EXHIBIT A

Plamen Atanassov

Chancellor's Professor of Chemical & Biomolecular Engineering, and
Materials Science & Engineering (by courtesy), **University of California Irvine**
Interdisciplinary Science & Engineering Building, Room 5064,
office: 949-824-2143 cell: 505-681-8339 email: plamen.atanassov@uci.edu

EDUCATION

1987 MS Chemical Physics & Theoretical Chemistry, University of Sofia, Faculty of Chemistry, Sofia, Bulgaria
1988 Specialization in Bio-electrochemistry, Frumkin's Institute of Electrochemistry, Moscow, Russia
1995 PhD Chemistry, Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria (completed 1992)

EMPLOYMENT

Central Laboratory of Electrochemical Power Sources, Bulgarian Academy of Sciences, Sofia, Bulgaria
1987 - 1992 Staff Chemist, Member of Technical Staff (Junior Research Scientist and Research Scientist II)

Department of Chemical & Nuclear Engineering, University of New Mexico, Albuquerque, NM
1992 - 1993 Senior Research Associate, Biomedical & Bioengineering Lab
1993 - 1999 Research Assistant Professor

Superior MicroPowders LLC, (acquired in 2004 by Cabot Corp.) Albuquerque, NM
1999 - 2000 Research Scientist, Project Manager

Department of Chemical & Nuclear (Biological) Engineering, University of New Mexico, Albuquerque, NM
2000 - 2006 Assistant Professor of Chemical & Nuclear Engineering
2006 - 2009 Associate Professor of Chemical & Nuclear Engineering
2007 sabbatical Visiting Researcher, Hawaii Natural Energy Institute, University of Hawaii, Manoa, Honolulu, HI
2007 - 2011 Director of the UNM Center for Emerging Energy Technologies (CEET) - *founding director*
2009 - 2014 Professor of Chemical & Nuclear Engineering
2012 - 2013 Associate Dean for Research, UNM School of Engineering
2014 sabbatical Visiting Professor, University of Padua, Padua, Italy; University of Sofia, Sofia, Bulgaria; Grenoble Polytechnic, Grenoble, and *Total Chair*, University of Montpellier, Montpellier, France
2014 - 2018 Distinguished Professor of Chemical & Biological Engineering (new department name)
2015 - 2018 Visiting Researcher, Materials Physics & Applications, Los Alamos National Laboratory
2015 - 2018 Secondary (courtesy) appointment with Chemistry & Chemical Biology, UNM
2015 - 2018 Director of the UNM Center for Micro-Engineered Materials (CMEM)
2018 - present Research Professor of Chemical & Biological Engineering, University of New Mexico

Department of Chemical & Biomolecular Engineering, University of California, Irvine
2018 - present **Chancellor's Professor of Chemical & Biomolecular Engineering, University of California Irvine**
2019 - present **Joint appointments in Chemistry and in Materials Science & Engineering, UC Irvine**

AWARDS & HONORS (since 2000)

2000 and 2005 "Top Gobbler" Chemical & Nuclear Engineering Students' Appreciation Award ☺
2003 UNM School of Engineering Junior Faculty Excellence in Research Award
2004 UNM School of Engineering Junior Faculty Excellence in Teaching Award
2004, 2005, 2006, 2010, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 STC Inventors Award
2005 State of New Mexico Economic Development Department, "NM Technology All-Star" Award
2007 ACS Division of Fuel Chemistry Outstanding Service Award
2008 UNM School of Engineering Senior Faculty Excellence in Research Award
2008 UNM University Libraries Faculty Acknowledgement Award and Lectureship
2010 Member-at-Large, Electrochemical Society, Physical & Analytical Electrochemistry (current)
2011 New Mexico Business Weekly "Who's Who in Technology" Award
2012 Honorary Professor, Institute of Electrochemistry & Power Systems, Bulgarian Acad. of Sciences
2014 STC.UNM Innovation Fellow, UNM's highest recognition for inventors and innovations
2014 Total Chair in Chemistry and Chemical Engineering, visiting professorship, France
2015 - 2017 Vice-President of the International Society of Electrochemistry
2017 Fellow of the Electrochemical Society (ECS)
2017 Fellow of the National Academy of Inventors (NAI)
2018 State of New Mexico Senate and House Official Recognition Bill for Service to the State
2018 ECS Energy Technology Division (EDT) Research Award
2020 Fellow of the International Society of Electrochemistry (ISE)
2023 – 2028 President of the International Society of Electrochemistry (ISE)

MEMBERSHIP

American Chemical Society (ACS)	since 1996
Electrochemical Society (ECS)	since 2000
American Institute of Chemical Engineers (AIChE)	since 2000
International Society of Electrochemistry (ISE)	since 2010

RESEARCH INTERESTS

- Electrocatalysts for fuel cells: non-platinum electrocatalysts and nano-structured catalysts for PEMFC and AMFC;
- Biological fuel cells based on enzyme-catalyzed electron transfer and microbial fuel cell;
- Functional nanomaterials, materials genomics and biomimetic/bio-inspired approaches in materials design;

SYNERGISTIC ACTIVITIES

- *International Society of Electrochemistry:* President-elect (2023-2028); *Electrochemical Society:* Member-at-Large, Physical & Analytical Electrochemistry and of Energy Technology Division; *American Chemical Society*: symposia and initiatives.
- Chair of the *Gordon Research Conference* for Fuel Cells (2016); established *Bishop's Lodge Workshops* in electrocatalysis (since 2008) and the first DOD-sponsored *Workshop on Biofuel Cells* (Washington, DC, 2002).
- Reviewer/panelist for national and international funding agencies: NSF, DOD and DOE; European Research Council (PE-4 panelist and panel vice-chair); funding agencies of Great Britain, Ireland, Israel, Canada and France.
- *Alliance for Renewable Clean Hydrogen Energy System* (ARCHES) – the California Hydrogen Hub initiative in response to DOE Clean Energy Demonstrations call: founding member of the executive team of the $12.7B program.
- 65+ issued US Patents (10+ published Patent Applications), 30+ of which are transferred/licensed to companies like *Cabot Corp., Toyota Motor Co., IRD Fuel Cells LLC* and *Pajarito Powders Co. LLC*: Technical Advisory Board Member; start-up, licensing UNM fuel cell technology; engaged in technology transfer and launching new non-platinum catalysts for fuel cells.

COLLABORATORS *& Co-editors (within last 48 months):* Iryna Zenyuk, Jack Brouwer, Lawrence Kulinsky, Hung Cao and Xiaoqing Pan (UCI), Svitlana Pylypenko (CSM), Shannon Boettcher (UCB), Shannon Stahl (Madison), Gang Wu (WUSL), Jeff Greeley (Purdue), Ivana Matanovic, Luigi Osmieri, Jacob Spendelow and Piotr Zelenay (LANL), Erik Spoerke (SNL), Alexey Serov (ORNL), Christina Johnston and Lei Cheng (Bosch), Carlo Santoro and Piercarlo Mustarelli (Milano-Bicocca), Paolo Bollella (Bari), Stefania Specchia (PoliTo), Silvia Franz (PoliMi), Barbara Mecheri (Roma-Tor Vergata), Vito Di Noto (Padua); Vincenzo Baglio (CNR-ITAE), Alessandro Lavacchi (CNR-ICCOM), Pierangela Cristiani (RSE), Beatriz Roldan Cuenya (FHI-MPS), Peter Strasser (TUB), Serhiy Cherevko, Ilia Valov (RC Julich), Roswitha Zeis (FAU), Elena Savinova (Strasbourg), Laetitia Dubau and Frederic Millard (CNRS-Grenoble), Marian Chatenet (Grenoble-Alps), Frederic Jaouen (CNRS-Montpellier), Benjamin Erable (CNRS-Toulouse), Aimy Bazylak (Toronto), Jeff Gostick (Waterloo), Marc Secanell (Alberta), Steven Holdcroft (SFU), Lior Elbaz (Bar Ilan), Dario Dekel (Technion), Madeleine Odgaard (IRD), Deepak Pant (VITO), Kaido Tammeveski (Tartu), Csaba Janáky (Szeged).

Graduate Advisors: late **Evgeni Budevski** (director), late **Ilia Iliev** (advisor), *Central Laboratory of Electrochemical Power Sources, Sofia, Bulgaria*, and late **Mikhail Tarasevich**, *Frumkin's Institute of Electrochemistry*, Moscow, Russia.

STUDENTS & TRAINEES *PhD Dissertation Advisor to:* Zhen Yuan (Illumina), David Wood (ORNL), Madhu Dowlapalli (Electronic Fluorocarbons), Tim Olson, (Denver PS), Elise Switzer, (Source Global), Gautam Gupta (Prof., U Louisville), Dough Reed, (SNL), Daniel Konopka, (co-founder Alligant Scientific), Raid Haddad (SNL), Rosalba Rincon (Wiley-VCH), Kyle Fenton (SNL), Ron Goeke (SNL), Shayna Brocato (SNL), Bayo Falase (Intel), Jared Roy (SpaceX), Michael Robson (Raytheon-KTech), Anant Patel (AT&T), Ulises Martinez (SNL), Erika Cooley-Vreeland (Imagion Biosystems), Claudia Narvaez (co-founder Pucara), Jamin Pillars (SNL), Jose Cornejo (Intel), Sarah Stariha (ANL), Ryan Lopez, (Ibis Biosciences), Rachel Marielle Hjelm (NLR), Jonathan Coleman (SNL), Michael Workman (LANL), Sadia Kabir (BASF), Santiago Rojas-Carbonell (Ionomr), Joseph Dumont (LANL), Albert Perry (SolAero Tech), Aaron Roy (AvCarb), Nalin Andersen (SNL), Yechuan Chen (RPI), Madelaine Seow-Chavez (SNL), Mounika Kodali (De Nora), Morteza Rezaei Talarposhti (Twelve) Alvin Ly (Western Digital), Laurent Delafontaine (Exponent), Bob Buckingham (General Atomics), Eamonn Murphy (LANL), Shengyuan Guo (ReniewCO_2) and Hanson Wang (Mitsubishi Chemicals), Giovanni Ferro (Ferrara, Chicago) - ***44 PhD*** *graduated*
Current PhD Students: **Chris Liu, Yu-Han Chen, Alessio Cosenza, Loki Chen and Thirawit Sornsuchat** (co-advised with I. Zenyuk)

Visiting International Graduate Students: Gustavo Ciniciato (Brazil), Saara Tuurala (Finland), Anna Zalineeva, Tristan Asset and Anicet Zadick (France), Kirill Kurdin (Russia), Carlo Santoro, Matteo Gratteri, Michelle Ferri, Alessio Cosenza, Giulia Gianola, Elena Cazullani, Daniele Moraschini, Antonio Galuppo (Italy)

Post-Docs/Res. Faculty: Juchao Yan (Prof. ENMU), Vijay Rajendran (Prof. Sastra Univ.), Marcos Barella (Intel), Claudia Luhrs (NPGA), Dmitri Brevnov (Applied Materials), Ravil Sitdikov (NanoMR), Svitlana Pylypenko (Prof. CSM), Carolin Lau (Roche Diagnostics), Dmitri Ivnitski (retired, Miami), Wendy Patterson (Beilstein Inst.), Barr Halevi (Electric Hydrogen), Sofia Babanova (CTO, Aquacycl Technologies), Rubi Figueroa-Terran (self-employed, Reno), Ashley Maers (SNL), Alexey Serov (ORNL), Carlo Santoro (Prof. Univ. Milano-Bicocca), Rohan Gokhale (Umicore), Kateryna Artyushkova (President & CEO, Physical Electronics), Ivana Matanovic (LANL), Nalin Andersen (SNL), Tristan Asset (CNRS-Strasbourg), Leo Chen (RPI), Suparna Das, Yuanchao Liu (3M), Camille Roiron (Prof. Univ. Savoie-Mont Blanc) ***25*** *total*

Sabbatical Visitors: Boris Kiefer, NMSU (2009, 2012); Scott Calabrese Barton, MSU (2013); Brian Benicewicz, USC (2016); Shelley Minteer, U Utah (2017); Iryna Zenyuk, Tufts U (2018), Lior Elbaz, Bar Ilan University (2022), Toshinori Motegi, GST, Japan, Meng Zhou, NMSU (2025)

JOURNAL PUBLICATIONS
Last 4 years (of 490+ papers total)

Plamen Atanassov h-index 109, 45+K citations (as of October 2025)
https://scholar.google.com/citations?user=CPilx4wAAAAJ&hl=en&oi=ao

J-494. R. Buckingham, H. Wang, J. Chen and **P. Atanassov**, Performance of Aluminum Alloy Anodes in Neutral Electrolytes for Aluminum-Air Flow Battery Applications, *Electrochimica Acta*, (2025) – submitted

J-493. R. Buckingham, J. Chen, H. Wang and **P. Atanassov**, Performance of Commercial Aluminum Alloy Anodes and non-PGM ORR Catalyst in Acidic Electrolytes for Aluminum-Oxygen Flow Batteries, *ChemElectroChem*, (2025) – submitted

J-492. E. Murphy, S. Diaz-Abad, C. Roiron, M.P. Thomas, K. Li, N.S. Pappas, X. Wang, **P. Atanassov**, S. Komini Babu, and J.S. Spendelow Nb-TiO_2@IrO_2 Core-shell Nanowires Enable Ultra-Low Iridium Loadings in Proton Exchange Membrane Water Electrolyzers**,** *Energy Environmental Science,* (2025) – submitted

J-491. C.P. Liu, M. Pagliaro, A. Semenova, G. Lindquist, A. Lavacchi, **P. Atanassov** and I. Valov, Modernizing Alkaline Water Electrolysis by Shifting the Design Paradigm *Nature Electrical Engineering*, (2025) – submitted

J-490. K. Khedekar, E. Murphy, Y. Liu, M. Shibata, N. Bibent, J. Spendelow, F. Jaouen, I. Zenyuk and **P. Atanassov**, Pyrolysis Rate Influence on Fuel Cell Performance of Atomically Dispersed Fe-N-C Catalysts, *Advanced Energy Materials*, (2025) – submitted

J-489. M. Muhyuddin, E. Berretti, J. Orsilli, L. Mirizzi, R. Landone, F, D'Acapito, A. Cosenza, S. Faina, M. D'Arienzo, I. Nadeem, M. Kalin, **P. Atanassov**, C. Santoro and A. Lavacchi, Electrocatalysts Formed by Pyrolysis: Temperature-dependent Progression of Active Sites in Co-Phthalocyanine/Carbon Derived Hydrogen Evolution Reaction and Oxygen Reduction Reaction Catalysts, *ACS Catalysis*, (2025) – submitted

J-488. G. Zuccante, V. Ficca, A. Cosenza, S. Faina, M. D'Arienzo, M. Acciarri, **P. Atanassov**, C. Santoro, M. Muhyuddin, Elucidating Oxygen Reduction Reaction Over the Full-pH Range: A Synthesis- Active Sites-Performance Trilogy of Fe-Nx-Cs, *Materials for Renewable & Sustainable Energy*, 14 (2025) 58 DOI: 10.1007/s40243-025-00332-8

J-487. C. Roiron, A. Cosenza, G. Ferro, J. Chen, H. Wang and P. **Atanassov**, Carbon Catalysts Supports for Pt-based Polymer Electrolyte Membrane Fuel Cells: Porosity, Graphitisation and Chemical Modifications, *Advanced Science*, (2025) DOI: 10.1002/advs.202508841

J-486. E. Cazzulani, G. Caucia, Gian L. Chiarello, A. Franzetti, P. Cristiani and **P. Atanassov**, Harnessing Hyperthermophilic Metabolism to Boost Bioelectrochemical Systems: Key Thermodynamic Challenges, *Chemical Engineering Journal,* 8 (2025) 167756 DOI: 10.1016/j.cej.2025.167756

J-485. E. Cazzulani, C. Roiron, L. Zhang, G. Ferro, A. Fairhurst, P. Cristiani, G.L. Chiarello, and **P. Atanassov**, Iridium Oxide Shell Structure on Rutile Titanium Oxide for Efficient Supported Catalyst for the Oxygen Evolution Reaction, *Advanced Science*, (2025) DOI: 10.1002/advs.202508036

J-484. A. Tricase, M. Muhyuddin, B. Erable, **P. Atanassov**, D. Pant, C. Santoro, P. Bollella, Bio- and Electrocatalysts for Oxygen Reduction Reaction in Neutral Media: From Mechanisms to Practical Applications, *J. Power Sources*, 246 (2025) 237267, DOI: 10.1016/j.jpowsour.2025.237267

J-483. M. Muhyuddin, E. Berretti, C. Roiron, A. Lavacchi, I.V. Zenyuk, **P. Atanassov**, and C. Santoro, Atomically Dispersed Electrocatalysts for Oxygen Reduction Reaction: Understanding the Synthetic Processes for Tuning Structure, Surface Chemistry and Electrochemical Activity, *ACS Applied Energy Materials*, (2025) DOI: 10.1021/acsaem.5c00687

J-482. A. Cosenza, C. Roiron, G. Ferro and **P. Atanassov**, Nitrogen-doped Carbon Supports for Pt-based Fuel Cell Electrocatalysts, *Chemical Engineering Journal*, 152 (2025) 162816

J-481. G. Gianola, A. Cosenza, C. Roiron, C. Pirri, S. Specchia, **P. Atanassov** and J. Zeng, Effect of Silica Leaching Treatment During Template-assisted Synthesis on the Performance of Fe-N-C Catalysts for Oxygen Reduction Reaction, *Electrochimica Acta*, 525 (2025) DOI: 10.1016/j.electacta.2025.146085

J-480. M. Muhyuddin, C. Santoro, L. Osmieri, V. Ficca, A. Friedman, K. Yassin, G. Pagot, E. Negro, A. Konovalova, G. Lindquist, L. Twight, M. Kwak, E. Berretti, V. Di Noto, F. Jaouen, L. Elbaz, D.R. Dekel, P. Mustarelli, S.W. Boettcher, A. Lavacchi and **P. Atanassov,** Anion-Exchange-Membrane Electrolysis with Alkali-free Water Feed, *Chemical Reviews,* 125 (2025) 6906-6976 DOI:10.1021/acs.chemrev.4c00466

J-479. C.H. Chen, M. Coats, F. Chabot, Y. Morimoto, **P. Atanassov**, N. Tamura, J. Braaten, B.M. Stühmeier, C. Johnston, S. Pylypenko, L. Cheng, I.V. Zenyuk, Durability of Pt-Alloy Catalyst for Heavy-Duty Polymer Electrolyte Fuel Cell Applications under Realistic Conditions, *ChemElectroChem*, (2025) DOI: 10.1002/celc.202400643

J-478. C. Liu, E. Vang, T. Priamushko, C. Roiron, S. Cherevko and **P. Atanassov**, Acidic Oxygen Evolution Reaction Activity, Stability, and Durability of Copper and/or Manganese Cobalt Oxide Spinels, *ACS Catalysis*, 15 (2025) 7956-7965

J-477. S. Zargarian, C. Roiron, G. Ferro and **P. Atanassov**, Iridium Oxide Network on Non-Conductive TiO2 Support as a Catalyst for Oxygen Evolution, *ChemElectroChem*, (2025) DOI: 10.1002/celc.202400625

J-476. W.J.M. Kort-Kamp, C.L. Vecchio, D. Sebastián, X. Lyu, P. Zelenay, **P. Atanassov**, V. Baglio and A. Serov, Machine Learning-guided Design of Direct Methanol Fuel Cells with a Platinum Group Metal-free Cathode, *J. Power Sources*, 626 (2025) 235758

J-475. S. Mostoni, L. Mirizzi, A. Frigerio, G. Zuccante, C. Ferrara, M. Muhyuddin, M. D'Arienzo, S.F. Orsini, R. Scotti, A. Cosenza, **P. Atanassov** and C. Santoro, In-situ HF Forming Agents for Sustainable Manufacturing of Iron-based Oxygen Reduction Reaction Electrocatalysts Synthesized through Sacrificial Support Method, *ChemSusChem*, 18 (2025) DOI: 10.1002/cssc.202401185

J-474. C. Wang, J. Stansberry, M. Rangachary, D. Kulkarni, A. Park, A. Plymill, J. Lang, C.P. Liu, K. Lee, H.-M. Chang, N.E. Tolouei, Y. Morimoto, C.H. Wang, G. Zhu, J. Brouwer, **P. Atanassov**, C. Capuano, C. Mittelsteadt, X. Peng and I. Zenyuk, Insights for Achieving Global Gigawatt-Scale Deployment of PEM Water Electrolyzers, *Chemical Reviews,* 125 (2025) 1257-1302

2024

J-473. C. Roiron, C. Wang, I.V. Zenyuk and **P. Atanassov**, Oxygen 1s X-ray Photoelectron Spectra of Amorphous and Crystalline Iridium Oxides as a Key Descriptor of catalyst surface, *J. Physical Chemistry Letters*, 15 (2024) 11217-11223

J-472. G. Ferro, C. Roiron, H. Wang, J. Braaten, B.M. Stühmeier, C. Johnston, L. Cheng, I.V. Zenyuk and **P. Atanassov**, Designer Electrocatalysts for the Oxygen Reduction Reaction with Controlled Platinum Nanoparticle Locality, *Advanced Energy Materials,* (2024) DOI:10.1002/aenm.202403165

J-471. S.A. Mirshokraee, M. Muhyuddin, N. Pianta, E. Berretti, L. Capozzoli, J. Orsilli, F. D'Acapito; R. Viscardi, A. Cosenza, **P. Atanassov**, C. Santoro and A. Lavacchi, Ni-phthalocyanine Derived Electrocatalysts for Oxygen Reduction Reaction and Hydrogen Evolution Reaction: Active Sites Formation and Electrocatalytic Activity, *ACS Catalysis*, (2024) DOI: 10.1021/acscatal.4c03814

J-470. E. Murphy, Y. Liu, Yuanchao; B. Sun, Y.H. Chen, S. Guo and **P. Atanassov**, Atomically Dispersed Metal-Nitrogen-Carbon Catalysts for Electrochemical Nitrogen Transformations to Ammonia and Beyond, *ACS Catalysis*, 14 (2024) 9797-9811

J-469. C. Chen, K. Khedekar, A. Zaffora, M. Santamaria, M. Coats, S. Pylypenko, P.A. García-Salaberri, J. Braaten, **P. Atanassov**, N. Tamura, C. Johnston, L. Cheng and I. Zenyuk, Effect of Microporous Layer Cracks on Catalyst Durability of Polymer Electrolyte Fuel Cells for Heavy-Duty Applications, *ACS Applied Energy Materials*, 7 (2024) 5736-5744

J-468. M. Muhyuddin, G. Zuccante, P. Mustarelli, J. Filippi, A. Lavacchi, L. Elbaz, Y.-H. Chen, **P. Atanassov**, C. Santoro, Urea Electrochemical Production Using Carbon Dioxide and Nitrate: State of the Art and Perspectives, *Energy Env. Science*, (2024) DOI: 10.1039/D4EE00561A

J-467. M. Dzara, K. Artyushkova, J. Foster, H. Eskandari, Y. Chen, S. Mauger, **P. Atanassov**, K. Karan and S. Pylypenko, X-ray Photoelectron Spectroscopy Analysis of Nafion-Containing Samples: Pitfalls, Protocols, and Perceptions of Physicochemical Properties, *Journal of Physical Chemistry C*, 128 (2024) 8467-8482

J-466. E. Murphy, B. Sun, M. Rüscher, Y. Liu, W. Zang, S. Guo, U. Hejral, Y. Huang, A. Ly, I.V. Zenyuk, X. Pan, J. Timoshenko, B. Roldán Cuenya, E.D. Spoerke and **P. Atanassov**, Synergizing Fe_2O_3 Nanoparticles on Single Atom Fe-N-C for Nitrate Reduction to Ammonia at Industrial Current Densities, *Advanced Materials*, 36 (2024) DOI: 10.1002/adma.202401133

J-465. A. R. Morankar, **P. Atanassov** and J. Greeley, Hydrogen Peroxide-Induced Overoxidation of Fe-N-C Catalysts: Implications for ORR Activity, *ChemPhysChem*, 25 (2024) DOI: 10.1002/cphc.202400199

J-464. P. Marsh, M.-H. Huang, X. Xia, I. Tran, **P. Atanassov** and H. Cao, Polarization Conforms Performance Variability in Amorphous Electrodeposited Iridium Oxide pH Sensors: A Thorough Surface Chemistry Investigation, *Sensors*, 24 (2024) 962

J-463. G. Ferro, J. Kalaus, J. Chen, E. Murphy, L. Kulinsky and **P. Atanassov**, Nickel-Molybdenum Hydrogen Evolution and Oxidation Reaction Electrocatalyst Obtained by Electrospinning, *Electrochimica Acta*, 483 (2024) 143912

J-462. C. Wang, K. Lee, C.P. Liu, D. Kulkarni, **P. Atanassov**, X. Peng and I. Zenyuk, Design of PEM Water Electrolyzers with Low Iridium Loading, *International Materials Reviews*, 69 (2024) 3-18

J-461. M. Muhyuddin, E. Berretti, S.A. Mirshokraee, J. Orsilli, R. Lorenzi, L. Capozzoli, F. D'Acapito, E. Murphy, S. Guo, **P. Atanassov**, A. Lavacchi and C. Santoro, Formation of the Active site Structures During Pyrolysis Transformation of Fe-phthalocyanine into Fe-N_x-C Electrocatalysts for the Oxygen Reduction Reaction, *Applied Catalysis B,* 343 (2024) 123515

J-460. A. Ly, E. Murphy, H. Wang, Y. Huang, G. Ferro, S, Guo, T. Asset, Y. Liu, I. Zenyuk and **P. Atanassov**, Electrochemical Trends of a Hybrid Platinum and Metal-Nitrogen-Carbon Catalyst Library for the Oxygen Reduction Reaction, *Energy Env. Science – Catalysis*, 2 (2024) 624-637 DOI: 10.1039/d3ey00235g

2023

J-459. J. Bates, J. Martinez, M. Hall, A. Al-Omari, E. Murphy, Y. Zeng, F. Luo, M. Primbs, D. Menga, N. Bibent, M. Sougrati, **P. Atanassov**, G. Wu, P. Strasser, T.-P. Fellinger, F. Jaouen, T. Root and S. Stahl, Chemical Kinetic Method for Active-Site Quantification in Fe-N-C Catalysts and Correlation with Molecular Probe and Spectroscopic Site-Counting Methods, *Journal of the American Chemical Society*, 145 (2023) 26222–26237

J-458. D. Sebastián, S. Trocino, C.L. Vecchio, A. Serov, **P. Atanassov**, V. Baglio, Dye-sensitized Solar Cells Based on Critical Raw Material-free Fe–N–C Counter Electrodes, *Materials for Renewable and Sust. Energy*, 12 (2023) 209-218

J-457. A. Morankar, S. Deshpande, Z. Zeng, **P. Atanassov** and J. Greeley, First Principles Analysis of Potential-Dependent Structural Evolution of Active Sites in Fe-N-C Catalysts, *Proc. of the National Academy of Sci.*, 120 (2023) DOI: 10.1073/pnas.2308458120

J-456. A. Ly, T. Asset, E. Murphy, K. Khedekar, Y. Huang, L. Xing, M. Xu, H. Wang, R. Chattot, X. Pan, I. Zenyuk and **P. Atanassov**, Design of Platinum Nanoflowers Catalysts Positive Exhibiting Near-ideal Local Coordination in a Complex Shape, *Electrochimica Acta* 469 (2023) 143282, DOI: 10.1016/j.electacta.2023.143282

J-455. Y. Huang; Y. Chen, M. Xu, A. Ly, A. Gili, E. Murphy, T. Asset, Y. Liu, V. De Andrade, C.U. Segre, A.L. Deriy, F. De Carlo, M. Kunz, A. Gurlo, X. Pan, **P. Atanassov** and I.V. Zenyuk, Catalysts by Pyrolysis: Transforming Metal-Organic Frameworks (MOFs) Precursors into Metal-Nitrogen-Carbon (M-N-C) Materials, *Materials Today,* (2023) DOI: 10.1016/j.mattod.2023.08.007

J-454. S. Kerstin; M. Schilling, L. Eifert, N. Bevilacqua, K. Fahy, **P. Atanassov**, A. Bazylak and R. Zeis, Revealing the Multifaceted Impacts of Electrode Modifications for Vanadium Redox Flow Battery Electrodes, *ACS Applied Materials & Interfaces*, (2023) DOI: 10.1021/acsami.3c07940

J-453. M. Muhyuddin, G. Tseberlidis, M. Acciarri, O. Lori, M. D'Arienzo, M. Cavallini, **P. Atanassov**, L. Elbaz, A. Lavacchi and C. Santoro Molybdenum Disulfide as Hydrogen Evolution Catalyst: from Atomistic to Materials Structure and Electrocatalytic Performance, *Journal of Energy Chemistry*, (2023) DOI: 10.1016/j.jechem.2023.08.011

J-452. K. Khedekar, A. Zaffora, M. Santamaria, M. Coats, S. Pylypenko, J. Braaten, **P. Atanassov**, N. Tamura, L. Cheng, C. M. Johnston and I.V. Zenyuk, Revealing In-plane Movement of Platinum in PEFCs after Heavy-duty Vehicle Lifetime, *Nature Catalysis*, 6 (2023) 676-686

J-451. E. Murphy, Y. Liu, I. Matanovic, Y. Huang, A. Ly, S. Guo, W. Zang, X. Yan, A. Martini, J. Timoshenko, B. Roldan Cuenya, I.V. Zenyuk, X. Pan, E.D. Spoerke, and **P. Atanassov**, Elucidating Electrochemical Nitrate and Nitrite Reduction over Atomically Dispersed Transition Metal Sites, *Nature Communications*, 14 (2023) 4554, DOI: 10.1038/s41467-023-40174-4

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