Prof. Bin Zhu

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Bin Zhu got Ph. D. degree from Department of Physics, Chalmers University of Technology (Chalmers), Sweden in 1995, then two yeasr postdoc in Uppsala University, Agnstrom Lab., Sweden. After he moved to Royal Institute of Technology (KTH) from 1998 as a senior researcher and 1999, associated professor for PhD superviser. He was the principal investigater and group leader for fuel cell research and development. The first ten-year period, 1998-2007, in Department of Chemical energineering and technology focusing on low temperature solid oxide fuel cell (LTSOFC) materials, tehcnology and devices; the second ten-year period in Department of Energy Technology focusing on LTSOFC device, stack to system and polygeneration tehcnologies combined solar cell and electrolysis and sustainable resources, e.g. biomass and bio-fuels. In 2013, based on a research breathrough of single layer electrolyte-free fuel cell, he was selected by Hubei provincial 100-overseas talents program to establish and lead reasearch team in Hubei University, then extended to China Unvieristy of Geoscience (Wuhan). 2019-now, as a lecturer professor in Xian Jiaotong Univeristy and 2020-now, a chief scientisit, professor in Southeast University. He has published about 400 SCI papers such as *Energ. Environ. Sci., Adv. Mater. Adv. Energ. Mater., Adv. Funct. Mater., Nano Energy, ACS Energy Letts., Nature Commune., Nano-Micro Letts, J. Mater. Chem. A, J. Power Sources, Appl. Energy, etc,* with H-index of 59 (citations over 14000), and 1 book of SOFC as main author and main editor published in 2020, Whily. Besides, he has been involved in high tech. SOFC companies for SOFCs more than 10 years being responsible for technogical developments. In 2018 together with Prof. Peter Lund, Aalto Unvieristy as the recipient of 2018 WSSET (World Society of Sustainable Energy Technologies) Innovation award for Power Generation. He is one of the Most Cited scholars in China (Energy sector, Elsevier) every year since 2014-.

His current research interests lie in the energy conversion, especially next generation LTSOFC, PCFC (proton ceramic fuel cell), and joint fuel cell and solar fuel or battry science and technology based on semiconductor-ionics and semiconductor electrochemistry, where electron-ion coupling enhanced ionic transport, multi-charge transfer and super proton transport processes, surficial and interfacial superionic conduction, nano-redox process and nano-redox devices for high ion flux energy devices and applications.

Terms of Appointment
Mar 2021 - Dec 2024