

Panelists:



Beata Kilos-Réaume, Ph.D.

Chemical Science, Core Research & Development, Research Scientist

Dow, Inc.
Midland, Michigan U.S.A.



Beata Kilos is a Research Scientist in the Chemical Science group of the Dow Company's Core Research & Development organization. Beata began her career at Dow in 2008. Since then she has worked on a wide array of projects with a focus on heterogeneous catalysis and materials science. In particular, Beata has conducted research covering a wide variety of catalytic chemistries including propane dehydrogenation, olefin epoxidation, methanol-to-olefins, and ethanol and ethylene carbonylation. Beata's research has also been instrumental in the development of low-cost mesoporous silica for high R-value insulation materials. Beata has also led an external collaboration with Northwestern University on C2-carbonylation towards methyl-methacrylate and propionic acid synthesis. Beata is an inventor of 16 patents/patent applications and author of over 30 scientific publications.

Beata has served the catalysis community through active participation and leadership roles. In particular, she served the Michigan Catalysis Society as secretary and treasurer (2010), vice-president (2011), president (2012), and director (2013). At the national level, she is active in the North American Catalysis Society (NACS) for which she served on the organizing committee for the 22nd NAM Meeting in Detroit in 2011. She is also the current NACS treasurer. She is active in the American Chemical Society (ACS), for which she organized two national symposia in 2014 and 2015 for the Catalysis Division as well as being instrumental in establishing the Women Chemists' Committee (WCC) group in Midland. Beata also served on the organizing committee for the 2020 International Congress on Catalysis. In recognition of her scientific achievements, Beata was named a 2017 ACS Rising Star award recipient and 2018 ACS Early Career Fellow of the Industrial & Engineering Chemistry Division. She is also a recipient of 2017 ICIS Best Process Innovation Award for Fluidized Catalytic Dehydrogenation Technology (FCDh), 2017 R&D 100 Award for Fluidized Catalytic Dehydrogenation Technology, 2017 Dow Chemical Engaged for Impact Award and 2017 WIN champion award. Beata was also an organizer of the Power Hour at the 2018 Gordon Conference on Catalysis, featuring a workshop on driving inclusion via design thinking. She also serves on Editorial Advisory Board of Reaction Chemistry & Engineering Journal and Journal of Catalysis. In 2021 she was appointed a topic editor for the ACS Catalysis journal.

At Dow Chemical, Beata has also held several leadership and service positions. In particular, she was the treasurer (2009) and chair (2010-2011) of the Young Researchers' Community (YRC). She served as recruiting focal point for Inorganic Materials and Heterogeneous Catalysis group for two years, where she established the recruiting strategy and process for the organization. Beata also served as founder and chair of the Growing R&D Opportunities for Women (GROW) group (2015-2017) and led the development of Core R&D's mentoring initiative.

Beata Kilos graduated from Adam Mickiewicz University in Poznan, Poland with a M.Sc. and Ph.D. in Chemistry. As one of Europe's few scholars selected for the prestigious Marie Curie Fellowship, Beata completed work toward the latter degree at the Institut de Recherches sur la Catalyse et l'Environnement de Lyon (CNRS, IRCELYON) in Villeurbanne, France. Beata followed this with a joint appointment at the University of California, Berkeley's Chemical Engineering Department and the Lawrence Berkeley National Laboratory where she worked with Professors Enrique Iglesia and Alex Bell on oxidation catalysis.

Levi Thompson

Dean of the College of Engineering and Elizabeth Inez Kelley Professor of Chemical Engineering,
University of Delaware

Professor Thompson was appointed the Dean of the College of Engineering and Elizabeth Inez Kelley Professor of Chemical Engineering at the University of Delaware in 2018. In his role as dean, Thompson serves as the academic, administrative and financial officer of the college, and its more than 3,500 students, more than 300 faculty and staff, 7 departments and 6 research centers. Before joining the faculty at UD, Thompson was the Richard Balzhiser Professor of Chemical Engineering and Professor of Mechanical Engineering at the University of Michigan, and served as Associate Dean for Undergraduate Education, Director of the Hydrogen Energy Technology Laboratory and Director of the Michigan-Louis Stokes Alliance for Minority Participation. He earned his B.ChE. from the University of Delaware, and M.S.E. degrees in Chemical Engineering and Nuclear Engineering, and a Ph.D. in Chemical Engineering from the University of Michigan (UM). While on the faculty at the UM, Professor Thompson served as Associate Dean for Undergraduate Education, Director of the Hydrogen Energy Technology Laboratory and Director of the Michigan-Louis Stokes Alliance for Minority Participation. His scholarly research focuses on nanoscale materials for catalytic and energy storage applications, and he is author/co-author on more than 150 publications and is co-inventor on more than 10 patents. Professor Thompson was elected as a member of the National Academy of Engineering and Fellow of the American Institute of Chemical Engineers. He is also recipient of awards including a 2006 Michiganiaan of the Year Award for his research, entrepreneurship, and teaching, National Science Foundation Presidential Young Investigator Award, McBride Distinguished Lectureship, Union Carbide Innovation Recognition Award, and Dow Chemical Good Teaching Award. Professor Thompson serves as an Associate Editor of the PNAS Nexus and on the Editorial Board of the Annual Review of Chemical and Biomolecular Engineering. He is co-founder and founding CEO of T/J Technologies, a developer of nanomaterials for advanced batteries; the company was acquired by A123 Systems in 2006. More recently he co-founded Inmatech to commercialize low cost, high energy density supercapacitors for automotive and military applications, and is active in the community, having served on the Board of Trustees for the Ann Arbor Area Community Foundation and the African American Endowment Fund.



Gerardine G. Botte, Ph.D.
Professor and Whitacre
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Gerardine (Gerri) Botte is a Professor and the Whitacre Department Chair in Chemical Engineering at Texas Tech University with over 23 years of experience in the development of electrochemical processes and advanced water treatment systems. She is a visionary and a recognized leader in electrochemical science and technology. She has served in leadership roles for both the International Society of Electrochemistry and the Electrochemical Society and is currently the Second Vice President of the Electrochemical Society. She is also the Editor in Chief of the Journal of Applied Electrochemistry. In 2014, she was named a Fellow of the Electrochemical Society for her contributions and innovation in electrochemical processes and engineering. She became a Chapter Fellow of the National Academy of Inventors in 2012. In 2010, she was named a Fellow of the World Technology Network for her contributions on the development of sustainable and environmental technologies. Previous to Texas Tech, Dr. Botte was University Distinguished Professor and Russ Professor of Chemical and Biomolecular Engineering at Ohio University, the founder and Director of Ohio University's Center for Electrochemical Engineering Research (CEER), and the founder and Director of the Consortium for Electrochemical Processes and Technology (CEProTECH) -an Industry University Cooperative Research Center. Dr. Botte has 198 publications including peer-reviewed journals, book chapters, and 60 granted patents. Dr. Botte and members of her research group are working on the foundation of applying electrochemical engineering principles for advanced and sustainable manufacturing, process intensification, food/energy/water sustainability, and nanomaterials with expertise in electro-synthesis, batteries, electrolyzers, sensors, fuel cells, mathematical modeling, and electro-catalysis. Example projects include: electrochemical extraction of/and recovery of rare earth elements from solid fuels and produced water, hydrogen production from ammonia, biomass, urea, coal, and pet-coke, synthesis of carbon nanotubes and graphene, water remediation and disinfection, selective catalytic reduction, ammonia synthesis, electrochemical conversion of CO₂ to high value products, novel electrolytes for thermal batteries, advanced electrowinning, and electrochemical microbial sensors. Dr. Botte is also an entrepreneur, she has been involved in the commercialization of technologies, has founded and co-founded companies, and serves as board of director in several companies. She received her Ph.D. in 2000 (under the direction of Dr. Ralph E. White) and M.E. in 1998, both in Chemical Engineering, from the University of South Carolina. Prior to graduate school, Dr. Botte worked as a process engineer in a petrochemical plant; she was involved in the production of fertilizers and polymers. Dr. Botte received her B.S. in Chemical Engineering from Universidad de Carabobo (Venezuela) in 1994. She can be reached at Gerri.Botte@ttu.edu