Synthesis and applications of porous materials for gas storage

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Studies of economic, highly efficient and safe gas storage materials (GSMs) are of great importance in the fuel cells based vehicles and CO₂ capture. In our lab, we focus on studies on GSMs for H₂ and CO₂ based one micro/nano-technology. A series of metal organic frameworks (MOFs) and porous carbon materials such as grapheme for GSMs were synthesized. Their crystal structures, gas storage and thermodynamic properties were systematically evaluated. Furthermore, relationship of structure-activity were explored.

Biography

Li-Xian Sun has completed his PhD in 1994 from Hunan University and Post-doctoral studies from Jena University supported by Alexander Von Humboldt Fellowship and from National Institute of Advanced Industrial Science and Technology by NEDO fellowship. He is the Dean of School of Material Science and Engineering, Guilin University of Electronic Technology, Fellow of RSC (FRSC), Counsellor of International Association of Chemical Thermodynamics (IACT), Vice Chairman of committee on Chemical Thermodynamics and Thermal Analysis of Chinese Chemical Society. He has published more than 300 papers in reputed journals and has been serving as a regional Editorial Board Member of Thermal Analysis & Calorimetry.

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