

Personal Information

Name: Mingchuan Luo

Nationality: Chinese

Date of birth: 11 August 1987

Email: m.luo@lic.leidenuniv.nl



Education

01/09/2010–01/07/2016 **Doctor of Philosophy (Chemistry)** Beijing University of Chemical Technology, China

Thesis title: *Low-platinum electrocatalysts for oxygen reduction reaction in PEMFCs*

Supervisors: Prof. Hong Zhu

01/09/2005–01/07/2009 **Bachelor of Science (Chemistry)** Beijing University of Chemical Technology, China

Research Experience

01/07/2020–now **Marie-Curie Fellow**

Leiden Institute of Chemistry, Leiden University, The Netherlands

Supervisor: **Prof. Marc T.M. Koper**

Research Topic: **fundamental understanding of** electrochemical processes at metal-electrolyte interfaces.

01/07/2018–01/07/2020 **Postdoctoral Fellow**

Department of Electrical and Computer Engineering, University of Toronto, Canada

Supervisor: **Prof. Edward H. Sargent**

Research Topic: **system engineering** of decarbonization reactions at industrial level.

01/07/2016–30/06/2018 **Postdoctoral Fellow**

College of Engineering, Peking University, China

Supervisor: **Prof. Shaojun Guo**

Research Topic: **material innovating** for renewable energy storage and conversion.

01/09/2010–30/06/2016 **PhD Student**

School of Science, Beijing University of Chemical Technology, China

Supervisor: **Prof. Hong Zhu**

Research Topic: low-cost electrocatalysts for proton exchange membrane fuel cells.

01/09/2014 – 31/08/2015 **Visiting Scholar**

Department of Chemical & Biomolecular Engineering, University of Delaware, USA

Supervisor: **Prof. Yushan Yan**

Research Topic: pH effect on hydrogen electrocatalysis

Selected Publications

1. [M. Luo](#), Z. Zhao, Y. Zhang, Y. Sun, Y. Xing, F. Lv, Y. Yang, X. Zhang, S. Hwang, Y. Qin, J. -Y. Ma, F. Lin, D. Su, G. Lu, S. Guo*, PdMo bimetallic for oxygen reduction catalysis, **Nature**, 2019, 574: 81.
2. [M. Luo](#) and M. Koper*, A kinetic descriptor for the electrolyte effect on the oxygen reduction kinetics on Pt(111), **Nat. Catal.**, 2022, *10.1038/s41929-022-00810-6*.
3. [M. Luo](#), S. Guo*, Strain-controlled electrocatalysis on multimetallic nanomaterials, **Nat. Rev. Mater.**, 2017, 2: 17059.
4. [M. Luo](#)[#], Z. Wang[#], Y. C. Li[#], J. Li, F. Li, Y. Lum, D. -H. Nam, B. Chen, J. Wicks, A. Xu, T. -T. Zhuang, W. Leow, X. Wang, C. -T. Dinh, Y. Wang, Y. Wang, D. Sinton, E. H Sargent*, Hydroxide promotes carbon dioxide electroreduction to ethanol on copper via tuning of adsorbed hydrogen, **Nat. Commun.**, 2019, 10: 5814.