Haixing Li

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Education

Columbia University
Ph.D. in Applied Physics (Advisor: Latha Venkataraman) 2017

University of Science and Technology of China
B.S. in Physics (Advisor: Xianhui Chen) 2012

Professional Appointment

City University of Hong Kong, Department of Physics
Assistant Professor 2021-

Columbia University, Department of Chemistry
Charles H. Revson Senior Fellow in Biomedical Sciences (Advisor: Ruben L. Gonzalez, Jr.) 2019-2021
Postdoctoral Scholar 2017-2019

University of Oxford, Department of Physics
Undergraduate Student Researcher (Advisor: Brian J. Smith) 2011

Awards

Journal of Materials Chemistry C - Emerging Investigator Award 2022
ACS BIOL Division Travel Award, American Chemical Society 2021
Virtual Travel Award, The Biophysical Society 2021
Charles H. Revson Senior Postdoctoral Fellowship in Biomedical Science 2019
Travel Award, NextProf Science Workshop, University of Michigan 5/2019
Travel Award, Future Faculty Workshop, Case Western Reserve University 7/2017
Chinese Government Award for Outstanding Students Abroad 4/2017
Ovshinsky Student Travel Award, American Physical Society 3/2017
Columbia Teaching Observation Fellowship 2016
Student Travel Grant, Columbia Graduate Student Advisory Council 5/2016
Professional Development Scholarship, Columbia Engineering Graduate Student Council 3/2016
National University Student Innovation Program Grant, Ministry of Education of China 10/2012

Peer-reviewed Publications

† Contributed equally to this work. * Corresponding author.

19. B. Wu, W. Guo, J.M. An, **H. Li***, Control of Molecular Conductance by pH, **J. Mater. Chem. C**, 10, 13483-13498 (2022).
18. H. Gamper†, **H. Li**†, I. Masuda, M. Szanti-Kis, T. Christian, A. B. Conn, G. Blaha, E. J. Petersson, R. L. Gonzalez, Jr, Y. M. Hou, Insights into Genome Recoding from the Mechanism of a Classic +1-Frameshift-Suppressor tRNA, **Nat. Commun.** 12(1), 1-18 (2021).
17. M. Garner†, **H. Li**†, M. Neupane†, Q. Zou, T. Liu, T. A. Su, Z. Shangguan, D. W. Paley, F. Ng, S. Xiao, C. Nuckolls, L. Venkataraman, G. C. Solomon, Permethylation Introduces Destructive Quantum Interference in Saturated Silanes, **J. Am. Chem. Soc.** 141 (39), 15471-15476 (2019).

16. M. S. Inkpen, Z.-F. Liu, **H. Li**, L. Campos, J. B. Neaton, L. Venkataraman, Non-chemisorbed gold-sulfur binding prevails in self-assembled monolayers, **Nat. Chem.** 11 (4), 351-358 (2019).
15. **H. Li**†, M. Garner†, Z. Shangguan†, Y. Chen, Q. Zheng, T. Su, M. Neupane, T. Liu, M. Steigerwald, F. Ng, C. Nuckolls, S. Xiao, G. Solomon, L. Venkataraman, Large Variations in Single Molecule Conductance of Cyclic and Bicyclic Silanes, **J. Am. Chem. Soc.** 140 (44), 15080-15088 (2018).
14. M. H. Garner†, **H. Li**†, Y. Chen†T. A. Su, Z. Shangguan, D. W. Paley, T. Liu, F. Ng, H. Li, S. Xiao, C. Nuckolls, L. Venkataraman, G. C. Solomon, Comprehensive Suppression of Single-Molecule Conductance using Destructive σ-interference, **Nature** 558, 415-419 (2018).
13. **H. Li**†, T. A. Su†, M. Camarasa-Gómez†, D. Hernangómez-Pérez, S. E. Henn, V. Pokorný, R. Korytár, M. L. Steigerwald, C. Nuckolls, F. Evers, L. Venkataraman, Silver Makes Better Electrical Contacts to Thiol Terminated Silanes than Gold, **Angew. Chem. Int. Ed.** 56, (45), 14145-14148 (2017).
12. **H. Li**†, M. Garner†, T. Su†, A. Jensen, M. Inkpen, M.L. Steigerwald, L. Venkataraman, G. Solomon, C. Nuckolls, Extreme Conductance Suppression in Molecular Siloxanes, **J. Am. Chem. Soc.** 139 (30), 10212-10215 (2017).
11. T. Su, **H. Li**, R. Klausen, N. Kim, M. Neupane, J. Leighton, M. L. Steigerwald, L. Venkataraman, C. Nuckolls, Silane and Germane Molecular Electronics, **Acc. Chem. Res.** 50 (4), 1088-1095 (2017).
10. **H. Li**, N. Kim, T. Su, M. L. Steigerwald, C. Nuckolls, P. Darancet, J. Leighton, L. Venkataraman, Mechanism for Si-Si Bond Rupture in Single Molecule Junctions, **J. Am. Chem. Soc.** 138 (49), 16159-16164 (2016).
9. N. Kim, **H. Li**, L. Venkataraman, J. Leighton, High-Conductance Pathways in Ring-Strained Disilanes by Way of Direct σ-Si-Si to Au Coordination, **J. Am. Chem. Soc.** 138 (36), 11505-11508 (2016).
8. T. Su†, **H. Li**†, R. Klausen, J. R. Widawsky, A. Batra, M. L. Steigerwald, L. Venkataraman, C. Nuckolls, Tuning Conductance in $\pi - \sigma - \pi$ Single-Molecule Wires, **J. Am. Chem. Soc.** 138 (24), 7791-7795 (2016).
7. **H. Li**†, M. Garner†, Z. Shangguan†, T. Su, M. Neupane, P. Li, A. Velian, M. L. Steigerwald, S. Xiao, C. Nuckolls, G. Solomon, L. Venkataraman, Conformations of Cyclopentasilane Stereoisomers Control Molecular Junction Conductance, **Chem. Sci.** 7, 5657-5662 (2016)
6. T. Su†, **H. Li**†, V. Zhang, M. Neupane, A. Batra, R. S. Klaussen, B. Kumar, M. L. Steigerwald, L. Venkataraman, C. Nuckolls, Single-Molecule Conductance in Atomically Precise Germanium Wires, **J. Am. Chem. Soc.** 137 (38), 12400-12405 (2015).
5. **H. Li**, T. Su, M. L. Steigerwald, C. Nuckolls, L. Venkataraman, Electric Field Breakdown in Single Molecule Junctions, **J. Am. Chem. Soc.** 137 (15), 5028-5033 (2015).
4. T. Su, **H. Li**, M. L. Steigerwald, L. Venkataraman, C. Nuckolls, Stereoelectronic Switching in Single-Molecule Junctions, **Nat. Chem.** 7, 215-220 (2015).
3. R. Klausen, J. Widawsky, T. Su, **H. Li**, M.L. Steigerwald, L. Venkataraman, C. Nuckolls, Evaluating Atomic Components in Fluorene Circuits, **Chem. Sci.** 5, 1561-1564 (2014).
2. W. Chen, **H. Li**, J. R. Widawsky, C. Appayee, L. Venkataraman, R. Breslow, Aromaticity Decreases Single-Molecule Junction Conductance, **J. Am. Chem. Soc.** 136, 918-920 (2014).
1. T. Su, J. Widawsky, **H. Li**, R. Klausen, J. Leighton, M. Steigerwald, L. Venkataraman, C. Nuckolls, Silicon Ring Strain Creates High-Conductance Pathways in Single-Molecule Circuits, **J. Am. Chem. Soc.** 135, 18331 (2013)

Invited Talks

International Seminar on Interdisciplinary Materials, Wuhan, Hubei	7/2023
School of Physics and Electronic Sciences, Shandong Normal University, Jinan, Shandong	6/2023
HK Tech Forum Quantum Physics and Complex Systems, CityU, Hong Kong	12/2022
Exotic Quantum Effects in Complex Materials, CityU, Hong Kong	6/2022
Annual Symposium, CityU, Department of Physics, Hong Kong	6/2022
The Revson Foundation Annual Meeting and Dinner, Virtual	5/2021
Peking University, Physics Seminar, Beijing	5/2016
Columbia University, Physical Chemistry Seminar, New York, NY	10/2015

Semiconductor Research Corporation Annual Review, Albany, NY	8/2015
Quantum Interference Workshop, Copenhagen,Denmark	7/2015

Contributed Presentations

Talk, The 33rd Chinese Chemical Society biennial meeting, Division of Interface Physical Chemistry, Qingdao, Shandong	6/2023
Poster, American Chemical Society Fall Meeting, Atlanta, GA	8/2021
Talk, City University of New York (CUNY) - Columbia Biophysics Symposium, CUNY, New York, NY	6/2021
Talk, Platform session at the Biophysical Society 65th Annual Meeting, Virtual	2/2021
Talk, RNA club - an official RNA Salon of the RNA Society, Columbia University, New York, NY	10/2019
Talk, Protein Synthesis and Translational Control EMBO meeting, EMBL Heidelberg, Germany	9/2019
Poster, Single Molecule Approaches to Biology Gordon Research Conference, Mount Snow, VT	7/2018
Talk, American Physical Society March Meeting, New Orleans, LA	3/2017
Talk, Techcon, Austin, TX	9/2016
Poster, Conductivity & Magnetism in Molecular Materials Gordon Conference, Mount Holyoke, MA	8/2016
Poster, Women in Science at Columbia University Graduate Research Symposium, New York, NY	4/2016
Talk, American Physical Society March Meeting, Baltimore, MD	3/2016
Talk, Applied Physics and Applied Mathematics Seminar at Columbia University, New York, NY	2/2016
Poster, Frontiers of Condensed Matters Physics workshop, University of British Columbia, Canada	5/2015
Talk, Applied Physics and Applied Mathematics Seminar at Columbia University, New York, NY	4/2015
Talk, American Physical Society March Meeting, San Antonio, TX	3/2015

Teaching Experience

PHY6522 Advanced Imaging Physics, City University of Hong Kong	Spring 2023
PHY1203 General Physics III, City University of Hong Kong	Spring 2023
PHY4283 Physics in Medicine, City University of Hong Kong	Fall 2022
Biological & Biomedical Science, Yale Young Global Scholars, Yale University	Summer 2019
Applications of Biotechnologies (Guest Lecturer), Yeshiva University	Spring 2019
Nano: from Science to Technology, Columbia University	2013-2019

Advising Experience

Ph.D. students: Jianming An (7/2022-); Weiyi Guo (9/2022-).

Undergraduate students: Zhao Zhang (9/2022-); Guangfu Ni (1/2023-5/2023).

Selected Service

Deputy Research Degree Coordinator (PhD degree), CityU Physics	2022-
Organizing Committee, PHY annual symposium, CityU	2023
Judge, CityU Science Video Competition	2022