Webinar Hydrogen Energy: Green Production, Effective Evolution and Utilization

Co-organizers:

- HKIE Gas & Energy Division
- Hong Kong Fuel Cell and Hydrogen Energy Association

Supporting Organisations:

- HKIE MMNC Division
- HKIE AMC

Date: 22 November 2021
Time: 6:00 pm – 7:30 pm
Venue: Online meeting Via Zoom

Event Highlight

Hydrogen energy has advantages over other energy sources, such as zero-carbon emissions, renewability, high energy density and thermal efficiency, low production cost and environmental friendliness. In this webinar, two critical issues related to the green production and effective utilization of hydrogen energy are discussed. The first issue is about developing photovoltaics and electrolysis coupling systems for green hydrogen production, which are made of a photovoltaics module and an electrolysis module. The second issue is about the storage, transportation and evolution of hydrogen by using solid-state materials in a safe, efficient and facile manner, avoiding those of hydrogen in a liquid or gaseous state by using cryogenic or pressurized vessels. The key technologies in solving the aforementioned issues is based on the application of catalytic nanomaterials for the photoelectrochemical water splitting and the hydrolytic dehydrogenation of ammonia borane, respectively.

Registration & Enquiries

- The number of participants is limited to 300.
- Prior registration is required. Applications will be accepted on a first-come first served basis with the priorities given to HKIE-EG and HKFCHEA members.
- Successful members will be notified by an email with a Zoom Meeting link closer to the event date.
- Electronic copy of CPD certificate will be sent to successful members through email within one month after the virtual visit.
- Please register via this link: https://forms.gle/qw4g9dAKLQzaN5Eu8 19 November 2021 (Friday).

For enquiries, please contact Ms. Priscilla Wong at nh.wong@towngas.com or Mr Roger Law at roger.law@connect.polyu.hk .

About the Speaker

Prof. Guang-Ping Zheng obtained his Ph.D. degree in Materials Science and Engineering from the Johns Hopkins University. He has more than 20 years of R&D experience in nanomaterials and is excel at developing nanotechnology for energy conversion and storage. He has published over 210 technical papers in scientific journals and holds 2 patents. One of the inventions which was supported by the ITF won a gold medal in the 40th International Exhibition of Inventions of Ginneva in Switzerland. The project coordinator, Dr. G.P. Zheng, has successfully completed as principal investigator over 10 projects including ITF, GRF, Project of Key Technology of Guangdong Province, and Innovation Technology Funds of Shenzhen since 2005, he has also been the Co-I in 5 projects such as GRF and NSFC projects.

Prof. Bin Liu obtained his Ph.D. degree from the Technical Institute of Physics and Chemistry, Chinese Academy of Sciences in 2015 (Supervisors: Lizhu Wu (Academician of the Chinese Academy of Science) and Chun-Ho Tung (Academician of the Chinese Academy of Science). From 2015 to 2019, he successively served as Senior Research Assistant (2015-2017), Senior Research Associates (2017-2018), and Research Fellow (2018-2019) at City University of Hong Kong. After that, he worked at the State Key Laboratory of Chemical Resource Effective Utilization, Beijing University of Chemical Technology, mainly engaged in research on artificial photosynthesis, energy electrocatalysis, and solar photochemical conversion. He has published more than 40 SCI papers in Adv. Mater., Energy Environ. Sci., ACS Energy Lett., ACS Nano and other journals, 5 of which were selected as cover (title page) papers, and 2 were selected as ESI highly cited papers. As Principal Investigator or Co-Investigator, He holds the National Natural Science Foundation of China Project, Beijing University of Chemical Technology High-level Talent project, Hong Kong Research Grants Council Fund, Hong Kong Innovation and Technology Fund, and City University of Hong Kong Applied Research Fund, etc.

Dr. Junye Cheng currently works as a distinguished Hong Kong Polytechnic University Postdoctoral Fellow (HKPDF). He got his PhD degree from City University of Hong Kong. He is mainly engaged in the new nanomaterials design and development their application in energy and environmental research. He especially focuses on the twodimensional metal organic framework, ultra-thin metal sulfide nanosheets, high entropy metal ceramics and controllable preparation of hybrid heterostructures used in photoelectrocatalytic field. He has published more than 60 high-level academic papers. He also obtained 2 Chinese invention patents. As the project leader, he presided one Basic Research and Applied Research Project of Science and Technology Innovation Commission of Guangdong Province and one Shanghai Innovation Fund Project (completed). He has won the Group Contribution Award of Hong Kong International Maker Festival, the Best Poster Award of the European Materials Research Society (EMRS) in 2019, the First Prize of the 9th Shenzhen, Hong Kong, Taiwan and Macao Nanshan Academic Forum, the Excellent Poster Award of the Chinese Ceramics Society, and the Outstanding Academic Research Award of City University of Hong Kong for three consecutive years.