

### **Angela Zheng – Chair Elect Candidate, Strong Interest**



Dr. Qinghe (Angela) Zheng is a Senior Scientist in the Global Gasoline Development group, Clean Air Division at Johnson Matthey, Wayne PA. She received her Ph.D. in Environmental Engineering from Columbia University in 2016, where she worked with Prof. Robert Farrauto with a focus on environmental catalysis. Upon graduation, she joined RTI International as a postdoc scientist, followed by a promotion to research chemical engineer, when she worked on materials development for various energy and environmental applications. In early 2020, she joined Johnson Matthey as a staff scientist, followed by a promotion to senior scientist. Currently at JM, she is working on catalyst research and development for automotive emissions abatement. She has published 14 first- and co-authored articles on

peer-reviewed journals, filed various patent applications, and delivered more than a dozen presentations at major research conferences and meetings in her field. She has been serving as program chair for Catalysis Club of Philadelphia (CCP) in 2020-2021 and 2021-2022 seasons, and she is an active member of American Chemical Society (ACS) and American Institute of Chemical Engineers (AIChE). She is a recipient for numerous awards as an early career chemist and chemical engineer, including National Top 10 Graduate in Forest Science (State Forestry Administration, China, 2012), Kokes Award (24<sup>th</sup> NAM, 2015), Herbert H. Kellogg Fellowship for Outstanding Graduate Teaching Assistant (Columbia University, 2016), Highly Published Award and Early Career Author Award (RTI International, 2018), Technology Advancement & Commercialization Annual Award (RTI International, 2018, 2019). She has also been constantly invited to serve as peer reviewer for journals, proposals, competitions; technical session chair and abstract reviewer for major research conferences; and journal editorial board member.

### **Joshua Pacheco – Chair Elect Candidate**

Joshua Pacheco works at Zeolyst International as Sr. Research Engineer and is closely involved with new zeolite product development and process scale-up efforts. He completed a B.S. in Chemical Engineering from the University of Colorado at Boulder in 2009 before working as a process engineer in 2009-2011 at the Chevron El Segundo refinery in southern California. In 2015 he received his Ph.D. from the California Institute of Technology in the Mark E. Davis group. The doctoral work was on the synthesis and use of Lewis acid molecular sieve catalysts for the production of renewable terephthalic acid via novel biomass conversion pathways starting from 5-hydroxymethylfurfural. Outside of work, he enjoys spending time on road bikes, sailboats, and golf courses. Josh has enjoyed being an active member of the CCP community since moving to the area in 2015.

### **Donna Liu – Director Candidate, Strong Interest**

Donna Liu obtained her PhD from the University of South Carolina with a focus in heterogeneous catalysis. She then furthered her understanding of catalysis with applications in biomass conversion to liquid fuels at Argonne national lab. After Argonne, she went to Johnson Matthey where she currently works. She works as a lead scientist in product development for global gasoline technology. She has served in director roles for the Catalysis Club of Philadelphia from 2020 – 2022, and she is excited to continue serving the catalysis community by continuing to serve as a director.

### **Leo DeRita – Director Candidate, Strong Interest**



Leo DeRita is a Senior Applications Engineer at Johnson Matthey who has been with the company since early 2020 supporting heavy duty diesel applications.

Prior to joining JM, Leo began his academic career close to his hometown of West Chester at the University of Delaware, where he studied chemical engineering. He continued his studies out west under the mentorship of Dr. Phillip Christopher at the University of California, Riverside and Santa Barbara. His research focused on synthetic design and characterization of atomically dispersed Pt for oxidation catalysis.

Following his PhD, he came back to the Philadelphia area in 2018, where he returned to his alma mater as a post-doc co-advised by Dr. Bingjun Xu and Dr. Marat Orazov and studied alkane activation and dehydrogenation. In his spare time, he enjoys applying his skills as an engineer to improve his home and to brew beer to share with friends over boardgames. As a member of the CCP, he

has been a poster presenter and attendee and last year served as the club's director of sponsorship raising funding for the club.

### **Donghua Zuo – Director Candidate, Strong Interest**

Donghua Zuo is a Principal Investigator with Elesent Clean Technologies (formerly DuPont Clean Technologies) in Wilmington, DE. In this position, his work focuses on hydroprocessing catalysis and process development in support of licensing hydroprocessing and alkylation technologies in refining industry. He received his PhD in Chemistry (Catalysis) from the Research Institute of Catalysis (currently IRCÉLYON) in Lyon, France. His thesis concentrated on studying the properties of the active phases in NiW-based hydrotreating catalysts. Prior to joining DuPont in 2012, he worked on catalyst and process development for heavy oil upgrading and renewable fuel production. He enjoys being a member of the Catalysis Club of Philadelphia and served as the club's director of membership in 2017-2018.

### **Parag Shah – Director Candidate**

Parag is a Research Manager at Ecovyst Inc. (formerly and PQ Corp.) and involved with product and process development of silica based materials, mostly for heterogeneous catalysis applications. Parag joined Ecovyst Inc. in 2008 after graduating with a doctorate in Chemical and Biomolecular Engineering from University of Pennsylvania (UPenn). At UPenn, Parag was advised by Prof. Ray Gorte for his thesis related to thermodynamic properties of vanadia-based catalysts. Parag has been a member of Catalysis Club of Philadelphia since 2005, and has previously served as a Secretary (2 terms, 2010-2012), Director for Membership (2012-2013), Director for Sponsorship (2013-2014) and Chair (2019-2020).

### **Nick McNamara – Director Candidate**

Nicholas McNamara began his research career at the University of Notre Dame where he synthesized and tuned metal-organic frameworks (MOFs) as heterogeneous catalysts for the oxidative desulfurization of petroleum. He received his PhD in Chemical Engineering under the guidance of Jason Hicks in 2016. He went on to join Johnson Matthey (JM) as a staff scientist in their Clean Air sector developing catalysts for the abatement of hazardous emissions arising from automobiles. He is currently a principle scientist at JM where he has developed novel zeolite materials for the selective catalytic reduction (SCR) of NO<sub>x</sub> and metal oxides for three-way catalysis (TWC).