
Hong Li (Institute of Physics, CAS, Beijing, China), Xiqian Yu, Kaifu Zhong, Xin Xia, Zhaoxiang Wang, Liquan Chen, Xuejie Huang
MnO Anode Materials for Lithium Ion Batteries

14:20 to 14:40
Sun-il Mho (Division of Energy Systems Research, Dept. Chem., Suwon, Korea), Kyung-Il Park, Minh-Triet Thieu, In-Hyeong Yeo
Fabrication of Li Battery with Cathode of V_2O_5/Polyaniline Composite Films or Powders

14:40 to 15:00 *Invited*
Yong Yang (State Key Lab for Physical Chemistry of Solid Surface and Department of Chemistry, Xiamen University, Xiamen, Fujian, China, Xiamen, China)
Exploration study of positive electrodes with high capacity and good cyclic stability

15:00 to 15:20
Mingxia Gao (Department of Materials Science and Engineering, Zhejiang University, Hangzhou, China), Hongge Pan, Yan Lin, Yongfeng Liu, Yuehui Yin
The Structure Optimization and the Structural Factors Affecting the Discharge Rate Performance of $LiFePO_4$/C

15:20 to 15:40
Ren Yu (School of Chemistry and EaStChem, University of St Andrews, St Andrews, United Kingdom), Peter Bruce, Jianli Bao, Feng Jiao
Mesoporous Electrodes for Li-ion Batteries

15:40 to 16:00
Cheng Jie (Research Institute of Chemical Defence, Beijing, China), Chen Dong, Pan Junqing, Wen Yuehua, Cao Gaoping, Yang Yusheng
Porous Carbon Substrate for Nickel Oxo-Hydroxide Electrode

16:00 to 16:20
Coffee Break

16:20 to 16:40
Petr Novak (Paul Scherrer Institute, Villigen PSI, Switzerland), Pascal Maire
Diffusion Kinetics of Lithium Ions in Graphite Composite Electrodes for Lithium-Ion Batteries

16:40 to 17:00 *Invited*
Yu-Guo Guo (Institute of Chemistry, Chinese Academy of Sciences (CAS), Beijing, China), Li-Jun Wan
Improving High-Rate Capabilities of Electrode Materials via Efficient Mixed-Conducting 3D Networks

17:00 to 17:20
Yan Yu (Max Planck Institute for Solid State Research, Stuttgart, Germany), Chunlei Wang, Joachim Maier
Fabrication of Sn-C Composite Hollow Nanofibers BasedAnode Material for Lithium-based Secondary Batteries

17:20 to 17:40
Qingsong Tong (College of Chemistry and Materials Science, Fujian Normal University, Fuzhou, China), Yang Lu, Zaiping Guo, Weijing Huang
Synthesis of $LiFe_{1-x}Ni_xPO_4$/C Composites and Their Electrochemical Performance

17:40 to 18:00
Robert Kostecki (Lawrence Berkeley National Laboratory, Berkeley, USA), Robert Kostecki
In Situ Studies of Interfacial Processes on Sn Anodes in Organic Electrolytes

18:00 to 18:20
Zongping Shao (State Key Laboratory of Materials-Oriented Chemical Engineering, College of Chemistry & Chemical Engineering, Nanjing University of Technology, Nanjing, China)
Reduced Temperature Synthesis of Lithium-insertion Material $Li_4Ti_5O_{12}$ from "Inert" Rutile TiO_2 via Surface Activation

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Laurent Ruhlmann, Huixin He

14:00 to 14:20 *Invited*
Amy Walker (Department of Chemistry, Washington University in St. Louis, St. Louis, USA), Peng Lu, Zhiwei Shi
New Methods for the Formation of Metallic and Semiconducting Contacts on Molecular Layers: Adventures in Molecular Electronics

14:20 to 14:40
Xin Hui Xia (Department of Materials Science and Engineering, Zhejiang University, Hangzhou, China), Jun Zhang, Xiu Li Wang, Wen Kui Zhang, Hui Huang
Ordered Macroporous Cobalt Oxide Film Formed by Electrochemical Deposition through Polystyrene Spheres Template and Its Electrochromic Application

14:40 to 15:00
Ying Lv (School of Metallurgical Science and Engineering, Changsha, China), Zhian Zhang, Yanqing Lai, Jie Li, Yexiang Liu
Electrodeposition of Zinc Oxide on Tin Oxide Coated Glass Substrates

15:00 to 15:20
Jingdong Zhang (College of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan, China), Munetaka Oyama
Electrochemical and Photoelectrochemical Studies on Liquid Phase Deposited Titanium Dioxide Thin Films

15:20 to 15:40
Jianping Ao (Institute of Photo-Electronic Thin Film Devices and Technique, Nankai University, Tianjing, China), Chao Zhang, Xinlu Liu, Guozhong Sun, Qing He
A cyclic voltammetric study of the electrodeposition of CIGS in the pH buffered solution

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Didier Devilliers, Agnieszka Kapalka, Sandra Rondinini

14:00 to 14:40 *Keynote*

Günther G. Scherer (Electrochemistry Laboratory, Paul Scherrer Institut, Switzerland, Switzerland), Lorenz Gubler, Selmiye Alkan Gürsel, Hicham Ben Youcef, Frank Wallasch, Dirk Henkensmeier

Novel Proton-Conducting Polymer Membranes

14:40 to 15:00 *Invited*

Elena Baranova (Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Canada), Patrick Mercier, Yvon Le Page

Average particle size, size distribution and electrocatalytic activity of bimetallic Pd_xPt_{1-x} nanoparticles

15:00 to 15:20 *Invited*

Rolf Wuthrich (Department of Mechanical & Industrial Engineering Concordia University, Montreal, Canada)

Building Micro and Nano-systems with Electrochemical Discharges

15:20 to 15:40

Jing Tang (Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen, China), Jin-liang Zhuang, Li Zhang, Wen-hua Wang

Patterning of ZnO nanorods and Hela cells on a microfabricated Au-coated ITO substrate

15:40 to 16:00 *Invited*

Philippe Vernoux (IRCELYON/CNRS, Villeurbanne, France), Leonardo Lizarraga, Michel Guth, Alain Billard

Electrochemical promotion of catalysis on thin sputtered films

16:00 to 16:20

Coffee Break

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Enrique Herrero, Nongjian Tao

14:00 to 14:20 *Invited*

Thomas Wandlowski (Departement of Chemistry and Biochemistry University of Berne, Bern, Switzerland), Chen Li, Artem Mishchenko, Ilya Pobelov, Zhihai Li, Gabor Meszaros, Alexej Bagrets, Ferdinand Evers

Charge Transport with Single Molecules - A Scanning Tunneling Microscopy Approach

14:20 to 14:40 *Invited*

Richard Nichols (The Department of Chemistry The University of Liverpool, Liverpool, United Kingdom), Edmund Leary, Gita Sedghi, Santiago Martin, Wolfgang Haiss, Thomas Doneux, Harm van Zalinge, Simon Higgins, Donald Bethell, Horst Höbenreich, Jan Jeppesen, Sune Nygaard, Jens Ulstrup, Katsutoshi Sawada, Louisa Esdaile, Markus Hoffmann, Harry Anderson

In-situ Single Molecule Electrochemistry and Conductance

14:40 to 15:00

Miao Chen (CSIRO MInerals, Clayton South, Australia), Jing Zhao, Bart Follink

Patterned Sulphide Minerals Studied by Imaging Electrochemistry

15:00 to 15:20

Akio Ueda (Tokyo Institute of Technology, Yokohama, Japan), Dai Kato, Naoyuki Sekioka, Ryoji Kurita, Shigeru Hirono, Osamu Niwa

Local imaging of electrochemical active/inactive region on a conductive carbon surface by using scanning electrochemical microscopy (SECM)

15:20 to 15:40
MF Mousavi (Chem. Dept. TMU, Tehran, Iran)
Using Scanning Electrochemical Microscopy (SECM) to Measure the Electron-Transfer Kinetics of Methylene Blue Incorporated into an Alkanethiol Monolayer on a Gold Electrode

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Philippe Hapiot, Yukio Ouchi

14:00 to 14:40 *Keynote*
Alexei Kornyshev (Department of Chemistry Imperial College London, London, United Kingdom), A.M. Kucernak, C.W. Monroe, A.E.S. Sleightholme, M. Urbakh
Electrochemistry endorsing electrovariable optics and nano-photonics

14:40 to 15:00 *Invited*
Shengli Chen (Department of Chemistry/Wuhan University, Wuahn, China), Yu Sun, Lu Xiong, Yuwen Liu, Rui He
Electrochemistry at Electrode/electrolyte Interfaces of Nanoscale: Theoretical and Experimental Studies

15:00 to 15:20
Eric Vieil (LEPMI, Grenoble - Saint Martin d'Heres, France)
Why is a capacitance incorrectly called "pseudo-capacitance" in electrochemistry?

15:20 to 15:40 *Invited*
Hiroshi Nishihara (Department of Chemistry, School of Science, The University of Tokyo, Tokyo, Japan), Yoshihiko Nishimori, Katsuhiko Kanaizuka, Tomochika Kurita, Toshiaki Nagatsu, Yu Segawa, Fumiyuki Toshimitsu, Satoshi Muratsugu, Mitsuya Utsuno, Shoko Kume, Masaki Murata
Superior Electron-Transport Ability of pi-Conjugated Redox Molecular Wires Prepared by the Stepwise Coordination Method on Surface

15:40 to 16:00
Jibiao Li (State Key Laboratory for Corrosion and Protection (SKLCP), Institute of Metal Research (IMR), Chinese Academy of Sciences (CAS),, Shenyang, China), Fuhui Wang
Structure and bonding of water on metals: DFT studies

16:00 to 16:20
Coffee Break

Symposium 10 : Molecular Electrochemistry: In its own right and in service to related research areas

Location: Room 309

Chair: Patrizia Romana Mussini, Marc Robert

14:00 to 14:40 *Keynote*
Armando Gennaro (Department of Chemical Sciences, Padova, Italy)
Electrocatalytic Reduction of Organic halides

14:40 to 15:00

Vitali Grinberg (A.N.Frumkin Institute of Phisical Chemistry and Electrochemistry Russian Academy of Sciences, Moscow, Russia), Sergey Sterlin, Natalia Mayorova

Electrocatalytic Synthesis of Partly Fluorinated Di- and Polyethers

15:00 to 15:20

James Y. Becker (Department of Chemistry, Beer Sheva, Israel), Ajith C. Herath

Electro-Catalysis in Ionic liquids: TEMPO vs. Ar_3N as Mediators for the Oxidation of Benzyl Alcohol

15:20 to 15:40

Magdalena Hromadova (J. Heyrovsky Institute of Physical Chemistry,v.v.i., Praha, Czech Republic), Lubomir Pospisil, Romana Sokolova, Stefania Giannarelli, Miroslav Gal

Focus on the Fate of Bifenox Anion Radical in the Presence of Cyclodextrin Cavities

15:40 to 16:00

Olivier Buriez (Ecole Normale Supérieure, Paris, France), Eric Labbe, Elizabeth Hillard, Anne Vessieres, Gerard Jaouen, Christian Amatore

Reactivity and Vectorisation of Ferrocenyl-Tamoxifen Adducts, a New Class of Breast Cancer Drug Candidates

16:00 to 16:20

Coffee Break

Symposium 11 : General Session

Location: Room 301

Chair: Alan Bond, Zhaowu Tian

14:00 to 14:40 *Keynote*

Su-Moon Park (Department of Chemistry and Center for Integrated Molecular Systems, Pohang University of Science and Technology, Pohang, Korea), Jung-Suk Yoo, Byoung-Yong Chang, Jin-Bum Park

Complete Description of Electrode/Electrolyte Interfaces Employing Real-Time Impedance Measurements

14:40 to 15:20 *Keynote*

Koichi Aoki (Department of Applied Physics,University of Fukui, Fukui-shi, Japan)

Explanations of voltammetric delay other than from Butler-Volmer kinetics

15:20 to 15:40

Shuping Bi (School of Chemistry and Chemical Engineering, State Key Laboratory of Coordination Chemistry of China & Key Laboratory of MOE for Life Science, Nanjing University, Nanjing, China), Jianyuan Dai, Jing Jin, Zhaosheng Qian, Zhenjiang Zhang, Luhong Chen, Haiqiong Zhang

The New Penetration Mechanism of Metal Atoms on the Close-Packed Alkanethiol Self-Assembled Monolayers on Au(111)

15:40 to 16:00

Jun Zhang (Department of Materials Science and Engineering, Zhejiang University, Hangzhou, China), Jiangping Tu, Xinhui Xia, Ya Qiao, Yuan Lu

Effect of Substrate Temperature on Infrared Reflectance Modulation and Electrochemical Properties in DC Sputtered WO_3 Films

16:00 to 16:20

Coffee Break

Wednesday 19 August 2009 - Morning Sessions

Plenary

University Hall

Chair: Christopher Brett

08:30 to 09:20

Shi-Gang Sun (Chemistry, Xiamen University, Xiamen, China)

Electrochemically Shape-Controlled Metal Nanoparticle Electocatalysts of Open Surface Structure and High Performances

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Judith Rishpon, Isao Taniguchi

09:35 to 09:55

Ana Maria Oliveira-Brett (Departamento de Química, Universidade de Coimbra, Coimbra, Portugal), Severino Oliveira, Oana Corduneanu, Victor C. Diculescu, Ana-Maria Chiorcea-Paquim

DNA-Nanoscale Electrochemical Biosensor: AFM Characterization and Applications

09:55 to 10:15

Hongda Wang (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Junguang Jiang, Mingjun Cai, Xian Hao, Yuping Shan, Xin Shang

The Structure of Cell Membranes Revealed by *in-situ* Atomic Force Microscope

10:15 to 10:35

Coffee Break

Chair: Serge Cosnier, Marcin Opallo

10:35 to 10:55

Terry Chilcott (School of Chemical and Biomolecular Engineering/University of Sydney, Sydney, Australia), Diyana Zamri

Electron conduction and structural study of monolayers of unsaturated & saturated organic molecules assembled on silicon

10:55 to 11:15

Zhifeng Ding (Department of Chemistry, The University of Western Ontario, London, Canada), Xiaocui Zhao, Mengni Zhang

Insight into Metabolism of Single Live Cells by Scanning Electrochemical Microscopy

11:15 to 11:35

Nianjun Yang (Fraunhofer Institute for Applied Solid State Physics (IAF), Freiburg, Germany), Hiroshi Uetsuka, Oliver Williams, Waldemar Smirnov, Christoph Nebel, Eiji Osawa

Electrochemical DNA Sensors from Vertically Aligned Diamond Nanowires: Realization of Nano-Scaled Spacing for DNA Bonding

11:35 to 11:55

Magdalena Gebala (Analytische Chemie - Elektroanalytik & Sensorik, Ruhr-Universität Bochum, Bochum, Germany), Wolfgang Schuhmann, Leonard Stoica

Detection of DNA hybridization using intercalators. Towards high sensitive label-free DNA assays

11:55 to 12:15

Qingli Hao (Key Laboratory for Soft Chemistry and Functional Materials (Nanjing University of Science and Technology), Ministry of Education,China, Nanjing, China), Mingxia Lin, Xu Wei, Xujie Yang, Xin Wang, Lude Lu

Study on DNA Electrochemical Sense Based on Polyaniline Doped with Triethanolamine

Lunch

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: En-Hou Han

09:35 to 10:15 *Keynote Invited*

Christofer Leygraf (KTH Division of Surface and Corrosion Science, Stockholm, Sweden)

In situ interface analysis during atmospheric corrosion

10:15 to 10:35

Coffee Break

10:35 to 10:55

Junhua Dong (State Key Laboratory of Corrosion and Protection, Institute of Metal Research, Chinese Academy of Science, Shenyang, China), Wei Ke

Study on the Simulated Atmospheric Corrosion Accelerated Test and the Rust Evolution of Low Carbon Steel

10:55 to 11:15 *Invited*

Ivan Cole (CSIRO, Clayton South MDC, Australia), Murali Venkatraman

Multi-scale Modeling of Atmospheric Corrosion: Incorporating Oxide Growth and Electrochemical Processes into a “State Model”

11:15 to 11:35 *Invited*

Anthony Cook (Materials Performance Centre, Manchester, United Kingdom), Andrew Sherry, Jonathan Duff, Dan Phan, Stuart Lyon, James Marrow

Atmospheric-Induced Chloride Stress Corrosion Cracking in Intermediate Level Nuclear Waste Container Materials

11:35 to 11:55

Xinxin Fu (State Key Laboratory of Corrosion and Protection, Institute of Metal Research, Chinese Academy of Sciences, Shenyang, China), Junhua Dong, Enhou Han, Wei Ke

A New Approach for Measuring Electrolyte Thickness in EIS Study under Wet-Dry Alternate Condition

Lunch

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Osamu Niwa

09:35 to 10:15 *Keynote*

Gunther Wittstock (Carl von Ossietzky University, Oldenburg Faculty of Mathematics and Natural Sciences, Department of Pure and Applied Chemistry, Oldenburg, Germany)

Scanning Electrochemical Microscopy: From Model Systems to Real World Problems

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Wolfgang Schuhmann (Analytische Chemie - Elektroanalytik & Sensorik; Ruhr-Universität Bochum, Bochum, Germany), Dominik Schäfer, Andrea Puschhof

Electrochemical microscopy at variable temperatures. From catalyst activity to DNA hybridization

10:55 to 11:15 *Invited*

Yuehe Lin (Pacific Northwest National Laboratory, Richland, USA)

Nanoparticle Labels/Electrochemical Immunoassays for Sensitive Detection of Protein Biomarkers

11:15 to 11:35 *Invited*

Salvatore Daniele (Department of Physical Chemistry, Venice, Italy), Dario Battistel, Giancarlo Battaglin, M. Antonietta Baldo

Amorphous alumina coated-platinum thin films as platforms for voltammetric sensors

11:35 to 11:55

Fu-Qiang Nie (Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Lei Jiang

Fabrication of a Configurable, Multi-use Microfluidic Chip for *In-situ* Electropolymerization and Its Application in Enzyme-based Biosensor

11:55 to 12:15

Xuemei Wang (State Key Lab of Bioelectronics (Chien-Shiung Wu Lab), Southeast University, Nanjing, China), Yanyan Zhou, Chunhui Wu, Xuemei Wang

Electrochemical study on synergistic effect of drug uptake in cancer cells via new biocompatible nanocomposites

Lunch

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Peter Strasser, Yung-Eun Sung

09:35 to 10:15 *Keynote*

Gary Attard (School of Chemistry, Cardiff University, Cardiff, United Kingdom), Sharon Huxter, Francisco Vidal-Iglesias, Li Fang, Ali Al-Akl

Electrocatalytic Properties of Novel Quasi-Crystalline Films Supported on {*hkl*} and Pt/graphite

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Peter Strasser (Department of Chemical and Biomolecular Engineering, Houston, USA), Shirlaine Koh, Chengfei Yu, Ratndeep Srivastava

Corrosion and Catalysis

10:55 to 11:15 *Invited*

Yung-Eun Sung (School of Chemical & Biological Engineering, Seoul National University, Seoul, Korea), Sung Jong Yoo

Design & *in-situ* Analysis of PdPt Electrocatalysts to Minimize Pt Use

11:15 to 11:35

Huamin Zhang (Dalian Institute of Chemical Physics, Dalian, China), Hexiang Zhong

Research and Development of Non-platinum Catalysts for PEMFCs

11:35 to 11:55

Chen Dejun (State Key Laboratory of Physical Chemistry of Solid Surfaces, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Sun Shigang, Zhou Zhiyou, Wang Qiang, Tian Na, Xiang Dongmei

High catalytic activity of carbon-supported PtPb nanoparticles toward formic acid electrooxidation

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Zhao-Lin Liu, Gongquan Sun

09:35 to 09:55
Satoshi Tominaka (Waseda University, Tokyo, Japan), Hiroshi Nishizeko, Sousuke Ohta, Tetsuya Osaka
Improvements in On-Chip Fuel Cells of an Air-breathing, Membraneless, and Monolithic Design

09:55 to 10:15
Zhao-Lin Liu (Institute of Materials Research and Engineering of Singapore, Singapore, Singapore), Lui Ho-Man, Zhang Xin-Hui, Ming Han, Yew-Thean Cham
Hydrogen generator using sodium borohydride solution for 100 W-scale fuel cell applications

10:15 to 10:35
Coffee Break

10:35 to 10:55
Chen Guobao (Proton Exchange Membrane Fuel Cell Key Materials and Technology Laboratory, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China), Zhang Huamin, Wang Xiaoli, Cheng Jinbin
Gas Diffusion Layer with Metallic Ceramics for a Unitized Regenerative Fuel Cell

11:55 to 11:15
Tongtao Wang (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Feng Ye, Yong Fang, Miaomiao Hou, Haojie Wei, Shanmei Li, Xindong Wang
Regeneration for MEA of DMFC

11:15 to 11:35 *Invited*
Gongquan Sun (Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China)
Compact Direct Alcohol Fuel Cells for Portable Power Sources

11:35 to 11:55
Qingfeng Li (Technical University of Denmark, Lyngby, Denmark), Jens Oluf Jensen, Chao Pan, Niels J. Bjerrum
Durability Issues of High Temperature Proton Exchange Membrane Fuel Cells Based on Acid Doped Polybenzimidazole Membranes

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Brett Lucht, Aishui Yu

09:35 to 10:15 *Keynote*
Stefano Passerini (Institute of Physical Chemistry University of Muenster, Muenster, Germany), Giovanni B. Appetecchi, Martin Winter
Ionic Liquid-based Electrolytes: A step further towards high-energy lithium batteries

10:15 to 10:35
Coffee Break

10:35 to 10:55 *Invited*
Brett Lucht (University of Rhode Island, Department of Chemistry, Kingston, USA), Li Yang, Mengqing Xu, Xiao Ang
Role of Electrolyte on the Formation of Electrode Surface Films in Lithium Ion batteries

10:55 to 11:15 *Invited*

Aishui Yu (Department of Chemistry, Fudan University, Shanghai, China), Deng Zhang, Tao Huang, Zhang Xiaorong, Ruoshi Li

Hydrophobic Silica Composite Polymer Electrolyte as a Moisture Barrier for Ambient Lithium Air Batteries

11:15 to 11:35

Ting Feng (School of Chemical Engineering and Environment, Beijing Institute of Technology, Beijing, China), Feng Wu, Chuan Wu, Ying Bai

Polymer electrolyte for lithium batteries based on hyperbranched poly(ethylene oxide) and ionic liquid

11:35 to 11:55

Damian Kowalski (Graduate School of Engineering, Hokkaido University, Sapporo, Japan), Yoshitaka Aoki, Hiroki Habazaki

Proton Conductivity in Amorphous Anodic Oxide Films of ZrO_2-WO_3

11:55 to 12:15

Kazuki Yoshida (Department of Chemistry and Biotechnology, Yokohama National University, Yokohama, Japan), Megumi Nakumura, Kaoru Dokko, Masayoshi Watanabe

Li^+ Cation Transport Mechanism in Glyme-Llithium Salt Complexes

Lunch

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Jaephil Cho, Jun Yang

09:35 to 10:15 *Keynote*

Seok Gwang Doo (Battery Group, Energy and Environment Lab, Samsung Advanced Institute of Technology, Samsung Electronics, Yongin-Si, Korea), Moon Seok Kwon, Jae-Man Choi, Min Sang Song, Youngsin Park, Hansu Kim

Inkjet Printed Thin Film Electrode for Thin and Flexible Rechargeable Lithium Batteries

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Jaephil Cho (Division of Energy Engineering Ulsan National Institute of Science & Technology, Ulsan, Korea)

Nanotubes and Porous Particles for High Capacity and High Rate Anode Materials in Li-ion Batteries

10:55 to 11:15

Jun Yang (Department of Chemical Engineering, Shanghai, China), Yanna NuLi, Jiulin Wang, Yun Li

Magnesium manganese silicate powder prepared *via* molten salt process: novel cathode materials for rechargeable magnesium batteries

11:15 to 11:35

Jing-Han Lin (Department of Applied Chemistry, National University of Kaohsiung, Kaohsiung City, Taiwan), Jenn-Shing Chen, Shi-Ci Jheng

Synthesis and Electrochemical Characterization of Nano-$LiFePO_4$/C Composite Prepared by the Microemulsion Method

11:35 to 11:55

Ying Bai (School of Chemical Engineering and the Environment, Beijing Institute of Technology, Beijing, China), Feng Wu, Fei Lv, Chuan Wu, Guo-qing Wang

Electrochemical Behaviors of Spinel $Li_4Ti_5O_{12}$ Synthesized *via* a Simplex Molten Salt Method

Lunch

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Constanze Donner

09:35 to 09:55
Yongfang Li (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Youjun He, Guangjin Zhao
New Conjugated Polymer and Fullerene Materials for High Efficiency Polymer Solar Cells

09:55 to 10:15
Dan Lu (State Key Laboratory of Supramolecular Structure and Materials, Jilin University Changchun, Changchun, China), Yuguang Ma
Highly Luminescent Network Films from Electrochemical Deposition: Morphology, Optical Properties and Application for Light-Emitting Diodes

10:15 to 10:35
Coffee Break

Chair: Amy Walker, Liu Run

10:35 to 11:15 *Keynote*
Takayuki Homma (Department of Applied Chemistry, Waseda University, Tokyo, Japan), Takanari Ouchi, Yuki Arikawa, Cheng-Ping Lin, Taisuke Kuno, Jun Mizuno, Shuichi Shoji
Fabrication of Magnetic Nanodot Array using Electrochemical Deposition Processes

11:15 to 11:35
Philip Mason (Department of Materials Imperial College London, London, United Kingdom)
Patterned Nanoparticles for Optical Applications

11:35 to 11:55 *Invited*
Li Niu (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Changsheng Shan, Fenghua Li, Huafeng Yang, Dongxue Han
Ionic Liquid-functionalized Nanocomposites: Preparation and Potential Electrochemical Applications

11:55 to 12:15
Daniel Mandler (Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel), Regina Okner
Electrochemical Deposition of Sol-Gel Based Nanocomposites

Lunch

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Elena Baranova, Romeu C. Rocha-Filho

09:35 to 10:15 *Keynote*
Christina Bock (Institute for Chemical Process and Environmental Technology-National Research Council of Canada, Ottawa, Canada), Xinzhong Xue, Barry R. MacDougall
Preparation and Characterization of Membrane Electrode Assemblies for Direct Methanol Fuel Cells

10:15 to 10:35
Coffee Break

10:35 to 10:55
Paulo Olivi (Departamento de Química - FFCLRP Universidade de São Paulo, Ribeirao Preto, Brazil), Carla Regina Costa, Francisco Montilla, Emilia Morallón
Electrochemical oxidation of acid black 210 dye on BDD

10:55 to 11:15 *Invited*

Manuel Andrés Rodrigo (Department of Chemical Engineering. Universidad de Castilla La Mancha, Ciudad Real, Spain), Pablo Cañizares, Cristina Buitron, Cristina Saez, Engracia Lacasa

Electrochemical oxidation as a tertiary treatment of urban wastewaters for the removal of persistent pollutant

11:15 to 11:35

Cristina Saez (Department of Chemical Engineering, Universidad de Castilla La Mancha, Ciudad Real, Spain), Pablo Cañizares, Ana Sanchez-Carretero, Salvador Cotillas, Manuel A. Rodrigo

The use of ultrasonic generator to improve the yield of the electrosynthesis of ferrate with diamond electrodes

11:35 to 11:55

Adalgisa Andrade (Department of Chemistry, FFCLRP, University of São Paulo (USP), Ribeirão Preto, Brazil), Sidney Aquino Neto, Rodrigo Silva, Talita Barcellos, Izabel, Eleotério

The use of DSA anodes to promote degradation of hazardous materials

11:55 to 12:15

Minghua Zhou (College of Environmental Science and Engineering, Nankai University, Tianjin, China)

Azo Dye Removal by Electrochemical Oxidation

Lunch

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Hong-Yu Chen, Juhyoun Kwak

09:35 to 10:15 *Keynote*

Tomokazu Matsue (Graduate School of Environmental Studies, Tohoku University, Sendai, Japan)

Detection of Gene Expression in a Single Living Cell by Scanning Electrochemical Microscopy

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Xing-Hua Xia (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Preparation, properties and application of porous anodic alumina films

10:55 to 11:15

Yu Ping (Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, The Chinese Academy of Sciences, Beijing, China)

Rational Functionalization of Carbon Nanotubes For Efficient Electrocatalysis

11:15 to 11:35

Susana Cordoba de Torresi (Instituto de Quimica, Universidade de São Paulo, São Paulo, Brazil), Martin H. Gaitan, Vinicius R. Gonçales, Galo J. A. A. Soler-Illia, Luis M. Baraldo

Structure/size effects of Self-assembled Prussian blue confined in highly organized mesopourous TiO_2 on the electrocalytic properties towards H_2O_2 detection.

11:35 to 11:55

Ian Goon (ARC Centre for Excellence in Functional Nanomaterials, School of Chemical Science and Engineering, University of New South Wales, Sydney, Australia), Leo Lai, May Lim, J. Justin Gooding, Rose Amal

The Application of Gold-Coated Magnetic Nanoparticles Towards Electrochemical Sensing

11:55 to 12:15

Sinéad Matthews (Department of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, United Kingdom), Muhammad Shiddiky, Kamran Yunus, Adrian Fisher, Alan Bond

AC Voltammetry in Microfluidic Environments

Lunch

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Frank Endres, Alexei Kornyshev

09:35 to 10:15 *Keynote*

Patrick Unwin (Department of Chemistry, University of Warwick, Coventry, United Kingdom), Julie Macpherson, Martin Edwards, Paolo Bertoncello, Anisha Patel, Ioana Dumitrescu, Hollie Patten, Jonathan Edgeworth, Michael O. Connell, Sara Dale, Michael Snowden, Piotr Dudzin, Siriwat Sansuk, Agnieszka Rutkowska, Cara Williams, Anna Colley, Laura Hutton, Mark Newton

From Diamond to Nanotubes: Towards an Improved Understanding of Carbon Electrode Surface Reactivity

10:15 to 10:35

Coffee Break

10:35 to 10:55

Rui Wen (WPI Research Center Advanced Institute for Materials Research Tohoku University, Sendai, Japan), Masahiro Konda, Akinobu Teramoto, Tadahiro Ohmi, Kingo Itaya

Direct observation of single atomic steps on single crystal Si by using Laser Confocal Microscopy and Scanning Probe Microscopy

10:55 to 11:15

Ting Chen (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Li-Jun Wan

Adsorption and Adlayer Structure of Aza- and/or Oxo- bridged Calix[2]arene[2]triazines on Au (111) in $HClO_4$ Investigated by ECSTM

11:15 to 11:35

Hanchun Wang (Institute for Physical and Theoretical Chemistry, Universität Bonn, Bonn, Germany), Helmut Baltruschat

Pressure and potential modulation for the elucidation of electrochemical adsorption processes of H and CO

11:35 to 11:55

Renat Nazmutdinov (Kazan State Technological University, Kazan, Russia), Michael Bronshtein, Wolfgang Schmickler

Modeling of Hydrogen Oxidation at Stepped Metal Electrode Surfaces

11:55 to 12:15

De-Yin Wu (State Key Laboratory of Physical Chemistry of Solid Surfaces, and College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Yi-Fan Huang, Ran Pang, Zhong-Qun Tian, Jian-Feng Li, Bin Ren

A Quantum Chemical Study of Interfacial Water Molecules Adsorbed on Metal Cathodes

Lunch

Symposium 10 : Molecular Electrochemistry: In its own right and in service to related research areas

Location: Room 309

Chair: Vitali Grinberg, Irena Hoskovcova

09:35 to 09:55 *Invited*

Zhenxin Wang (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Tao Li, Jingqing Gao

Development and Application of Novel Microarray

09:55 to 10:15

Marilia Goulart (Instituto de Quimica e Biotecnologia, Universidade Federal de Alagoas, Maceio, Brazil), Maria Aline de Moura, Antonio de Souza, Fabiane de Abreu, Eufranio da Silva Junior, Vitor Ferreira, Antonio Pinto, Ana Araujo, Raquel Montenegro, Claudia Pessoa, Manoel de Moraes, Leticia Costa-Lotufo

Anticancer Activities of a Nitroaniline-naphtoquinone: Oxidative Stress based-apoptosis. Electrochemical Insights.

10:15 to 10:35

Coffee Break

10:35 to 11:15 *Keynote*

Michael Mirkin (Department of Chemistry and Biochemistry, Queens College – CUNY, Flushing, USA), Jeyavel Velmurugan, Dongping Zhan

Nanoelectrochemistry through Glass

Lunch

Thursday 20 August 2009 - Morning Sessions

Plenary

University Hall

Chair: Juntao Lu

08:30 to 09:20

Zempachi Ogumi (International Collaboration Center, Kyoto University, Kyoto, Japan)

Lithium Ion Batteries for Green Energy Systems

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Sunita Kumbhat

09:35 to 10:15 *Keynote*

Serge Cosnier (Grenoble University -CNRS, Grenoble cedex 9, France)

Biological Sensors Based on Electropolymerized Films: Recent Advances

10:15 to 10:35

Coffee Break

Chair: Fred Lisdat, Woonsup Shin

10:35 to 10:55

Katarzyna Szot (Department of Electrode Processes/ Institute of Physical Chemistry Polish Academy of Sciences, Warsaw, Poland), Martin Jönsson - Niedziolka, Wojciech Nogala, Joanna Niedziolka - Jönsson, Frank Marken, Jerzy Rogalski, Carolina Nunes Kirchner, Günther Wittstock, Marcin Opallo

SECM Activity Mapping of Bioelectroactive Nanostructured Thin Film

10:55 to 11:15

Tomoyuki Yasukawa (Graduate School of Material Science, University of Hyogo, Hyogo, Japan), Eiji Maekawa, Yuki Yoshimura, Yuki Yoshimoto, Fumio Mizutani

Use of a Surface-Modified Poly(dimethysiloxane) Layer for the Preparation of Amperometric Glucose Sensor

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Ivan Cole

09:35 to 10:15 *Keynote*

Hamilton McMurray (Materials Research Centre Swansea University, Swansea, United Kingdom), Geraint Williams, Richard Grace

The Localized Corrosion of Magnesium and its Inhibition - Studied by a Scanning Vibrating Electrode Technique

10:15 to 10:35

Coffee Break

10:35 to 10:55

Pier Luigi Bonora (Departement of Materials Engineering and Industrial Technologies, University of Trento, Trento, Italy), Maria Lekka, Caterina Zanella, Agnieszka Krolikowska

Scaling-up of the electrodeposition process of nano-composite coatings for corrosion and wear protection

10:55 to 11:15

Nikolai Boshkov (Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria), Vassil Bachvarov, Petar Petrov, Nelly Tsvetkova, Stefana Vitkova, Dessislava Koleva, Georgi Raichevski, Christo Tsvetanov

Zinc Composite Layers with Stabilized Polymeric Nanoparticles – Electrodeposition and Protective Properties

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Hye Jin Lee

09:35 to 10:15 *Keynote*

Lo Gorton (Department of Analytical Chemistry, Lund University, Lund, Sweden), Gulnara Safina, Aurore Vilchen, Falco Beutler, Vasile Coman, Federico Tasca, Wolfgang Harreither, Roland Ludwig

Effect of Crosslinkers on Efficiency of Direct Electron Transfer of Cellobiose Dehydrogenase on Carbon Electrodes

10:15 to 10:35

Coffee Break

Chair: Lo Gorton

10:35 to 10:55 *Invited*

Hye Jin Lee (Department of Chemistry, Kyungpook National University, Daegu, Korea), Hubert Girault

Designing Amperometric Ion Sensors based on Ion Transfer Reactions across the micro-ITIES

10:55 to 11:15

Hanna Radecka (Department of Biosensors, Institute of Animal Reproduction and Food Research of Polish Academy of Sciences, Olsztyn, Poland)

Ion Channel Mimetic Sensors for Studies of Interfacial Recognition

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Helmut Baltruschat, Enrique Herrero

09:35 to 10:15 *Keynote*

Marc Koper (Leiden University, Leiden, Netherlands)

Electrocatalysis at well-defined surface

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Helmut Baltruschat (University of Bonn, Bonn, Germany), A.A.A. Abd El Salehin, Barbara Lanova, Helmut Baltruschat

Ethanol and methanol: adsorption rates and rates of intermediate formation at Pt single crystal electrodes

10:55 to 11:15

Germano Tremiliosi-Filho (Instituto de Química de São Carlos Universidade de São Paulo, São Carlos, SP, Brazil), Melina D'Villa Silva, Enrique Herrero, Juan Miguel Feliu

Ethanol Electro-oxidation on Pt(111) Modified by Rhodium

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Hidenori Noguchi, Masayoshi Watanabe

09:35 to 09:55

Hidenori Noguchi (Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, Japan), Kento Taneda, Hiroshi Minowa, Hideo Naohara, Kohei Uosaki

Effect of relative humidity on water structure at Nafion thin film studied by sum frequency generation spectroscopy

09:55 to 10:15

Yong Fang (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Ruiying Miao, Tongtao Wang, Xindong Wang

Modify to Nafion membranes with ternary composite materials for direct methanol fuel cells (DMFCs)

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Masayoshi Watanabe (Department of Chemistry & Biotechnology, Yokohama National University, Yokohama, Japan)

Protic Ionic Liquids and Their Polymer Electrolytes for Fuel Cells Under Non-humidified Conditions

10:55 to 11:15

Shixiong Zhao (Tianjin University, Tianjin, China), Yuxin Wang

Electric Field Modified NanoTiO_2-SPEEK Blend PEM

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Yurii Baikov, Wang Shulan

09:35 to 09:55

Yurii Baikov (Ioffe Physical Technical Institute, Sankt-Petersburg, Russia)

New Solid Electrolytes Based on Hydroxides: Fundamental and Applied Aspects

09:55 to 10:15

Ronghuan He (Department of Chemistry, Northeastern University, Shenyang, China), Jingshuai Yang

Synthesis of Polybenzimidazole by Microwave Irradiation and Characterization of Polybenzimidazole Membranes Prepared by Gelation in Phosphoric Acid

10:15 to 10:35

Coffee Break

10:35 to 10:55

P. Zhang (NEML, Department of Chemistry, Fudan University, Shanghai, China), B. Wang, Y. Shi, Y.P. Wu

Porous polymer electrolyte prepared by a microwave assisted effervescent disintegrable reaction

10:55 to 11:15

Wang Shulan (Northeastern University, Shenyang, China)

Cathodic process of molten $CaCl_2$-CaO and $CaCl_2$-NaCl-CaO

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Jun-Ichi Yamaki, Haoshen Zhou

09:35 to 09:55 *Invited*

Jun-Ichi Yamaki (Institute for Materials Chemistry and Engineering, Kyushu University, Kasuga, Japan), Yoshitomo Takebayashi, Takayuki Doi, Shigeto Okada

Thermal Stability of Nano-Sized $LiCoO_2$ for Li-Ion Batteries

09:55 to 10:15 *Invited*

Haoshen Zhou (Energy Interface Technology Group, Energy Technology Research Institute of AIST, Tsukuba, Japan)

Nanostructure Active Materials for Clean Energy Device

10:15 to 10:35

Coffee Break

10:35 to 10:55

Robert Dominko (National Institue of Chemistry, Ljubljana, Slovenia), Sirisopanaporn Chutchamon, Christian Masquelier, Darko Hanzel, Gregor Mali, Miran Gaberscek, Robert Dominko

Challenges, possibilities and drawbacks of Li_2MSiO_4 cathode materials

10:55 to 11:15

Yong-Yao Xia (Chemistry Department, Fudan University, Shanghai, China), Jia-Yan Luo, Ping He, Yong-Gang Wang

The main factor affecting the cycling stability of the lithium intercalation compounds in the aqueous electrolyte

THURSDAY AM

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Takayuki Homma

09:35 to 09:55 *Invited*

Bingwei Mao (Chemistry Departmen, Xiamen University, Xiamen, China), Jiawei Yan, Zhaoxiong Xie, Deyin Wu, Yongchun Fu, Yimin Wei, Yimin Wei, Chunfeng Sun

In-Situ STM Studies of Metal Electrodeposition in Ionic Liquids

09:55 to 10:15

Alexander Kuhn (University of Bordeaux 1, Pessac, France), Chompunuch Warakulwit, Marie-Hélène Delville, Valérie Ravaine, Jumras Limtrakul

Dissymmetric Nanoobjects by Bipolar Electrodeposition

10:15 to 10:35

Coffee Break

Chair: Jingkun Xu, Yasuhiko Ito

10:35 to 10:55 *Invited*

George Z. Chen (Department of Chemical and Environmental Engineering, and Fuels and Power Technology Research Division, Faculty of Engineering, Nottingham, United Kingdom), Xianbo Jin, Dihua Wang

Liquid Salts Assisted Electro-Reduction of Metal Compound Precursors to Metal Nanoparticulates

10:55 to 11:15

Jay Switzer (Missouri University of Science and Technology, Rolla, USA), Rakesh Gudavarthy, Elizabeth Kulp

Electrodeposited Spintronic Superlattices in the Magnetite/Zinc Ferrite System

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Yasuaki Einaga, Yunny Meas

09:35 to 10:15 *Keynote*

Guohua Chen (School of Engineering, The Hong Kong University of Science and Technology, Hong Kong, China), Jingshu Jia

Fabrication of High Quality One Material Anode and Cathode for Water Electrolysis in Alkaline Solution

10:15 to 10:35

Coffee Break

10:35 to 10:55 *Invited*

Yuri Pleskov (Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow, Russia), Marina Krotova, Mikhail Shupegin, Aleksei Bozhko

Electrochemical Behavior of Amorphous Metal-Silicon-Carbon Nanocomposites Based on Titanium or Tungsten Nanophase

10:55 to 11:15

Anis Allagui (Department of Mechanical and Industrial Engineering, Concordia University, Montreal, Canada), Rolf Wüthrich

Contact Glow Discharge Electrolysis: A Far From Thermodynamic Equilibrium System

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Timo Jacob

09:35 to 09:55 *Invited*

Ezequiel Leiva (INFIQC, Unidad de Matemática y Física, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Córdoba, Argentina), Oscar Oviedo, Patricio Velez, Martin Zoloff Michoff, Jimena Olmos, Marcelo Mariscal, Christian Negre, Cristian Sanchez

On the computer modelling of nanosystems

09:55 to 10:15

Yuwen Liu (College of Chemistry and Molecular, Wuhan University, Wuhan, China), Rui He, Qianfan Zhang, Shengli Chen

Dynamic-double-layer Model for Disk Shaped Nanoelectrodes

10:15 to 10:35

Coffee Break

10:35 to 10:55

Paolo Ugo (Dept. Physical Chemistry, University of Venice, Venice, Italy), Ligia M. Moretto, Alessandro Carpentero, Massimo Tormen

Fabrication and Characterization of Nanodisk Electrode Arrays: Electron Beam Lithography vs. Template Deposition

10:55 to 11:15

Tim Albrecht (Imperial College London Department of Chemistry, London, United Kingdom), Mariam Ayub, Michael Cecchini, Joshua B. Edel, Catriona McGilvery, Emanuele Instuli, Alex Ivanov, David Mccomb

Nanopore/electrode structures for single molecule biosensing

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Ezequiel Leiva, Patrick Unwin

09:35 to 10:15 *Keynote*

Takashi Kakiuchi (Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Japan)

Structure and Function of the Electrochemical Interface between Ionic Liquid and Water

10:15 to 10:35

Coffee Break

10:35 to 10:55

Vladimir Marecek (J. Heyrovsky Institute of Physical Chemistry AS CR, v.v.i., Prague, Czech Republic), Karel Holub, Hana Janchenova, Karel Stulik

Proton Transfer Across a Liquid/Liquid Interface Facilitated by Phospholipid Interfacial Films

10:55 to 11:15 *Invited*

Zdenek Samec (J. Heyrovsky Institute of Physical Chemistry of ASCR,v.v.i., Prague 8, Czech Republic), Jan Langmaier

Ion Transfer Voltammetry at the Interface Between an Aqueous Electrolyte Solution and a Room-Temperature Ionic Liquid Membrane

Thursday 20 August 2009 - Afternoon Sessions

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Terry Chilcott, Huangxian Ju

14:00 to 14:40 *Keynote*

Jean Louis Marty (IMAGES EA 4218 Universite de Perpignan, Via Domitia, Perpignan, France), Georges Istamboulie, Gabriela Valdes-Ramirez, Montserrat Cortina-Puig, Thierry Noguer

Redesigning acetylcholinesterase biosensor : ultrasensitive AChE and PTE combined with neuronal network

14:40 to 15:00

Michael Thompson (Dept. of Chemistry, University of Toronto, Toronto, Canada)

Neurons and Stem Cells at the Liquid-Solid Interface Studied by Acoustic and Kelvin Physics

15:00 to 15:20

Matsuhiko Nishizawa (Tohoku University, Sendai, Japan), Masahiko Hashimoto, Hirokazu Kaji

Electrochemical Bio-lithography System for Capturing Cells within a Microfluidic Chip

15:20 to 15:40

Fan Zhang (Dept. of Chemistry, Xiamen, China), Longxiang Lin, Changjian Lin, Yong Chen

Controllable construction of bio-nano-films and microelectrode array chips for the high-throughput and real-time monitoring cells behavior on biomaterials

15:40 to 16:00

Judith Rishpon (Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Tel-Aviv, Israel)

Electrochemical Direct Diagnosis of Cancer and Monitoring of Anti-Cancer Drug Efficacy

16:00 to 16:20

Coffee Break

Chair: Michael Thompson

16:20 to 16:40 *Keynote*

Nabil El Murr (University of Nantes, Nantes, France), Carmen Creanga

Disposable biosensors and bioassays: Kinetic considerations for the implementation of a generic biosensing platform

16:40 to 17:00

Baohong Liu (Fudan University, Shanghai, China), Ji Ji, Jingjing Wan, Hui Yang, Hui Chen, Jilie Kong

TiO_2-assisted biosensor for profiling kinase activity

17:00 to 17:20

Daren Caruana (University College London, London, United Kingdom)

Electrochemical Control of Sickle Cell Haemoglobin Polymerization

17:20 to 17:40

Raphael Trouillon (Department of Bioengineering, Imperial College London, London, United Kingdom), Christine Cheung, Dong-Ku Kang, Bhavik Anil Patel, Soo-Ik Chang, Danny O'Hare

Electrochemical sensing of angiogenin induced nitric oxide synthase activity using a biocompatible microelectrode array

17:40 to 18:00

Md. Aminur Rahman (Dept. of Applied Chemistry, Konkuk University, Chungju, Korea), Rashida Akter, Young Jun Kim, Jae-Joon Lee

Carbon Nanotubes Bonded Gold Nanoparticles Encapsulated-Dendrimer Hybrid Layer for Enzymes Based Ultrasensitive Cholesterol Biosensor

18:00 to 18:20
Naifei Hu (Department of Chemistry, Beijing Normal Universtiy, Beijing, China), Peng Sun, Hongyun Liu
pH-Dependent Permeability of PAH/PAAn Layer-by-Layer Films toward Ferrocenecarboxylic Acid and Its Application in Controlling Enzymatic Electrocatalysis

18:20 to 18:40
Pablo Alejandro Fiorito (Universidade Federal do ABC, Santo André, Brazil), Giselle Cerchiaro, Vinicius Dias
Dihydrorhodamine modified gold electrodes as potential devices for free radicals determination

Symposium 2 : Corrosion Science and Technology

Location: Room 105

Chair: Rudolph Buchheit, Victoria Gelling

14:00 to 14:20
Dimitar Borissov (Max-Planck-Institut für Eisenforschung GmbH, Department of Interface Chemistry and Surface Engineering, Duesseldorf, Germany), Michael Rohwerder
Electrochemically Synthesized Mg-Zn Alloy Coatings for Corrosion Protection

14:20 to 14:40
Gang Yu (College of Chemistry and Chemical Engineering, Hunan University, Changsha, China), Xiping Lei, Bonian Hu, Xiaolian Gao, Tingjing Li
Investigation of Electroless Deposition and Multi-plating on Magnesium Alloys

14:40 to 15:00
Yueh-Lien Lee (Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan), Yang-Hun Huang, Chao-Sung Lin
Stannate conversion coating treatment of AZ91D magnesium alloy

15:00 to 15:20
Zhang Jifu (State Key Laboratory for Corrosion and Protection, Institute of Metal Research, Chinese Academy of Sciences, Shenyang, China), Wang Fuhui
Electrodeposition of Al–Mn alloy on AZ31B magnesium alloy in molten salts

15:20 to 15:40 *Invited*
Victoria Gelling (Coatings & Polymeric Materials, North Dakota State University, Fargo, USA), Xiaoning Qi, Christopher Vetter, Subramanyam V. Kasi Somayajula
Electroactive Conducting Polymer Particulate Corrosion Inhibitors

15:40 to 16:00
Nay Win Khun (School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore, Singapore)
Effect of Nitrogen Doping on Corrosion Behavior of Nitrogen Doped Tetrahedral Amorphous Carbon Thin Films

16:00 to 16:20
Coffee Break

16:20 to 16:40
Cheng Yang Tsai (Department of Materials Science and Engineering National Taiwan University, Taipei, Taiwan), Jen Shou Liu, Pei-Li Chen, Chao Sung Lin
A Two-step Roller Coating Passivation Treatment for Hot-dip Galvanized Sheet Steel

16:40 to 17:00
Bekir Salgin (Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany), Michael Rohwerder
A new approach to determine ion mobility coefficients for delamination scenarios

17:00 to 17:20
Gerhard E. Nauer (Faculty of Chemistry, University of Vienna, Vienna, Austria), Natalyia Rybakova
Electrochemically deposited titaniumdiboride as corrosion protective layers in melts of Al and Al-alloys

17:20 to 17:40

Chun Yang (Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, China), Xiaofeng Xie, Hairen Wang

Study on Electrochemical Behavior of Metal Bipolar Plate Used to Direct Methanol Fuel Cells

17:40 to 18:00

Qun-Jie Xu (Department of Environment Engieering, Shanghai University of Electric Power, Shanghai, China), Chun-Xiang LI, Qiao-Xia LI, Xiao-Jin Zhou

3-Amino-1,2,4-Triazole as Inhibitor for Brass Corrosion

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Chunhai Fan, Chen-Zhong Li

14:00 to 14:20 *Invited*

Xiangqun Zeng (Chemistry Department Oakland University, Rochester, USA), Xiaoxia Jin, Lei Yu, Yue Huang, Andrew Mason

Ionic Liquids and Their Applications as Gas Sensing Materials

14:20 to 14:40

Shin-ichi Wakida (Health Technology Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Ikeda, Japan), Naohiro Yoshida, Tomoki Kobayashi, Tomohisa Mori, Yasuhiko Shibutani

Development of a Prototype of FET Based Checker for Salivary Nitrate Analysis

14:40 to 15:00

Wlodzimierz Kutner (Institute of Physical Chemistry of the Polish Academy of Sciences, Warsaw, Poland), Agnieszka Pietrzyk, Subramanian Suriyanarayanan, Raghu Chitta, Francis D'Souza

Piezoelectric chemosensors using recognition films of molecularly imprinted polymers of bis(bithiophene) derivatives for selective determination of biogenic amines

15:00 to 15:20

Winfried Vonau (Kurt-Schwabe-Institut, Ziegra-Knobelsdorf, Germany), Ute Enseleit, Frank Gerlach, Sigrun Herrmann

Ion selective solid state sensors with amorphous membranes

15:20 to 15:40

Yu Qin (School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China)

Preparation of all-solid state potentiometric ion sensors with ion gel-CNT composites

15:40 to 16:00

Mariana P. Massafera (Chemistry Institute, University of São Paulo, São Paulo, Brazil), Susana I. Córdoba de Torresi, Catherine Debiemme-Chouvy

Poly(pyrrole) nanopores and nanowires as ammonia sensing platforms

16:00 to 16:20

Coffee Break

Chair: Xiangqun Zeng, Wlodzimierz Kutner

16:20 to 16:40 *Invited*

Osamu Niwa (National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan), Dai Kato, Naoyuki Sekioka, Ryoji Kurita, Akio Ueda, Shigeru Hirono

Nano-hybrid carbon films for electroanalytical applications

16:40 to 17:00

Jerzy Radecki (Department of Biosensors, Institute of Animal Reproduction and Food Research, Olsztyn, Poland)

Electrodes with Redox Active Centres and their Applications in Sensors

17:00 to 17:20
Samo B. Hocevar (Analytical Chemistry Laboratory, National Institute of Chemistry, Ljubljana, Slovenia), Bozidar Ogorevc
Antimony Film Electrode - New Trends and Challenges in Electrochemical Stripping Analysis

17:20 to 17:40
Fan Yang (Institute for Surface and Interface Science (ISIS) and Department of Chemistry, Irvine, USA), David Taggart
An Unbreakable Palladium Nanowire for Fast, Sensitive H_2 Gas Detection

17:40 to 18:00
Michaela Nebel (Ruhr-Universität Bochum, Analytische Chemie, Elektroanalytik & Sensorik, Bochum, Germany), Kathrin Eckhard, Thomas Erichsen, Wolfgang Schuhmann
Visualization of diffusion profiles of electrochemical active species by means of 4D shearforce-based constant-distance SECM

18:00 to 18:20
Liza Rassaei (Department of Chemistry, University of Bath, Bath, United Kingdom), Richard G. Compton, Frank Marken, Robert W. French
Focussed Microwave in Electroanalytical Processes

18:20 to 18:40
Masoumeh Ghalkhani (Sharif University of Technology, Tehran, Iran), Saeed Shahrokhian
Voltammetric Behavior and Determination of Trace Amount of Sumatriptan with Multi-Walled Carbon Nanotubes Decorated with Silver Nanoparticles Modified Pyrolytic Graphite Electrode

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Figen Kadirgan, Wen-Feng Lin

14:00 to 14:20
Wen-Feng Lin (School of Chemistry and Chemical Engineering, Queen's University Belfast, Belfast, United Kingdom), C. Hardacre, R. Burch, S. G. Sun, Z. Y. Zhou
Structure and Reactivity of Pt and Ru Catalysts for Fuel Cell Applications: from Single Crystals to Nanoparticles

14:20 to 14:40 *Invited*
Nagahiro Hoshi (Department of Applied Chemistry and Biotechnology, Graduate School of Engineering, Chiba University, Chiba, Japan), Shinpei Kondo, Masashi Nakamura
Structural Effects on Oxygen Reduction Reaction on Single Crystal Electrodes of Palladium

14:40 to 15:00 *Invited*
Hoydoo You (Materials Science Division/Argonne National Laboratory, Argone, USA)
Shape-dependent Activity of Platinum Array Catalyst

15:00 to 15:20
Chia-Liang Sun (Department of Chemical and Materials Engineering, Chang Gung University, Tao-Yuan, Taiwan)
Atomistic nucleation of Pt-based nanoparticles on N-doped carbon nanotubes and their electrochemical properties

15:20 to 15:40
Shouzhong Zou (Department of Chemistry and Biochemistry, Miami University, Oxford, USA), Hongzhou Yang, Jun Zhang, Jiye Fang
Size and Shape Controlled Pt-alloy Nanoparticles as Fuel Cell Catalysts

15:40 to 16:00
Odysseas Paschos (Technical University of Munich, Department of Physics E19, Garching, Germany), Petra Bele, Ulrich Stimming
Cu-Pt Core-Shell Nanoparticles as Catalysts for Fuel Cells

16:00 to 16:20

Coffee Break

Chair: Hoydoo You, Shouzhong Zou

16:20 to 16:40

Figen Kadirgan (Chemistry Department, Istanbul Technical University, Istanbul, Turkey)

Investigation of various Pt-Pd based catalysts for alcohol oxidation reactions in direct methanol and ethanol fuel cells

16:40 to 17:00

Paramaconi Rodriguez (University of Leiden, Leiden, Netherlands), Marc T.M. Koper

Electrochemical oxidation of small organic molecules catalyzed by carbon monoxide modified gold single-crystal electrodes.

17:00 to 17:20

Soma Vesztergom (Laboratory of Electrochemistry and Electroanalytical Chemistry, Institute of Chemistry, Eötvös Lorand University Budapest, Budapest, Hungary), Gyozo G. Lang

Detection and Study of Intermediates and Products of Electrode Reactions at Rotating Ring-Disk Electrodes by Using Phase Shifted Double Cyclic Voltammetry

17:20 to 17:40

Erwann Luais (University of Nantes - CEISAM UMR 6230, Nantes, France), Pierre-Yves Tessier, Mohamed Abdou, Agnès Granier, Mohammed Boujtita, A. Gohier, A. Tailleur, S. Casimirius

Carbon nanowalls as electrochemical materials for bioelectrocatalytics based biosensors

Symposium 5 : Electrochemical Energy Conversion and Storage

FUEL CELLS

Location: Room 205

Chair: Pawel J. Kulesza, Satoshi Tominaka

14:00 to 14:20 *Invited*

Tianhong Lu (Jiangsu Key Laboratory of Biofunctional Materials, College of Chemistry and Environmental Science, Nanjing Normal University, Nanjing, China), Gaixiu Yang, Yawen Tang

Electrocatalytic performance of carbon supported Pd-P catalyst for oxidation of formic acid in direct formic acid Fuel cell

14:20 to 14:40

Pawel J. Kulesza (Department of Chemistry, University of Warsaw, Warsaw, Poland), Piotr J. Barczuk, Artur Zurowski, Sylwia Zoladek, Iwona A. Rutkowska, Adam Lewera, Krzysztof Miecznikowski, Roberto Marassi, Aneta Kolary - Zurowska

Activation of Pt-based Electrocatalysts Towards Oxidation of Alcohols through Modification with Ultra-Thin Films of Metal Oxides and Related Polyoxometallates

14:40 to 15:00

Tao Huang (Department of Chemistry/Fudan University, Shanghai, China)

Preparation of Well-Dispersed $PtRuMeO_x$ (Me=Mo, W, Sn) by Ultrasonic-assisted Chemical Reduction and their Properties for Methanol Electrooxidation

15:00 to 15:20

Yu Zhou (School of Chemical Engineering and Technology, Inner Mongolia University of Technology, Hohhot, China), Yuchen Liu, Jinrong Liu, Zhijun Zhang

Ce@Pt/C nanotubes as a Methanol-Tolerant Cathode Catalyst in Direct Methanol Fuel Cell

15:20 to 15:40
Carsten Cremers (Fraunhofer Institute for Chemical Technology ICT Department for Applied Electrochemistry, Pfinztal, Germany), Domnik Bayer, Jens Tübke
Mechanistic Investigations of the Ethanol Oxidation in Alkaline Media

15:40 to 16:00
Guntars Vaivars (Institute of Solid State Physics, University of Latvia, Riga, Latvia), Janis Kleperis, George Chikvaidze, Hongze Luo, Mkhulu Mathe
Technological Aspects in Synthesis and Characterization of Proton Conducting Polyetheretherketone (PEEK) Membranes for Fuel Cell Applications

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Qunjian Huang, Chuan Wu

14:00 to 14:20
Jean-Francois Drillet (DECHEMA e.V., Karl-Winnacker Institute, Frankfurt a. M., Germany)
Development of a rechargeable zinc/air fuel cell with a zinc foam anode and a polymer membrane electrolyte

14:20 to 14:40
Qunjian Huang (GE Global Research, Shanghai, China), Jinghua Liu, Hai Yang, Ravichandra S Jupudi, Andrew P. Shapiro, Rihua Xiong, Xianguo Yu, Wei Cai, Chang Wei
Oxygen Supply and Water Management for Rechargeable Air Metal Batteries

14:40 to 15:00
Bozena Rydzynska (Institute of Non-ferrous Metals Department in Poznan Central Laboratory of Batteries and Cells, Poznan, Poland), Aleksander Ciszewski, Maciej Kopczyk
New design of silver-zinc cell

15:00 to 15:20
Hai Yang (GE Global Research Center, Shanghai, China), Chang Wei, Wei Cai, Qunjian Huang, Jinghua Liu, Xianguo Yu, Rihua Xiong
Cycle Life Study of Rechargeable Metal/Air Battery

15:20 to 15:40
Tao Zhang (Department of Chemistry, Faculty of Engineering, Mie University, Tsu, Japan), Nobuyuki Imanishi, Satoshi Hasegawa, Atsushi Hirano, Jian Xie, Yasuo Takeda, Osamu Yamamoto
An Aqueous Lithium-Air Secondary Battery with Water-Stable Multilayer Lithium Anode

15:40 to 16:00
Manickam Minakshi (Extractive Metallurgy, Perth, Australia), Stephen Thurgate, Mark Blackford
Rechargeable manganese dioxide electrode in LiOH electrolyte

16:00 to 16:20
Coffee Break

16:20 to 16:40
Vaishali R. Shinde (International Center for Young Scientists, National Institute for Materials Science (NIMS), Tsukuba, Japan)
Intercrossing Nickel Oxide Nanoflakes from Soft Solution Chemistry for Electrochromic Application

16:40 to 17:00
Remigiusz Kowalik (AGH University of Science and Technology, Krakow, Poland), Michal Mucha, Piotr Zabinski
Electrochemical deposition of Ni-Mo alloys from citrate bath

17:00 to 17:20

Chuan Wu (School of Chemical Engineering and the Environment, Beijing Institute of Technology, Beijing, China), Feng Wu, Ying Bai, Li-wei Dong, Xin Wang

Electrochemical Reaction Mechanisms of Amorphous Co-B Alloy in Alkaline Aqueous Solution

17:20 to 17:40

Michal Wagner (Process Chemistry Centre, c/o Laboratory of Analytical Chemistry, Åbo Akademi University, Turku, Finland), Anna Österholm, Sami-Pekka Hirvonen, Heikki Tenhu, Carita Kvarnström, Ari Ivaska

In situ ATR-FTIR characterization of water soluble benzimidazobenzophenanthroline-type ladder polymer derivatives

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Seung M. Oh, Kuniaki Tatsumi

14:00 to 14:20 *Invited*

Kuniaki Tatsumi (Research Institute for Ubiquitous Energy Devices, National Institute of Advanced Industrial Science and Technology (AIST), Ikeda, Osaka, Japan), Masahiro Shikano, Shinji Koike, Daisuke Mori, Hiroaki Nitani, Hikari Sakaebe

Study on SEI and Surface of $LiNi_{0.8}Co_{0.2}O2$ Positive Electrodes of Lithium-ion Cells during Power Degradation

14:20 to 14:40

Zhenguo "Gary" Yang (Pacific Northwest National Lab, Richland, USA), Nathan Canfield, Daiwon Choi, Darrell Herling, Kintner-Meyer Mickael, Xiaochun Lu, Kerry Meihardt, Larry Pederson, Peter Rieke, Vince Sprenkle, Donghai Wang, Gordon Xia, Gordon Graff, Jun Liu

Advanced Electrochemical Storage R&D for Renewable and Utility Applications

14:40 to 15:00

Volodymyr Khomenko (Kiev National University of Technologies & Design, Kiev, Ukraine)

Investigation of Promised Graphite/Carbonaceous Materials in Some Ionic Liquid based Electrolytes

15:00 to 15:20 *Invited*

Seung M. Oh (Department of Chemical and Biological Engineering, and Research Center for Energy Conversion & Storage, Seoul National University, Seoul, Korea)

High Lithiation Activity and Rate Capability Observed with Amorphous MoO_2 Electrodes for Lithium-ion Batteries

15:20 to 15:40

Zhiping Song (Department of Chemistry, Wuhan University, Wuhan, China), Hui Zhan, Yunhong Zhou

Polyimides: Promising Energy-Storage Materials

15:40 to 16:00

Koichi Ui (Graduate School of Engineering, Iwate University, Morioka, Japan), Shinei Kikuchi, Yoshihiro Kadoma, Naoaki Kumagai, Yasuhiro Jimba

Co-Sn Alloy Film Prepared by Pulse Electrodeposition Method as Negative Electrode for Lithium Batteries

16:00 to 16:20

Coffee Break

16:20 to 16:40

Kyung Yoon Chung (Battery Research Center, Korea Institute of Science and Technology, Seoul, Korea), Ho Chul Shin, Sang Hoon Kim, Wonbin Im, Won Il Cho, Won-Sub Yoon, Byung Won Cho

A Study on the Electrochemical and Thermal Behavior of Li_2MnSiO_4 using Synchrotron Based X-ray Techniques

16:40 to 17:00
Jiangfeng Xu (School of Materials Science and Technology, Beijing, China), Jianling Li, Xindong Wang
Electrochemical Properties of Rare Earth Doped $Li_4Ti_5O_{12}$

17:00 to 17:20
Jong Pil Jegal (Department of Materials Science and Engineering, Yonsei University, Seoul, Korea)
Microwave-assisted hydrothermal synthesis of mesoporous $LiFePO_4$ sphere

17:20 to 17:40
Guo Zhen Wei (Department of Chemistry, Xiamen, China)
The Study of Novel $LiCoO_2$ Nano-Materials for Lithium Ion Batteries: from 2D-nanoplates to 1D-nanowires

Symposium 6 : Electrodeposition for Nanoelectronic Applications

Location: Room 107

Chair: Yongfang Li, Phillippe Alliongue

14:00 to 14:20 *Invited*
Achim Walter Hassel (Max-Planck-Institut für Eisenforschung, Germany)
Single Crystalline Nanowires for Nanoelectronic Applications

14:20 to 14:40
Patrick Steegstra (Department of Chemistry, Department of Physics, University of Gothenburg, Gothenburg, Sweden), Elisabet Ahlberg, Magnus Willander
Electroprecipitation of zinc oxide rods

14:40 to 15:00
Jianhe Liang (College of Chemistry and Materials Science, Fujian Normal University, Fuzhou, China), Rongfang Liu, Keguan Ouyang, Jie Yu
Fabrication of Titania Nanotube Arrays by Anodic Oxidation Using Glycerol-based Electrolytes

15:00 to 15:20
Sanshuang Kuang (School of Metallurgical Science and Engineering, Central South University, Changsha, China), Yanqing Lai, Sanshuang Kuang, Fangyang Liu, Zhian Zhang, Jun Liu, Jie Li, Yexiang Liu
Preparation of Cu(In,Ga) (S,Se)2 thin films by sulfurization of electrodeposited Cu-In-Ga-Se precursors

15:20 to 15:40
Shang-En Huang (Department of Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow
A Wet Process for Polyimide Metallization Using Cu and Ni as Seed Layers

15:40 to 16:00 *Invited*
Yasuhiko Ito (Department of Environmental Systems Science, Faculty of Science and Engineering, Doshisha Univiversity, Kyoto, Japan)
Innovative Molten Salt Electrochemical Processing for New Functional Materials

16:00 to 16:20
Coffee Break

Chair: Jianhe Liang, Achim Walter Hassel

16:20 to 16:40
Qiang Zeng (Biomedical Diagnostics Institute, National Centre for Sensor Research, School of Chemical Science Dublin City University, Dublin, Ireland), Tia Keyes
Redox Induced Switching Dynamics of a Dry State Three Colour Electrochromic Metallopolymer

16:40 to 17:00

Tsukasa Yoshida (Environmental and Renewable Energy Systems Division, Graduate School of Engineering, Gifu University, Gifu, Japan), Keigo Ichinose, Seigo Nakamura, Shigeo Hori, Lina Sun, Jingbo Zhang, Takashi Sugiura

Electrodeposition of Inorganic / Organic Hybrid Thin Films

17:00 to 17:20

Laurent Ruhlmann (Université Paris-Sud 11, Laboratoire de Chimie Physique, Orsay, France)

Supramolecular assemblies obtained by large counter anion incorporation in a well oriented copolymer

17:20 to 17:40

Liu Jun (School of Metallurgical Science and Engineering, Central South University, Changsha, China), Yanqing Lai, Jun Liu, Fangyang Liu, Zhian Zhang, Jie Li, Yexiang Liu

Effects of Sulfamic Acid on Electrodeposition of Cu(In,Ga)Se_2 Thin Film

17:40 to 18:00

Yukiko Yasukawa (Kogakuin University, Hachioji, Japan), Sachiko Ono, Hidetaka Asoh

Structuring of GaAs Hole Arrays through Metal-Assisted Chemical Etching

18:00 to 18:20

Lina Sun (Gifu University, Gifu, Japan), Tsukasa Yoshida

Electrodeposition of CuSCN/dye hybrid thin films

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Alexandros Katsaounis, Manuel Andrés Rodrigo

14:00 to 14:40 *Keynote*

Karel Bouzek (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic), Vladimir Jiricny

Microstructured Reactors for the Electroorganic Synthesis

14:40 to 15:00

Saijun Xiao (Department of Materials Science and Engineering, Trondheim, Norway), Tommy Mokkelbost, Geir Martin Haarberg, Arne Petter Ratvik, Jannicke Kvello, Karen Sende Osen, Hongmin Zhu

Depolarized Gas Anodes in Electrowinning of Metals in Molten Salts

15:00 to 15:20

Petr Krtil (J. Heyrovsky Institute of Physical Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic), Katerina Macounova, Valery Petrykin, Sanjeev Mukerjee

Oxygen Evolution on Nanocrystalline Electrpodes Based on Oxides with Rutile Structure – DEMS and *in-situ* XAS study

15:20 to 15:40

Leonard Stoica (Analytische Chemie-Elektroanalytik und Sensorik, Ruhr-University Bochum, Bochum, Germany), Wolfgang Schuhmann, Michael Bron, Thomas Erichsen, Xingxing Chen

Visualization of Processes at the Triple-Boundary-Phase in Gas Diffusion Electrodes by Means of Scanning Electrochemical Microscopy (SECM)

15:40 to 16:00

Heidi Van Parys (Vrije Universiteit Brussel / Research Group of Electrochemical and Surface Engineering, Brussels, Belgium), Annick Hubin, Johan Deconinck, Flora Tomasoni, Thomas Nierhaus, Pedro Maciel, Steven Van Damme

New model for gas-evolving processes based on supersaturation

16:00 to 16:20

Coffee Break

16:20 to 16:40
Xuegeng Yang (Institute for Fluid Dynamics, Technische Universitaet Dresden, Dresden, Germany), Kerstin Eckert, Sascha Muehlenhoff, Margitta Uhlemann, Stefan Odenbach

Modulated magnetoelectrolysis

16:40 to 17:00
Giorgi Agladze (R. Aglagze Institute of Inorganic Chemistry & Elecrochemistry, Tbilisi, Georgia), Nana Koiava, Natela Gogishvili, Irakli Zaridze

Simultaneous production of manganese metal and manganese dioxide in the membrane cell

17:00 to 17:20
Xianbo Jin (The College of Chemistry and Molecular Sciences, Wuhan University, Wuhan, China), Tian Wu, Wei Li, Wei Xiao, Dihua Wang, George Zhen Chen

Optimization of the Cathodic Process for the Extraction of Metals from Solid Oxides in Molten Chloride Salts

17:20 to 17:40
Reidar Tunold (Department of Materials Science and Engineering, NTNU, Trondheim, Norway), Espen Sandnes, Geir M. Haarberg

The Anode Process on Carbon in Chloride - Oxide Melts

17:40 to 18:00
Dihua Wang (College of Chemistry and Molecular Sciences, Wuhan University, Wuhan, China), Junjun Peng, Tao Wang, Yong Zhu, Meng Ma, George Zheng Chen

Direct Electrochemical Reduction of Metal oxides to Hydrogen Storage Alloys in Molten Salts

18:00 to 18:20
Ole S. Kjos (Department of Materials Science and Engineering, Faculty of Natural Sciences and Technology, Trondheim, Norway), Geir Martin Haarberg, Ana Maria Martinez

Titanium Production from Oxycarbide Anodes in Molten Chloride and Fluoride Mixtures

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Yuping Wu, Xin Hui Xia

14:00 to 14:20 *Invited*
Changjian Lin (State Key Lab of Physical Chemistry of Solid Surfaces, and College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Hui Wang, Ren Hu, Yuekun Lai, Zhiwang Geng, Lili Kong

Electrochemical Constructions of Nest-like Nano-Micro Structured CaP Biomaterials and Their Biocompatibility

14:20 to 14:40
Tim Muenninghoff (University of Duesseldorf, Physical Chemistry, Duesseldorf, Germany), Manuel M. Lohrengel

Monitoring of initial stages of electrodeposition of zinc

14:40 to 15:00 *Invited*
Lei Fu (College of Chemistry and Molecular Engineering, Peking University, Beijing, China), Liang Ren, Kai Yan, Xiaojun Xian, Zhongfan Liu

A general electrochemical strategy for synthesizing charge-transfer complex nanowires

15:00 to 15:20
Alexander Mozalev (Department of Micro- and Nanoelectronics, Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus), Carla Bittencourt, Guirado Francesc, Eduard Llobet, Raul Calavia, Xavier Correig

Nanostructured Columnlike Niobia Films Grown by Anodizing Al/Nb Metal Layers

15:20 to 15:40
Zelin Li (Department of Chemistry, Hunan Normal University, Changsha, China), Jun Liu, Wei Huang, Xin Chen, Li Fu
Facile Electrochemical Fabrication of Some Metal Nanomaterials

15:40 to 16:00
Thierry Djenizian (Electrochemistry of Materials Research Group, Laboratoire Chimie Provence, University of Aix-Marseille I,II,III-CNRS, Marseille, France)
Study of electrochemical fabrication of Sn nanowires grown onto titania nanotube layers

16:00 to 16:20
Coffee Break

16:20 to 16:40
Xiaopeng Li (Dept. of Materials and Chemical Engineering, Ansan, Korea), Bongyoung Yoo, Jung-Ho Lee
Groove-defined micropores of GaAs formed by electrochemical etching

16:40 to 17:00
Hua Zhang (Department of Applied Physics, University of Fukui, Fukui, Japan), Koichi Aoki, Jingyuan Chen
Electrochemical properties of 1,4-benzoquinone by microelectrode voltammetry

17:00 to 17:20
Siang-Fu Hong (Department of Bio-Industrial Mechatronics Engineering, National Taiwan University, Taipei, Taiwan), Lin-Chi Chen
Nanoparticulate Zinc Hexacyanoferrate/Polymer Composite Thin Films

17:20 to 17:40
Ryoichi Aogaki (Electronic System Engineering, Polytechnic University, Sagamihara, Japan), Makoto Miura, Yoshinobu Oshikiri
The Role of Ionic Vacancy in the Formation of Nanobubbles

17:40 to 18:00
Tohru Kawamoto (AIST, Tsukuba, Japan), Ayako Omura, Hisashi Tanaka, Masato Kurihara, Masatomi Sakamoto
Electrochromic Nanoparticle Ink: Displays and Color-Switchable Glasses Fabricated by Liquid Processes

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Vladimir Marecek

14:00 to 14:20
Carlos Pereira (Faculdade de Ciências da Universidade do Porto, Porto, Portugal), José Ribeiro, Inês Miranda, Fernando Silva
Electrochemical study of catecholamines transfer at an interface between two immiscible electrolyte solutions

14:20 to 14:40
Mikhail Yu. Vagin (Chemistry Faculty, M.V. Lomonosov Moscow State University, Moscow, Russia)
Thin Film-Modified Electrodes: Biomolecules Detection at Liquid/Liquid Interface

14:40 to 15:00
Takeo Ohsaka (Department of Electronic Chemistry, Tokyo Institute of Technology, Yokohama, Japan), Muhammad Tanzirul Alam, Md. Mominul Islam, Takeyoshi Okajima
Electrical Double Layer Structures in Room-Temperature Ionic Liquids

15:00 to 15:20

Guojiang Wan (Key Lab. of Advanced Technology for Materials of Education Ministry of China, College of Materials Science and Engineering, Southwest Jiaotong University,SWJTU, Chengdu, China), Jiangzhang Zhou, Nan Huang, Ping Yang, Zhonghua Lin, Hong Sun, Xi Wu, Yongxiang Leng

Electrochemical Mechanism of Blood-Compatibility of TiO_{2-x} Film for Surface Modification of Cardiovascular Bio-medical Devices

15:20 to 15:40

Heili Kasuk (Institute of Chemistry, University of Tartu, Tartu, Estonia), Gunnar Nurk, Silvar Kallip, Enn Lust, Karmen Lust, Vitali Grozovski, Alar Jänes, Mart Väärtnõu, Kristjan Laes

Adsorption Kinetics and Thermodynamic Parameters of Some Organic Compounds Forming the Compact Adsorption Layer at Bi Single Crystal Electrodes

15:40 to 16:00

Zhaoxiong Xie (State Key Laboratory of Physical Chemistry of Solid Surfaces & Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Zukui Pei, Lili Lin, Lei Zhang, Haiming Zhang

Self-assemblies of 2,6-naphthalenedicarboxylic acid and 4,4'-biphenyldicarboxylic acid on HOPG and Au(111) surfaces

16:00 to 16:20

Coffee Break

Chair: Takeo Ohsaka, Zdenek Samec

16:20 to 17:00 *Keynote*

Shaojun Dong (Chinese Academy of Sciences, Changchun, China)

Electrochemically Reduced Graphene Oxide Films Providing an Excellent Sensing Platform

17:00 to 17:20

Gyozo G. Lang (Laboratory of Electrochemistry and Electroanalytical Chemistry, Institute of Chemistry, Eötvös Lorand University Budapest, Budapest, Hungary), Norbert Sas, Soma Vesztergom, Ferenc Ujhelyi

Issues Related to the Measurement of Surface Stress Changes of Solid Electrodes – Effect of Film Thickness

17:20 to 17:40

Fernando Silva (Departamento de Química, Faculdade de Ciências da Universidade do Porto, Porto, Portugal), José Campiña, Ana Martins

Structural transition of an 11-amino-1-undecanethiol ionizable SAM in contact with aqueous solutions

17:40 to 18:00

David Mendez Soares (Instituto de Fisica, Campinas, Brazil), Andreza Barbosa Gomide, Wyllerson Evaristo Gomes, Mario Alberto Tenan

Changes of Water Physical Properties near Hydrophobic/Hydrophilic Contacting Electrode

18:00 to 18:20

Rafal Jurczakowski (University of Warsaw, Warsaw, Poland), Piotr Polczynski, Maciej Slojewski, Edward Rowinski, Grzegorz Dercz

Kinetics and Thermodynamics of Hydrogen Sorption in PdP and PdN alloys

Friday 21 August 2009 - Morning Sessions

Plenary

University Hall

Chair: Tianhong Lu

08:30 to 09:20

Dieter M. Kolb (Institute of Electrochemistry, University of Ulm, Ulm, Germany)

Electrochemical Surface Science: The Present and Future

Symposium 1 : From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

Location: Room 102

Chair: Liwei Chen, Frank Nelson Crespilho

09:35 to 09:55

Kwok-Yin Wong (Dept. of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong SAR, China)

Biosensing Mechanism in Fluorophore-Labeled Enzymes

09:55 to 10:15

Steffi Krause (School of Engineering and Materials Science, Queen Mary University of London, London, United Kingdom), Li Chen, Yinglin Zhou, Shihong Jiang

High resolution LAPS and SPIM

10:15 to 10:35

Coffee Break

Chair: Zhifeng Ding, Kwok-Yin Wong

10:35 to 10:55

Hayley Powell (Department of Chemistry University of Warwick, Coventry, United Kingdom), Mathias Schnippering, Meiqin Zhang, Mikhail Mazurenka, Julie Macpherson, Stuart Mackenzie, Patrick Unwin

A Novel Methodology to Study Protein Adsorption and Electrochemistry

Symposium 3 : Electroanalysis and Electrochemical Sensors

Location: Room 109

Chair: Baohong Liu, Gunther Wittstock

09:35 to 09:55 *Invited*

Chen-Zhong Li (Nanobioengineering/Bioelectronics Lab, Department of Biomedical Engineering, Florida International University, Miami, USA), Shradha Prabhulkar

Protein Biomarkers Screening for Early Cancer Diagnosis using Amperometric Microsensors

09:55 to 10:15

Jian-Jun Sun (Key Laboratory of Analysis and Detection Technology for Food Safety, Ministry of Education, College of Chemistry and Chemical Engineering, Fuzhou, China)

Cathodic Electrogenerated Chemiluminescence at a C/C_xO_{1-x} electrode

10:15 to 10:35

Coffee Break

10:35 to 10:55
Yunfeng Gu (Department of Chemical Engineering, University of Cambridge, Cambridge, United Kingdom), Shujuan Liu, Adrian C. Fisher, Sin´ead M. Matthews, Kamran Yunus, Wilhelm T. S. Huck
The Electrochemical Detection of Droplets in Microfluidic Devices

10:55 to 11:15
Yongchun Zhu (College of Chemistry and Life Science Shenyang Normal University, Shenyang, China), Suxin Zhang, Yuanming Tang, Miao Guo, Tao Qi
Electrochemical Solid Phase Nano-Extraction of Copper on magnesium oxinate modified carbon paste electrode by cyclic voltammetry

Symposium 4 : Electrocatalysis

Location: Room 203

Chair: Matthias Arenz, Wei Xing

09:35 to 09:55
Elisabet Ahlberg (Department of Chemistry, University of Gothenburg, Gothenburg, Sweden), Alexander Björling
Electrocatalytic Properties of $Co_xFe_{(1-x)}S_2$

09:55 to 10:15
Matthias Arenz (Lehrstuhl für Physikalische Chemie Technische Universität München, Garching bei München, Germany), Katrin Hartl, Viktorija Juhart, Karl Mayrhofer
Stability of Pt and Pt alloy high surface area catalysts for low temperature fuel cells

10:15 to 10:35
Coffee Break

10:35 to 10:55
Liu Yan (College of Chemistry and Molecular Engineering, Peking University, Beijing, China), Zheng Ning, Wang Yuan
Methanol-tolerant cathode for DMFCs: metallophthalocyanine modified Pt/C catalysts

10:55 to 11:15
Stefanie Schwamborn (Analytische Chemie - AG Elektroanalytik & Sensorik, Bochum, Germany), Leonard Stoica, Xingxing Chen, Wei Xia, Shankhamala Kundu, Martin Muhler, Wolfgang Schuhmann
Patterned CNT for screening of oxygen reduction activity by scanning electrochemical microscopy

Symposium 5 : Electrochemical Energy Conversion and Storage

CAPACITORS, ELECTROLYTES AND OTHER BATTERY SYSTEMS

Location: Room 207

Chair: Kang-Jin Kim, Qingbo Meng

09:35 to 09:55 *Invited*
Qingbo Meng (Institute of Physics, Chinese Academy of Sciences, Beijing, China), Dongmei Li, Yanhong Luo
Optimization of Solid-State Dye-Sensitized Solar Cells

09:55 to 10:15
Jihuai Wu (Institute of Materials Physical Chemistry, Huaqiao University, Quanzhou, China), Zhang Lan, Sanchun Hao, Pingjiang Li, Jianming Lin, Miaoliang Huang, Yunfang Huang, Leqing Fang
Progress on the polymer electrolytes for dye-sensitized solar cells

10:15 to 10:35
Coffee Break

10:35 to 10:55

Kang-Jin Kim (Chemistry, Korea University, Seoul, Korea)

Syntheses of Functionalized Si and Ge Nanoparticles and their Application to Dye-Sensitized Solar Cells for Enhanced Performance

Symposium 5 : Electrochemical Energy Conversion and Storage

LITHIUM-ION BATTERIES

Location: Room 211

Chair: Hong Li, Yuping Wu

09:35 to 09:55

Dong Wook Shin (Thin Film Materials Research Center, Korea Institute of Science and Technology, Seoul, Korea), Ji-Won Choi, Yong Soo Cho, Seok-Jin Yoon

Effect of Sn Substitution in Spinel Lithium Manganese Oxide Thin Film Cathodes Prepared by Pulsed Laser Deposition

09:55 to 10:15

Lianbang Wang (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Huqiang Kang, Chun-An Ma

Alloy Negative Materials for Li-ion Batteries

10:15 to 10:35

Coffee Break

10:35 to 10:55

Ling Huang (Dept. of Chemistry, Xiamen University, Xiamen, China), Yu-Qing Chang, Xiao-Mei Zheng, Lian-Jie Xue, Fu-Sheng Ke, Xiao-Yong Fan, Shi-Gang Sun

Electrodeposition and electrochemical properties of ternary tin-zinc-cobalt alloy electrodes as new negative anodes for lithium-ion batteries

Symposium 7 : Electrochemical Engineering and Technology

Location: Room 304

Chair: Guohua Chen, Rolf Wuthrich

09:35 to 09:55

Eirin Kvalheim (Department of Material Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway), Geir Martin Haarberg, Sverre Rolseth, Henrik Gudbrandsen

Pyroelectrolysis to Produce Liquid Iron Metal at 1550 ºC

09:55 to 10:15

Kamil Rataj (University of Duesseldorf, Physical Chemistry, Duesseldorf, Germany), Manuel M. Lohrengel

Hydrogen permeation through Zn and Zn/Ni deposits

10:15 to 10:35

Coffee Break

10:35 to 10:55

María de Lourdes Elizalde Aguilar (Instituto Politecnico Nacional, Esime-Zacatenco, Departamento de Química, México, Mexico), Jesús Daniel Salas Robles

Corrosion Velocity Prediction Through Electrochemical Techniques Using the Rotating Cylinder Geometry

10:55 to 11:15

Roman Kodym (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic), Frantisek Vlasak, Dalimil Snita, Karel Bouzek

Spatially 2D Mathematical Model of Laminar and Turbulent Flow Hydrodynamics in the Spacer Filled Channel

Symposium 8 : Electrochemical Nano/Micro-Science

Location: Room 306

Chair: Takeo Ohsaka

09:55 to 10:15

Y.P. Wu (Department of Chemistry, Fudan University, Shanghai, China), L.C. Yang, L.J. Fu, P. Zhang, B. Wang, T. Zhang

Nano electrode materials for lithium ion batteries

10:15 to 10:35

Coffee Break

10:35 to 10:55

Chang-Wook Lee (Department of Material Science and Engineering, Yonsei University, Seoul, Korea)

Synthesis of Meso-structured MnO_2/CNT Nanocomposites for Supercapacitor Application

10:55 to 11:15

Hung-Yun Liao (Department of Bio-Industrial Mechatronics Engineering, National Taiwan University, Taipei, Taiwan), Lin-Chi Chen

Enhanced Sol-gel Tungsten Oxide Thin Film by Carbon Nanotubes and Polyethylene Glycols

Symposium 9 : Interfacial Electrochemistry

Location: Room 307

Chair: Bingwei Mao, Fernando Silva

09:35 to 09:55

Elena E. Ferapontova (Danish National Research Foundation: Center for DNA Nanotechnology (CDNA), at Department of Chemistry and iNANO, The Faculty of Science, Aarhus University, Aarhus C, Denmark), Eva M. Olsen, Anders B. Olesen, Kurt V. Gothelf

Sensing with Aptamer Electrodes in Serum

09:55 to 10:15 *Invited*

Guy Denuault (School of Chemistry, University of Southampton, Southampton, United Kingdom), Jin Hu, Robin Cole, Sumeet Mahajan, Yoshiro Sugawara, Jeremy Baumberg, Philip Bartlett, Mamdouh Abdelsalam

Templated Electrodeposition and Characterization of Highly Ordered Macroporous Iridium Oxide

10:15 to 10:35

Coffee Break

10:35 to 10:55

Geir Martin Haarberg (Department of Materials Technology, Norwegian University of Science and Technology, Trondheim, Norway), Lars-Erik Owe, Reidar Tunold

Electrodeposition of Lead from Chloride Melts

10:55 to 11:15

Bin Su (Laboratoire d'Electrochimie Physique et Analytique, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Hatay Imren, Li Fei, Nia-Partovi Reheleh, Samec Zdenek, Girault Hubert

Oxygen Reduction at Liquid/Liquid Interfaces

Poster Presentations

Poster Session 1: Monday / Tuesday Lunch

Poster Presentation: Monday 16:20 to 18:40

Symposium 1: **From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells**

Symposium 2: **Corrosion Science and Technology**

Symposium 3: **Electroanalysis and Electrochemical Sensors**

Symposium 4: **Electrocatalysis**

Symposium 5: **Electrochemical Energy Conversion and Storage**
keyword: *battery*

Poster Session 2: Tuesday / Wednesday / Thursday

Poster Presentation: Tuesday 16:20 to 18:40

Symposium 5: **Electrochemical Energy Conversion and Storage**
keywords: *electrolyte, energy conversion and storage, fuel cell, supercapacitor*

Symposium 6: **Electrodeposition for Nanoelectronic Applications**

Symposium 7: **Electrochemical Engineering and Technology**

Symposium 8: **Electrochemical Nano/Micro-Science**

Symposium 9: **Interfacial Electrochemistry**

Symposium 10: **Molecular Electrochemistry: In its own right and in service to related research areas**

Symposium 11: **General Session**

Symposium 1: From Single Biomolecule Electrochemistry to Biosensors and Biofuel Cells

BIOELECTROCHEMISTRY

s01-P-001

Kwang-Soo Ahn (Department of Chemistry, Yonsei University, Seoul, Korea), Won-Yong Lee

Electrochemical studies on the interaction between cholera toxin and galactose

s01-P-002

Keith Baronian (School of Applied Sciences, Christchurch Polytechnic Institute of Technology, Christchurch, New Zealand), David J. Garrett, Alison Downard

The influence of electrode surface structure on electron transfer from microbial cells

s01-P-003

Rui-Guo Cao (College of Chemistry and Molecular Engineering, Peking University, Beijing, China), Dongsheng Xu, Jingjian Li, Bin Zhu

A highly sensitive and selective, nucleotide-based, label-free biosensors for mercury by electrochemical impedance spectroscopy

s01-P-004

Juliane Forti (Department of Chemistry, FFCLRP, University of São Paulo (USP), Ribeirão Preto, Brazil), Valtencir Zucolotto, Adalgisa R. De Andrade

Characterization and application of new bioanodes for ethanol biofuel cell

s01-P-005

Marilia Goulart (Instituto de Química e Biotecnologia, Universidade Federal de Alagoas, Maceio, Brazil), Francisco Silva, Cleylton Lopes, Costa Erivaldo, Paulo Miranda, Phabyanno Lima, Lauro Kubota

Xanthurenic Acid: a New Mediator for the Electroanalysis of NADH

s01-P-006

Ludek Havran (Institute of Biophysics ASCR, v.v.i., Brno, Czech Republic), Pavlína Vidláková, Hana Pivonková, Iva Kejnovská, Michaela Vorlícková, Miroslav Fojta

Electrochemical behavior of G-rich oligonucleotides

s01-P-007

Byung-Kun Kim (Department of Chemistry, Yonsei University, Seoul, Korea), Won-Yong Lee

Detection of Concanavalin A based on Mannose-modified Gold Electrode by Electrochemical Impedance Spectroscopy

s01-P-008

Pavel Kostecka (Institute of Biophysics ASCR, v.v.i., Department of Biophysical Chemistry and Molecular Oncology, Brno, Czech Republic), Martin Bartosik, Miroslava Bittova, Ludek Havran, Emil Palecek, Tibor Hianik, Miroslav Fojta

Potential of Osmium Complexes as Electroactive Tags for DNA Genotyping

s01-P-009

Alexander Kuhn (University Bordeaux 1, Pessac, France), Veronika Urbanova, Floriant Dubos, Patrick Garrigue, Blaise Yvert, Karel Vytras

Porous Microelectrode Arrays for Neurobiological Applications

s01-P-010

Fred Lisdat (Biosystems Technology, Wildau University of Applied Science, Wildau, Germany)

Electro-active protein multilayer electrodes using gold nanoparticles

s01-P-011

Veronika Ostatná (Institute of Biophysics AS CR, v.v.i., Brno, Czech Republic), Emil Palecek

Constant current chronopotentiometry in detection of changes in protein structures

s01-P-012

Stefanie Rubenwolf (University of Freiburg-IMTEK, Freiburg, Germany), Johannes Kestel, Kerzenmacher Sven, Roland Zengerle, Felix von Stetten

Enhancing the Lifetime of Laccase-based Biofuel Cell Cathodes by Sequential Renewal of Enzyme

s01-P-013

Dan Shan (College of Chemistry & Chemical Engineering, Yangzhou University, Yangzhou, China), Yan-Na Wang, Huai-Guo Xue, Serge Cosnier

Xanthine oxidase/laponite nanoparticles immobilized on glassy carbon electrode: Direct electron transfer and multielectrocatalysis

s01-P-014

Qijin Wan (School of Chemical Engineering & Pharmacy, Wuhan Institute of Technology, Wuhan, China), Xiuwen Wang, Yu Fen, Xiaoxia Wang, Nianjun Yang

Poly(taurine)/Carbon Nanotube Nano-composited Electrodes for Voltammetric Detection of Acetaminophen

s01-P-015

Xuemei Wang (State Key Lab of Bioelectronics (Chien-Shiung Wu Lab), Southeast University, Nanjing, China), Chunhui Wu, Dehong Wu, Xuan Liu, Gang Lv, Xuemei Wang, Hong Yan

Study on Cyostatic Effect of New Carborane Complexes by Real-Time Cell Electronic Sensing System

s01-P-016

Huai-Guo Xue (College of Chemistry & Chemical Engineering, Yangzhou University, Jiangsu 225002, China, Yangzhou, China), Dan Shan, Jing Zhang, Yong-Cai Zhang

An electrochemical investigation of hemoglobin at BiOx nanoparticles modified electrode

s01-P-017

Hiroyuki Yamaguchi (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Masato Tominaga, Shingo Sakamoto, Toshifumi Nishimura, Shiori Kaneko, Isao Taniguchi

Electrochemical Behaviors of Cytochrome c at Carbon Nanotubes Modified Gold Electrode

BIOELECTRONIC DEVICES

s01-P-018

Huaining Hu (University of Nottingham, Nottingham, United Kingdom), John Andresen

The Development of Structures and Electrode Materials Treatments in Microbial Fuel Cells

s01-P-019

Xiaoju Wang (Lab. of Inorganic Chemistry, Process Chemistry Center, Åbo Akademi Univeristy, Turku/Åbo, Finland), Xiaoju Wang, Nianxing Wang, Johan Bobacka, Mikael Bergelin

Direct electrochemistry of laccase at multi-walled carbon nanotubes modified electrode: for application in the cathode construction of biofuel cells

s01-P-020

Xuan Zhang (State Key Laboratory of Physical Chemistry of Solid Surfaces and Department of Chemistry College of Chemistry and Chemical Engineering, Xiamen, China), Chun-Feng Sun, Zai-Wen Zhu, Yun-Chun Wang, Feng Zhu, Jia-Wei Yan, Bing-Wei Mao

Colloidal Lithography-Based Fabrication of Freestanding Nanoporous Silicon Nitride Membranes for Biomembrane Investigations

BIOMEDICAL TECHNOLOGY

s01-P-021

Kosuke Ino (Graduate School of Environmental Studies, Tohoku University, Sendai, Japan), Hitoshi Shiku, Fumisato Ozawa, Tomoyuki Yasukawa, Tomokazu Matsue

Construction of dot arrays of microparticles by negative dielectrophoresis using multilayered electrodes

s01-P-022

Chen-Zhong Li (Nanobioengineering/Bioelectronics Lab, Department of Biomedical Engineering, Florida International University, Miami, USA), Evangelia Hondroulis

Rapid Cytotoxicity Assay of Nanomaterials using Impedance Sensing Device

s01-P-023

Vetterl Vladimír (Institute of Biohysics, v.v.i., Academy of Sciences of the Czech Republic, Brno, Czech Republic), Stanislav Hason, Raimo Silvennoinen, Ladislav Cvrcek, Jirí Vanek, Snia Bartáková, Ludek Strašák, Lukáš Fojt

Biohysical Mechanism Determining Dental Implants Biocompatibility and Conditioning their Oseointegration

BIOMEMBRANES

s01-P-024

Junguang Jiang (State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Xian Hao, Mingjun Cai, Yuping Shan, Xin Shang, Zhiyong Tang, Hongda Wang

Molecular Recognition Imaging for Highly Specific Mapping of Na^+-K^+ ATPase in Native Cell Membrane

s01-P-025

Manuela Rueda (Department of Physical Chemistry, University of Seville, Seville, Spain), Inmaculada Navarro, Francisco Prieto, Consuelo Cerrillos

Gramicidin– DOPC Mixed Langmuir Films. Thermodynamic and AFM Studies

BIOSENSORS

s01-P-027

Soledad Bollo (Universidad de Chile, Santiago, Chile), Paulina Cañete, Claudia Yañez, Alejandro Alvarez-Lueje

Effect of length and treatment of carbon nanotubes on the DNA detection using nanotube-modified electrodes

s01-P-028

Ming Chen (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China)

Design of Glucose Amperometric Biosensor with Mono-6-thio-â-cyclodextrin/Ferrocene as Electron Shuttle

s01-P-029

Xu Chen (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China)

Graphite nanoplatelets-based composites for mediator-free biosensor applications

s01-P-030

Serge Cosnier (Grenoble University -CNRS, Grenoble cedex 9, France), Raoudha Haddad, Michael Holzinger, Abderrazak Maaref

D bioarchitecture based on Single-Walled Carbon Nanotubes and Biotinylated Pyrene: Application to Glucose Biosensing

s01-P-031

Carmen Creanga (University of Nantes, Nantes, France), Nabil El Murr

Disposable biosensors and bioassays: Use of “redox-flexible” system for detection of low substrate concentrations

s01-P-032

Shih-Yu Fu (Institute of Bio-Industrial Mechatronics Engineering, National Chung Hsing University, Taichung, Taiwan)

A cell-based microsystem with integrated iridium oxide electrodes and a microfluid-controlled chamber for extracellular pH measurement

s01-P-033

Miriam Gamero Montejo (Dep. Química Física Aplicada, Universidad Autónoma de Madrid, Madrid, Spain), Concepción Alonso Fuente, Encarnación Lorenzo Abab, Felix Pariente Alonso

New patterned substrates as sensor surfaces for the development of biosensors

s01-P-034

Magdalena Hromadova (J. Heyrovsky Institute of Physical Chemistry, v.v.i., Praha, Czech Republic), Michele Salmain, Nathalie Fischer Durand, Viliam Kolivoska, Romana Sokolova

Characterization of Atrazine–Based Monolayers Immobilized on Gold Electrodes and their Interaction with Anti–atrazine Antibody

s01-P-035

Hyun Ju Kang (Department of Chemistry, Pusan National University, Busan, Korea), Md. Abdul Aziz, Boyoun Jeon

Strategy for Low Background-Current Levels in the Electrochemical Biosensors using Horse-Radish Peroxidase Labels

s01-P-036

Jeong-Ah Lee (Department of Chemistry, Pusan National University, Busan, Korea), Md. Abdul Aziz, Srikanta Patra

A Facile Method of Achieving Low Surface Coverage of Au Nanoparticles on an Indium Tin Oxide Electrode and Its Application to Protein Detection

s01-P-037

Eric Lee (Department of Chemical Engineering, National Taiwan University, Taipei, Taiwan), Cheng-Hsuan Huang, Wen-Li Cheng

Capillary Electrophoresis of Bioparticles with Applications in Biosensors

s01-P-038

M.F. Mousavi (Chem. Dept., TMU, Tehran, Iran), S.Z. Bathaie

Electrochemical studies of DNA immobilized on the nanofiber polypyrrole electrode and its interaction with salicylic acid

s01-P-039

M.F. Mousavi (Chem. Dept., TMU, Tehran, Iran)

Electrochemical Biosensors of nanostructured CuO modified by Cyt-c to determine the H_2O_2

s01-P-040

Mehmet Ozsoz (Department of Analytical Chemistry, Faculty of Pharmacy, Izmir, Turkey), Nilay Aladag, Dilsat Ariksoysal, Pinar Kara, Seyma Aydinlik, Seda Nur Topkaya, Seda Cavdar

Interaction of Anticancer Drugs Camptothesin and Etoposide with an Nucleic Acid based Electrochemical Biosensor

s01-P-041

Eun-Sook Paik (Department of Chemistry Education , Seoul National University, Seoul, Korea), Hun-Gi Hong

Glucose Biosensor Based on Synergy Effect between Zinc Oxide and Chitosan Composite Films

s01-P-042

Dan Shan (College of Chemistry & Chemical Engineering, Yangzhou University, Yangzhou, China), Dan Shan, Yan-Na Wang, Huai-Guo Xue, En Han

Cholesterol biosensor based on entrapment of monoenzyme and multienzymes in clay/chitosan hybrid matrix

s01-P-043

Kang Shi (College of Chem. & Chem. Engin., Department of Chemistry, Xiamen University, Xiamen, China), Sheng Wang, Zhixing Cai, Ying Lei

Electrochemically Induced Free Radical Polymerization Approach and its Application in Fabricating Biosensor

s01-P-044

Vitali Syritski (Department of Materials Science/Tallinn University of Technology, Tallinn, Estonia), Jevgeni Kaev, Jekaterina Reut, Andres Öpik, Róbert E. Gyurcsányi, Joerg Rappich

Micropatterned Surface Imprinted PEDOT Films for Selective Protein Recognition

s01-P-045

Vladimír Vetterl (Institute of Biohysics, v.v.i., Academy of Sciences of the Czech Republic, Brno, Czech Republic), František Jelen, Miroslav Fojta, Sona Štepánková, Jan Lata, Stanislav Hason

Sensitive Determination of Purine Derivatives in Human Urine by Electrochemical Methods

s01-P-046

Yangping Wen (Jiangxi Key Laboratory of Organic Chemistry, Jiangxi Science and Technology Normal University, Nanchang, China), Haohua He, Fengxing Jiang

Electrochemical Biosensor based on PEDOT–Ascorbate Oxidase for Direct and Specific Determination on L-ascorbic Acid

s01-P-047

Yong-Qiang Wu (Department of Material and Chemistry, Sichuan University of Science & Engineering, Zigong, China), Zhi-Hong Mo

Piezoelectric gene chip for HIV-1 subtype detection

s01-P-048

Muhammad Nadeem Zafar (Analytical and Biochemistry Department, Kemicentrum, Lund, Sweden), Federico Tascaa, Gilbert Nöll, Lo Gorton

Amperometric Biosensor for Detection of Glucose and Lactose Based on the Electrical Wiring of Cellobiose Dehydrogenase with Osmium Redox Polymer and Carbon Nanotubes

s01-P-049

Xin Zhang (Helmholtz Centre Berlin for Materials and Energy GmbH (formerly Hahn-Meitner-Institut Berlin GmbH) Abteilung Silizium-Photovoltaik, SE1, Berlin, Germany), Guoguang Sun, Karsten Hinrichs, Joerg Rappich, Dana Rosu, Norbert Esser, Marc Hovestaedt, Rudolf Volkmer, Silvia Janietz

Modification of Au and Si(111):H Surfaces towards Biological Sensing

s01-P-050

Bin Zhu (Department of Physical Chemistry, Beijing, China)

Newly sequence-specific probe for DNA bioelectrochemical sensor

s01-P-051

Huai-Guo Xue (College of Chemistry & Chemical Engineering, Yangzhou University, Yangzhou, China), Dan Shan, Jing Zhang, Yong-Cai Zhang, Serge Cosnier

Polycrystalline Bismuth Oxide Films for Development of Amperometric Biosensor for Phenolic Compounds

Symposium 2: Corrosion Science and Technology

CORROSION

s02-P-002

Won-Jin Beom (Dept. Materials Sci. & Eng., Chonnam National Univ., Gwangju, Korea), Chan-Jin Park

Effects of NaCl and $CaCl_2$ Deicing Salts on the Cosmetic Corrosion of 11 % Cr and 18 % Cr Ferritic Stainless Steels for Automotive Mufflers

s02-P-003

Huichao Bi (Department of Materials, University of Oxford, Oxford, United Kingdom), John Sykes

Study of Cathodic Disbonding of Epoxy Coated Mild Steel by Scanning Acoustic Microscopy and Scanning Kelvin Probe

s02-P-004

Mengli Chen (Chemistry and Chemical Engineering College, Chongqing University; Institute of Oceanology, the Chinese Academy of Sciences., Qingdao, China), Xin Liu, Shengtao Zhang, Baorong Hou, Qingjun Zhu

Electrochemical Property of Mg-Based and Al-Based Sacrificial Anode in Seawater using Self-discharge Experiment

s02-P-005

Dong Fu (Department of Chemistry, University of Western Ontario, London, Canada), D. W. Shoesmith, P. G. Keech, X. Y. Zhang

Electrochemical Oxidation and Reduction of H_2O_2 on Single-Phase Iron Oxide/ITO Electrodes

s02-P-006

Fakiha Heakal (Chemistry Department, Faculty of Science, Cairo Univeristy, Giza, Egypt), Amany Fekry, Mohammed Fatayerji

Corrosion and passivation behavior of AZ91D magnesium alloy in aqueous halide solutions

s02-P-007

Huili Hu (College of Ocean, Harbin Inst. Technol. at Weihai, Weihai, China), Ning Li, Deyu Li

Electrochemical Noise Potential (ENP) Analysis of Sintered Zinc-aluminum Coatings in 3.5% NaCl

s02-P-008

Shun Koyama (Graduate School of Engineering, Hokkaido University, Sapporo, Japan), Yoshitaka Aoki, Hiroki Habazaki

Inter-relationship between Structure and Composition of Anodic Oxide Films Formed on Zr – Si Alloys

s02-P-009

Chun-Ku Kuo (Department of Applied Chemistry, National University of Kaohsiung, Kaohsiung City, Taiwan), Jenn-Shing Chen, James Carey

Corrosion Resistance from a Nano-Nickel Coating on an AZ91D Magnesium Alloy

s02-P-010

Jing Li (State Key Laboratory for Physical Chemistry of Solid Surfaces, and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Jing Li, Hong Yun, Ronggui Du, Changjian Lin

Low-Temperature Growth of a flower-like Nitrogen-Doped Titanianano Film and its performance of photogenerated cathodeprotection

s02-P-011

Liang Li (Department of Chemistry, Xuzhou Normal University, Xuzhou, China), Chao Wang, Shenhao Chen, Wenjing Wang

Effects of the Magnetic Field on the Electrodissolution of Nickel in the $HNO_3 + Cl^-$ Solution

s02-P-012

Chang Linrong (Department of Chemistry, Zhejiang University, Hangzhou, China)

Anodization of AZ91D alloy by self-made alternative square wave power source

s02-P-013

Shoudong Mao (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China), Jinlong Li, Huagen Ying, Zhenlun Song

Electrochemical noise study on the corrosion mechanism of aluminum coating on NdFeB by DC magnetron sputtering

s02-P-014

Masahiro Nakamura (Department of Applied Chemistry, Faculty of Engineering, Kogakuin University, Tokyo, Japan), Hidetaka Asoh, Sachiko Ono

Control of Structure and Stability of Porous Alumina Membrane Formed by Anodization

s02-P-015

Gerhard Nauer (University of Vienna, Faculty of Chemistry, Vienna, Austria), Norica Godja, Josef Wendrinsky, Christine Löcker, Nikolett Kiss, Andreas Schindel, Sasa Korom

Spark anodisation of Al-alloys: Study of the growth of the alumina layer at various electrochemical conditions and corrosion characterisation

s02-P-016

Gregory Odemer (CIRIMAT/ENSIACET, Toulouse, France), Christel Augustin, Eric Andrieu, Christine Blanc, Jerome Delfosse

Propagation of intergranular corrosion damage in 2024 aluminium alloy exposed to sulfate-containing chloride solutions

s02-P-017

Carl Albrecht Schiller (Zahner elektrik, Kronach, Germany), Werner Strunz, Jörg Vogelsang

The Dielectric Properties of Barrier Coatings - a Superposition of Coating Material and Pores

s02-P-018

Cunguan Xu (State Key Laboratory of Advanced Metals and Materials, University of Science and Technology Beijing, State Key Laboratory of Multi-phase complex Systems, Institute of process Engineering, BeiJing, China), Lingzhong Du, Weigang Zhang, Bin Yang

Study of occluded cell of Ni/Graphite abradable sealing coating in NaCl solution

s02-P-019

Hengxiu Yang (Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China), Huagen Ying, Zhenlun Song, Jianzhong Li

Study on electrochemical corrosion mechanism of sinstered NdFeB in HNO_3 solution

s02-P-020

Xuegeng Yang (Institute for Fluid Dynamics, Technische Universitaet Dresden, Dresden, Germany), Kerstin Eckert, Ralph Sueptitz, Annett Gebert, Magitta Uhlemann, Stefan Odenbach

Potentiostatic current oscillations of iron in sulfuric acid solution in differently oriented magnetic fields

s02-P-021

Chenqing Ye (State Key Laboratory for Physical Chemistry of Solid Surfaces, and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Shigang Dong, Ronggang Hu, Changjian Lin, Chenqing Ye

Continuously EIS study on Chloride threshold Content of steel in simulated carbonated concrete pore solution

s02-P-022

Min Zeng (Department of Chemistry, Xuzhou Normal University, Xuzhou, China), Chao Wang, Liang Li, Yuan Yuan

Study of Designed Current Oscillations of the Fe/H_2SO_4 System with the Flow Injection

CORROSION INHIBITORS

s02-P-023

Corre Ana Laura (Química Física Aplicada, Madrid, Spain), Roman Cabrera-Sierra, Fethi Bedioui, Sophie Griveau, Silvia Gutierrez

Electrochemical impedance spectroscopy and scanning electrochemical microscopy characterization of organic coatings on aluminum substrate

s02-P-024

Niloufar Bahrami Panah (Chemistry Department/Payame Noor University, Karaj, Iran), Abdol Mohammad Attaran

Study of Anticorrosive Properties of Polyaniline Nano-pigments *via* Electrochemical Techniques

s02-P-025

Kun Cao (Institute of Material Science and Engineering, Ocean University of China; Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China), Weihua Li, Yubin Fu, Yunju Li, Baorong Hou

Study on Effectiveness of a Migrating Corrosion Inhibitor on Reinforcing Steel

s02-P-026

Yunju Li (College of Chemistry and Chemical Engineering, Chongqing University; Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China), Weihua Li, Shengtao Zhang, Kun Cao, Baorong Hou

Corrosion Inhibition of Mild Steel by Carboxymethyl Chito-oligosaccharide Schiff Base in Simulated Seawater

s02-P-027

Ursula Rammelt (EXCOR Korrosionsforschung GmbH, Dresden, Germany)

The efficiency of vapour-phase corrosion inhibitors (VCIs) in neutral and alkaline solutions

s02-P-028

Min Wang (Institution of Material Science and Engineering, Ocean University of China, Qingdao, China), Lan Liu, Yansheng Yin, Benlin He, Wuyuan Zou, Xuefei Xu

Corrosion Behavior of hydrophobic TiO_2 Film In Seawater

s02-P-030

Ying Yan (College of Resource and Environmental Engineering, East China University of Science and Technology, Shanghai, China), Weihua Li, Lankun Cai, Baorong Hou

Electrochemical Study of Triazole as Corrosion Inhibitor for Mild Steel in 1M HCl Solution

s02-P-031

Da-Quan Zhang (Department of Environmental Engineering, Shanghai, China), Qi-Rui Cai, Li-Xin Gao

Inhibition Property of Glutathione for Copper Corrosion in Hydrochloric Acid Solution

PASSIVITY

s02-P-032

Sifu Bi (School of the Ocean, Harbin Institute of Technology, Weihai, China), Hai Ping Liu, Ning Li, Zhen Mi Tu

Investigation of the Corrosion Resistance of Trivalent Chromium Conversion Coatings on Zinc Deposit

s02-P-033

Laura Burgos-Asperilla (Universidad Autónoma de Madrid, Madrid, Spain), María Cristina Garcia-Alonso, M. Gamero, Concepcion Alonso

Electrochemical characterization of the titanium/DMEM interface

s02-P-034

Anca Cojocaru (Department of Applied Physical Chemistry and Electrochemistry, University Politehnica Bucharest, Bucharest, Romania), Florentina Golgovici, Liana Anicai, Teodor Visan

The Corrosion Study of Nickel and Tin Interacting with Choline Chloride – Urea Ionic Liquid

s02-P-035

Kevin Ogle (Ecole Nationale Supérieure de Chimie de Paris, Paris, France), Meriem Mokaddem, Polina Volovitch

Atomic Emission Spectroelectrochemical Study of Selective Dissolution During Passive / Active Cycles of Stainless Steel

s02-P-036

Kyung Jin Park (Materials Science and Engineering, DaeJeon, Korea), Hyuksang Kwon, Sejin Ahn

Effects of Solution Temperature on the Corrosion Behaviors of Passive Nickel

s02-P-037

Shu Yang (Graduate School of Engineering Hokkaido University, Sapporo, Japan), Hiroki Habazaki, Yoshitaka Aoki

Formation of Porous Anodic Alumina in Hot Phosphate-Glycerol Electrolyte

s02-P-038

Xiangrong Zhang (Chemistry, The University of Western Ontario, London, Canada), D. Zagidulin, P. Jakupi, D.W. Shoesmith, J.J. Noël

Characterization of Oxide Films on Ni-Cr-Mo (W) Alloys and their Influence on the Kinetics of O_2 Reduction

LATE REGISTRATIONS AND CHANGES

Dongwoo Kim (School of Material & Engeneering, Hongik University, Yeongigun, Korea) Hwangyo Jung, Heesan Kim, Sungwoong Ko, Geunwoong Lim

Effects of Alloying Elements on Corrosion Resistance o Low Alloyed Steels in Seawater Ballast Tank Environment

Xiaofei Yu (Department of Chemistry, Shandong University, Jinan, China)

The Effect of Grain Size on the Intergranular Corrosion of Auttenitic Stainless Steel

Liang Wang (Department of Chemistry, Shandong University, Jinan, China) Liang Li, Chao Wang, Boyu Yuan, Xiaoyan Zhang

Fast Mapping the Transient Concentration Changes of the Electrode/solution Interface With the Digital Holographic Reconstruction

Dong-Jin Kim (Nuclear Materials Research Division, Korea Atomic Energy Research Institute, Daejeon, Korea)

Corrosion Behaviours of Materials in High Temperature and High Concentration Sulfuric Acid

Symposium 3: Electroanalysis and Electrochemical Sensors

ELECTROANALYSIS

s03-P-001

Veronica Arancibia (Chemistry Faculty, Pontificia Universidad Catolica de Chile, Santiago, Chile), Manuel Zúñiga, Carolina Muñoz

Simultaneous determination of Pb(II) and Cd(II) in water samples by adsorptive stripping voltammetry using a glassy carbon electrode modified with mercury-nafion-guanine

s03-P-002

Christopher Batchelor-McAuley (Oxford Univeristy, Oxford, United Kingdom)

Electroanalysis Using Nanoparticulate Metal Oxides

s03-P-003

Chenxin Cai (College of Chemistry and Environmental Science, Nanjing Normal University, Nanjing, China)

Electrochemical Detection of Hepatitis C Virus based on Site-specific DNA Cleavage of BamHI Endonuclease

s03-P-004

António Cascalheira (Lumisense Lda, Lisboa, Portugal), Diogo Ramadas

Electrochemiluminescence properties of polyluminol on SWCNT/SPCE

s03-P-005

Chuanxiang Chen (Department of Chemistry, School of Materials Science and Engineering, Jiangsu University of Science and Technology, Zhenjiang, China), Yuhua Gao

Detection of Intermediate species during the Electropolymerization of Neutral Red by the Rotating Ring-Disk Electrode

s03-P-006

Fernando Cortes-Salazar (Laboratoire d'Electrochimie Physique et Analytique, Ecole Polytechnique Fédérale de Lausanne., Lausanne, Switzerland), Jean-Marc Busnel, Fei Li, Hubert Girault

SECM Imaging of Oxygen Reduction on PVDF Membranes: Indirect Protein Detection and Human Fingerprint Imaging

s03-P-007

Hong Dai (Ministry of Education Key Laboratory of Analysis and Detection for Food Safety and Department of Chemistry, Fuzhou University, Fuzhou, China), Guonan Chen, Xiao ping Wu

A highly performing electrochemical sensor for NADH based on graphite / Poly(methylmethacrylate) composite electrode

s03-P-008

Martin M. Davila (Universidad Autónoma de Puebla, Puebla, Mexico), Socorro Flores, Mario González

Interference effects in DPV and HPLC-ED of flavonoids

s03-P-009

Yi-Min Fang (Ministry of Education Key Laboratory of Analysis and Determination for Food Safety, College of Chemistry and Chemical Engineering, Fuzhou University, Fuzhou, Fujian, China), Guo-Nan Chen

A simple approach to the solution of diffusion equation at microcylinder electrode

s03-P-010

Masoumeh Ghalkhani (Sharif University of Technology, Tehran, Iran), Saeed Shahrokhian

Electrochemical Study of Azathioprine at Ultrathin Carbon Nanoparticle Composite Film Electrode

s03-P-011

Frantisek Jelen (Institute of Biophysics, v.v.i., Brno, Czech Republic), Stanislav Hason, Vladimir Vetterl, Alena Kourilova, Libuse Trnkova

Electroactivity of Selected Purine Derivatives in the Presence of Copper Ions

s03-P-012

Sanghyuk Kang (Department of Chemistry, Seoul Women's University, Seoul, Korea), Jonggyu Baek, Ki-Jung Paeng, Insook Rhee Paeng

The Selectivity Changes for Cation-selective Electrodes based on Tetracycline, Chlorotetracycline and Modified Tetracyclines

s03-P-013

Fumiyo Kusu (School of Pharmacy, Tokyo University of Pharmacy & Life Sciences, Tokyo, Japan), Yoshiaki Wakabayashi, Akira Kotani, Mototaka Kohama

Flow Injection Analysis with Electrochemical Detection for Determining Ammonia in Exhaled Breath

s03-P-014

Fumiyo Kusu (School of Pharmacy, Tokyo University of Pharmacy & Life Sciences, Tokyo, Japan), Daigo Matsumoto, Akira Kotani, Hideki Hakamata

A column-switching HPLC with electrochemical detection for determining isoflavones in soymilks

s03-P-015

Katrin Lettau (University Potsdam Analytical Biochemistry, Potsdam, Golm, Germany)

Direct Voltammetry of Nitric Oxide Synthase and Electrocatalysis

s03-P-016

Aiping Liu (School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore, Singapore), Weihua Tang, Xu Qiu, Jiaqi Zhu

Phosphorous Doped Diamond-like Carbon Thin Film Electrodes Coated with Gold Nanoclusters for Determination of Trace Heavy Metals

s03-P-017

Hui-jun Liu (School of Materials Science And Metallurgy, Northeastern University, Shenyang, China), Qian Xu

A Study on the Electrochemical Behavior of the V(IV)/V(V) Couple on a Graphite Electrode

s03-P-018

Olga Makhotkina (Department of Chemistry, University of Auckland, Auckland, New Zealand), Paul Kilmartin

Cyclic Voltammetry for Understanding the Role of Antioxidants in Wine Aging

s03-P-019

Dzianis Menshykau (Oxford Univeristy, Oxford, United Kingdom)

Influence of Electrode Surface Morphology on Cyclic and Stripping Voltammetry

s03-P-020

Eva Samcova (Department of Biochemistry, Third Faculty of Medicine, Charles University, Prague 10, Czech Republic), Petr Tuma

Electrophoretic Determination of Low Glycine Concentrations in Microdialysate Samples of Periaqueductal Gray Matter of Rats

s03-P-021

Rodrigo Segura (Departamento de Química de los Materiales, Facultad de Química y Biología, Universidad de Santiago de Chile, Santiago, Chile), Manuel Zúñiga, Verónica Arancibia, Debora Alcayaga

Determination of molybdenum in the presence of morin-5'-sulfonic acid by adsorptive stripping voltammetry

s03-P-022

Kang Shi (College of Chem. & Chem. Engin., Department of Chemistry, Xiamen University, Xiamen, China), Kun Hu, Sheng Wang

Bismuth Film Electrodes/Electrochemically Activated Glassy Carbon Electrode and its Application in the Sensitive Determination of Heavy Metal Ions

s03-P-023

Atsushi Sugiyama (Waseda Institute for Advanced Study, Waseda University, Shinjuku, Japan), Ryoichi Morimoto, Yusuke Yamauchi, Iwao Mogi, Ryoichi Aogaki, Tetsuya Osaka

Electrochemical Response of Spin Electrode under an External Magnetic Field

s03-P-024

Michaela Vorlickova (Institute of Biophysics, v.v.i., Brno, Czech Republic), Radka Mikelova, Libuse Trnkova, Frantisek Jelen, Iva Kejnovska, Michaela Vorlickova

Electrochemical and Circular Dichroic Analysis of DNA Fragments Formed by Cytosine and Adenine Bases

s03-P-025

Lei Xiao (Physical & Theoretical Chemistry Laboratory, Oxford University, Oxford, United Kingdom), Gregory Wildgoose, Alison Crossley

The electroreduction of "C60" films in aqueous electrolyte does not lead to alkali metal ion insertion - evidence for the involvement of adventitious poly-epoxidated C60 (C60On)

s03-P-026

Wang Yao (Department of Chemistry Shanghai Normal University, Shanghai, China), Wang Yao, Ma Xiaoling, Wen Yin, Duan Guoping, Ren Wei, Zhang Zongrang, Yang Haifeng

Direct Electrochemistry and Electrocatalytic Properties of Horseradish Peroxidase in Gold Nanoparticles (2-5 nm) / Poly(diallyldimethylammonium chloride) Layers Modified GCE by Self-assembly

ELECTROCHEMICAL SENSORS

s03-P-027

A. J. Saleh Ahammad (Department of Advanced Technology Fusion, Seoul, Korea), Yong Yuan, Sunghyun Kim

Selective detection of dopamine from its interferences at poly (thionine) modified glassy carbon electrode.

s03-P-028

Guonan Chen (Ministry of Education Key Laboratory of Analysis and Detection for Food Safety and Department of Chemistry, Fuzhou University, Fuzhou, China), Hong Dai, Xiaoping Wu

A simple route to incorporate redox mediator onto Titanate Nanotubes based modified electrode and its application to determine Trichloroacetic acid

s03-P-029

Junping Dong (Department of Chemistry, Shanghai University, Shanghai, China), Yanyan Hu, Jiaqiang Xu, Yuhong Zhang

Direct Electron Transfer of Hemoglobin Immobilization on Ordered Mesoporous Carbon/Ionic Liquid Gel Modified Electrode

s03-P-030

Ali A. Ensafi (Chemistry, Isfahan University of Technology, Isfahan, Iran), Sedigeh Sedighi Haftjani

Selective Thiocyanate Poly(Vinyl Chloride) Membrane Based on A Bis(Methyl Salophene) Di Propylene Triamine-Cu(Ii) Complex

s03-P-031

Fatemeh Ghorbani Bidkorbeh (Pharmaceutics, School of Pharmacy, Tehran, Iran), Saeed Shahrokhian, Ali Mohammadi, Rasoul Dinarvand

Electrochemical Study of Tramadol Hcl using Glassy Carbon Electrode Modified with Carbon Nanoparticles and its Analytical Application in Pharmaceutical Dosage Forms

s03-P-032

Eric de Souza Gil (FF-UFG, Goiânia, Brazil), Adelia Maria Lima da Silva, Diego Ives De Villasboas e Santos, Kátia Flávia Fernandes

Development of a Modified Biosensor by a Dried Extract of Lobeira (Solanum lycocarpum) for the Analysis of Phenolic Compounds in Environmental Samples

s03-P-033

Jaesik Hwang (Nuclear Chemistry Research Division / KAERI (Korea Atomic Energy Research Institute), Daejeon, Korea), Jei-Won Yeon, Myung-Hee Yun, Kyuseok Song, Sang-Ill Lee

Effects of Various Environmental Factors on High Temperature pH by using YSZ pH Electrode in Lithium Borate Solutions: a Feasibility Study

s03-P-034

Kazufumi Inada (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Katsuhiko Nishiayama, Isao Taniguchi

Selective Detection of Tryptophan and Seretonin at Glassy Carbon Paste Electrodes

s03-P-035

Golamreza Khayatian (Chemistry Department, Sanandaj, Iran), Laleh Masoumzadeh

Potentiometric Sensor Based on Charge – Transfer Complex between I_2 and Tetraaza-14-crown-4 for Selective Determination of I_3- Ions

s03-P-036

Golamreza Khayatian (Chemistry Department, University of Kurdistan, Sanadaj, Iran), Laleh Masoumzadeh, Sajad Mohabbi

Iron (III) - selective Electrode Based on New Synthetic Schiff Base

s03-P-037

Alexander Kuhn (University Bordeaux 1, Pessac, France), Lucie Viry, Alain Derre, Patrick Garrigue, Neso Sojic, Philippe Poulin

Carbon Nanotube Fiber Microelectrodes as Selective Analytical Tools

s03-P-038

Jan Langmaier (J. Heyrovský Institute of Physical Chemistry of ASCR, v.v.i, Prague 8, Czech Republic), Antonín Trojánek, Zdenek Samec

Amperometric ion-selective electrode for alkali metal cations based on a room-temperature ionic liquid membrane

s03-P-039

Rong Lei (College of Chemistry and Molecular Engineering, Beijing, China), Wang Xinyi, Na Li

An Electrogenerated Chemiluminescene (ECL) Biosensor Based on Mesoporous Molecular Sieve Silicas Modified Electrode

s03-P-040

Xiaohong Li (Department of Chemistry, Beijing, China)

Electrochemical Detection of Single Nucleotide Mismatch by Electrochemical Impedance Spectroscopy

s03-P-042

Fred Lisdat (Biosystems Technologies, University of Applied Sciences Wildau, Wildau, Germany), Sandra M. Buetow

Parallel Detection of DNA-Sequences on One Gold Electrode

s03-P-043

Zekra Mousavi (Åbo Akademi University, Turku, Finland)

Ion-Selective Organic Electrochemical Transistors Based on Conducting Polymer

s03-P-044

Katsuhiko Nishiyama (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Hiroyuki Yamada, Shintaro Kishi, Keita Sato, Hiroaki Matsuura, Nobuo Nakano, Yasuo Seto, Isao Taniguchi

Development of Electrochemical Gas Sensor for Blister Agents using Carbon Electrode Modified with Au Nano Particles

s03-P-045

Lei Peng (Institute of Biochemistry and Biology, Potsdam, Germany), Ulla Wollenberger, Frieder. W. Scheller

Bio(electro)catalytic behavior of Agrocybe aegerita peroxygenase immobilized on carbon electrodes

s03-P-046

Behzad Rezaei (Department of Chemistry, Isfahan, Iran), Taghi Khayamian, Najmeh Majidi, Hamidreza Rahmani

Immobilization of Specific Monoclonal Antibody on Au Nanoparticles for Hgh Detection by Electrochemical Impedance Spectroscopy

s03-P-047

Seung Hyun Shin (Department of Chemistry Education, Seoul National University, Seoul, Korea), Hun-Gi Hong

Anodic Stripping Voltammetric Detection of Arsenic at Gold Nanoparticle Self-Assembled on Three-Dimensional Sol-Gel Network

s03-P-048

Michael Snowden (Chemistry Department, University of Warwick, Coventry, United Kingdom), Philip King, James Covington, Julie Macpherson, Patrick Unwin

A novel method for the rapid production of channel flow cell electrodes which provide well defined hydrodynamics at high flow rates

s03-P-049

Yi Wan (Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China), Dun Zhang

Faradic Impedance Biosensor for the Detection of Vitamin B12

s03-P-050

Yue Wang (Department of Materials Science and Engineering, Graduate School of Engineering, Saitama Institute of Technology, Fukaya, Japan), Yasushi Hasebe

Tyrosinase-Modified Carbon Felt-Based Flow-Biosensors: Enhancement Effect of Acridine Orange on the Sensitivity Toward Phenol and Catechol Compounds

s03-P-051

Yong-Qiang Wu (Material and Chemical Engineering Dept., Zigong, China)

Investigation on the in-situ Synthesis of Molecular Imprint Polymer for on-line Sudan I Monitoring by Piezoelectric Sensor

s03-P-052

Juan Xiang (Institute of Surface Analysis and Biosensing, School of Chemistry and Chemical Engineering, Changsha, China)

Immobilization of Metallothionein on Highly Oriented Pyrolytic Graphite for Biosensor Design

s03-P-053

Qing Xie (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China)

Direct electrochemistry and Electrocatalysis of hemoglobin immobilized in commercial conductive graphite (KS-6)

s03-P-054

Myung-Hee Yun (Nuclear Chemistry Research Division / KAERI (Korea Atomic Energy Research Institute), Daejeon, Korea), Jei-Won Yeon, Jaesik Hwang, Kyuseok Song

Calculation for concentration changes of the internal electrolyte in Ag/AgCl reference electrode by using relationship the electrical conductivity and KCl activity

s03-P-055

Hui Zhang (College of Chemistry and Environmental Science, Nanjing, China), Chenxin Cai

The Effects of Ionic Liquids on enzymatic catalysis of the oxidation of glucose by Glucose Oxidase

s03-P-056

Huimin Zhao (School of Environmental and Biological Science and Technology, Dalian University of Technology, Dalian, China), Hongta Wang, Huimin Zhao, Xie Quan

Molecularly Imprinted Polymers Coated Micro/Nano Electrode for Electrochemical Detection of Tetracycline

s03-P-057

Yi-Ge Zhou (School of Chemistry and Chemical Engineering, Nanjing, China), Si Yang, Qing-Yun Qian, Xing-Hua Xia

Gold nanoparticles integrated in a nanotube array for electrochemical detection of glucose

s03-P-058

Hao Zhou (Sciences of Conservation and Archaeology Laboratory, Shanghai Museum, Shanghai 200050, PR China, Shanghai, China), Haiping Hou, Ying Yan, Laiming Wu

Polyaniline-Modified Quartz Crystal Microbalance Sensor for Detection of Acetic Acid Gas

MICRO- AND NANOSENSORS

s03-P-059

Lixin Cao (Department of Applied Chemistry, Harbin Institute of Technology, Weihai, China), Peisheng Yan, Kening Sun, Tao Wang

D Gold Brush nanoelectrode ensembles for the detection of HRP in the OPD-H_2O_2-HRP system

s03-P-060

Sheng-Yao Chang (Institute of Bio-Industrial Mechatronics Engineering, National Chung Hsing University, Taichung, Taiwan)

A Capillary Electrophoresis Microchip Integrated with Top-Bottom Opposed Conductimetric Electrodes for The Detection of Alkali Ions

s03-P-061

Mao Lanqun (Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, The Chinese Academy of Sciences, Beijing, China)

Nano/Bio-Electroanalytical Approaches to Probing Brain Chemistry

s03-P-062

Tomokazu Matsue (Graduate School of Environmental Studies, Tohoku University, Sendai, Japan), Zhenyu Lin, Kosuke Ino, Hitoshi Shiku

Electrochemical Gene-function Analysis for Single Cells with Addressable Microelectrode/Microwell Arrays

MODIFIED ELECTRODES

s03-P-063

Siming Chen (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Xu Chen

Cobalt tetrasulphonated phthalocyanine intercalated Zn-Al layered double hydroxide as electrocatalyst for the detection of glucose

s03-P-064

Ming Chen (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Yafeng Zhu, Ting Shang, Ming Chen

Modification of p-Tert-butylcalix[8]arene octa-amine on Gold Electrode and its Application

s03-P-065

Guowang Diao (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Yu Chen, Ming Chen

Self-assemble of 6-Ethylenediamine-â-Cyclodextrin on Gold Electrode

s03-P-066

Laura Galicia (Química/Universidad Autónoma Metropolitana-Iztapalapa, Mexico DF, Mexico), Maria Luisa Lozano

Poly Fe(III)-5-Amin 1,10 phenantroline electropolimerization, over different carbon substrates

s03-P-067

Gero Göbel (University of Applied Sciences Wildau Biosystems Technology, Wildau, Germany), Thomas Dietz, Fred Lisdat

Bienzyme Sensor Based on an Oxygen Reducing Bilirubin Oxidase Electrode

s03-P-068

Alexander Kuhn (University Bordeaux 1, Pessac, France), Veronika Urbanova, Martin Bartos, Karel Vytras

Elaboration of Porous Bismuth Film Electrodes and their Application in Electroanalysis

s03-P-069

Ying Li (School of Chemical and Environmental Engineering, China University of Mining and Technology, Beijing, China), Qiang Xie, Yan Wang, Wen Yan

The Relationship between Adsorption Capability in Aqueous Phase and Electrochemical Performances of Activated Carbons

s03-P-070

Liang Liu (Department of Chemistry, Zhejiang University, Hangzhou, China), Jian-Qing Zhang, Chu-Nan Cao

Anodic Electrodeposition of Silane films on Glassy Carbon Electrodes

s03-P-071

Alireza Mohadesi (Department of Chemistry, Payame Noor University, Kerman, Iran), Maryam Pourfarsi

A 2-mercaptoethansulfonate self-assembled monolayer for blocking of ascorbic acid oxidation and its application for determination of dopamine

s03-P-072

Binh Thi Thanh Nguyen (Department of Chemistry, Faculty of Science, National University of Singapore, Singapore), Yan Huang, Chee-Seng Toh

Application of electrode-membrane-electrode in studying the transport of charged oligonucleotide and electroactive species through the nanopore membrane

s03-P-073

Su-Moon Park (Department of Chemistry and Center for Integrated Molecular Systems, Pohang University of Science and Technology, Pohang, Korea), Jin-Young Lee, Shin-Jung Choi, Bo-Geum Choi, Jin-Young Park

Label Free Detection for Biosensors Based on Self-Assembled Monolayers

s03-P-074

Cristian Pirvu (Faculty of Applied Chemistry and Material Science, University Politehnica Bucharest, Bucharest, Romania), Simona Popescu, Mihaela Mindroiu, Ioana Demetrescu

Electrochemical behaviour of chlorinated phenols on Pt/poly(3,4-ethylenedioxy)thiophene and Pt/poly(3,4-ethylenedioxypyrrole) modified electrodes

s03-P-075

Jahan Bakhsh Raoof (Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran), Reza Ojani, Fereshteh Chekin, Sahar Rashid-Nadimi

Fabrication of electrochemical sensor based on naphthoquinone modified nanogold and poly 2,4-pyridinedicarboxylic acid composite: Application for detection of N-acetyl-L-cysteine

s03-P-076

Jahan Bakhsh Raoof (Mazandaran University, Babolsar, Iran), Reza Ojani, Fereshteh Chekin

Electrochemical detection of cysteamine with 1, 2-naphthoquinone-4-sulfonic acid sodium modified gold electrode using Michael addition

s03-P-077

Qijin Wan (School of Chemical Engineering & Pharmacy, Wuhan Institute of Technology, Wuhan, China), Yu Fen, Xiaoxia Wang, Nianjun Yang

Simultaneous Determination of Catechol and Hydroquinone at Poly-L-Cys/Multi-Walled Carbon Nanotubes Composite Film Modified Glassy Carbon Electrode

s03-P-078

Peng Xiao (Dept. of Applied Physics, Chongqing University, Chongqing, China), Yunhuai Zhang, Guozhong Cao, Hongfa Dai

Investigation of Highly-ordered Titania nanotube electrode annealed in different gases

s03-P-079

Wen Yan (China University of Mining and Technology, Beijing, China), Qiang Xie, Ying Li, Ming-Shun Yang, Ting-ting Zhang

Preparation Process Optimization of Activated Carbon for Electrochemical Capacitor

ULTRA-TRACE ANALYSIS

s03-P-080

Guonan Chen (Ministry of Education Key Laboratory of Analysis and Detection for Food Safety and Department of Chemistry, Fuzhou University, Fuzhou, Fujian , China, Fuzhou, China), Hong Dai, Xiao ping Wu

Electrochemiluminescent biosensor for choline based on titanate nanotubes/chitosan composite modified electrode

s03-P-081

Grzegorz Lisak (Laboratory of Analytical Chemistry and Centre for Process Analytical Chemistry and Sensor Technology 'ProSens', Process Chemistry Centre, Åbo Akademi University, Åbo-Turku, Finland), Bartosz Rozmyslowicz, Tomasz Sokalski, Johan Bobacka, Andrzej Lewenstam

A New Approach Obtaining Low Detection Limit With Solid-State Lead-Selective Electrodes

s03-P-082

Abdollah Salimi (University of Kurdistan, Sanandaj, Iran)

Highly sensitive sensor for biomolecules detection based on Silicon carbide nanoparticles modified electrode

s03-P-083

Wenchuan Zu (Department of Chemistry, Beijing Normal University, Beijing, China), Xun Li, Zhenghao Wang

Determination of ultra trace amount of methylmercuy by atomic fluorescence spectrometry coupled with electrochemical cold vapour generation

LATE REGISTRATION

Ligia Maria Moretto (Dept. Physical Chemistry University of Venice, Venice, Italy) Denis Badocco, Thiago Kohls, Paolo Pastore, Neso Sojic, Paolo Ugo

Role of the interfacial polymer film in ECL of Ru(bpy)32+ at Nafion-Langmuir-Blodgett modified electrodes

Meng Lin (Chemical Engineering, Suwon, Korea) Misuk Cho, Woo-seok Choe, Youngkwan Lee

An Electrochemical Impedance Immunosensor for Detection of Endotoxin on ssDNA Modified Gold Electrodes

Meng Lin (Chemical Engineering, Suwon, Korea) Misuk Cho, Woo-seok Choe, Youngkwan Lee, Yongkeun Son

An electrochemical biosensor for detection of metal ions using tripeptide modified conducting polymer electrodes

Symposium 4: Electrocatalysis

BIO-SYMPOSIUM 4: ELECTROCATALYSIS

s04-P-001

Matteo Duca (Leiden University, Leiden Institute of Chemistry, Leiden, Netherlands), Marc Koper

Bio-inspired catalysts for nitrite electroreduction.

s04-P-002

Hamid Reza Zare (Department of Chemistry, Yazd, Iran), Navid Nasirizadeh

Simultaneous Determination of Ascorbic Acid, Epinephrine and Uric acid at a Glassy Carbon Electrode Modified with Hematoxylin and Multi-Wall Carbon Nanotubes

SYMPOSIUM 4: ELECTROCATALYSIS

s04-P-003

Mahmood Aliofkhazraei (Materials Engineering Department, Tarbiat Modares University, Tehran, Iran), Alireza Sabour Rouhaghdam

Pt-Co Electrodeposition on Carbon Nanotubes as Electrocatalysts

s04-P-004

Ipek Becerik (Department of Chemistry, Istanbul Technical University, Istanbul, Turkey)

An artificial neural network analysis to the underpotential deposition technique

s04-P-005

Shengli Chen (Chemistry Department, Wuhan University, Wuhan, China), Lihui Ou, Fan Yang

The mechanism of Pt-catalyzed oxygen reduction reaction in acid medium: a DFT calculation study

s04-P-006

Yanxin Chen (State Key Laboratory of Physical Chemistry of Solid Surfaces, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Sheng-Pei Chen, Jie-Ying Wang, Zhi-You Zhou, Shi-Gang Sun

Electrochemically Shape-Controlled Synthesis of Iron Nanoparticles and their Catalytic Properties for Nitrite Reduction

s04-P-007

Sheng-Pei Chen (State Key Laboratory of Physical Chemistry of Solid Surfaces, College of Chemistry and Chemical Engineering, Department of Chemistry, Xiamen University, Xiamen, China), Jie-Ying Wang, Yan-Xin Chen, Shi-Gang Sun

Preparation of FePt alloy nanoparticles and their electrocatalytic activity for nitrite reduction

s04-P-008

Yukou Du (College of Chemistry, Chemical Engineering and Materials Science, Suzhou University, Suzhou, China), Hongmei Zhang, Weiqiang Zhou, Jingkun Xu, Ping Yang

Enhanced Electrocatalytic Activity for Methanol Oxidation on Pt-TiO_2/ITO Electrode by UV illumination in Alkaline Medium

s04-P-009

Yongjun Feng (Lab. Electrocatalysis, UMR-CNRS 6503, Poitiers, France), Nicolas Alonso-Vante, Ting He

Carbon-Supported $CoSe_2$ Nanoparticles for Hydrogen Evolution Reaction in Acid Medium

s04-P-010

Zheng Jun-Sheng (Clean Energy Automotive Engineering Center, Tongji University, Shanghai, China), Jin-Li Qiao, Ping Li, Dai-Jun Yang, Hong lv, Bing Li, Jian-Xin Ma, Hai-Jiang Wang, Jin-Feng Wu

Electrocatalytic Oxygen Reduction Reaction on Carbon Nanofibers Directly Grown on Carbon Paper

s04-P-011

Dong Baek Kim (School of Chemical and Biological Engineering and Research Center for Energy Conversion and Storage, Seoul National University, Seoul, Korea), Hee-Joon Chun, Yoon Kyung Lee

Synthesis and Characterization of Highly-dispersed PtRu Electrocatalyst by Modified Polyol Method with Formaldehyde

s04-P-012

Remigiusz Kowalik (Faculty of Non-Ferrous Metals, AGH University of Science and Technology, Krakow, Poland), Lukasz Kania, Piotr Zabinski

Dealloying Corrosion of Iron-group Metal Alloys for Hydrogen Evolution.

s04-P-013

Weon-Doo Lee (School of Chemical and Biological Engineering and Research Center for Energy Conversion and Storage, Seoul National University, Seoul, Korea), Dong-Ha Lim

Synthesis and Characterization of $Ce_{0.5}Zr_{0.5}O_2$ Nanoparticles on Pt/10wt% $Ce_{0.5}Zr_{0.5}O_2$-C Electrocatalyst

s04-P-014

Lian-Xing Li (College of Chemistry and Chemical Engineering,Central South University, Changsha, China), Hong-Tao Liu, Zhuo Luo

Evaluation On Polarization Capacity Loss Based on CITT and CC-CV Charge Protocol

s04-P-015

Yan Li (School of Chemical Engineering and Technology, Inner Mongolia University of Technology, Hohhot, China), Yan Li, Zhijun Zhang, Jinrong Liu, Jinghong Li

In situ Deposition Antimony Nafion Film Electrode for Electrochemical Stripping Analysis

s04-P-016

Bing Li (School of Automotive Studies, Tongji University, Shanghai, China), Jinli Qiao, Daijun Yang, Junsheng Zheng, Hong Lv, Jianxin Ma, Jinfeng Wu, Haijiang Wang

Carbon-supported Ir-Ti/C catalysts for hydrogen oxidation reaction in the polymer electrolyte fuel cell

s04-P-017

Li Lisdat (Chongqing University, Chongqing, China), Li Li, Yi Zhang, Xueqiang Qi, Meirong Xia, Xingli Ma, Jie Zhang

DFT Study of Difference Caused by Catalyst Supports in Pt and Pd Catalysis of Oxygen Reduction Reaction

s04-P-018

Hosseini Mirghasem (Electrochemistry Research Laboratory, Department of Physical Chemistry, Tabriz, Iran), Mohamad Mohsen Momeni

Preparation of Au supported on nanotubular TiO_2: Application in electrocatalytic oxidation of methanol

s04-P-019

Reza Ojani (Department of Analytical Chemistry, Mazandaran University, Babolsar, Iran), Jahan-Bakhsh Raoof, Saeed Zamani

Electrocatalytic Oxidation of Folic Acid on Carbon Paste Electrode Modified by Nickel Ions Dispersed into Poly(o-anisidine) Film

s04-P-020

Odysseas Paschos (Department of Physics E19, Technical University of Munich, Garching, Germany), Ulrich Stimming, Rainer Bussar, Holger Wolfschmidt, Moritz Hantel

Hydrogen Oxidation Reaction on Pd Based Catalysts: From Nanostructured Electrodes to Applied Systems

s04-P-021

Yuanhang Qin (State Key Laboratory of Chemical Engineering, East China University of Science and Technology, Shanghai, China), Houhua Yang, Xinsheng Zhang

Study of the Oxygen Reduction Reaction on Carbon Nanofiber Supported Pt Nanoparticles

s04-P-022

Victor Safonov (Department of Electrochemistry, Faculty of Chemistry, Moscow State University, Moscow, Russia), Ludmila Vykhodtseva, Larisa Fishgoit, Denis Grigoriev, Olga Safonova, Marcin Sikora, Pieter Glatzel

Application of «Valence-to-Core» X-ray Emission Spectroscopy for Determination of the Chemical State of Metalloids in Crystalographically Amorphous Electrochemical Coatings of Iron Metals and Chromium

s04-P-023

Mauro Santos (Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo André, Brazil), Daniel Rascio, Rodrigo Souza, Erico Neto, Marcelo Calegaro

Oxygen Reduction Reaction using Ni, Co and Mn Prepared by Sol-Gel Method: A Comparative Study

s04-P-024

Mauro Santos (Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo André, Brazil), Adriane Flausino, João Paulo Ladeia, Júlio Da Silva, Rodrigo Souza, Erico Neto, Marcelo Calegaro

Methanol and Ethanol Electrooxidation Using PtRu/C and PtCe/C Electrocatalysts

s04-P-025

Shuqin Song (School of Physics and Engineering, Guangzhou, China), Chaoxiong He

Pt Supported on KOH-Treated Muti-wall Carbon Nanotubes for Oxygen Reduction Reaction

s04-P-026

Mikhail Tsypkin (Department of Materials Science and Engineering, NTNU, Trondheim, Norway), Lars-Erik Owe, Liudmila Ilyukhina, Svein Sunde

Nanocrystalline $Ir_xMn_{1-x}O_2$ as anode electrocatalyst for PEM water electrolyzers

s04-P-027

Jin-Yi Wang (Shanghai Key Laboratory for Molecular Catalysis and Innovative Materials and Department of Chemistry, Fudan University, Shanghai, China), Wen-Bin Cai

The Electrocatalytic Oxidation of Formic Acid on Palladium and Palladium-metalloid Materials

s04-P-028

Xiaojun Wang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang

Electrocatalytic Oxidation of Reduced L-Glutathione on Glassy Carbon Electrode Modified with Cobalt (II) Phthalocyaninetetrasulfonate Intercalated in Layered Double Hydroxides

s04-P-029

Zidong Wei (Chongqing University, Chongqing, China), Yaoqiong Wang, Zidong Wei, Li Li, Mengbo Ji, Yue Xu

Methanol Electrochemical Oxidation on Electrode Au/Pt Enhanced by Phosphomolybdic Acid

s04-P-030

Yan-Ni Wu (School of Chemistry and Chemical Engineering, Guangzhou, China), Shi-jun Liao

Preparation of High Performance Core-shell PdPt@Pt/SCNTs Catalyst with Shortened Carbon Nanotubes as Support

s04-P-031

Jun Yang (Institute of Bioengineering and Nanotechnology, Singapore, Singapore), Jackie Y. Ying

Pt–Ru Assemblies as Direct Methanol Fuel Cell Catalysts

s04-P-032

Houhua Yang (State Key Laboratory of Chemical Engineering, East China University of Science and Technology, Shanghai, China), Yuanhang Qin, Xinsheng Zhang

Study of Pd Electrocatalyst Supported on TiO_2 Nanotube for Ethanol Oxidation

s04-P-033

Feng Ye (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Tongtao wang, Shanmei Li, Haojie Wei, Miaomiao Hou, Xindong Wang

Pt-nano-clusters electrodeposited on single-walled carbon nanotubes for electrochemical catalysis

s04-P-034

Shen Ye (Catalysis Research Center Hokkaido University, Sapporo, Japan), Yi Zhang, Leilei Lu, Yujin Tong, Yunzhi Gao, Geping Yin, Masatoshi Osawa, Shen Ye

Dimethyl Ether (DME) Electro-oxidation on Pt Electrodes

s04-P-035

Liu Yuan (Department of Environmental Science & Engineering, Harbin Institute of Technology, Harbin, China), Liu Huiling

Properties of Bi-doped lead dioxide electrode and electrocatalytic oxidation of nitrophenols

s04-P-036

Hamid Reza Zare (Department of Chemistry, Yazd, Iran), S. Hossein Hashemi

Direct Electrodeposition of Ruthenium Nanoparticles onto Glassy Carbon Electrode and its Application for Electrocatalytic Oxidation of Hydrazine

s04-P-037

Ai Zhang (Research Center for Environmental Science and Engineering, Taiyuan, China), Chuan Dong, Yu-Jing Guo, Sao-Min Shuang, Jin-Ping Song

The determination of isoquercitrin by glassy carbon electrode

s04-P-038

Jun-Sheng Zheng (State Key Laboratory of Chemical Engineering, East China University of Science and Technology, Shanghai, China), Xin-Sheng Zhang, Sun Wen, Yuan-Hang Qin, Wei-Kang Yuan

Microstructure Effect of Carbon Nanofibers on Electrocatalytic Process

s04-P-039

Weiqiang Zhou (College of Chemistry, Chemical Engineering and Materials Science, Suzhou University, Suzhou, China), Chunyang Zhai, Yukou Du, Jingkun Xu, Ping Yang

Electrochemical Fabrication of Three-dimensional Pd Nanospheres on Poly (5-cyanoindole) Nanofibrils Modified ITO Electrode and its Electrochemical Applications

s04-P-040

Huaping Zhu (School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, China), Shijun Liao

TPR investigation for the effect of several promoters on the carbon supported platinum catalyst

FUEL CELLS

s04-P-041

Dianxue Cao (College of Material Science and Chemical Engineering, Harbin Engineering University, Harbin, China), Cuilei Yin, Guiling Wang, Yinyi Gao

Co_3O_4 Nanowire Arrays on Ni foam as H_2O_2 Electroreduction Catalyst

s04-P-042

Yen-Pei Fu (Department of Material Science and Engineering, National Dong Hwa University, Hualien, Taiwan), Huang Jyun- Jyun

Composite Cathode $Sm_{0.5}Sr_{0.5}Co_{0.4}Ni_{0.6}O_{3-\bar{\delta}}$–$Sm_{0.2}Ce_{0.8}O_{1.9}$ for Intermediate-Temperature Solid Oxide Fuel Cell

s04-P-043

Jinli Qiao (Clean Energy Automotive Engineering Center, Tongji University,, Shanghai, China), Bing Li, Daijun Yang, Junsheng Zheng, Jianxin Ma, Haijang Wang

Carbon supported Ir-V nanoparticles as novel cathode catalyst for PEMFC (I) synthesis and spectroscopic characteristics

s04-P-044

Victor Roev (Energy Group, E&E lab, SAIT, Suwon, Korea), Chanho Pak, Kyungjung Kwon, Duckyoung Yoo, Hyuk Chang

High-loaded Pt_3Co/C electrocatalysts for intermediate temperature PEMFC

s04-P-045

Mauro Santos (Centro de Ciências Naturais e Humanas/Universidade Federal do ABC, Santo André, Brazil), Luanna Parreira, Daniel Rascio, Rodrigo Souza, Marcelo Calegaro, Estevam Spinacé, Almir Neto

PtSn/C Electrocatalysts used as Cathodes and Anodes in a Single Direct Ethanol Fuel Cell

s04-P-046

Mario Simoes (University of Poitiers, LACCO, Poitiers, France), Stève Baranton, Christophe Coutanceau

Catalysts without Platinum for Glycerol and $NaBH_4$ direct oxidation in a Solid Alkaline Membrane Fuel Cell (SAMFC)

s04-P-047

Dusan Tripkovic (ICTM-Institute of Electrochemistry, University of Belgrade, Belgrade, Serbia), Amalija Tripkovic, Ksenija Popovic, Jelena Lovic, Vladislava Jovanovic, Sanja Stevanovic

Promotional effect of Sn_{ad} on the ethanol oxidation at Pt_3Sn/C catalyst

s04-P-048

Zidong Wei (Chongqing University, Chongqing, China), Liao Mingjia, Ji Mengbo, Chen Siguo, Li Li, Wang Yaoqiong

Ultra Low Pt-loading Electrode Prepared by Indirect Electrodeposition

s04-P-049

Sudong Yang (College of Material Science and Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Sudong Yang, Yanyu Liang, Xiaogang Zhang, Bo Gao, Zhipeng Sun, Wei He, Ruili Xue

High Current Density of Ammonium Formate Electrooxidation on Multi-walled Carbon Nanotubes Supported Pd and Pt Catalysts

s04-P-050

Shi Bin Yin (School of Physics and Engineering, Sun Yat-Sen University, Guangzhou, China), Pei Kang Shen

Electrocatalysts Prepared by Intermittent Microwave Heating Method for Oxygen Reduction Reaction

s04-P-051

Hui-Juan Zhang (Shanghai Jiao Tong University, Shanghai, China), Xi Wu, Xianxia Yuan, Qi-Zhong Jiang

Non-precious Co-based catalyst for the methanol-tolerant oxygen reduction reaction

s04-P-052

Ning Zheng (College of Chemistry and Molecular Engineering, Peking University, Beijing, China), Yan Liu, Yuan Wang

A novel iron phthalocyanine-platinum/C cathodic catalyst for DMFC

IN-SITU SPECTROSCOPY

s04-P-053

Qian Cheng (College of Chemistry and Chemical Engineering, Xiamen, China)

Electrochemical *In Situ* FTIR Spectroscopic Studies of Adsorption and Reduction of Nitric Oxide on nm-Pt/GC electrode in Sulphuric Acid Solutions

s04-P-054

Lilin Piao (Department of Chemistry/Seoul National University, Seoul, Korea), Sejin Park, Jongwon Kim

Single Microsphere with highly SERS-Active Gold Shell

s04-P-055

Shuehlin Yau (Chemistry, National Central University, Jhongli, Taiwan)

In situ STM imaging of electroxidation of carbon monoxide admolecules on Pt(111) single crystal electrode

NANOCATALYSTS

s04-P-056

Peng Diao (School of Materials Science & Engineering, Beihang University, Beijing, China), Dafeng Zhang, Jingyi Wang, Min Xiang, Qi Zhang

Activity of Gold Nano- and Submicro-Particles Towards Carbon Monoxide Electrooxidation

s04-P-057

Cédric Grolleau (University of Poitiers, LACCO, Poitiers, France), Christophe Coutanceau, Jean-Michel Léger

Optimization of a polyol synthesis for bimetallic PtCo catalysts active towards oxygen reduction reaction:from a design of experiments to a core-shell structure

s04-P-058

Yan-Xia Jiang (State Key Laboratory of Physical Chemistry of Solid Surfaces, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Shu-Ru Chen, Dong-Hai Lin, Shi-Gang Sun

Electrooxidation of CO and methanol on platinum nanoparticles supported on ordered mesoporous carbon

s04-P-059

Guohua Li (The Department of Applied Chemistry, Hangzhou, China)

Preparation of TiO_2/WC Core-Shell Nanocomposite and Its Electrocatalytic Property

LATE REGISTRATION

Cuicui Qiu (School of Chemistry and Chemical Engineering, Shandong University, Jinan, China) Yaqi Cai, Jintao Zhang

Design and Fabrication of Hierarchical Noble Metal Thin Films and Their Applications as Electrocatalysts

Elsa Miriam Arce-Estrada (Ingenieria Metalurgica, Mexico, Mexico) Hextor Javier Dorantes-rosales, Araceli Ezeta-mejia

Characterization of RuPtM (M = Se, Mo, Sn, W) binary catalyst for oxygen reduction for fuel cell applications

Elsa Miriam Arce-Estrada (Departamento de Ingenieria Metalurgica/Instituto Politecnico Nacional, Mexico, Mexico) Claudia Ramirez Rodriguez, Seydy L Vazquez Olvera, Seydy L Vazquez Olvera

Electrochemical studies of hydrogen evolution reaction on Al-based catalyst prepared by ball milling

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BATTERY

s05-P-001

Sang-Ho Bae (School of Nano and Advanced Materials Engineering, Gyeongsang National University, Jinju, Korea), Ki-Won Kim, Gyu-Bong Cho, Ji-Heon Kim, Jung-Pil Noh, Ki-Won Kim

Improved cycle performance of patterned Si electrode by stress relief

s05-P-002

Byoung-Jin Baek (Chemical Engineering, University of Seoul, Dongdaemun-Gu, Korea)

Enhancement of Li-ion transfer reaction at the LiCoO2 interface by an 1,3,5-trifluorobenzene

s05-P-003

Chang-Yong Baek (School of Nano and Advanced Materials Engineering, Gyeongsang National University, Jin-Ju, Korea), Young-Jin Choi, Sang-Ho Bae, Nam-Won Kim, Jin-Ho Ha, Ki-Won Kim

Tin Sulfide (SnSx) Anode for Lithium Secondary Batteries Prepared by Various Synthesis Method

s05-P-004

Xu Bin (Research Institute of Chemical Defense, Beijing, China)

Mesoporous Carbon as anode materials for Li-ion batteries

s05-P-005

Xiaoyu Cao (School of Chemistry and Chemical Engineering, Henan University of Technology, Zhengzhou, China), Ruijuan Wang, Lingling Xie, Xinli Yang, Jianping Liu

Synthesis of $LiNi_{0.8}Co_{0.2}O_2$ as High-Performance of Cathode Materials for Lithium Ion Batteries by a Wet Chemistry Technique

s05-P-006

Xuan Cao (School of Metallurgical Science and Engineering, Central South University, Changsha, China), Huajun Guo, Xiangqun Li, Liming Li, Xinhai Li, Zhixing Wang, Wenjie Peng

Effects of Mn –doping on the characteristics of Li_2FeSiO_4 cathode

s05-P-007

Yan-Bing Cao (School of Metallurgical Science and Engineering, Central South University, Changsha, China), Guo Rong Hu, Zhong Dong Peng, Ke Du, Qing Lai Jiang

Synthesis of Li_2FeSiO_4/C cathode materials by a modified microwave carbothermal reduction method

s05-P-008

Jiajia Chen (Xiamen University, Xiamen, China), Qian Zhang

High Performance Carbon/ Sulfur Composite electrode For Lithium Sulfur Battery

s05-P-009

Zhenyu Chen (Harbin Institute of Technology, Harbin, China), Changsong Dai, Dianlong Wang, Hu Xinguo

Cyclic Performance of the Lithium Vanadium Phosphate at High Charge and Discharge Rate

s05-P-010

Shuru Chen (State Key Lab for Physical Chemistry of Solid Surfaces, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Yanxia Jiang, Guiliang Xu, Ling Huang, Shigang Sun

Improvement of cycle property of sulfur-mesoporous carbon composite cathode for lithium/sulfur batteries

s05-P-011

Cheng Cheng (School of Chemistry, Xiangtan, China), Zhaohui Li

A novel $Li_{1+x}V_3O_8$ anode material for rechargeable aqueous lithium-ion batteries

s05-P-012

Hua Cheng (School of Chemical Engineering & Advanced Materials, Newcastle University, Newcastle Upon Tyne, United Kingdom), Keith Scott

Rechargeable Lithium-Air Batteries with Nanostructured 3D Air Cathodes for Hybrid Electric Vehicles

s05-P-013

Young-Jin Choi (School of Nano and Advanced Materials Engineering, Gyeongsang National Universtiy, Jinju, Korea), Sung-Hoon Jung, Chang-Yong Beak, Sang-Ho Bae, Nam-Won Kim, Jin-Ho Ha, Ki-Won Kim

Physical and Electrochemical Properties of Nickel-Precipitated Pyrite as a Cathode Material for Rechargeable Lithium Batteries

s05-P-014

Si-young Choi (School of Nano and Advanced Materials Engineering, Gyeongsang National University, Jinju, Korea), Gyu-Bong Cho, Ju-Seok Kim, Bo-Min Kim, Jung-Pil Noh, Tae-Hyun Nam

Electrochemical properties of Ni-Ni_3S_2 powder as a cathode material

s05-P-015

Kyung Yoon Chung (Battery Research Center/Korea Institute of Science and Technology, Seoul, Korea), Byung Won Cho, Kwang-Bum Kim

A Study on the Evolution Condition for the Extra Current Peak in Cyclic Voltammogram of $LiMn_2O_4$ using *In Situ* Bending Beam Method

s05-P-016

Thierry Djenizian (Electrochemistry of Materials Research Group, Laboratoire Chimie Provence University of Aix-Marseille I,II,III-CNRS, Marseille, France)

Li-ion microbattery electrodes based on new one-dimensional nanomaterials

s05-P-017

Robert Dominko (National Instittue of Chemistry, Ljubljana, Slovenia), Bostjan Erjavec, Robert Dominko, Jeremy Come, Albin Pintar, Miran Gaberscek

Inorganic and carbon coatings for enhanced Li-ion batteries performance

s05-P-018

Hossein Farsi (Department of Chemsitry, University of Birjand, Birjand, Iran), Zahra Barzgari

Lithium Insertion into the Electrodeposited Tungsten Oxide Film

s05-P-019

Jijun Feng (School of Chemistry and Chemical Engineering, University of Jinan, Jinan City, China), Xiangzhe Liu, Xiaozhen Liu, Jianzhuang Jiang

Hydrothermal Synthesis and Characterizations of $LiFexV_{3-x}O_8$

s05-P-020

Carlos Frontana (Centro de Investigación y Desarrollo Tecnológico en Electroquímica, S. C., Pedro Escobedo, Mexico), Hugo López, Lindsay Hernández, Felipe González, Ignacio González, Judith Cardoso

Spectroelectrochemical Analysis on the Influence of Interacting and Non-Interacting Nitroxyl Radical Species in PTMA, an Organic Radical Polymer

s05-P-021

Pengfei Gao (Department of Chemical Engineering, Shanghai Jiao Tong University, Shanghai, China), Jun Yang, Jiulin Wang, Yanna Nuli

A novel silicon-based anode with a flexible carbon black current collector for lithium ion batteries

s05-P-022

Fei Gao (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Jianling Li, Jiangfeng Xu, Xindong Wang

Effect of Pr doping on electrochemical performance of $Li_4Ti_5O_{12}$ anode material

s05-P-023

Hua-Jun Guo (School of Metallurgical Science and Engineering, Changsha, China), Qi-Hou Li, Xin-Hai Li, Zhi-Xin Wang, Wen-Jie Peng, Feng Xie

Novel synthesis of $LiMn_2O_4$ with large tap density using manganese powder as starting material

s05-P-024

Yu-Guo Guo (Institute of Chemistry, Chinese Academy of Sciences, Beijing, China), Xing-Long Wu, Ling-Yan Jiang, Fei-Fei Cao, Li-Li Chen, Li-Jun Wan

Preparation and Electrochemical Properties of $LiFePO_4$/C Nano-Networks for Lithium-Ion Batteries

s05-P-025

Wang Hai-Yan (School of Chemistry and Chemical Engineering, Central South University, Changsha, China), Ye De-lai, Zhang Xin

Electrochemical Performance of $Lini_{1/3}co_{1/3}mn_{1/3}o_2$ in Lithium Nitrate Solution

s05-P-026

DongWook Han (Dept. of Materials Science and Engineering/ Korea Advanced Institute of Science and Technology, Daejeon, Korea), Wonhee Ryu, Wonkeun Kim

Effects of Li and Cl Doping on the Structure and Electrochemical Performance of $LiMn_2O_4$ Cathode Material for HEV Application

s05-P-027

Benlin He (Institute of Material Science and Engineering, Qingdao, China), Bin Dong, Wei Wang

Preparation and electrochemical properties of PANI/TiO_2-NTs anode material for lithium-ion battery

s05-P-028

Binglin Hong (State Key Laboratory of Physical Chemistry of Solid Surface Chemistry Department, Xiamen University, Xiamen, China)

The effects of CTAB on the morphology of $LiFePO_4$ and its electrochemical performance

s05-P-029

Yong-Sheng Hu (Institute of Physics, Chinese Academy of Sciences, Beijing, China), Joachim Maier, Liquan Chen

Nanostructured Electrode Materials for High Energy and High Power Lithium-Ion Batteries

s05-P-030

Yaqin Huang (College of Materials Science and Engineering, Beijing University of Chemical Technology, Beijing, China), You Wang, Weikun Wang, Wuyu Zhang, Zhongbao Yu, Hao Zhang, Anbang Wang, Keguo Yuan

The effect of gelatin binder under different pH conditions on sulfur cathode in lithium-sulfur batteries

s05-P-031

Qunjian Huang (GE Global Research, Shanghai, China), Xianguo Yu, Queenie Fu, Jinghua Liu, Hai Yang, Wei Cai, John P. Lemmon, Chang Wei

Development of High Capacity Hydrogen Storage Materials-based Electrodes for Air-Metal Batteries

s05-P-032

Yaqin Huang (College of Materials Science and Engineering, Beijing University of Chemical Technology, Beijing, China), Chongjun Huang, Weikun Wang, You Wang, Zhongbao Yu, Hao Zhang, Anbang Wang, Keguo Yuan

Influence of Porous Structure on the Electrochemical Performance of the Sulfur Cathode for Lithium-sulfur Battery

s05-P-033

In-Su Jang (Dept. Materials Sci. & Eng., Chonnam National Univ., Gwangju, Korea), Hyoung-Kwon Kim, Dong-Cheol Yang, Choong-Nyeon Park, Chan-Jin Park, Jeon Choi

Effects of Pre-treatment of $LMNi_{3.9}Co_{0.6}Mn_{0.3}Al_{0.2}$ Alloy in KOH/$NaBH_4$ Solution on the Electrode and Inner Pressure Characteristics of Ni-MH Secondary Batteries

s05-P-034

Qinglai Jiang (School of Metallurgical Science and Engineering, Central South University, Changsha, China), Guorong Hu, Zhongdong Peng, Ke Du, Yanbing Cao

Effect of different Cr-source on performance of $LiCr_XMn_{2-X}O_4$ cathode materials prepared by slurry spray drying method

s05-P-035

Dong-Hyuk Ju (Faculty of Applied Chemical Engineering, Center for Functional Nano Fine Chemicals, Alan MacDiarmid Energy Research Institute, Chonnam National University, Gwangju, Korea), Suk-Hwan Park, Hong-Ryun Jung

Highly porous Si-based films prepared by electrospinning for Lithium Secondary Battery

s05-P-036

Fu-Sheng Ke (Department of Chemistry, Xiamen, China)

Configuration of a novel structured Sn electrode for advanced Lithium-ion Batteries

s05-P-037

Yuan Keguo (Research Institute of Chemical Defence, Beijing, China), Wang Weikun, Yu Zhongbao, Wang Anbang

Study of the Interface Film of Metal Electrode/$LiSO_3CF_3$-DOL-DME-S for Secondary Lithium Battery

s05-P-038

Volodymyr Khomenko (Kiev National University of Technologies & Design, Kiev, Ukraine), Viacheslav Barsukov, Leonid Yatsuk

The Performance Improvement of Li/$(CF_x)_n$ Batteries

s05-P-039

Volodymyr Khomenko (Kiev National University of Technologies & Design, Kiev, Ukraine)

Performance of Different Cathode Materials in Ionic Liquid Based Electrolytes

s05-P-040

Daisuke Kikutani (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Keisuke Matsumoto, Toyoki Okumura, Tomokazu Fukutsuka, Minoru Inaba, Akimasa Tasaka, Yoshiharu Uchimoto

Local/Electronic Structure of Anion-Substituted Lithium Manganese Spinel Oxide and Their Electrochemical Properties

s05-P-041

RyoungHee Kim (Dept. of Materials Science and Engineering, KAIST, Daejeon, Korea)

Electrochemical Performances of Sn Electrodeposits with Multi-layered for Li-ion Batteries

s05-P-042

Jin-Go Kim (Department of Material Science and Engineering, Yonsei University, Seoul, Korea)

Synthesis and Electrochemical Properties of $LiCoO_2$/Carbon Nanocomposites for Lithium Batteries

s05-P-043

Hyun-Kyung Kim (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Ji-Young Kim, Kwang-Bum Kim

Synthesis of $Li_4Ti_5O_{12}$/Carbon Nanotube Nanocomposites for Li Batteries

s05-P-044

Wonkeun Kim (Dept. of Materials Science and Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Korea), Wonhee Ryu, Dongwook Han

Effects of Carbon Coating on the Cycling Properties of Spinel $LiMn_2O_4$

s05-P-045

Yeongap Kim (Division of Material Science & Engineering, Hanyang University, Seoul, Korea), Yongsub Yoon

Electrochemical characteristics of SnO_2 and Sn/SnO_2 composite powder for anode of lithium ion battery by aerosol flame deposition

s05-P-046

Hyun-Kyung Kim (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Ji-Young Kim, Kwang-Bum Kim

Microwave-Assisted Synthesis of $Li_4Ti_5O_{12}$/Carbon Nanotube Nanocomposite for Li Batteries

s05-P-047

Wada Kohei (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Yangihara Asuki, Okumura Toyoki, Fukutsuka Tomokazu, Uchimoto Yoshiharu, Inaba Minoru, Tasaka Akimasa

Effect of particle size of nano-sized TiO_2(B) on electrochemical behavior as Lithium-ion battery anode

s05-P-048

Jun H. Ku (Department of Chemical and Biological Engineering, and Research Center for Energy Conversion & Storage, Seoul National University, Seoul, Korea)

High Rate-performance Observed with Amorphous $Li_3V_2(PO_4)_3$ Electrode for Lithium-ion Batteries

s05-P-049

Tatiana Kulova (Frumkin Institute of Physical Chemistry and Electrochemistry, RAS, Moscow, Russia), Nadezhda Nikol'skaya, Elena Tusseeva, Alexander Skundin, Evgenii Terukov

Flexible lithium–ion batteries based on $LiFePO_4$ and silicon electrodes

s05-P-050

Ji Y. Kwon (Department of Chemical and Biological Engineering, Seoul, Korea), Ji Heon Ryu

Electrochemical Preparation of $Li_{21}Si_5$ Phase and its Electrochemical Behaviors as the Negative Electrode for Lithium-ion Batteries

s05-P-051

My Loan Phung Le (LEPMI-Grenoble-INP/UJF/CNRS, Saint Martin d'Hères, France), Strobel Pierre, Fannie Alloin, Thierry Pagnier

Structure and electrochemical behavior of the $LiNi_{0.5}Mn_{2-x}M_xO_4$ (M=Ti, Ru) material cathode for high voltage lithium batteries

s05-P-052

Jun-Tao Li (State Key Laboratory of Physical Chemistry of Solid Surfaces, Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, China), Vincent Maurice, Philippe Marcus, Shi-Gang Sun

XPS Characterization of Cr_2O_3 and Cr_2S_3 Thin Films as Anodes for Lithium Ion Battery

s05-P-053

Kai Liu (State Key Laboratory for Physical Chemistry of Solid Surfaces, College of Chemistry and Chemical Engineering, Department of Chemistry, Xiamen University, Xiamen, China), Jianming Zheng, Yong Yang

Electrochemical performance of Sulfurated Chloranilic Acid (SCA) as a organic cathode material for lithium ion batteries

s05-P-054

Jinchao Liu (State Key Laboratory of Optoelectronic Materials and Technologies, School of Physics and Engineering, Sun Yat-Sen University, Guangzhou, China), Yi Wang, Pei Kang Shen

C@SnO_2@MWCNTs as Li-ion Batteries anode materials

s05-P-055

Xiuming Liu (School of Chemistry, Xiangtan, China), Xianyou Wang, Wen Wu, Xin Wang, Guobao Wang

Studies on Preparation and Performances of Cathode Material CuF_2/MoO_3

s05-P-056

Dongping Lv (Department of Chemistry, Xiamen, China), Xingkang Huang, Yixiao Li, Hongjun Yue, Yong Yang

Facile one-step synthesis of $Li_2Fe_{0.5}Mn_{0.5}SiO_4$/C composite and its improved electrochemical performance

s05-P-057

Sang-Bok Ma (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Hye-Ryun Choi, Kwang-Bum Kim

Nano Design of Lithium Manganese Oxide / Carbon Nano Tubes for Energy Storage Applications

s05-P-058

MF Mousavi (Chem. Dept. TMU, Tehran, Iran)

Synthesis of nano-structured β-$Ni(OH)_2$ by sonication process and its application at nickel battery

s05-P-059

Evgeny Nizhnikovskiy (Scientific Council on Complex Problems in Physics, Chemistry, and Biology at the Presidium of RAS, Moscow, Russia), Sergey Matiunin, Vladimir Poluboyarinov, Valery Frolchenkov

Advanced Negative Electrode for Lithium-Ion Batteries

s05-P-060

Chae Oh Byong (Department of Chemical and Biological Engineering and Research Center for Energy Conversion & Storage, Seoul National University, Seoul, Korea)

Preparation of Spherical Ge/Cu_3Ge/carbon Nano-composite for Lithium-ion Batteries

s05-P-061

Wonhee Ryu (Dept. of Materials Science and Engineering/Korea Advanced Institute of Science and Technology, DaeJeon, Korea), Dongwook Han, Wonkeun Kim

Synthesis of $LiMn_2O_4$ prepared from MnO_2 with Hierarchical hollow nanostructure for Li-ion battery cathode materials

s05-P-062

Qin Si (Department of Chemistry, Faculty of Engineering, Mie University, Tsu, Japan), Kazuma Hanai, Nobuyuki Imanishi, Atsushi Hirano, Yasuo Takeda, Osamu Yamamoto

Si/C Composite Anode For Lithium Ion Batteries

s05-P-063

Xiao Jie Sun (College of Chemistry and Molecular Sciences, Wuhan, China), Xiao Hong Hu, Jin Peng Yu

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Bing Sun (Institute for Superconducting & Electronic Materials, School of Mechanical, Materials & Mechatronic Engineering, University of Wollongong, Wollongong, Australia)

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Bing Sun (Institute for Superconducting & Electronic Materials, School of Mechanical, Materials & Mechatronic Engineering, University of Wollongong, Wollongong, Australia)

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Yanyan Sun (College of Chemistry and Molecular Science, Wuhan University, Wuhan, China)

High power type $LiMn_{1.5}Ni_{0.5}O_4$ synthesized by an ultrasonic-assisted sol-gel method

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Jie Sun (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang, Zhanxu Yang

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Yufeng Tang (School of Chemistry and Chemical Technology, Shanghai Jiaotong University, Shanghai, China), Li Yang, Shaohua Fang, Zheng Qiu

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Zhanfeng Tang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang

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Yanyan Tian (Department of Chemistry, Xiamen, China), Mi Lu, Yong Yang

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Qingsong Tong (College of Chemistry and Materials Science, Fujian Normal University, Fujian, Fuzhou, Congo)

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Xiaohua Tu (State Key Laboratory Breeding Base of Green Chemistry-Synthesis Technology, College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Youqun Chu, Yinghong Zhu, Fengming Zhao, Chunan Ma

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Zhou-Cheng Wang (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China)

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Guobao Wang (School of Chemistry, Xiangtan, China), Xiuming Liu, Xianyou Wang, Fu Pei, Shunyi Yang

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Feng Wang (School of Chemical Engineering and the Environment, Beijing Institute of Technology, Beijing, China), Feng Wu, Ying Bai, Chuan Wu, Shi Chen, Bo-Rong Wu

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Ruying Wang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Zhanxu Yang, Yuetao Li, Wensheng Yang

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Lian Wang (School of Chemical Engineering and the Environment, Beijing Institute of Technology, Beijing, China), Feng Wu, Chuan Wu, Ying Bai, Shi Chen

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Wang Weikun (Research Institute of Chemical Defence, Beijing, China), Zhang Yongyong, Wang Anbang, Yu Zhongbao

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Hong-Chang Wong (Department of Applied Chemistry, National University of Kaohsiung, Kaohsiung City, Taiwan), Donny Yang, Li-Fang Wang, Jenn-Shing Chen

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Aili Xie (Department of Chemistry, Shangrao Normal University, Shangrao, China), Chun-an Ma, Lianbang Wang

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Yu Hong Xu (Department of Applied Chemistry, Harbin Institute of Technology, Harbin, China), Ge Ping Yin, Yu Lin Ma, Yong Xin An, Peng Jian Zuo

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Mengqing Xu (Chemistry, Guangzhou, China), Ang Xiao, Weishan Li, Brett Lucht

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Liu Yan (College of Material Science and Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, Jiangsu, Nanjing, China), Zhang Xiaogang

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Shunyi Yang (School of Chemistry, Xiangtan University, Xiang Tan, China), Quanqi Chen, Guobao Wang

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Zhanxu Yang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang, Zhanfeng Tang, Yingying Zhao, Jie Sun

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Gai Yang (Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, China), Jierong Ying, Jian Gao, Changyin Jiang

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Dong-Cheol Yang (Dept. Materials Sci. & Eng., Chonnam National Univ., Gwangju, Korea), Kwan-Woo Jung, Choong-Nyeon Park, Chan-Jin Park, Jeon Choi

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Xiaowei Yang (Shanghai Jiao Tong University, Shanghai, China)

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Wensheng Yang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Zhanxu Yang, Dongmei Chen

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Wenli Yao (School of Materials Science and Engineering, Shanghai University, Shanghai, China), Qian Li, Kuochih Chou, Jun Yang

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In-Hyeong Yeo (Department of Chemistry, Seoul, Korea), Youna Kim, Quang-Thao Ta, Sun-il Mho, Won Il Cho

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Geping Yin (Department of Applied Chemistry, Harbin Institute of Technology, Harbin, China), Yuhong Xu, Yulin Ma, Yongxin An, Pengjian Zuo

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Bai Yongmei (Hunan University, Changsha, China), Han Shaochang

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Hongjun Yue (Tate Key Laboratory for Physical Chemistry of Solid Surfaces, and Department of Chemistry, College of Chemistry and Chemical Engineering Xiamen University, Xiamen City, China), Xingkang Huang, Dongping Lv, Yong Yang

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Wen Yuehua (Research Institute of Chemical Defence, Beijing, China), Cheng Jie, Zhang Li, Xu Yan, Yang Yusheng

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Karel Bouzek (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic), Martin Paidar, Petr Mazur, Jan Schauer

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Quantong Che (Department of Chemistry, Shenyang, China), Jilin Wang

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Eun-Ji Kang (Chemistry, Seoul, Korea), Kang-Jin Kim

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Tamura Takashi (Department of Chemistry and Biotechnology, Yokohama National University,, Kanagawa, Japan), Hachida Takeshi, Yoshida Kazuki, Dokko Kaoru, Watanabe Masayoshi

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Liao Youhao (School of Chemistry and Environment, South China Normal University, Guangzhou, China), Mumin Rao, Weishan Li, Chunlin Tan, Jin Yi, Lang Chen

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Karel Bouzek (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic), Martin Paidar

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Mei Cai (Chemical & Environmental Sciences Laboratory, General Motors R&D Center, Warren, USA), Prasanna Mani, Martin Ruthkosky, Thanh B. Do

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Katie Lim (Dept. of Chemical and Biomolecular Engineering, Specialized Graduate School of Hydrogen & Fuel Cell, Yonsei University, Seoul, Korea), Hyung-Suk Oh, Hansung Kim, Sang-Eun Jang, Young-Jin Ko

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Guoshun Liu (Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, China), Ze Wang, Xiaofeng Xie

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Hyung-Suk Oh (Dept. of Chemical and Biomolecular Engineering, Yonsei Univ., Specialized Graduate School of Hydrogen & Fuel Cell, Yonsei Univ., Seoul, Korea), Hansung Kim, Katie Heeyum Lim

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Fabiana Purgato (Departamento de Quimica - FFCLRP Universidade de São Paulo, Ribeirao Preto, Brazil), Fabiana L. S. Purgato, Elaine Y. Matsubara, Jose Mauricio Rosolen, Paulo Olivi

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Yun Qiao (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Chunan Ma, Zhaoyang Chen

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Germano Tremiliosi-Filho (Instituto de Química de São Carlos Universidade de São Paulo, São Carlos, SP, Brazil), Daniela Marques dos Anjos, Josimar Ribeiro, Jean-Michel Léger, Paulo Olivi, Adalgisa Rodrigues de Andrade, Boniface Kokoh

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Sho Urata (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Takashi Kamijo, Hiroyoshi Aoki, Tomokazu Fukutsuka, Yoshiharu Uchimoto

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Mingkui Wang (Laboratory for Photonics and Interfaces, Swiss Federal Institute of Technology, Lausanne, Switzerland)

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Jun Yang (Department of Chemical Engineering, Shanghai Jiao Tong University, Shanghai, China), Hongbin Zhao, Lei Li

Synthesis and characterization of bimetallic PtFePPy-C used as PEMFCs cathode catalyst

s05-P-176

Koji Yokoo (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Tomoaki Hirai, Keiichiro Tachibana, Tomokazu Fukutsuka, Katsumi Katakura, Takashi Ishihara, Yoshiharu Uchimoto

Degradation Mechanism of Platinum Cathodes and Electrolyte Membranes in PEFC

s05-P-177

Yuwei Zhang (State Key Laboratory of Electro-analytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China), Baohua Zhang, Zhiming Cui, Jianhui Liao, Changpeng Liu, Tianhong Lu, Wei Xing

High Proton Conducting Membrane of Nafion-poly (vinyl alcohol)/chitosan for Direct Methanol Fuel Cells

s05-P-178

Jun-Sheng Zheng (Clean Energy Automotive Engineering Center, Tongji University, Shanghai, China), Jin-Li Qiao, Dai-Jun Yang, Hong lv, Ping Li, Bing Li, Jian-Xin Ma, Hai-Jiang Wang, Jin-Feng Wu

Electrocatalytic Oxygen Reduction Reaction on Novel non-Pt Catalyst Supported on Microstructure Controllable Carbon Nanofibers

s05-P-179

Guiming Zhong (State Key Laboratory for Physical Chemistry of Solid Surfaces, Xiamen, China), Tao Li, Yong Yang

A novel Nafion/cross-linked PVP semi-interpenetrating polymer networks (IPNs) membrane for Direct Methanol Fuel Cell

SUPERCAPACITOR

s05-P-180

Chen Chen (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang

Preparation and Electrochemical Properties of Co-Al Layered Double Hydroxides and Single-walled Carbon Nanotubes Composite for Supercapacitors

s05-P-181

Fei Gao (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Jianling Li, Yang Zhang, Xingdong Wang

Preparation and electrochemistry of the ordered mesoporous carbon/γ-MnO_2 composite electrode for supercapacitor

s05-P-182

Pingang He (Department of Chemistry, East China Normal University, Shanghai, China), Ying Xu, Yuzhi Fang

Electrochemical Formation and Properties of Polypyrrole Modified Aligned Carbon Nanotubes as Supercapacitor

s05-P-183

Mi Hongyu (Institute of Applied Chemistry, Xinjiang University, Urumqi, China), Ye Xiangguo, Shi Wei, Ye Xiangwei

Synthesis and Electrochemical Properties of Whisker-like Hydrous Nickel Hydroxide Microparticles

s05-P-184

Zhang Jing (Lanzhou University of Technology, Lanzhou, China), Ling-Bin Kong, Cai Jian-Jun, Luo Yong-Chun, Kang Long

Polypyrrole/modified mesoporous carbon composite for the electrode of electrochemical capacitors

s05-P-185

Yan Jing (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Jianling Li, Fei Gao, Ruiying Miao

Electrochemical characterization of MnO_2/Al_2O_3 hybrid capacitor

s05-P-186

Mi Na Kil (Applied Chemistry, Hanbat National University, Daejeon, Korea), Jae Sung Kwon

Electrochemical Properties of Activated Carbon Nanofiber for EDLC with various Organic Electrolytes

s05-P-187

Yong Il Kim (Applied Chemistry, Hanbat National University, Daejeon, Korea)

Asymmetric supercapacitors constructed with metal oxides and carbon electrodes

s05-P-188

Ji-Young Kim (National Research Laboratory of Energy Conversion and Storage Materials Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Kwang-Heon Kim

Preparation of Hydrous and Anhydrous RuO_2/Carbon Nanotube Nanocomposites under Microwave Irradiation for Pseudocapacitor Applications

s05-P-189

Jae Sung Kwon (Applied Chemistry, Hanbat National University, Daejeon, Korea), B.C. Kim, G.G. Wallace

PPy Flexible Electrodes for Supercapacitors

s05-P-190

Pei Lin (Xiamen University, Xiamen, China), Mochao Cai, Yanying Liu

Preparation and performance of mesoporous Co^{2+}-doped NiO materials for electrochemical capacitors

s05-P-191

Sang Lin (Department of Applied Chemistry, School of Chemical Engineering and Technology, Tianjin, China), Yin Wenpin

Preparation and Electrochemical Properties of Nanostructured Nickel Oxide

s05-P-192

Grzegorz Lota (Poznan University of Technology, Institute of Chemistry and Technical Electrochemistry, Poznan, Poland), Jacek Tyczkowski, Ryszard Kapica, Katarzyna Lota, Elzbieta Frackowiak

Carbon Materials Modified by Plasma Treatment as Electrodes for Supercapacitors

s05-P-193

Yoshihiro Nono (Department of Applied Chemistry, Faculty of Engineering, Kanagawa University, Yokohama, Japan), Masayuki Kouzu, Kouichi Takei, Kazumi Chiba, Yuichi Sato

EDLC performance of various activated carbons in spiro-type quaternary ammonium salt electrolyte solution

s05-P-194

Seok-Hwan Park (Faculty of Applied Chemical Engineering, Chonnam National University, Gwangju, Korea), Dong-Hyuk Ju

Preparation of electrospun tin/PAN-based carbon nanofiber and its electrochemical property

s05-P-195

Xue Qin (Chemistry, Tianjin, China)

Synthesis and Supercapacitor Properties of the Novel Porous Carbon Nanofibers

s05-P-196

Jae-Kook Yoon (Applied Chemistry, Hanbat National University, Daejeon, Korea), Jang-Myoun Ko, Ho-Seong Nam

Synthesis of nanowire MnO_2 using a sonochemical method for an electrochemical capacitor electrode material

s05-P-197

Seung-Beom Yoon (Department of Material Science and Engineering, Yonsei University, Seoul, Korea), Ji-Young Kim

PEDOT/RuO_2/CNT Nanocomposites for Electrochemical Capacitor Application

s05-P-198

Yang Yunjun (Department of Applied Chemistry, School of Chemical Engineering and Technology, Tianjin, China), Liu Wenwen, Yin Wenpin

Preparation and Capacitance Properties of Nanostructured Manganese Dioxide

s05-P-199

Shuangshuang Zeng (Xiamen University, Xiamen, China), Qingna Zheng

Synthesis and Characterization of Manganese Dioxide/Carbon Composite

s05-P-200

Xiong Zhang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology; Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China), Wensheng Yang, Yanwei Ma

Mesoporous amorphous manganese oxide nanostructures: synthesis, characterization, and electrochemical properties for electrochemical capacitors

s05-P-201

Liping Zheng (School of Chemistry, Xiangtan, Comoros), Xianyou Wang, Na Li, Hongfang An

Polyaniline Modification on CaC_2-Derived Carbon and the Electrode Performance for Supercapacitor Application

s05-P-202

Bo Zhijun (Department of Applied Chemistry, School of Chemical Engineering and Technology, Tianjin, China), Yin Wenping, Liu Wenwen

Preparation and Electrochemical Behavior of Nanostructured Layer Double Hydroxides

LATE REGISTRATIONS

Hong-Hua Ge (Shanghai University of Electric Power, Shanghai, China) Yong-Sheng Guo, Yi-Ping Wu, Guo-Ding Zhou

Effect of CoPc on Carbon Cathode Reduction in BCX cells

Lianbang Wang (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China) Chun'an Ma, Zhenzhen Yang

A Novel Metallic Leaf Plates for Direct Borohydride Fuel Cells

Cailing Xu (College of Chemistry and Chemical Engineering, Lanzhou, China) Hu-lin Li, Guang-Wu Yang

Electrodeposited Nickel Hydroxide on Nickel Foam with Ultrahigh Capacitance

Peng Zhang (Institute for Superconducting & Electronic Materials, University of Wollongong, NSW 2522, Australia, Wollongong, Australia), Zaiping Guo, Huakun Liu

The Preparation of Porous Li_2O and Transition Metal Oxides Composites Thin Film for Lithium ion batteries and the Electrochemical Characteristics

Zhipeng Sun (College of Material Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing, China), Hulin Li, Xiaogang Zhang

Enhancing the Activity of Formic Acid Electro-oxidation Reactions by Simply Designing Ordered Mesoporous Structured Architectures: Catalyst-modified Carbon-Silica Composites

Xu Wu (School of Chemical Engineering and Advanced Materials, Newcastle University, Newcastle upon Tyne, United Kingdom) Mingqiang Li, Keith Scott, Xu Wang

A study on $Sb_{0.2}Sn_{0.8}P_2O_7$ blended Polybenzimidazole (PBI) membrane for high temperature anhydrous Polymer Electrolyte Fuel Cells (PEFC)

Symposium 6: Electrodeposition for Nanoelectronic Applications

ADDITIVES

s06-P-001

Jing-Wen Su (Department of Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Wei-Ping Dow

Electrochemical Adsorption and Desorption of Thiol Molecules with Sulfonic Acid Group on Au(111)

CONDUCTING AND SEMICONDUCTING MATERIALS

s06-P-002

Florentina Golgovici (Department of Applied Physical Chemistry and Electrochemistry, University Politehnica Bucharest, Bucharest, Romania), Adrian Cristian Manea, Mihai Buda

Electrochemical Studies of Tantalum Anodic Oxidation in Neutral and Acid Solutions

s06-P-003

Cheng Gu (State Key Laboratory for Supramolecular Structure and Materials, Jilin University, Changchun, China), Shi Tang, Bing Yang, Dan Lu

Electrochemically deposited organic luminescent films for LEDs: Effect of the content of doped species on the optical properties and device performance

s06-P-004

Ying Lv (State Key Laboratory for Supramolecular Structure and Materials, Jilin University, Changchun, China), Cheng Gu, Shi Tang, Dan Lu

Electrochemically deposited organic luminescent films for LEDs: Effect of electrode materials on the morphologic and optical properties of deposited films

s06-P-005

Jing Pan (Department of Chemistry, Wuhan University, Wuhan, China), Hui Li, Shanfu Lu, Juntao Lu, Zhuang Lin

High-performance alkaline polymer electrolyte for fuel cell applications

ELECTRODEPOSITION

s06-P-006

Mahmood Aliofkhazraei (Materials Engineering Department, Tarbiat Modares University, Tehran, Iran), Alireza Sabour Rouhaghdam

Electrodeposition of CdTe Conductive Films

s06-P-007

Anna Amell (Electrodep., Departament de Química Física and Institut de Nanociència i Nanotecnologia (IN2UB), Universitat de Barcelona, Barcelona, Spain), Carlos Muller, Maria Sarret

Effect of pulse plating conditions on the properties of Ni/nano-SiC composites obtained from a sulfamate bath

s06-P-008

João Borges (CIQ-UP Departamento de Química, Faculdade de Ciências da Universidade do Porto, Porto, Portugal), Joaquim Rodrigues, Carlos Pereira, Fernando Silva

Electrodeposition of Alloys from Deep Eutectic Solvents Based Ionic Liquids

s06-P-009

Nicola Comisso (IENI CNR, Padova, Italy), Enrico Verlato, Sandro Cattarin, Paolo Guerriero, Marco Musiani

Cathodic Deposition of Cu+PdO and Cu+Pd Composites

s06-P-010

Sara Dale (Department of Physics, Bath, United Kingdom), Miles Engbarth, Andre Muller, Simon Bending, Laurence Peter

'Real-time' in-situ AFM investigations of the electrochemical growth of magnetic mesocrystals

s06-P-011

Keqiang Ding (College of Chemistry and Materials Science, Shijiazhuang, China), Qingfei Wang, Lianhong Dong, Fumin Cheng, Guokai Yang, Wenyan Cai, Zhenman Sun, Qian Gao

Electrochemical Preparation of Platinum Particles-Decorated Manganese Dioxides and Its Catalysis for Oxygen Reduction Reaction (ORR)

s06-P-012

Florentina Golgovici (Department of Applied Physical Chemistry and Electrochemistry, University Politehnica Bucharest, Bucharest, Romania), Teodor Visan, Nedelcu Marin, Cojocaru Anca

Electrodeposition of Bismuth, Antimony and Tellurium Using Choline Chloride – Urea Ionic Liquid

s06-P-013

Min Guo (Department of Physical Chemistry, University of Science and Technology Beijing, Beijing, China), Mei Zhang

Pulsed Electrodeposition of Well Oriented ZnO Nanorod Arrays and Its Optical Property

s06-P-014

Cheng-Hsing Hsu (Department of Electrical Engineering, National United University, Miao-Li, Taiwan)

Preparation and Characterization of GeO_2 Thin Films by Sol-Gel Technology

s06-P-015

Xiaolong Li (Functional Materials Research Laboratory, Shanghai, China), Kefeng Cai, Hui Li, Chiwei Zhou, Huifeng Wang

Alumina template-assisted Electrodeposition of $Bi_2Te_{3-y}Se_y$ Nanowire Arrays

s06-P-016

Chun-Wei Lu (Department of Chemical Engineering, National Chung Hsing University, Taichung 40227, Taiwan., Taichung, Taiwan), Wei-Ping Dow

A Copper Electrodeposition Technique for Through-Hole Filling

s06-P-017

Josep M. Montero-Moreno (Electrodep., Departament de Química Física, Universitat de Barcelona, Barcelona, Spain), Laura Cattaneo, Marc Belenguer, Maria Sarret, Pietro L. Cavallotti, Carlos Muller

Drawbacks in the template-assisted electrodeposition of metallic nanowires in a modified aluminium/anodic alumina electrode

s06-P-018

Shao-Ping Shen (Department of Chemical Engineering, National Chung Hsing University, Taichung, Taiwan), Shao-Ping Shen, Wei-Ping Dow, Motonobu Kubo, Makoto Sato, Eric Cheng, Jing-Yuan Lin, Fu-Chiang Hsu

Copper Fill for Through Silicon Via With a High Aspect Ratio

s06-P-019

Yi Wang (State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, China), Wensheng Yang, Lipeng Chen, Lan Yang

Fabrication of a Novel Layered Double Hydroxide/Multiwall Carbon Nanotube Nanocomposite Film *via* an Electrophoretic Deposition Method

s06-P-020

Weigang Wu (College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China), Fang-Zu Yang, Shao-Min Zhou

Voltammetric and Morphological Characterization of Copper Electrodeposition from a Alkaline Non-cyanide Bath

s06-P-021

Yang Yang (Chemistry Department, Xiamen University, Xiamen, China), Zhong-Qun Tian, Christian Amatore, Bing-Wei Mao, Bin Ren, Emmanuel Maisonhaute, Bernd Schöllhorn, Jing-Hua Tian

The combined electrochemical and MCBJ method for measurement of electrical properties of molecule junction on a microchip

s06-P-022

Jinqiu Zhang (School of Chemical Engineering and Technology, Harbin Institute of Technology, Harbin, China), Limin Chang, Yaoguang Yu, Maozhong An

Reliability of Sn-Ag-Cu alloy coatings electrodeposited from weakly acidic baths

s06-P-023

Yong Ming Zhu (Faculty of Applied Chemistry, Harbin Institute of Technology at Weihai, Weihai, China), Yuanchun Yu, Huili Hu, Ning Li

Preparation and corrosion resistance of nano Zn-Fe alloy with pulse electrodepositing technology

NANOCOMPOSITE AND NANOSTRUCTURES

s06-P-024

Paula Cojocaru (Politecnico di Milano, Milano, Italy), Geta Carac, Constantin Apetrei, Fabio Muscolino, Luca Magagnin

Electrochemical preparation and surface properties of nickel nanowires formed by the template technique

s06-P-025

Paula Cojocaru (Politecnico di Milano, Milano, Italy), Luca Magagnin, Pietro Luigi Cavallotti, Elvira Gomez, Elisa Valles

Electrochemical preparation and magnetic properties of nickel cobalt/barium ferrite composite

s06-P-026

Yutaka Fujiwara (Osaka Municipal Technical Research Institute, Osaka, Japan), Atsushi Koishikawa, Yasuyuki Kobayashi, Yasuhiro Hoshiyama, Hidekazu Miyake

Initial Stage of Electroless Cu Plating onto Ag–nanoparticle Catalyzed Polymer Substrates

SURFACE PATTERNING

s06-P-028

Zheng Jia (Department of Applied Chemistry, College of Chemical Engineering, Harbin Institute of Technology, Harbin, China), Lixiang Jiang, Tao Li, Xiangpeng Liu

A novel electrochemical etching technique of osmium film for use as atomic oxygen sensors

s06-P-029

Teruhisa Kameyama (Department of Applied Chemistry, Faculty of Engineering, Kogakuin University, Tokyo, Japan), Hidetaka Asoh, Sachiko Ono

Silicon Nano Hole Arrays Prepared by Metal-Assisted Chemical Etching Using Hexagonally Arranged Au Nanoparticles

Symposium 7: Electrochemical Engineering and Technology

ELECTROCHEMICAL ENGINEERING AND TECHNOLOGY

s07-P-001
M.E. Henry Bergmann (Anhalt University, Koethen/Anh., Germany), Johanna Rollin, Karsten Kresse
Destruction of Metoprolol on Bdd Anodes

s07-P-002
M.E. Henry Bergmann (Anhalt University, Koethen/Anh., Germany), Wido Schmidt, Anne-Katrin Dommaschk
Detection of ClO_2 and ClO_2- in Electrolysed Waters of Very Low Ionic Strength Using LGB Method and IC

s07-P-003
M.E. Henry Bergmann (Anhalt University, Koethen/Anh., Germany), Tatiana Iourtchouk, Johanna Rollin, Karsten Kresse
The Occurence of Perbromate on BDD during Water Electrolysis in Ppm Range of Bromide Concentration

s07-P-004
Henry Bergmann (Anhalt University, Koethen/Anh., Germany), Tatiana Iourtchouk
Electrodeionization for rinse waters in plating industry

s07-P-005
M.E. Henry Bergmann (Anhalt University, Koethen/Anh., Germany)
Save Electrochemical Disinfection of Drinking Water - A New Joint Research Project in Germany

s07-P-006
Rodnei Bertazzoli (State University of Campinas, Campinas, Brazil), Leticia Ferreira
CO_2 Electroreduction to Formic Acid Production

s07-P-007
Sang Mun Jeong (Korea Atomic Energy Research Institute, Daejeon, Korea), Ho-Sup Shin, Jin-Mok Hur, Hansoo Lee
Electrochemical Reduction of Uranium Oxide by an Interrupted Voltage Control Mode in a LiCl Molten Salt

s07-P-008
Roman Kodym (Department of Inorganic Technology, Institute of Chemical Technology, Prague, Czech Republic), Henry Bergmann, Karel Bouzek
Study of the Impact of Direct Drinking Water Disinfection Cell Geometry on Active Chlorine Yield – Experimental Study and Mathematical Modeling

s07-P-009
Qian Xu (School of Materials Science and Metallurgy, Shenyang, China), Yong-lian Qiao, Hui-jun Liu, Wei-Wei Meng
Preparation and characterization of nickel coating on the carbon-polythene composite plates by electrodeposition

s07-P-010
Fang-Zu Yang (Chemistry, Xiamen, China), Wei-Gang Wu, Zhi-Ping Lin, Ling Huang, Shao-Min Zhou
Cyanide Free Copper Plating on Steel Substrate in Alkaline Citrate Bath

s07-P-011
Yusuf Yavuz (Anadolu University, Dept. of Environmental Engineering, Eskisehir, Turkey), A. Savas Koparal, Ülker Bakir Ögütveren
A Comparative Study for the Electrochemical Treatment of Petroleum Refinery Wastewater

ELECTROCHEMICAL PROMOTION

s07-P-012

Qiaowei Chen (College of Chemical Engineering and Materials Science C, Zhejiang University of Technology, Hangzhou, China), Fengming Zhao, Chunan Ma

The preparation of PbO_2/SPE composite –membrane electrode and its application in ozone generation

s07-P-013

Yanmei Liao (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Yinghong Zhu, Chunan Ma

Study on Electro-oxidation Performance of Benzyl alcohol

s07-P-014

Hao Ma (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Chunan Ma, Yinghua Xu

Fabrication of Pd-Ag electrode and its properties for reductive dechlorination

s07-P-016

Xiaojuan Wang (State Key Laboratory Breeding Base of Green Chemistry-Synthesis Technology, College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Chunan Ma, Guohua Li

Electrochemical Behavior of Nitromethane on Cu Disk Electrode in Ionic Liquid $BMImBF_4$

s07-P-017

Yaming Zhou (College of Chemical Engineering and Materials Science, Zhejiang University of Technology, Hangzhou, China), Chunan Ma, Yinghua Xu

Indirect Electrochemical Reduction of Dispersed Indigo on Silver Electrodes

ELECTROLYSIS

s07-P-018

Karel Bouzek (Department of Inorganic Technology, Institute of Chemical Technology Prague, Prague, Czech Republic), Zuzana Macova

Electrochemical Ferrate(VI) Synthesis: the Effect of Electrode Material Composition

s07-P-019

Rui Huang (State Key Laboratory for Physical Chemistry of Solid Surfaces, College of Chemistry and Chemical Engineering, Department of Chemistry, Xiamen University, Xiamen, China), Sheng-Pei Chen, Tao Huang, Shi-Gang Sun

Organic electrosynthesis in electrochemical microflow system

s07-P-020

Huayi Yin (School of Resources and Environmental Science, Wuhan University, Wuhan, China), Fuxing Gan, Dihua Wang

Anodic behavior of several metals in chloride melts

s07-P-021

J.F. Zhang (Shinshu University, Ueda, Japan), Tatsuya Ohashi, Wataru Sugimoto, Yoshio Takasu

Roughening of the Surface Layers of BDD Electrodes by Steam

MODELING OF ELECTROCHEMICAL SYSTEM

s07-P-022

Bernhard Mollay (CEST, Centre of Competence in Electrochemical Surface Technology, Wiener Neustadt, Austria), Volodymyr Nedashkivskyi, Gabriela Telias, Peter Raffelstetter, Heidi Van Parys, Annick Hubin

A Modeling Strategy to Study the Influence of Gas Bubble Stirring on the Polarization Function of Hydrogen Electrodes

WASTEWATER TREATMENT

s07-P-023

Djamal-Eddine Akretche (Faculty of Chemistry, USTHB, Algiers, Algeria), Omar Souilah, Hadjer Mabrouki, Christophe Innocent

Ultrapure water production using electrodeionisation by fiber ion exchange

s07-P-024

Ülker Bakir Ögütveren (Anadolu University, Eskisehir, Turkey), Yusuf Yavuz, A. Savas Koparal

Treatment of Sugar Industry Wastewater by an Electrochemical Method

s07-P-025

Carlos Carlesi Jara (Escuela de Ingeniería Química, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile), Rodrigo Schrebler Arratia

Improving the thermal synthesis of Sb doped Sn oxide electrode by using an acid ionic liquid

s07-P-026

Alexandros Katsaounis (Environmental Engineering, Technical University of Crete, Chania, Greece), Nikos Papastefanakis, Efthalia Chatzisymeon, Andreas Dimou, Dionisios Mantzavinos

Electrochemical Treatment of Olive Mill Wastewater using DSA-type electrodes

s07-P-027

Tianyu Li (School of Science, Beijing University of Chemical Technology, Beijing, China)

Electrocatalytic Degradation of Chloroform by Fe-Si/Mg-Al in Drinking Water

s07-P-028

Ji-Yan Liang (Department of Chemistry and Environment, School of Science, Shenyang University of Technology, Shenyang, China)

Electrocoagulation (EC) of C. I. Reactive Black 5 Solution Using Different Electrodes

s07-P-029

Romeu C. Rocha-Filho (Department of Chemistry, S. Carlos Federal University, S. Carlos, Brazil), José M. Aquino, Nerilso Bocchi, Sonia R. Biaggio

Electrochemical degradation of a textile dye house effluent using a Ti-Pt/β-PbO_2 anode

s07-P-030

Onofrio Scialdone (Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Palermo, Italy), Serena Randazzo, Alessandro Galia, Giuseppe Filardo, Giuseppe Silvestri

Effect of the temperature on the electrochemical incineration of organic pollutants

s07-P-031

Onofrio Scialdone (Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Palermo, Italy), Alessandro Galia, Luigi Gurreri, Serena Randazzo, Giuseppe Silvestri

Electrochemical processes for the treatment of chlorinated ethanes in water solutions

s07-P-032

Onofrio Scialdone (Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Palermo, Italy), Chiara Guarisco, Giuseppe Filardo, Giuseppe Silvestri, Alessandro Galia

Electrochemical Incineration of Oxalic Acid in a Micro-Gap Flow Cell

s07-P-033

Minghua Zhou (College of Environmental Science and Engineering, Nankai University, Tianjin, China)

Molasses Wastewater Treatment by Electrocoagulation

Symposium 8: Electrochemical Nano/Micro-Science

ELECTROCHEMICAL SPM

s08-P-001

Helmut Baltruschat (University of Bonn, Bonn, Germany), Nikolay Podgaynyy, Florian Hausen, Michael Nielinger

Influence of Potential, Anionic Adsorbates, and Metallic Monolayers on Friction Forces Studied by AFM

s08-P-002

Didier Devilliers (Université Pierre et Marie Curie UPMC, Paris, France), Cyrine Slim, Mélanie Bancelin, Eric Mahé

Study of a semiconductor substrate by SECM

s08-P-003

Ezequiel P. M. Leiva (INFIQC, Unidad de Matematica y Fisica, Facultad de Ciencias Quimicas, Universidad Nacional de Cordoba, Cordoba, Argentina), Martin E. Zoloff Michoff

Kinetic and Thermodynamic Stability of Molecular Nanowires. A DFT Study

s08-P-004

Mir Fazlollah Mousavi (Chem. Dept. TMU, Tehran, Iran)

Studying of Electron transfer kinetic of Cythochrom–c Immobilized on the Self-Assembled Monolayers by SECM

s08-P-005

Yi-Min Wei (State Key Laboratory of Physical Chemistry of Solid Surfaces and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen, China), Bing-Wei Mao, Xiao-Shun Zhou, Zhao-Bin Chen, Ling Liu

Creation of Metal Nanoconstrictions by Electrochemical STM-Break Junction with Control of Crystallinity

s08-P

Daniel Mandler (Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel), Mari Sheffer, Esteban Malel

Local Deposition of Nanoparticles by Scanning Electrochemical Microscopy

NANO ELECTROCATALYSIS

s08-P-006

Luisa Abrantes (Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal), Virgínia Ferreira, Fernando Silva

Shape dependent electrocatalytic activity of gold nanoparticles towards L-ascorbic acid oxidation

s08-P-007

Chen Chen (Department of Chemistry, Wuhan University, Wuhan, China), Juntao Lu, Zhuang Lin

Molecular Dynamic Simulations of the Movement of Pt Nanoparticles on Different Substrates

s08-P-008

Hong Dai (Ministry of Education Key Laboratory of Analysis and Detection for Food Safety and Department of Chemistry, Fuzhou University, Fuzhou, China), Guonan Chen, Xiaoping Wu

Enhanced and stable electrochemiluminescence of lucigenin at the Titanate Nanotubes self-assembled composite modified electrode and its application in determination of Clonazepam

s08-P-009

Guoqiang He (School of Physics and Engineering, Sun Yat-Sen University, Guangzhou, China), Pei Kang Shen

Preparation of Pt Nanoelectrodes for Electrocatalysis

s08-P-010

Takeo Ohsaka (Tokyo Institute of Technology, Yokohama, Japan), Mohamed S. El-Deab, Mohamed I. Awad, Takeyoshi Okajima, Ahmad M. Mohammad

Electrochemical Preparation of MnOOH Nanorods: Characterization and Electrocatalytic Applications

s08-P-011

Hugo Barbosa Suffredini (CCNH/UFABC, Santo Andre, Brazil), Guilherme Soares Buzzo, Maria Joao Brasil Orlandi, Rafael Vitor Niquirilo, Erico Teixeira-Neto

Sol-Gel Method as an Interesting Way to Synthesize Active Anodes for the Oxidation of Organic Molecules

s08-P-012

Xin Wang (Beijing Normal University, Beijing, China), Xiaoling Wu, Lin Liu, Li Li, Kuiqing Peng, Shuit-Tong Lee

Fabrication of Large-area Silicon Nanowire Arrays Using Electrodeposited Silver as Etching Catalyst

NANOELECTRODES

s08-P-013

Sun Junli (Institute of New Energy Material Chemistry, Engineering Research Center of Energy Storage & Conversion (Ministry of Education) and Key Laboratory of Energy-Material Chemistry, Tianjin, China), Yuan Huatang, Jiao Lifang, Liu Li, Wei Xin

Octadecylamine Oxide as the Template Synthesis of Lithiated Vanadium Oxides Half Opened-Nanotubes

s08-P-014

Shingo Sakamoto (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Masato Tominaga, Hiroyuki Yamaguchi, Isao Taniguchi

In-situ Raman Spectroelectrochemical Measurements at Carbon Nanotubes Modified Electrode

NANOMATERIALS-INVOLVED ELECTRON TRANSFER

s08-P-015

Dario Battistel (Department of Physical Chemistry, University of Venice, Venice, Italy), Salvatore Daniele, Giancarlo Battaglin, Carlo Bragato

Growth of Metallic Species within Amorphous Alumina Thin Films. Visualization and Applications in Sensor Technology

s08-P-016

Lourdes Isabes Cabrera (Universidad de Guanajuato, Guanajuato, Mexico), Nieves Menendez, Maria del Puerto Morales, Silvia Gutierrez

Effect of different surfactants on the properties of magnetite nanoparticles produced electrochemically

s08-P-017

Vesna Cvetkoviæ (University of Pristina Faculty of Sciences and Mathematics, K. Mitrovica, Serbia), Branka Radoviæ, R.A.H. Edwards, Jovan Jovicevic

Aluminium Underpotential Deposition from $AlCl_3$+NaCl Melts on Zinc Substrate

s08-P-018

Vesna Cvetkoviæ (University of Pristina Faculty of Sciences and Mathematics, K. Mitrovica, Serbia), Branka Radoviæ, R.A.H. Edwards, Jovan Jovicevic

Aluminium Underpotential Deposition from $AlCl_3$+NaCl Melts on Cadmium Substrate

s08-P-019

GuoWang Diao (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Ming Chen, Lei Cui

Electrochemical Behavior of Silver Nanoparticles Capping by Mono-thio-β-Cyclodextrin

s08-P-020

Keqiang Ding (College of Chemistry and Materials Science, Shijiazhuang, China)

Hydrothermal Synthesis of Leaf-shaped Ferric Oxide Particles onto Multi-walled Carbon Nanotubes (MWCNTs) and Its application for the Electrooxidation of Ascorbic Acid

s08-P-021

Junping Dong (Department of Chemistry, Shanghai University, Shanghai, China), Chengli Jin, Jiaqiang Xu, Yuhong Zhang

Enhanced Electrochemistry of Ferrocene Encapsulated in NaY Zeolite in a Hydrophobic Ionic Liquid Medium

s08-P-022

Hossein Farsi (Department of Chemsitry, University of Birjand, Birjand, Iran), Shokufeh Moghiminia, Heidar Raissi

The pH Effects on The Capacitive Behavior of Nanostructured Molybdenum Oxide

s08-P-023

Chien-Liang Lee (Department of Chemical and Materials Engineering, National Kaohsiung University of Applied Science, Kaohsiung City, Taiwan), Chen-Chung Wu

Electrochemical synthesis of Pd-Ni nanoparticles by double anode method and their catalytic characterization

s08-P-024

Jinxia Li (Key Laboratory for Advanced Materials and Department of Chemistry, East China University of Science & Technology, Shanghai, China)

Direct Electrochemistry of Horseradish Peroxidase based on Gemini surfactant protected gold nanoparticles modified Glassy Carbon Electrode

s08-P-025

Tianbao Li (Department of Applied Physics, University of Fukui, Fukuishi, Japan), Koichi Aoki, Jingyuan Chen

Electrochemical properties of poly(styrene-acrylic acid) latex particle films

s08-P-026

Song Liu (College of Chemistry and Molecular Engineering, Beijing, China), Guanxin Zhang, Liang Ren, Deqing Zhang, Zhongfan Liu

Reversible Redox Switching in Anthraquinone-based Molecular Electronic Devices

s08-P-027

Vesna Miskovic-Stankovic (Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia), Zeljka Jovanovic, Vladimir Panic, Aleksandra Krkljes, Zorica Kacarevic-Popovic

Electrochemical Synthesis of Silver Nanoparticles Stabilized by Poly(N-vinyl-2-pyrrolidone)

s08-P-028

Vesna Miskovic-Stankovic (Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia), Sanja Erakovic, Vladimir Panic, Bojan Jokic

Electrophoretic Deposition of Hydroxyapatite-based Coatings onto Titanium with Differently Prepared TiO_2 Interlayer

s08-P-029

Makoto Miura (Polytechnic College Akita, Odate, Japan), Yoshinobu Oshikiri, Takahiro Ito, Ryoichi Aogaki

Measurement of Ionic Vacancy in a Liquid Solution

s08-P-030

Abbasali Rostami (Chemistry, University of Mazandaran, Babolsar, Iran)

Grafting of Diazonium Salts on Carbon Surfaces with and without Electrochemical Induction

s08-P-031

Abdollah Salimi (University of Kurdistan, Sanandaj, Iran)

Immobilization of FAD onto electrodeposited nickel oxide nanoparticles: Applications to sensor fabrication

s08-P-032

Yan Yang (College of Chemistry, Beijing, China), Yi Men, Zhe Li, Lou Zhen Fan

Electrochemiluminescence Emission of ZnS/Mn^{2+} Nanocrystals in polyvinyl alcohol films

s08-P-033

Fan Yunying (Faculty of Materials and Metallurgical Engineering, Kunming University of Science and Technology, Kunming, China)

Control steps of Zn-Fe-SiO_2 Composite Electrodeposition

SIZE-EFFECT

s08-P-034

Mahmoud Aliof Khazraei (Department of Materials Engineering, Faculty of Engineering, Tarbiat Modares University, Tehran, Iran)

Study of Electrodeposition Properties and Hydrogen Evolution Reaction of Nanocrystalline and Amorphous Electroplated Nickel-Tungsten Alloys

s08-P-035

Han Chen (Department of Applied Physics, University of Fukui, Japan), Jingyuan Chen, Koichi Aoki

Electrically conductive polyaniline-coated polystyrene latex particles

s08-P-036

Ezequiel P. M. Leiva (Univerisad Nacional de Córdoba, Córdoba, Argentina), Oscar A. Oviedo, Marcelo M. Mariscal

On stable and metastable states in metallic core-shell nanoparticles. Can they be handled electrochemically?

s08-P-037

Sang-Hoon Park (Department of Material Science and Engineering, Yonsei University, Seoul, Korea)

Structure Controllable 3D Carbon Nanotube Macrostructure by Ice Templating

s08-P-038

Koichi Yasukawa (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Masato Tominaga, Isao Taniguchi

Electrocatalytic Glucose Oxidation Behaviors at Gold Nanoparticles-Embedded into Carbon Electrode

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Wenjing Li (School of Chemistry and Chemical Engineering, Shandong University, Jinan, China) Yongli Jiao, Zhongxia Sun

Fabrication of Nanoporous Palladium and Studies on its Electrochemical Behavior

Symposium 9: Interfacial Electrochemistry

CHARGE TRANSFER

s09-P-001

Philippe Hapiot (Sciences Chimiques de Rennes - (MACSE) Université de Rennes 1 CNRS, UMR 6226, Rennes, France), Jean-Marc Noel, Dodzi Zigah, Aifang Wang, Corinne Lagrost

Modification of Glassy Carbon Surfaces with Aryldiazonium Salts: Electron Transfer at Redox-Active Surfaces

s09-P-002

Guo Lei (Key Laboratory of Novel Thin Film Solar Cells, Hefei Institutes of Physical Sciences, Chinese Academy of Sciences, Hefei, China), Pan Xu, Huo Zhipeng

Influence of Iodine on I3-/I- Redox Electrochemical Behavior in Tetrahydrothiophenium-based Ionic Liquid Electrolyte Used in Dye-sensitized Solar Cells(DSC)

s09-P-003

Kang Shi (College of Chem. & Chem. Engin., Department of Chemistry, Xiamen University, Xiamen, China), Ying Lei, Kun Hu, Sheng Wang

Comparative Studies on the Electrochemical Characters of Several sp2-hybridized Carbon Electrodes

DOUBLE LAYER

s09-P-004

Victor Emets (A.N. Frumkin Institute of Physical Chemistry and Electrochemistry, Russian Academy of Sciences, Moscow, Russia), Boris Damaskin

The relation between the potential of zero charge and work function for sp –metals

s09-P-005

Lukáš Fojt (Center for Dental and Craniofacial Research, Masaryk University, Brno, Brno, Czech Republic), Vladimír Vetterl, Thomas Doneux

Adsorption and 2D condensation of cytosine derivatives

s09-P-006

Mónika Valiskó (Department of Physical Chemistry, University of Pannonia, Veszprem, Hungary), Dezsõ Boda, Tímea Nagy, Dirk Gillespie

Energetics of ion selectivity in slit-like pores

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Yanpiero Balladores (Laboratorio de Electroquímica, Facultad de Ciencias, Universidad de los Andes, Merida, Venezuela), Jairo Márquez, Olga Márquez, Yris Martínez, Santos López

Electrodeposition of $CdIn_2Se_4$ thin films

s09-P-008

Juan Carlos Ballesteros Pacheco (Centro de Investigación y Desarrollo Tecnológico en Electroquímica, S.C., Sanfandila, Pedro Escobedo, Mexico), Yunny Meas Vong, Gabriel Trejo Córdova, Eric Chainet

Development of a non-cyanide alkaline bath for industrial brass plating

s09-P-009

João Borges (CIQ-UP Departamento de Química, Faculdade de Ciências da Universidade do Porto, Porto, Portugal), José Ribeiro, Carlos Pereira, Fernando Silva

Electrochemical Determination of Dopamine at modified Gold Electrodes

s09-P-010

Stephan Breuer (Institute of Physical and Theoretical Chemistry, University of Bonn, Bonn, Germany), Jiang Min, Knud Gentz, Klaus Wandelt

Structural transitions of Heptyl Viologen adlayers on a Cu(100) electrode: *In situ* STM study

s09-P-011

Elisabete Ferreira (Departamento de Química Faculdade de Cências da Universidade do Porto, Porto, Portugal), Carlos Pereira, António Silva

Chromium deposition from a Cr(III) choline chloride based bath

s09-P-012

Zbigniew A. Figaszewski (Institute of Chemistry, University in Bialystok, Bialystok, Poland), Aneta D. Petelska, Monika Naumowicz

Complex formation equilibria in phosphatidylcholine membranes containing decanoic acid

s09-P-013

Andreza Gomide (Instituto de Física, Campinas, Brazil), Wyllerson Evaristo Gomes, David Mendez Soares, Mário Alberto Tenan, Omar Teschke

Ion pairs formation on gold surface from low concentrated aqueous salt solutions

s09-P-014

Luigi Manfredy (Laboratorio de Electroquímica Universidad de Los Andes, Merida, Venezuela), Olga Marquez, Jairo Marquez, Santos Lopez, Yris Martinez

Electrochemical Preparation of $CuInS_2$ Ternary Semiconductor

s09-P-015

Manuel Méndez (Laboratoire d'Electrochimie Physique et Analytique, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland), Michel Prudent, Bin Su, Hubert Girault

Peptide–Phospholipid complex formation at liquid–liquid interfaces

s09-P-016

Yoshiharu Mukouyama (College of Science and Engineering, Tokyo Denki University, Hatoyama, Saitama, Japan), Hiroshi Okamoto

Mechanism of Electrochemical Oscillation during Hydrogen Evolution Reaction

s09-P-017

Monika Naumowicz (Institute of Chemistry, University in Bialystok, Bialystok, Poland), Aneta D. Petelska, Zbigniew A. Figaszewski

Physicochemical analysis of phospholipid-amine system in bilayer membranes

s09-P-018

Bin Peng (Shanghai Key Laboratory for Molecular Catalysis and Innovative Materials and Department of Chemistry, Fudan University, Shanghai, China), Wen-Bin Cai

Surface Enhanced Infrared Study of the Effect of Cl-on the Adsorption and Oxidation of CO at Pt Electrode

s09-P-019

Aneta D. Petelska (Institute of Chemistry, University in Bialystok, Bialystok, Poland), Monika Naumowicz, Zbigniew A. Figaszewski

The equilibrium of phosphatidylcholine-tyrosine system in monolayer at the air/water interface

s09-P-020

Zdenek Samec (J. Heyrovsky Institute of Physical Chemistry of ASCR, v.v.i., Prague 8, Czech Republic), Antonin Trojanek, Jan Langmaier, Bin Su, Hubert H. Girault

Acceleration Effect of Tetraphenylporphyrin Monoacid and Diacid on Oxygen Reduction at the Water/1,2-Dichloroethane Interface

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Rares Scurtu (Institute of Physical Chemistry "Ilie Murgulescu", Bucharest, Romania), Valentina Lazarescu, Mihai Lazarescu

Surface States- and Field-Effects at Bare and Thiolate Covered GaAs(111)A Electrodes

s09-P-022

Faridah Binti Sonsudin (Division of Chemistry, Graduate School of Science, Hokkaido University, Sapporo, Japan), Kohei Uosaki

Structural changes of various faces of Pt single crystalline surfaces induced by potential cycling in acid solutions

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Yu-Zhuan Su (State Key Laboratory of Physical Chemistry of Solid Surfaces and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen, China), Yong-Chun Fu, Jia-Wei Yan, Zhao-Bin Chen, Bing-Wei Mao

Cation Adsorption at Au(100) in Imidazolium-Based Ionic Liquids

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Guojiang Wan (Key Lab. of Advanced Technology for Materials of Education Ministry of China, College of Materials Science and Engineering, Southwest Jiaotong University, SWJTU, Chengdu, China), Bo Lv, Nan Huang, Ping Yang, Yongxiang Leng, Hong Sun, Xi Wu

Blood-Compatibility and Electrochemical Investigation of Ti-O Film Synthesized by Unbalanced Magnetron Sputtering

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s09-P-025

Stephan Breuer (Institute of Physical and Theoretical Chemistry, University of Bonn, Bonn, Germany), Melanie Roeefzaad, Duc Thanh Pham, Jiang Min, Klaus Wandelt

FT-IRRAS Studies of Potential Controlled Transformations of Viologen Monolayers adsorbed on a Copper Electrode Surface

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Qing-Ning Jiang (Chemistry Department, Xiamen University, Xiamen, China), Zhong-Qun Tian, De-Yin Wu, Bin Ren, Yan Cui, Song-Yuan Ding, Bi-Ju Liu

The role of Cl- and water in surface complexes of pyridine/ silver/KCl on electrochemical SERS studied by DFT

s09-P-027

Jian-Feng Li (State Key Laboratory for Physical Chemistry of Solid Surfaces and Department of Chemistry, Xiamen University, Xiamen, China), Yi-Fan Huang, Zhi-Lin Yang, De-Yin Wu, Bin Ren, Zhong-Qun Tian

Shelled-nanostructured-enhanced Raman spectroscopy (SNERS) on single-crystal electrode surfaces

s09-P-028

Yu-Chuan Liu (Department of Chemical and Materials Engineering, Vanung University, Chung-Li City, Taiwan), Chung-Chin Yu, Kuang-Hsuan Yang

Electrochemically Prepared Surface-Enhanced Raman Scattering-Active Silver Substrates with Silica Nanoparticles

s09-P-029

Katsuhiko Nishiyama (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Yuta Ono, Rikio Hayakawa, Shota Tajima, Soichiro Yoshimoto, Isao Taniguchi

Construction and Application of Multilayered-Porphyrine Bridged by DABCO on Au (111) Studied by QCM and STM

s09-P-030

Katsuhiko Nishiyama (Graduate School of Science and Technology, Kumamoto University, Kumamoto, Japan), Natsumi Kaetsu, Hiroshi Seriu, Isao Taniguchi

Desorption Process of 2- and 4-Pyridinethiolate SAMs on Au Electrode in Acidic, Neutral, and Alkaline D_2O Solutions Studied by SEIRAS

s09-P-031

Manuela Rueda (Department of Physical Chemistry, University of Seville, Seville, Spain), Antonio Rodes, Francisco Prieto, Cesar Prado, Juan M. Feliu, Antonio Aldaz

Adenine Adsorption at Single Crystal and Thin-film Gold electrodes by *in-situ* FT-IR Spectroscopy

s09-P-032

Kuang-Hsuan Yang (Department of Chemical and Materials Engineering, Vanung University, Chung-Li City, Taiwan), Yu-Chuan Liu, Ting-Chu Hsu

Substrate-Temperature Dependence on Surface-Enhanced Raman Scattering-Active Silver Substrates

s09-P-033

Shen Ye (Catalysis Research Center Hokkaido University, Sapporo, Japan), Huijin Liu, Yujin Tong, Masatoshi Osawa, Shen Ye

Structural Changes on Electrode Surface of Li-ion Battery by *in situ* Sum Frequency Generation (SFG) Spectroscopy

s09-P-034

Chung-Chin Yu (Department of Environmental Engineering/Vanung University, Chung-Li City, Taiwan), Yu-Chuan Liu, Cheng-Cai Wang

Effects of Silica Nanoparticles on Improved Surface-Enhanced Raman Scattering on Gold Substrates

s09-P-035

Wei Zhou (Department of Chemistry, Nagoya University, Nagoya, Japan), Takashi Iwahashi, Soya Inoue, Yasushi Katayama, Hajime Matsumoto, Yukio Ouchi

Adsorption of ionic liquids on Pt electrode – an *in situ* IR-visible sum frequency generation spectroscopic study

THEORY AND METHODS

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Qing-Song Chen (Chemistry, Xiamen, China), Shi-Gang Sun, Juan M. Feliu

Effects of Bi and Te step decoration using CO as molecular probe

s09-P-037

Guoshou Jin (Key Lab. of Advanced Technology for Material of Education Ministry of China, College of Materials Science and Engineering, Southwest Jiaotong University, SWJTU, Chengdu, China), Manfred F. Maitz, Nan Huang

In-situ and *In-vitro* Investigation Electrochemically of Biomaterials-related Thrombosis

s09-P-038

Ting Liu (The State Key Laboratory Breeding Base of Green Chemistry-Synthesis Technology, Zhejiang University of Technology, Hangzhou, China), Litao Chen, Chunan Ma

Density Functional Theory Study of Hydrogen Adsorption, Dissociation and Diffusion on Pt(111) and Pt/WC(0001)

LATE REGISTRATIONS

Rongxin Wang (Suzhou Nanotech and Nano-bionics CAS, Suzhou, P. R. China, Suzhou, China)

Study flexible electrodes behaviours using AC impedance spectroscopy

Symposium 10: Molecular Electrochemistry: In its own right and in service to related research areas

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Guowang Diao (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Qinquan Zhu, Ming Chen

Synthesis and Electrochemical Behavior of Water-Soluble p-tert-butyl Calix[8]arene Octa-amine

s10-P-002

Guowang Diao (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Yu Chen

Electrochemical Behavior of Reactive Brilliant Yellow B-4GLN

s10-P-003

Philippe Hapiot (Sciences Chimiques de Rennes - (MACSE) Université de Rennes 1, CNRS, UMR 6226, Rennes, France), Dodzi Zigah, Aifang Wang, Jalal Ghilane, Corinne Lagrost

SECM Investigations of Transport Properties In Pure Ionic Liquid and Ionic Liquids/organics Solvent Mixtures

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Yi-Fan Huang (Chemistry Department, Xiamen University, Xiamen, China), An Wang, De-Yin Wu, Bin Ren, Sandra Rondinini, Christian Amatore, Zhong-Qun Tian

A mechanistic study of benzyl chloride reduction on silver electrodes by *in-situ* SERS and DFT calculation

s10-P-005

Davood Nematollahi (Faculty of Chemistry, Bu-Ali-Sina University, Hamadan, Iran), Hasan Shayani-Jam

New Evidences in Electrochemical Oxidation of Acetaminophen

ELECTRON TRANSFER

s10-P-006

Patrizia Romana Mussini (University of Milano, Department of Physical Chemistry and Electrochemistry, Milano, Italy), Armando Gennaro, Abdirisak Ahmed Isse, Yuri Alexander Aguilar Arevalo, Manuela Rossi

The solvent role in the electrocatalytic cleavage of carbon-bromine bonds on Ag:solvent proticity and halide anion solvation ability

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s10-P-007

Armando Gennaro (Department of Chemical Sciences, Padova, Italy), Abdirisak A. Isse, Michele Boarini, Christian Durante

Synthesis of arylcarboxylic acids by electrocatalytic reduction of bromobenzenes in the presence of CO_2

s10-P-008

Alexander Laguna Varela (Universidad de los Andes, Laboratorio de Electroquimica, Mérida, Venezuela)

Electrodeposition and characterization of 2,3,6,7,10,11-hexadecahexoxytriphenylene films on Platinum surfaces.

ORGANIC AND ORGANOMETALLIC ELECTROCHEMISTRY

s10-P-009

Guowang Diao (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Ting Lv, Ming Chen

Electrochemical Oxidation of p-Tert-butyl Calix[4]arene in Organic Solution

s10-P-010

Armando Gennaro (Department of Chemical Sciences, Padova, Italy), Abdirisak A. Isse, Nicola Bortolamei

Homogeneous reduction of alkyl halides of relevance to atom transfer radical polymerization: estimation of standard reduction potentials of alkyl radicals

s10-P-011

Eric de Souza Gil (Faculty of Pharmacy, University Federal of Goias, Goiânia, Brazil), Flavio Colmati, Romulo Marques Fava, Victor Lucio Souza Aguiar, Ricardo Meneghatti

Voltammetric Techniques as an Alternative Tool for the Characterization of Functionally Substituted Benzaldehydes and Their Arylidenecyanoacetates Derivatives

s10-P-012

Yi Guo (Department of Applied Physics, University of Fukui, Fukui, Japan), Koichi Aoki, Jingyuan Chen

Diffusion-controlled behavior of ferrocenyl derivative in viscous solutions

s10-P-013

Fujio Iwata (Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan), Toyoki Okumura, Tomokazu Fukutsuka, Minoru Inaba, Akimasa Tasaka, Yoshiharu Uchimoto

Improvement of Ionic Conduction of Mg^{2+} by Adding Lewis Acid

s10-P-014

Elene Kvaratskhelia (R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Tbilisi, Georgia), Ramaz Kvaratskhelia

The Equations for Determination of the Usual and Partial Degrees of Dissociation of Weak Dibasic Organic Acids

s10-P-015

Patrizia Romana Mussini (Department of Physical Chemistry and Electrochemistry, University of Milano, Milano, Italy), Giuseppe D'Alfonso, Daniela Donghi, Elsa Quartapelle Procopio, Matteo Mauro, Monica Panigati, Pierluigi Mercandelli, Francesco Sannicolò

Electrochemistry of Luminescent Dinuclear Re(I) Complexes with Bridging 1,2 Diazine Ligands: Redox Processes and Electropolymerization

s10-P-016

Jing Song (Dutch Polymer Institute and MESA+ Institute for Nanotechnology, Materials Science and Technology of Polymers, University of Twente, Enschede, Netherlands), Ewa Tocha, Weiqing Shi, Holger Schönherr, G.Julius Vancso

Intelligent Organometallic Polymer Brushes: Switching Friction by Electrochemical Redox Stimuli

s10-P-017

Bingsheng Yin (Chemistry Department, Xiamen University, Xiamen, China), An Wang, Xiaodong Lin, Anny Jutand, Bin Ren, Christian Amatore, Zhongqun Tian

A Preliminary Study on Palladium Catalyzed Oxidation Additive Reaction by Electrochemical SERS

SUPRAMOLECULES

s10-P-018

Ming Chen (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, Yangzhou, China), Ming Chen, Jing Gu

Influence of Electrochemical Behavior of Riboflavin with Different Host Molecule

Symposium 11: General Session

EDUCATION

s11-P-001

Takashi Kakiuchi (Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Japan)

Slow Relaxation of Ionic Liquid against the Potential Modulation and Its Implications in Electrochemistry of Ionic Liquids

INTERDISCIPLINARY RESEARCH

s11-P-002

Conchi Ania (INCAR, CSIC, Oviedo, Spain), Carlos Macias, Francisco Aguado

Capacitive Deionization of Monolithic Carbon Gels

s11-P-003

Shu-Hua Cheng (Department of Applied Chemistry, National Chi Nan University, Puli, Nantou Hsien, Taiwan), Sheng Ming Wang

An Electrogenerated Polymer Film from N,N-Diphenyl-p-Phenylenediamine

s11-P-004

Paula Cojocaru (Politecnico di Milano, Milano, Italy), Fabio Muscolino, Luca Magagnin, Oberto Citterio

Localized electrochemical mechanical polishing (ECMP) on amorphous Ni-P alloy using brush on cylinder geometry

s11-P-005

Pereira Elisa (University of Porto, Faculty of Sciences, Porto, Portugal), Elisabete Ferreira, Carlos Pereira, António Silva

Study of DNA and metallic Nanoparticles interaction: voltammetric and AFM characterization

s11-P-006

Paula Homem-de-Mello (Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo Andre, Brazil), Hugo Barbosa Suffredini

Acid formic behavior on Pt and PtPb-based catalysts: a DFT Study

s11-P-007

Kathia Honorio (Escola de Artes, Ciências e Humanidades/Universidade de São Paulo, São Paulo, Brazil), Paula Homem-de-Mello, Renata Toledo, Mauro C. Santos, Luiz Henrique Mazo, Albérico B. F. da Silva, Hugo B. Suffredini

Electrochemical and Theoretical Studies on the Oxidation of Tricyclic Antidepressants

s11-P-008

Guo Hua-Jun (School of Metallurgical Science & Eng., Central South University, Changsha, China), Li-Ming Li, Hua-Jun Guo, Xiang-Qun Li, Xuan Cao, Xin-Hai Li, Zhi-Xin Wang, Wen-Jie Peng

Synthesis and characterization of $Li_2Ni_xFe_{1-x}SiO_4$ as a cathode material for lithium-ion batteries

s11-P-009

Jaeyoung Hwang (Chemistry, Busan, Korea)

Synthesis and Electrochemical Characterization of Poly-(2,2´:5´,2´´-terthiophene-3´-(p-benzoic acid)) and an Application for An Organic Photovoltaic Device

s11-P-010

Jinqing Kan (School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, China), Li Tang

Conductive ferromagnetic properties of polyaniline-cobalt polymer

s11-P-011

Min-Kyung Kim (Department of Polymer Science and Engineering, Pusan National University, Busan, Korea), Yun-Kyung Jo

Li Ion Conduction Mechanism of Solid Polymer Electrolytes with Polymer-in-salt System

s11-P-012

Ichiro Otsuka (Department of Biomaterials Science, Ohu University, Koriyama, Japan), Ichiro Otsuka

Calorimetric and Nanosight studies of O_2 nanobubble water

s11-P-013

Deog-Su Park (Chemistry, Busan, Korea)

Selective Determination of Dopamine with Cibacron Blue/Poly-1,5-diaminonaphthalene Composed Film in the Presence of Interfering Species

s11-P-014

Frank Uwe Renner (Max-Planck-Institut f. Eisenforschung, Duesseldorf, Germany), Aparna Pareek, Dimitar Borissov, Michael Rohwerder

In-situ X-ray diffraction at UHV-prepared solid-ionic-electrolyte interfaces employing synchrotron radiation

s11-P-015

Manuel Andrés Rodrigo (Department of Chemical Engineering, Universidad de Castilla La Mancha, Ciudad Real, Spain), Pablo Cañizares, Rubén López-Vizcaíno, Justo Lobato, Cristina Saez, Carlos Jimenez

Electrorremediation of soils polluted with PAH

s11-P-016

Elizabeth Fátima de Souza (Faculdade de Química, CEATEC, Pontifícia Universidade Católica de Campinas, Campinas, Brazil), Wyllerson E. Gomes, Andreza B. Gomide, David M. Soares, Omar Teschke

Two Dimensional Crystalline Clusters Adsorbed on Hydrophobic Surfaces in Undersaturated Salt Solutions

s11-P-017

Umran Tezcan Un (Anadolu University, Eskisehir, Turkey), Savas Koparal, Ulker Bakir Ogutveren, Ersin Aytac, Tevfik Tezcan, Umran Tezcan Un

Nickel Ion Removal From Model Solution Using Aluminum Reactor

s11-P-018

Yanhong Zhao (College of Chemistry and Chemical Engineering, Inner Mongolia University, Hohhot, China), Wenyan Wang

The Study on the Electrochemical Property of La Dope Ta_2O_5 Membrane Electrode

TECHNOLOGY TRANSFER

s11-P-019

Claudia Yañez (Facultad de Ciencias Quimicas y Farmaceuticas, Universidad de Chile, Santiago, Chile), Soledad Bollo, Mauricio Araya

Formation and characterization of bentazon-cyclodextrin inclusion complexes

LATE REGISTRATIONS

Misuk Cho (Dept. of Chem. Eng. Sungkyunkwan University, Suwon, Korea) Youngkwan Lee

Copper oxide/PEDOT films by potentiostatic deposition

Misuk Cho (Dept. of Chem. Eng. Sungkyunkwan University, Suwon) Youngkwan Lee

Nano-sized copper ink on BT resin using various capping agents for inkjet printing

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The International Society of Electrochemistry

The International Society of Electrochemistry (ISE) was founded in 1949 by leading European and American electrochemists to serve the growing needs of electrochemistry. At that time only a handful of scientists were members of the society – known as CITCE (Comité International de Thermodynamique et Cinétique Electrochimiques). Since then ISE has evolved and now comprises more than 2300 individual members, from more than 60 countries, and is organized in 38 Regional Sections. Both industrialised and developing countries from all five continents are represented. ISE is, therefore, a truly world-wide organisation. ISE is a non-profit-making organisation with its seat in Lausanne, Switzerland.
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(http://www.ise-online.org/geninfo/history.php).

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- reduced registration fees for ISE Meetings
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- updated information on ISE activities
- young members can apply for the Electrochimica Acta Travel Awards for Young Electrochemists

ISE members participate fully in the Society's activities which are aimed at advancing electrochemical science and technology, disseminating scientific and technological knowledge, promoting international cooperation in electrochemistry, and maintaining a high professional standard among its members.

How to become an ISE member

Becoming an ISE member is simple: you will find a Membership Application Form on the Society web site (at the address: http://www.ise-online.org/join.php), which you can fill in and submit online. In the application form you will have to select up to three Divisions and indicate two sponsoring ISE members. Should it be difficult for you finding these sponsors, please write to the Executive Secretary of the Society Dr. M. Musiani, e-mail: m.musiani@ieni.cnr.it. The membership fee for the calendar year 2010 is 40 Euro (10 Euro for age below 30). Once your application is accepted, the ISE Office will contact you for the payment of the membership dues.

E-mail: info@ise-online.org – URL: www.ise-online.org

Standing ISE Committees

Executive Committee

The Executive Committee is entrusted with the management of the Society

ISE Office

The ISE Office performs all administrative tasks related to the operation of the Society. It is located in Switzerland, and managed by an Executive Secretary.
The ISE Office serves as the primary contact for members and non-members

Division Officers

The scientific activities of ISE are grouped into eight Scientific Divisions. The Divisions are headed by a chairperson assisted by two co-chairpersons. Their role is to promote and represent the scientific interests of the division and its members, for example through contributing to the organization of Annual, Spring and other Society meetings.

Regional Representatives

In each country or group of neighbouring countries having five members or more, a national or regional section of ISE may be formed. Each section has a Regional Representative.

Council

The ISE Council is an Advisory Body. The voting members of the Council consist of three Officers from each Division and all the Regional Representatives. All persons constituing the Council are elected by the members of the Society.

Scientific Meetings Committee

The Scientific Meetings Committee plans and oversees the organization and sponsorship of scientific meetings within the broad field of electrochemistry.

Fellows Nominating Committee

The Fellows Nominating Committee is a standing committee which proposes names to the Executive Committee for the title of ISE Fellow. It is also responsible for identifying candidates for honorary membership.

Publications Committee

The Publication Committee, a standing committee of ISE, acts as an advisory board to the Executive Committee on publication matters

ISE Executive Committee

President

A.R. Hillman, Leicester, UK (2009-2010)
Representation of ISE. Chairperson of Executive Committee, Council and General Assembly.

President Elect

M. Orazem, Gainesville, FL, USA (2009-2010)
Chairperson of Committee of Division Officers (CDO) and of Advisory Board for Annual Meeting: Coordination of scientific program of Annual Meeting, supervision of Division Officers' activities.

Immediate Past President

C. Brett, Coimbra, Portugal (2009-2010)
Chairperson of Executive Committee in the absence of the President, Co-ordinator of ISE Sponsored Meetings

Vice Presidents

E.J. Calvo, Buenos Aires, Argentina (2009-2011)
Responsible for Corporate and Corporate Sustaining Members
A. Hubin, Brussels, Belgium (2008-2010)
Responsible for relations with other Societies
R. McCreery, Edmonton, Canada (2009-2011)
Responsible for ISE educational activities
P. Novák, Villigen, Switzerland (2008-2010)
Responsible for Regional Sections

Secretary General

S. Roscoe, Wolfville, Canada (2008-2010)
General tasks
Ensuring continuity and efficiency of scientific policy. Coordination of tasks of Vice Presidents. Identification of new developments in electrochemistry and possible new scientific and nonscientific activities. Scientific matters not handled by the President or President Elect.
Tasks in collaboration with ISE Office
Ensuring that constitution, bylaws, guidelines, schedules etc are observed. Preparation of Annual Reports. Collection of information for newsletters and coordination of actions.
ISE Meetings
Coordination of Meetings (location, time, topics). Representative of Executive Committee and advisor to Local Organising Committees for nonscientific matters (location, facilities, control of financial planning, schedule, publicity).

Treasurer

E. Ahlberg, Göteborg, Sweden (2008-2010)
Responsible for the administration and the management of the assets and property of the Society, preparation of budgets and financial reports, financial planning, investment policy, supervision of financial matters of Annual ISE Meetings.

Executive Secretary

M. Musiani, Padova, Italy (2009-2013)
Responsible for maintaining the ISE calendar, assisting with organizing the business and financial arrangements for Annual and Spring Meetings, organising committee appointments, assisting the Secretary General with Society elections, recruiting new members, and co-ordinating Executive Committee meetings. Drafts ISE documents, acts as web page editor, maintains ISE archives and records, and serves as the contact person for members (particularly at ISE meetings).

Scientific Divisions of the International Society of Electrochemistry

Division 1 – ANALYTICAL ELECTROCHEMISTRY

Experimental and theoretical aspects of the analytical process in which electrochemistry has a role, including sample collection / processing, separation, and species identification and quantitation.

Chair: S. Daniele, Past Chair: G. Inzelt, Chair Elect: A. Bond, Vice-Chairs: D. Mandler, C.S. Toh

Division 2 – BIOELECTROCHEMISTRY

Aspects of electrochemistry and electroanalysis characterizing biological processes at the molecular level and relevant to the mechanisms of biological regulation of cells.

Chair: L. Gorton, Past Chair: W. Schuhmann, Chair Elect: A. Kuhn, Vice-Chairs: E. Katz, W. Shin

Division 3 – ELECTROCHEMICAL ENERGY CONVERSION AND STORAGE

Experimental and theoretical aspects of electrochemistry in which the goal is the interconversion of energy between different forms or the storage of energy, including the processes themselves and materials used for these purposes.

Chair: M. Winter, Past Chair: M. Mastragostino, Chair Elect: E. Frackowiak, Vice-Chairs: K.B. Kim, R. Kostecki

Division 4 – ELECTROCHEMICAL MATERIALS SCIENCE

Aspects of materials science in which electrochemistry is part of the synthesis, processing, surface treatment, corrosion, characterization or modeling of new or existing materials, or in which electrochemistry is the user of such materials.

Chair: T. Moffat, Past Chair: W. Kautek, Chair Elect: P. Schmuki, Vice-Chairs: Y. Fukunaka, M. Ryan

Division 5 – ELECTROCHEMICAL PROCESS ENGINEERING AND TECHNOLOGY

Experimental and theoretical aspects and applications of electrochemistry in which engineering issues play a significant role, including scale-up and reactor design.

Chair: F. Walsh, Past Chair: C. Vayenas, Chair Elect: T. Homma, Vice-Chairs: to be appointed

Division 6 – MOLECULAR ELECTROCHEMISTRY

Aspects of organic and inorganic electrochemistry, in which the emphasis is on molecular processes, including the understanding of mechanism and the role of structure.

Chair: C. Amatore, Past Chair: M. Opallo, Chair Elect: J. Ludvik, Vice-Chairs: P. Mussini, M. Watanabe

Division 7 – PHYSICAL ELECTROCHEMISTRY

Experimental, theoretical and computational aspects of electrochemistry, alone or in conjunction with other methods, relevant to interfaces and conductive media; this shall include physicochemical nature, structure and dynamics from the molecular to the macroscopic level.

Chair: M. Koper, Past Chair: E. Leiva , Chair Elect: E. Savonova, Vice-Chairs: K. Murakoshi, Y. Tong

New Topics Committee

The New Topics Committee identifies interesting and relevant scientific and technological subjects not covered by the ISE Divisions. It has tasks similar to those of a Division, except that it may have several and changing technical priorities.

Chair: T. Matsue, Past Chair: D. Scherson; Chair Elect: H. Abruña

Regional Representatives

Argentina:	M.E. Martins	2009-2011	2nd term
Austria:	G. Trettenhahn	2007-2009	2nd term
Belgium:	K. Strubbe	2007-2009	1st term
Brazil:	R. Rocha Filho	2009-2011	2nd term
Canada:	D. Belanger	2007-2009	2nd term
Chile:	M. S. Ureta	2007-2009	1st term
China:	Z.Q. Tian	2007-2009	1st term
Croatia:	S. Komorsky-Lovric	2009-2011	1st term
Czech Republic:	Z. Samec	2007-2009	1st term
Denmark:	Q. Chi	2009-2011	2nd term
Estonia:	A. Jänes	2008-2010	1st term
Finland:	J. Bobacka	2007-2009	2nd term
France:	B. Tribollet	2009-2011	2nd term
Germany:	G. Wittstock	2009-2011	2nd term
Greece:	D. Sazou	2007-2009	2nd term
Hungary:	G. Lang	2008-2010	2nd term
Iran:	M. F. Mousavi	2007-2009	1st term
Ireland:	E. Magner	2007-2009	2nd term
Israel:	O. Lev	2008-2010	1st term
Italy:	R. Seeber	2007-2009	1st term
Japan:	H. Nishihara	2009-2011	1st term
Korea:	Seung Mo Oh	2007-2009	2nd term
Lithuania:	R. Ramanauskas	2008-2010	1st term
Mexico:	M. Dávila-Jiménez	2009-2011	2nd term
Netherlands:	L. Koene	2007-2009	2nd term
Norway:	G.M. Haarberg	2007-2009	2nd term
Poland:	P. Kulesza	2007-2009	1st term
Portugal:	L.M. Abrantes	2009-2011	2nd term
Romania:	L. Muresan	2009-2011	1st term
Russia:	A. Nekrasov	2007-2009	1st term
Serbia:	V. Jovic	2008-2010	2nd term
Spain:	C. Müller	2008-2010	1st term
Sweden:	L. Nyholm	2007-2009	2nd term
Switzerland:	H. Girault	2007-2009	1st term
Ukraine:	V. Barsukov	2007-2009	2nd term
United Kingdom:	R. Dryfe	2008-2010	2nd term
USA:	P. Vanysek	2009-2011	2nd term
Venezuela:	R. Hernández	2007-2009	1st term

Corporate and Corporate Sustaining Members of ISE

Amararaja Batteries LTD
Apple Inc.
Asahi Glass Co. Ltd
Ashai Kasei Chemicals Co. Ltd.
Autolab
BASF AG, Abt. GCI/E
Central Electrochemical Research Institute, India
Centre for Electrochemical Technologies
CNR - Istituto per l'Energetica e le Interfasi, Padova, Italy
DECHEMA e.V., Germany
Gamry Instruments
Laboratory of Physical Chemistry and Electrochemistry, Finland
Nissan Motor Co Ltd
Paul Scherrer Institut, Switzerland
Permascand AB
Tanaka Kikinzoku Kogyo K.K.
Toshiba Corporation
Toyota Central R&D Labs., Inc.
Sensolytics GmbH
Shimadzu Corporation
Technical Faculty Bor, Serbia
Valence Technology Inc.
Varta Automotive GmbH
Zahner-Elektrik GmbH & Co KG

Co-operation with other Societies

ISE is an associated organisation of IUPAC and has co-operation agreements with:

Bioelectrochemical Society
Chinese Society of Electrochemistry
Deutsche Gesellschaft für Galvano- und Oberflächentechnik (DGO)
Electrochemical Division of the Italian Chemical Society
Electrochemical Society of Japan
Electrochemistry and Electroanalytical Group of the Brazilian Chemical Society
Electrochemistry Group of the French Society of Chemistry
European Federation of Corrosion
Fachgruppe Angewandte Elektrochemie der Gesellschaft Deutscher Chemiker (Section of Applied Electrochemistry of the Society of German Chemists)
Korean Electrochemical Society
Sociedad Iberoamericana de Electroquimica
Sociedad Mexicana de Electroquimica
The Electrochemical Society

ISE Honorary Members

Honorary Members are appointed by the Executive Committee, after consultation with the Council, primarily in recognition of their contribution to ISE. The total number at any time is limited to ten.

The first Honorary Member of ISE, appointed in the year 2003, was **Otmar Dossenbach**, Treasurer of the Society for 21 years (1980-2000) and Executive Secretary for 2 years (2001-2002).
Two new Honorary Members were appointed in the year 2004: **Roger Parsons** and **Sergio Trasatti**, former Presidents of the Society.
Three Honorary Members were appointed in the year 2005: **Ron Armstrong**, former Editor-in-Chief of Electrochimica Acta for 18 years, **Elton Cairns** and **Dieter Landolt**, former Presidents of the Society .

ISE Fellows

In recognition primarily of their scientific or technical contributions to electrochemistry, the Society may confer on individuals the honour of Fellowship. Such ISE fellows are appointed by the Executive Committee after consultation with the Council. They may or may not be members at the time of their appointment. The appointment does not carry with it automatic membership of ISE.

The present Fellows of ISE are:

H. Abruña
R. Alkire
C. Amatore
P. Bartlett
J. O'M. Bockris
C. Comninellis
P. Delahay
C. Gabrielli
E. Gileadi
H. Girault
R. Guidelli
R. Hillman
J. Heinze
D. Kolb
A. Kornyshev
O. Lev
J. Lipkowski
D. Macdonald
R.A. Marcus
J. McBreen
R. Nichols
T. Osaka
J. Ulstrup
D. Schiffrin
B. Scrosati
S. Sun
K. Uosaki
C. Vayenas
M. Watanabe

Society Awards

Electrochimica Acta Gold Medal

The Electrochimica Acta Gold Medal may be awarded every two years to the person judged to have made the most significant contribution to electrochemistry in recent years.

Tajima Prize

The Tajima Prize recognises the contributions made by younger electrochemists. Candidates must be less than 40 years old. An award may be made every year. The decision of the Award Committee will be based on published work.

Prix Jacques Tacussel

The Prix Jacques Tacussel may be awarded every two years to a person who has made important contributions to an electrochemical technique.

Hans-Jürgen Engell Prize

The Hans-Jürgen Engell Prize may be awarded annually to a young electrochemist on the basis of published work in the field of corrosion, electrodeposition or surface treatment.

Oronzio and Niccolò De Nora Foundation Young Author Prize

The Oronzio and Niccolò De Nora Foundation Young Author Prize may be awarded annually to a scientist of less than 30 years for the best paper published in the ISE society journal in the calendar year preceding the award.

Frumkin Memorial Medal

The Frumkin Memorial Medal may be given once every two years. It recognises the outstanding contribution of a living individual over his/her life in the field of fundamental electrochemistry.

Oronzio and Niccolò De Nora Foundation Prize of ISE on Environmental Electrochemistry

The Oronzio and Niccolò De Nora Foundation Prize of ISE on Environmental Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1 of the year of the award, for recent application-oriented achievements in the field of environmental electrochemistry.

Oronzio and Niccolò De Nora Foundation Prize of ISE on Applied Electrochemistry

The Oronzio and Niccolò De Nora Foundation Prize of ISE on Applied Electrochemistry may be awarded annually to a scientist of less than 35 years of age on January 1 of the year of the award, for recent achievements in the field of applied electrochemistry.

Katsumi Niki Prize for Bioelectrochemistry

The Katsumi Niki Prize for Bioelectrochemistry may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Bioelectrochemistry Prize of ISE Division 2

The Bioelectrochemistry Prize of ISE Division 2 may be awarded every two years to a scientist who has made an important contribution to the field of bioelectrochemistry.

Brian Conway Prize for Physical Electrochemistry

The Brian Conway Prize for Physical Electrochemistry may be awarded every two years, in recognition of the most successful achievements in Physical Electrochemistry in recent years.

Electrochimica Acta Travel Award for Young Electrochemists

The Electrochimica Acta Travel Awards for Young Electrochemists are aimed at favouring the participation of young electrochemists in the ISE Annual Meetings. The applicants must be ISE members. They must have obtained their Ph.D. not earlier than 6 years before the deadline for applications.

ISE Meeting Sponsorship

What is an ISE sponsored meeting?

You may have noticed that scientific meetings in the field of electrochemistry are often labelled "ISE sponsored Meeting". What does this mean? In addition to organizing its own meetings, such as the Annual ISE Meeting, Divisional Meetings (organized by one or several ISE Divisions) and National or Regional meetings (organized by one or several National ISE Sections), ISE may sponsor other international scientific meetings in the area of electrochemistry. ISE sponsorship is intended to be a sign of quality for the meeting.

What are the requirements for ISE sponsorship?

ISE requires that the scientific quality of the meeting reaches the standard of its own meetings. It is desirable that the advisory board consists of ISE members, as far as possible.

What are the obligations of the organizers?

The organizers have to publicise the ISE sponsorship in all the official documents related to the meeting (announcements, program, website etc.). At the meeting, a representative of ISE must be allowed to say a few words on behalf of the Society, and ISE must have the opportunity to advertise. After the meeting, the organizers should submit a short report to ISE to be published in Electrochimica Acta and on the ISE website.

What do the organizers receive from ISE?

ISE publishes announcements and reports of ISE sponsored meetings in Electrochimica Acta and on the ISE website. The ISE Office can organize, free of charge, mailings to all, or a group of, ISE members. In appropriate cases, there may be a special issue of Electrochimica Acta associated with these meetings. Decisions about special issues are made by the Editor-in-Chief.

What about money?

ISE sponsorship of a meeting does not usually include a financial contribution from ISE. However, the sponsoring Division(s) may use its funds to support such a meeting. The level of financial contribution will be determined by the Division(s), but a typical sum may be 500 Euros.

How to apply for ISE sponsorship?

If you would like to have the scientific meeting you are organizing sponsored by ISE, please send an e-mail with the filled in application form which can be found on the ISE website at: http://www.ise-online.org/sponsmeet/info.php. The application should list the main theme of the meeting, the membership of the advisory and the organising committees, the ISE Division Officers involved in the organisation of the meeting (if appropriate), a preliminary program, the date and location, and any other useful information. The decision will be taken by the Officers of the sponsoring Division(s), or by the Executive Committee, and the ISE Office will inform the organisers.

ISE Regional Student Meetings

Graduate Students who are members of ISE and intend to organize a Regional Student Meeting can apply for ISE financial support. Regional Student Meetings are typically one-day meetings involving graduate students active in the geographic area where the meeting takes place. The format of the meeting (oral presentations, posters, discussion sessions, other) is autonomously decided by the organizers who will be responsible for securing a venue and collecting registrations. No registration fee should be requested. No later than one month after the meeting, the organizer(s) will send to the ISE Office a report on the event, including the names and the e-mail addresses of the participants. The participants will be encouraged to apply for ISE membership. An overview of the report accompanied by suitable pictures if available will be posted on the ISE website under Student Activities.

Applications for ISE support must be sent by e-mail to the ISE Office, with a copy to the Regional Representative of the country where the meeting is organized, 3-12 months before the meeting date, using the application form. The local ISE Regional Representative, if requested, will assist the potential meeting organizer in the preparation of the application. The maximum financial support will be 600 Euro; the expected use of the funds must be specified in the application. Co-sponsoring by other Societies and/or institutions is possible.