

# SCI Electrochemistry Postgraduate Conference 2019

In partnership with RSC and ISE

An ISE Regional Student Meeting



31<sup>st</sup> May 2019

https://conferences.ncl.ac.uk/sci-epc2019/

School of Engineering, Newcastle University







## **Conference Report**

#### Summary

Following the initiative of the <u>Electrochemical Technology Group</u> of the <u>Society of</u> <u>Chemical Industry, SCI Electrochemistry Postgraduate Conference 2019</u> was hosted by the <u>School of Engineering</u> of Newcastle University. SCI-EPC 2019 was organised in partnership with <u>Electrochemistry Group</u> of the <u>Royal Society of Chemistry</u> (RSC) and the <u>International Society of Electrochemistry</u> (ISE). Additional support was provided by industrial partners, <u>Metrohm UK Ltd.</u> and <u>Whistonbrook Technologies</u> company.

The event brought together more than 35 delegates from 9 British universities, including PhD students, postdoctoral researchers and renowned academics from many nationalities. The meeting aimed to promote discussions on the practical applications of electrochemistry and to celebrate the regional postgraduate community in the field. Participants from Newcastle University also found an opportunity to meet each other and discover links between their work.

Registered delegates and guests met from 09.45 to 16.20 at the Research Beehive in the old library building on Friday 31st May 2019. The programme featured two keynotes, an invited lecture, 7 presentations from PhD students and postdoctoral researchers and 12 posters. There were two coffee breaks and a working lunch between the sessions. From the scoring by the keynote speakers, two presenters for each type of presentation were selected and awarded.

#### **Event account**

The conference started with a welcome message to the delegates presented by Dr. Eileen Yu on behalf of Newcastle University and Hang Xiang on behalf of the organising committee, Hang then introduced the first keynote speaker Professor Frank Marken, who presented the research carried out at the University of Bath. In his talk, he highlighted the synthesis and use of polymers with intrinsic micro porosity in electrochemistry.



Professor Frank Marken introducing the study on "An Efficient Polymer Molecular Sieve for Membrane Gas Separations".

The Keynote was followed by the first oral presentation from Paniz Izadi (Newcastle University), who presented her work on bio-production from CO<sub>2</sub> reduction in Microbial electrosynthesis (MES). Next, Xiaomeng Su from University of Strathclyde talked about Electrodeposition of Tin from Deep Eutectic Solvents Using Pulse Current. The morning session ended with the talk by Christiane Schotten (University of Leeds) about Development of a Multifunctional Electrochemical Flow Platform for High-Throughput Synthesis and Optimization of Catalysts.



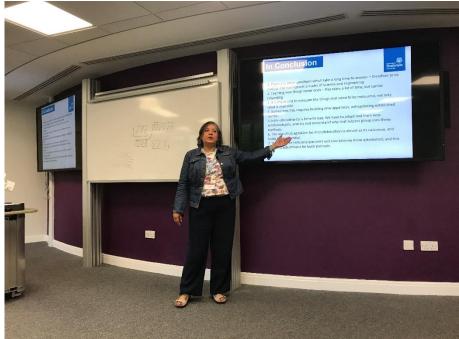
Oral presentations in the morning session made by Paniz Izadi (left), Xiaomeng Su (middle), and Christiane Schotten (right).

A standard working lunch was then provided after the morning session. This time was well spent by the delegates, who engaged in interesting conversations with colleagues and posters viewing.



Exhibitions of Industrial partners during lunch time.

The second session after lunch was opened by the second Keynote speaker Prof. Sudipta Roy from University of Strathclyde who delivered an impressive talk about Design and Realisation of Ultrasonic Reactor for Maskless Microfabrication.



Professor Sudipta Roy introducing the study on "Design and Realisation of Ultrasonic Reactor for Maskless Microfabrication".

Chaired by Paniz Izadi, two oral presentations were given afterwards by Yiqi Zhou (University of Manchester) and Mohammad Danish Khan (Newcastle University). They shared their work on "Application of Bipolar Electrochemistry for Characterising the Corrosion Behaviour of Ferritic Stainless Steels" and "Simultaneous azo-dye decolorization and electricity generation in air cathode microbial fuel cell coupled activated sludge process" respectively.



Oral presentations in the 2<sup>nd</sup> session made by Yiqi Zhou (left) and Mohammad Danish Khan (right).

The last session was chaired by Hang Xiang. It began with the talk by Xi Wang (University of Manchester) on Hierarchical Porous-structure Carbon Derived from Hollow Fibres for Binder-free Electrode Based Supercapacitors. Afterwards, Zhiming Feng (Newcastle University) presented his work on Fundamental studies of poly(2,6-dimethyl-1,4-phenylene oxide) (PPO) based anion exchange membranes prepared via Friedel-Crafts reaction and followed by quaternary amination.



Oral presentations in the last session made by Xi Wang (left) and Zhiming Feng (right).

The last session was then closed by an invited lecture of "Recycling  $CO_2$  to produce renewable fuels" given by Dr Shahid Rasul from Northumbria University.



Dr Shahid Rasul delivering the invited lecture about Recycling  $\mbox{CO}_2$  to produce renewable fuels

To finalize the event, Dr Eileen Yu gave the closing remark and acknowledged the contribution of all those involved in the organisation and sponsorship of the event. After this, Prof. Frank Marken announced the oral presentation awards to Yiqi Zhou (University of Manchester) with 1<sup>st</sup> prize and Paniz Izadi (Newcastle University) with 2<sup>nd</sup> prize. Prof. Sudipta Roy then announced the poster presentation winners, Hang Xiang (Newcastle University) won the 1<sup>st</sup> prize and Marc Brunet Cabre (Trinity College Dublin) won the 2<sup>nd</sup> prize.



Best Oral Presentation awards to Yiqi Zhou (1<sup>st</sup> prize, left) and Paniz Izadi (2<sup>nd</sup> prize, right)



Best Poster Presentation awards to Hang Xiang (1<sup>st</sup> prize, left) and Marc Brunet Cabre (2<sup>nd</sup> prize, right)

The day finished with the awarding until 4.30 pm. We are sure that the delegates will look forward to SCI Electrochemistry Conference 2020.

### Acknowledgements

The Organising Committee would like to thank Dr Mark Symes and Dr Guy Denuault for their kind support on the endorsement of RSC and ISE sponsorship respectively. Thanks to Thierry Lenzin from ISE office for releasing student meeting funds. We also thank Ms. Jaspria Roda from SCI's conference department for helping with administration tasks. Special thanks to Dr Eileen Yu for providing useful advice and supporting the event.

> Hang Xiang, Paniz Izadi, Ekaete Utuk, Yucheng Wang Organising Committee of SCI-EPC 2019 Newcastle University, UK. <u>https://conferences.ncl.ac.uk/sci-epc2019/</u>