Yunlong ZI



Associate Professor of Sustainable Energy and Environment, and Mechanical and Aerospace Engineering (affiliated)

Research interest

In this IAS Center for Quantum Technologies, Prof. Yunlong Zi's team is working on the following topics: (1) Quantum tunneling theories in triboelectric charge transfer mechanisms; (2) Quantum theories about optical emission in triboelectric discharge effect and tribo-induced electroluminescence; (3) Synthesis of nanoscale quantum materials and device fabrication.

Biography

Prof. Yunlong Zi is an Associate Professor in Thrust of Sustainable Energy and Environment in Hong Kong University of Science and Technology (Guangzhou). Prof. Zi received his Ph.D. in Physics from Purdue University in 2014; his Bachelor of Engineering in Materials Science and Engineering from Tsinghua University in 2009. Before joining HKUST, he worked as an Assistant Professor at Chinese University of Hong Kong during 2017-2022, and a Postdoctoral Fellow at Georgia Institute of Technology during 2014-2017. Prof. Zi is an active young scholar in the field of triboelectric nanogenerator for high-performance energy harvesting. He coined the field of tribo-photonics toward the self-powered wireless sensing solutions. He has published over 100 journal publications with total citation of over 10000. Prof. Zi was honored as the prestigious Nano Energy Award winner 2021. He was also as Fellow of International Association of Advanced Materials (FIAAM) 2021; Vebleo Fellow 2021; the winner of MRS Postdoctoral Award by Materials Research Society in 2017; the Emerging Investigators by Journal of Materials Chemistry C in 2018; MINE Young Investigator Finalist in 2018; and one of “5 students who are transformation makers” as highlighted in Purdue homepage in 2013.