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| 个人简况 | | |
| 05/2015 - 至今 上海大学 材料基因组工程研究院 讲师/副研究员 | | |
| 07/2012 - 04/2014 香港科技大学 机械与航空工程系 研究助理 | | |
| 09/2011 - 04/2015 河海大学 力学与材料学院 讲师 | | |
| 08/2008 - 08/2011 香港科技大学 博士学位 | | |
| 09/2001 - 04/2008 南京航空航天大学 学士/硕士学位 | | |
| 研究方向 | | |
| 1. 储能设备与电化学腐蚀中, 材料及材料界面性质的跨尺度模拟计算和理论建模研究 (第一性原理计算/分子动力学模拟/连续介质力学和热力学建模) | | |
| 2. 力学信息学 (基于人工智能方法的力学建模) (欢迎具有力学和材料背景的考生报考!) | | |
| 代表性成果 | | |
| 工作研究项目: | | |
| 材料环境失效过程的高通量计算模拟与高通量实验技术, 国家重点研发计划, (骨干参与人员, 2017-2021) | | |
| 跨尺度高通量自动化流程功能材料集成计算算法与软件, 国家重点研发计划, (骨干参与人员, 2017-2021) | | |
| 表面应力对纳尺度电极影响的跨尺度模拟和理论研究, 国家自然科学基金面上项目, (2017-2020) | | |
| 囊泡电穿孔和电融合的计算机模拟研究, 国家自然科学基金青年基金项目, (2013-2015, 已结题) | | |
| 代表性论文: | | |
| 13. Sheng Sun , Liuyan Chen, Hongliang Sun, Tong-Yi Zhang, Adsorption and charge transfer of Lithium at electrified graphene/electrolyte interface. <i>Electrochim. Acta.</i> 259:1089-1094, 2018, DOI: 10.1016/j.electacta.2017.11.017 | | |
| 12. Xu-Sheng Yang, Sheng Sun (共同一作), Hai-Hui Ruan, San-Qiang Shi, Tong-Yi Zhang, Shear and shuffling accomplishing polymorphic fcc $\gamma \rightarrow$ hcp $\epsilon \rightarrow$ bct α martensitic phase transformation. <i>Acta Materialia</i> 136:347-354, 2017. DOI: 10.1016/j.actamat.2017.07.016 | | |
| 11. Kaikai Li, Xiaoye Zhou, Anmin Nie, Sheng Sun , Yan-Bing He, Wei Ren, Baohua Li, Feiyu Kang, Jang-Kyo Kim, Tong-Yi Zhang, Discovering A First-order Phase Transition in Li-CeO ₂ System. <i>Nano Letters.</i> 17:1282-1288, 2017. DOI: 10.1021/acs.nanolett.6b05126 | | |
| 10. Sheng Sun , Tong-Yi Zhang, Charge- and thickness-dependent inplane deformation of multilayer graphene thin films. <i>Physical Chemistry Chemical Physics.</i> 18:3694-3699, 2016. | | |

9. Xu-Sheng Yang, **Sheng Sun**, Tong-Yi Zhang, The mechanism of bcc α' nucleation in single hcp ϵ laths in the fcc $\gamma \rightarrow$ hcp $\epsilon \rightarrow$ bcc α' martensitic phase transformation. *Acta Materialia*. 95:264-273, 2015
8. **Sheng Sun**, Yue Qi, Tong-Yi Zhang, Dissecting graphene capacitance in electrochemical cell. *Electrochim. Acta*. 163:296-302, 2015. DOI: 10.1016/j.electacta.2015.02.049
7. **Sheng Sun**, Heng Zuo, Tong-Yi Zhang, Joint first-principles/continuum calculations of electromechanical properties of MoS2 monolayer. *Appl. Phys. Lett.* 105: 061910, 2014.
6. Xu-Sheng Yang, **Sheng Sun**, Xiaolei Wu, Evan Ma, Tong-Yi Zhang, Dissecting the Mechanism of Martensitic Transformation via Atomic-Scale Observations. *Scientific Reports*. 4:6141, 2014.
5. **Sheng Sun**, Joseph T. Y. Wong and Tong-Yi Zhang, Molecular dynamics simulations of phase transition of lamellar lipid membrane in water under an electric field. *Soft Matter* 7:147-152, 2011.
4. **Sheng Sun**, Guangyao Yin, Yi-Kuen Lee, Joseph T. Y. Wong and Tong-Yi Zhang, Effects of deformability and thermal motion of lipid membrane on electroporation: By molecular dynamics simulations. *Biochem. Biophys. Res. Commun.* 404:684-688, 2011.
3. **Sheng Sun**, Joseph T. Y. Wong and Tong-Yi Zhang, Effects of external electric fields on self-assembly of phospholipids/water mixtures --- Coarse-grained molecular dynamics simulations. *Soft Matter* 7:9307-9310, 2011.
2. **Sheng Sun**, Joseph T. Y. Wong and Tong-Yi Zhang, Atomistic simulations of electroporation in water preembedded membranes. *J. Phys. Chem. B* 115:13355-1359, 2011.
1. Tong-Yi Zhang, Hang Ren, Zhi-Jia Wang and **Sheng Sun**, Surface eigen-displacement and surface Poisson's ratios of solids. *Acta Materialia* 59:4437-4447, 2011.