

Shenhui Li

Personal Details

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Education Background

Jun 2002 B.S. (*Advisor: Prof. Zhonghong Gao*)

Department of Chemistry

Huazhong University of Science and Technology (HUST), China

Jun 2008 Ph.D (*Advisor: Prof. Feng Deng*)

Wuhan Institute of Physics and Mathematics (WIPM),

Chinese Academy of Sciences, China

Research Experiences

Jul 2008 – Sep 2008

Assistant Professor

Wuhan Institute of Physics and Mathematics (WIPM),

Chinese Academy of Sciences, China

Oct 2008 – Oct 2010

Post-doc Associate (Advisor: Prof. Mei Hong)

Department of Chemistry, Iowa State University, U.S.

Oct 2010 – present

Associated Professor

Wuhan Institute of Physics and Mathematics (WIPM),

Chinese Academy of Sciences, China

Representative Publications

1. **Li, S. H.**; Hong, M., Protonation, tautomerization, and rotameric structure of histidine: A comprehensive study by Magic-Angle-Spinning solid state NMR. *J. Am. Chem. Soc.* **2011**, *133*, 1534-1544.
2. **Li, S. H.**; Zheng, A. M.; Su, Y. C.; Zhang, H. L.; Chen, L.; Yang, J.; Ye, C. H.; Deng, F., Brønsted/Lewis acid synergy in dealuminated HY zeolite: A combined solid-state NMR and theoretical calculation study. *J. Am. Chem. Soc.* **2007**, *129*, 11161-11171.
3. Zhang Y.; Zhang W.; **Li, S. H.**; Ye Q.; Cai, H. L.; Deng, F.; Xiong R. G.; Huang S.P.D., Ferroelectricity induced by ordering of twisting motion in a molecular rotor. *J. Am. Chem. Soc.* **2012**, *134*, 11044-11049.
4. **Li, S. H.**; Huang, S. J.; Shen, W. L.; Zhang, H. L.; Fang, H. J.; Zheng, A. M.; Liu, S. B.; Deng, F., Probing the spatial proximities among acid sites in dealuminated H-Y zeolite by solid-state NMR spectroscopy. *J. Phys. Chem. C* **2008**, *112*, 14486-14494.
5. **Li, S. H.**; Zhang, Y.; Hong, M., 3D ^{13}C - ^{13}C - ^{13}C correlation NMR for *de novo* distance determination of solid proteins and application to a human α -defensin. *J. Magn. Reson.* **2010**, *202*, 203-210.
6. **Li, S. H.**; Su, Y. C.; Hong, M., Intramolecular ^1H - ^{13}C distance measurement in uniformly ^{13}C , ^{15}N labeled peptides by solid-state NMR *Solid State Nucl. Magn. Reson.* **2012**, *45-46*, 51-58.
7. **Li, S. H.**; Deng, F., Recent advances of solid state studies of zeolites. *Annual Reports on NMR Spectroscopy* **2013**, *78*, 1-54.
8. **Li, S. H.**; Zheng, A. M.; Su, Y. C.; Fang, H. J.; Shen, W. L.; Yu, Z. W.; Chen, L.;

Deng, F., Extra-framework aluminium species in hydrated faujasite zeolite as investigated by two-dimensional solid-state NMR spectroscopy and theoretical calculations. *Phys. Chem. Chem. Phys.* **2010**, *12*, 3895-3903.

9. **Li, S. H.**; Su, Y. C.; Luo, W. B.; Hong, M., Water-protein interactions of an arginine-rich membrane peptide in lipid bilayers from solid-state NMR spectroscopy. *J. Phys. Chem. B* **2010**, *114*, 4063-4069.

10. Yu, Z. W.[§]; **Li, S. H.**[§]; Wang, Q.; Zheng A. M.; Xu, J.; Chen L.; Deng, F., Brønsted/Lewis acid synergy in H-ZSM-5 and H-MOR zeolites studied by ¹H and ²⁷Al DQ-MAS solid-state NMR spectroscopy. *J. Phys. Chem. C* **2011**, *115*, 22320-22327. (° co-first author)