

# 中南大学空间材料研究中心

## Dr. Chaoping Liang



梁超平，男，1984年8月生，湖南涟源人，粉末冶金研究院特聘副教授，2007，2010，2013年于中南大学粉末冶金研究院取得本科，硕士及博士学位，2014年-2017年在美国得克萨斯大学达拉斯分校进行博士后研究。在学期间获得“教育部博士学术新人奖”、“湖南省优秀硕士论文”、“国际会议最佳论文墙报奖”等校内外荣誉。主要从事粉末冶金轻合金材料、难熔金属、高温超合金、新能源材料及二维新材料的理论与实验研究。已在ACS Nano, Nano Energy, Chem. Mater., J. Power Sources, Appl. Phys. Lett.等国际权威期刊发表论文25篇，开发了用于材料性能预测的热力学软件（Debye Model）和晶体学软件（FindSym），并长期担任J. Phys. Chem. C, Int. J. Hydrogen Energy, J. Alloys Compd., Comput. Mater. Sci.等国际期刊的审稿人。

Chaoping Liang, male, born in Lianyuan, Hunan in August 1984. He obtained his Bachelor, Master, and Ph. D in engineering in 2007, 2010 and 2013, respectively. From 2014 to 2017, he went to United States and conducted Postdoc research at University of Texas at Dallas. He has been awarded many prizes during his study including “Scholarship Award for Excellent Doctoral Student from Ministry of Education of China”, “Excellent Master Thesis Award for Master’s Degree of Hunan Province”, “Best Poster Award of International meeting”, etc. His research is committed to light-metal alloys, refractory-metal alloys, superalloys, novel energy storage materials, and 2D materials, and integrated computational and experimental materials research. He has published 25 original research articles in ACS Nano, Nano Energy, Chem. Mater., J. Power Sources, Appl. Phys. Lett., developed two computational materials softwares, “Debye Model” and “FindSym”, and served as a reviewer of J. Phys. Chem. C, Int. J. Hydrogen Energy, J. Alloys Compd., Comput. Mater. Sci., etc.

代表性论文：

1. Obstacles toward unity efficiency of  $\text{LiNi}_{1-2x}\text{Co}_x\text{Mn}_x\text{O}_2$  ( $x=0\sim 1/3$ ) (NCM) cathode materials: Insights from ab initio calculations. *J. Power Source*, 2017, 340:217-228.
2. Unraveling the Origin of Instability in Ni-Rich  $\text{LiNi}_{1-2x}\text{Co}_x\text{Mn}_x\text{O}_2$  (NCM) Cathode Materials. *The Journal of Physical Chemistry C*, 2016, 120 (12): 6383–6393.
3. Interface structure and work function of W-Cu interfaces. *Applied Physics Letters*, 2013,103: 211604
4. Thermodynamic properties and lattice misfit of Ir-based superalloys. *Intermetallics*, 2013, 32:429-436.
5. Charge Mediated Reversible Metal–Insulator Transition in Monolayer  $\text{MoTe}_2$  and  $\text{W}_x\text{Mo}_{1-x}\text{Te}_2$  Alloy. *ACS Nano*, 2016, 10: 7370–7375.