QING SHAO
Department of Chemical and Materials Engineering, University of Kentucky
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(a) Professional Preparation

Nanjing Tech. University	Nanjing, China	Chemical Engineering	B.S. 2004
Nanjing Tech. University	Nanjing, China	Chemical Engineering	Ph.D. 2009
University of Washington	Seattle, WA	Chemical Engineering	Ph.D. 2014
North Carolina State University	Raleigh, NC	Molecular simulations of soft materials	Postdoc 2014-2018

(b) Appointments

August 2018 - Assistant Professor, Department of Chemical and Materials Engineering, University of Kentucky

(c) Products

Products Related to Proposed Project

Shao, Q.; Jiang, S. Y., Molecular Understanding and Design of Zwitterionic Materials. *Adv. Mater.* 2015,27(1):15-26.

Shao, Q.; Jiang, S. Y., Influence of Charged Groups on Properties of Zwitterionic Moieties: A Molecular Simulation Study. *J. Phys. Chem. B*, 2014, 118 (27): 7630–7637.

Shao, Q.; Mi L., Bai T., Han X., Liu S., Li Y. T.; and Jiang S. Y., Differences in Cationic and Anionic Charge Densities Dictate Zwitterionic Associations and Stimuli Responses. *J. Phys. Chem. B*, 2014, 118 (24): 6956–6962.

Shao, Q.; White, A. D.; Jiang, S. Y., Difference of Carboxybetaine and Oligo(ethylene glycol) Moieties in Altering Hydrophobic Interactions: A Molecular Simulation Study. *J. Phys. Chem. B*, 2014, 118(1): 189-194.

Shao, Q.; He, Y.; Jiang, S. Y., Molecular Dynamics Simulation Study of Ion Interactions with Zwitterions. *J. Phys. Chem. B*, 2011, 115 (25): 8358-8363.

Other Significant Products

Shao Q.; Hall C. K., Selectivity of Glycine for Facets on Gold Nanoparticles J. Phys. Chem. B, 2017, 122, 13, 3491-3499

Shao Q.; Hall C. K., Allosteric Effects of Gold Nanoparticle on Human Serum Albumin, *Nanoscale* 2017, 9(1):380-390

Shao Q.; Hall C. K., Binding Preferences of Amino Acids for Gold Nanoparticles: a Molecular Simulation Study. *Langmuir* 2016, 32(31):7888-7896

Shao Q.; Hall C. K., Protein Adsorption on Nanoparticles: Model Development Using Computer Simulation *J. Phys. Conden. Matter.* 2016 28(41):414019

Shao Q.; Hall C. K., A Discontinuous-Potential Model for Protein-Protein Interactions, *Molecular Modeling and Simulation: Applications and Perspectives* 2016:1-20

(d) Synergistic Activities

- Co-Chair of the "Modeling of Biomaterials" session for AIChE annual meeting (2015-2018)
- Judge for Undergraduate Research Symposium at North Carolina State University (2016)
- Co-organizer of the "Distinguished Young Scholar Seminar" at the University of Washington (2013)
- Mentoring graduate and undergraduate students from underrepresented groups (2009-2018)