

Plamen Atanassov

graduated *University of Sofia* (1987) specializing in Chemical Physics & Theoretical Chemistry and received PhD in Physical Chemistry/Electrochemistry from the *Bulgarian Academy of Sciences* where he was a scientist at the *Central Laboratory of Electrochemical Power Sources* (now *Budevski Institute for Electrochemistry & Power Systems*). His dissertation was on bio-electrocatalysis and enzyme biosensors. Dr. Atanassov moved to the United States in 1992 and joined *University of New Mexico (UNM)* as researcher and later as faculty member with the *Chemical & Nuclear Engineering* department. During the 90s he contributed to the development of long-term implantable sensors for in vivo glucose monitoring, needle-type biosensors for glucose and lactate, flow-through immunosensors for rapid detection of bacteria and viruses. Dr. Atanassov joined a startup *Superior MicroPowders* (later sold to Cabot Corp.) where he developed and deployed catalysts for fuel cells based on spray pyrolysis. Returning to UNM as tenured-track faculty in 2000, Atanassov built research programs in electrocatalysis and bio-electrocatalysis. He founded UNM *Center for Emerging Energy Technologies (CEET)*, was Associate Dean for Research of UNM School of Engineering and later served as director of UNM *Center for Micro-Engineered Materials (CMEM)*.

Starting October 2018 Plamen Atanassov joined *University of California Irvine (UCI)* where he is a Chancellor's Professor with the *Department of Chemical & Biomolecular Engineering*, holding secondary appointments with *Materials Science & Engineering* and *Chemistry*. His educational efforts are directing to creating a PhD program in *Electrochemistry & Electrochemical Engineering*. Plamen Atanassov materials for energy programs are focused on development of novel electrocatalysts: non-platinum electrocatalyst for fuel cells, nano-structured catalysts for oxidation of complex fuels, and new materials and technologies for energy conversion and storage. Atanassov bio-electrocatalysis research includes enzyme electrochemistry, enzymatic and microbial fuel cells, and systems for biological and bio-inspired energy harvesting. At present his research includes electrocatalysis for CO₂ reduction and valorization, ammonia synthesis and cascade multi-step electrocatalytic reactions.

He has published more than 450+ peer-reviewed papers (bringing 33K+ citations and forming an h-index of 92). He supervised 37 completed PhD dissertations at UNM and UCI and had advised more than 25 postdoctoral fellows. He holds 58 issued US patents, substantial number of which have been licensed and are at the core of several catalyst products. Plamen Atanassov served as a Vice-President of the *International Society of Electrochemistry* (2015-17). In 2018 he was inducted in the *National Academy of Inventors*, and he is a Fellow of both: *The Electrochemical Society* (2018) and the *International Society of Electrochemistry* (2020).

Currently Plamen Atanassov is engaged in several major DOE initiatives participating the team to build California Clean Hydrogen Hub and interfacing with hydrogen technology demonstration and research efforts in the Pacific/Mountain/Southwest regions and Nation-wide. As a commission of trust, Prof. Atanassov participates in Bulgarian Hydrogen Roadmap Working Group and advises the President of the Republic of Bulgaria on energy strategy and the government on the EU energy programs.