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Prof. Minhua Shao is currently an Associate Professor in the Department of Chemical and Biological Engineering at HKUST. He is also the Associate Director of the HKUST Energy Institute, Director of the newly developed Sustainable Energy Engineering Undergraduate Program. He earned BS and MS degrees in chemistry from Xiamen University, and a PhD degree in materials science and engineering from the State University of New York at Stony Brook. He joined UTC Power in 2007 working on proton exchange membrane fuel cell and phosphoric acid fuel cell. He was promoted to Technical Fellow and program manager. In 2013, he joined Ford Motor Company to conduct research on lithium-ion batteries for next generation electric vehicles. He then joined HKUST in 2014. He has published over 90 peer-reviewed articles, 1 edited book and filed over 30 US patent applications (15 issued). He has also received a number of awards, including the Supramaniam Srinivasan Young Investigator Award from the ECS Energy Technology Division (2014), and Student Achievement Award from the ECS Industrial Electrochemistry and Electrochemical Engineering Division (2007), President's Award to Distinguished Doctoral Students from Stony Brook University (2006), Chinese Government Award for Outstanding Self-Financed Students Abroad from China Scholarship Council (2006), and Dr. Mow Shiah Lin Award from Brookhaven National Laboratory (2006). His current research interests include fuel cells, advanced batteries, electrocatalysis and modeling. He is an Associate Editor of *Journal of the Electrochemical Society*.

Electrochemical Interfaces and Advanced Materials for Energy Conversion and Storage

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Electrochemical interfaces play a central role in electrochemical energy conversion and storage devices. Our group focuses on fundamental understanding of interfacial reaction phenomena at the molecular level by using in situ spectroscopic techniques and applying theoretical calculation tools. This talk will firstly introduce our recent work on CO₂ and N₂ electrochemical reduction reactions and then discuss on materials development for fuel cells, electrolyzers and batteries.