

Stanford



Yi Cui

Fortinet Founders Professor, Professor of Materials Science and Engineering, of Energy Science and Engineering, of Photon Science, Senior Fellow at Woods, at Precourt and Professor, by courtesy, of Chemistry

CONTACT INFORMATION

- **Sustainability Accelerator**

Gabby Magana - Executive Assistant to Yi Cui

Email gmagana@stanford.edu

Bio

BIO

Cui studies fundamentals and applications of nanomaterials and develops tools for their understanding. Research Interests: nanotechnology, batteries, electrocatalysis, wearables, 2D materials, environmental technology (water, air, soil), cryogenic electron microscopy.

ACADEMIC APPOINTMENTS

- Professor, Materials Science and Engineering
- Professor, Energy Science & Engineering
- Senior Fellow, Stanford Woods Institute for the Environment
- Senior Fellow, Precourt Institute for Energy
- Professor, Photon Science Directorate
- Professor (By courtesy), Chemistry
- Member, Bio-X
- Affiliate, Precourt Institute for Energy
- Principal Investigator, Stanford Institute for Materials and Energy Sciences
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Co-Director, Bay Area Photovoltaic Consortium, (2011-2018)
- Co-Director, Battery500 Consortium, (2016- present)
- Co-Director, Stanford StorageX Initiative, (2019- present)

HONORS AND AWARDS

- Battery Research Award, International Automotive Lithium Battery Association (2019)
- ECS Battery Technology Award, Electrochemical Society (2019)
- Nano Today Award, Nano Today Journal (2019)
- Inaugural Dan Maydan Prize for Nanoscience, The Hebrew University of Jerusalem (2019)

- ECS Fellow, Electrochemical Society (2018)
- Senior Fellow of Precourt Institute for Energy, Stanford University (2018)
- Blavatnik National Laureate in Physical Sciences and Engineering, Blavatnik Foundation (2017)
- MRS Fellow, Materials Research Society (2016)
- Blavatnik National Award Finalist, Blavatnik Foundation (2016)
- Top 10 World Changing Technology for His Invention on Cooling Textile, Scientific American (2016)
- MRS Fred Kavli Distinguished Lectureship in Nanoscience, Materials Research Society (2015)
- Fellow of Royal Society of Chemistry, Royal Society of Chemistry (2015)
- Small Young Innovator Award, Small Journal (2015)
- Resonate Award for Sustainability, California Institute of Technology (2015)
- Blavatnik National Award Finalist, Blavatnik Foundation (2015)
- Inorganic Chemistry Frontiers Award for Young Scientist, Inorganic Chemistry Frontiers (2015)
- Inaugural Schlumberger Chemistry Lectureship, University of Cambridge (2015)
- Top 10 World Changing Technology for His Invention on Batteries to Capture Low-Grade Waste Heat, Scientific American (2014)
- NO. 1 Ranked Materials Scientist Worldwide, Thomas Reuters (2014)
- Closs Lectureship, University of Chicago (2014)
- Inaugural Nano Energy Award, Nano Energy Journal (2014)
- Bau Family Awards in Inorganic Chemistry, ISCIC (2014)
- Blavatnik National Award Finalist, Blavatnik Foundation (2014)
- Distinguished Award for Novel Materials and Their Synthesis, IUPAC (2013)
- "Scientist in Residence" Lectureship, University of Duisburg-Essen (2013)
- Next Power Lectureship, National Tsing Hua University (2013)
- The Wilson Prize, Harvard University (2011)
- David Filo and Jerry Yang Faculty Scholar, Stanford University (2010-2014)
- Top 10 World Changing Technology for His Invention on Water Disinfection Nanofilters, Scientific American (2010)
- Sloan Research Fellowship, Alfred P. Sloan Foundation (2010)
- Investigator Award, KAUST (2008)
- Young Investigator Award, ONR (2008)
- Innovators Award, MDV (2008)
- Terman Fellowship, Stanford University (2008)
- Top 100 Young Innovator Award, Technology Review (2004)
- Miller Research Fellowship, Miller Institute (2003)
- Distinguished Graduate Student Award in Nanotechnology, Foresight Institute (2002)
- Graduate Student Gold Medal Award, Materials Research Society (2001)

PROFESSIONAL EDUCATION

- PhD, Harvard University (2002)

LINKS

- Cui Lab: https://web.stanford.edu/group/cui_group/

- Energy Innovation and Emerging Technologies Certificate: <https://online.stanford.edu/programs/energy-innovation-and-emerging-technologies-certificate>
- StorageX Initiative: <https://energy.stanford.edu/storagex-initiative>

Teaching

COURSES

2025-26

- Principles, Materials and Devices of Batteries: MATSCI 303 (Spr)

2024-25

- Principles, Materials and Devices of Batteries: MATSCI 303 (Spr)

2023-24

- Principles, Materials and Devices of Batteries: MATSCI 303 (Spr)

2022-23

- Principles, Materials and Devices of Batteries: MATSCI 303 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Tony Dong, Shripad Malakarjun Patil, Kenzie Sanroman Gutierrez, Sanzeeda Baig Shuchi, Gage Wright

Postdoctoral Faculty Sponsor

Yu Cao, Yuxuan Chen, Xiwen Chi, John Holoubek, Sathya Jagadeesan, Jinlei Li, Junyan Li, Yuqi Li, Zaichun Liu, Xueer Xu, Zhichen Xue, Qi Zheng, Shiyuan Zhou

Doctoral Dissertation Advisor (AC)

Huayue Ai, Angela Cai, Xin Chen, Zhouyi Chen, Guoliang Hu, Jun Ho Lee, Junyoung Lee, Tony Li, Chenwei Liu, Emily Miao, Ajay Ravi, Prasanna Sarkar, Chad Serrao, Jerry Su, Jing Wang

Doctoral Dissertation Co-Advisor (AC)

Pin-Hung Chung, Jeffrey Heo, Carina Yi Jing Lim, Luca Mondonico, Charles Yang, Xiaoyu Yang, Elizabeth Zhang

Master's Program Advisor

Frances Li

Publications

PUBLICATIONS

- **Household Materials Selection for Homemade Cloth Face Coverings and Their Filtration Efficiency Enhancement with Triboelectric Charging.** *Nano letters*
Zhao, M., Liao, L., Xiao, W., Yu, X., Wang, H., Wang, Q., Lin, Y. L., Kilinc-Balci, F. S., Price, A., Chu, L., Chu, M. C., Chu, S., Cui, et al
2020
- **Incorporating the nanoscale encapsulation concept from liquid electrolytes into solid-state lithium-sulfur batteries.** *Nano letters*
Gao, X., Zheng, X., Wang, J., Zhang, Z., Xiao, X., Wan, J., Ye, Y., Chou, L., Lee, H. K., Wang, J., Vila, R. A., Yang, Y., Zhang, et al
2020
- **Stretchable electrochemical energy storage devices.** *Chemical Society reviews*
Mackanic, D. G., Chang, T., Huang, Z., Cui, Y., Bao, Z.
2020

- **Electrode roughness dependent electrodeposition of sodium at the nanoscale** *NANO ENERGY*
Zeng, Z., Barai, P., Lee, S., Yang, J., Zhang, X., Zheng, W., Liu, Y., Bustillo, K. C., Ercius, P., Guo, J., Cui, Y., Srinivasan, V., Zheng, et al
2020; 72
- **An approaching-theoretical-capacity anode material for aqueous battery: Hollow hexagonal prism Bi₂O₃ assembled by nanoparticles** *ENERGY STORAGE MATERIALS*
Zan, G., Wu, T., Hu, P., Zhou, Y., Zhao, S., Xu, S., Chen, J., Cui, Y., Wu, Q.
2020; 28: 82–90
- **Can N95 Respirators Be Reused after Disinfection? How Many Times?** *ACS nano*
Liao, L., Xiao, W., Zhao, M., Yu, X., Wang, H., Wang, Q., Chu, S., Cui, Y.
2020
- **Electrolytes for micro-sized silicon** *NATURE ENERGY*
Wang, J., Cui, Y.
2020
- **A High-Rate Lithium Manganese Oxide-Hydrogen Battery.** *Nano letters*
Zhu, Z., Wang, M., Meng, Y., Lin, Z., Cui, Y., Chen, W.
2020
- **Advanced Textiles for Personal Thermal Management and Energy** *JOULE*
Peng, Y., Cui, Y.
2020; 4 (4): 724–42
- **Tortuosity Effects in Lithium-Metal Host Anodes** *JOULE*
Chen, H., Pei, A., Wan, J., Lin, D., Vila, R., Wang, H., Mackanic, D., Steinruck, H., Huang, W., Li, Y., Yang, A., Xie, J., Wu, et al
2020; 4 (4): 938–52
- **Improving Lithium Metal Composite Anodes with Seeding and Pillaring Effects of Silicon Nanoparticles.** *ACS nano*
Wang, H., Cao, X., Gu, H., Liu, Y., Li, Y., Zhang, Z., Huang, W., Wang, H., Wang, J., Xu, W., Zhang, J., Cui, Y.
2020
- **A New Class of Ionically Conducting Fluorinated Ether Electrolytes with High Electrochemical Stability.** *Journal of the American Chemical Society*
Amanchukwu, C. V., Yu, Z., Kong, X., Qin, J., Cui, Y., Bao, Z.
2020
- **Resolving Nanoscopic and Mesoscopic Heterogeneity of Fluorinated Species in Battery Solid-Electrolyte Interphases by Cryogenic Electron Microscopy** *ACS ENERGY LETTERS*
Huang, W., Wang, H., Boyle, D. T., Li, Y., Cui, Y.
2020; 5 (4): 1128–35
- **Scalable synthesis of nanoporous silicon microparticles for highly cyclable lithium-ion batteries** *NANO RESEARCH*
Wang, J., Huang, W., Kim, Y., Jeong, Y., Kim, S., Heo, J., Lee, H., Liu, B., Nah, J., Cui, Y.
2020
- **Aspects of the synthesis of thin film superconducting infinite-layer nickelates** *APL MATERIALS*
Lee, K., Goodge, B. H., Li, D., Osada, M., Wang, B., Cui, Y., Kourkoutis, L. F., Hwang, H. Y.
2020; 8 (4)
- **High-purity electrolytic lithium obtained from low-purity sources using solid electrolyte** *NATURE SUSTAINABILITY*
Lang, J., Jin, Y., Liu, K., Long, Y., Zhang, H., Qi, L., Wu, H., Cui, Y.
2020
- **A novel battery scheme: Coupling nanostructured phosphorus anodes with lithium sulfide cathodes** *NANO RESEARCH*
Wu, D., Zhou, G., Mao, E., Sun, Y., Liu, B., Wang, L., Wang, J., Shi, F., Cui, Y.
2020
- **A binder-free high silicon content flexible anode for Li-ion batteries** *ENERGY & ENVIRONMENTAL SCIENCE*

Wang, H., Fu, J., Wang, C., Wang, J., Yang, A., Li, C., Sun, Q., Cui, Y., Li, H.

2020; 13 (3): 848–58

- **Efficient synthesis of high-sulfur-content cathodes for high-performance Li-S batteries based on solvothermal polysulfide chemistry** *JOURNAL OF POWER SOURCES*
Weng, Y., Wang, H., Lee, R., Huang, C., Huang, S., Abdollahifar, M., Kuo, L., Hwang, B., Kuo, C., Cui, Y., Wu, N.
2020; 450
- **A Fireproof, Lightweight, Polymer-Polymer Solid-State Electrolyte for Safe Lithium Batteries.** *Nano letters*
Cui, Y., Wan, J., Ye, Y., Liu, K., Chou, L., Cui, Y.
2020
- **Membrane-Free Zn/MnO₂ Flow Battery for Large-Scale Energy Storage** *ADVANCED ENERGY MATERIALS*
Li, G., Chen, W., Zhang, H., Gong, Y., Shi, F., Wang, J., Zhang, R., Chen, G., Jin, Y., Wu, T., Tang, Z., Cui, Y.
2020
- **Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy.** *Nature communications*
Zheng, L., Chen, Y., Li, N., Zhang, J., Liu, N., Liu, J., Dang, W., Deng, B., Li, Y., Gao, X., Tan, C., Yang, Z., Xu, et al
2020; 11 (1): 541
- **High-Energy-Density Solid-Electrolyte-Based Liquid Li-S and Li-Se Batteries** *JOULE*
Jin, Y., Liu, K., Lang, J., Jiang, X., Zheng, Z., Su, Q., Huang, Z., Long, Y., Wang, C., Wu, H., Cui, Y.
2020; 4 (1): 262–74
- **From Intercalation to Alloying Chemistry: Structural Design of Silicon Anodes for the Next Generation of Lithium-ion Batteries** *CHINESE JOURNAL OF STRUCTURAL CHEMISTRY*
Yang Yu-Fei, Yang Jin-Long, Pan Feng, Cui Yi
2020; 39 (1): 16–19
- **Synergistic enhancement of electrocatalytic CO₂ reduction to C₂ oxygenates at nitrogen-doped nanodiamonds/Cu interface.** *Nature nanotechnology*
Wang, H., Tzeng, Y., Ji, Y., Li, Y., Li, J., Zheng, X., Yang, A., Liu, Y., Gong, Y., Cai, L., Li, Y., Zhang, X., Chen, et al
2020
- **Theoretical Calculation Guided Design of Single-Atom Catalysts toward Fast Kinetic and Long-Life Li-S Batteries.** *Nano letters*
Zhou, G. n., Zhao, S. n., Wang, T. n., Yang, S. Z., Johannessen, B. n., Chen, H. n., Liu, C. n., Ye, Y. n., Wu, Y. n., Peng, Y. n., Liu, C. n., Jiang, S. P., Zhang, et al
2020
- **Design Principles of Artificial Solid Electrolyte Interphases for Lithium-Metal Anodes** *Cell Reports Physical Science*
Yu, Z., Cui, Y., Bao, Z.
2020; 1 (7): 100119
- **High-temperature, spectrally-selective, scalable, and flexible thin-film Si absorber and emitter** *OPTICAL MATERIALS EXPRESS*
Zhou, Z., Tian, H., Hymel, T. M., Reddy, H., Shalaev, V. M., Cui, Y., Bermel, P.
2020; 10 (1): 208–21
- **Mechanical rolling formation of interpenetrated lithium metal/lithium tin alloy foil for ultrahigh-rate battery anode.** *Nature communications*
Wan, M. n., Kang, S. n., Wang, L. n., Lee, H. W., Zheng, G. W., Cui, Y. n., Sun, Y. n.
2020; 11 (1): 829
- **Transient Voltammetry with Ultramicroelectrodes Reveals the Electron Transfer Kinetics of Lithium Metal Anodes** *Adv. Energy Lett.*
Boyle, D., Kong, X., Pei, A., Rudnicki, P., Shi, F., Huang, W., Bao, Z., Qin, J., Cui, Y.
2020; 5: 701-709
- **Supercooled liquid sulfur maintained in three-dimensional current collector for high-performance Li-S batteries.** *Science advances*
Zhou, G. n., Yang, A. n., Gao, G. n., Yu, X. n., Xu, J. n., Liu, C. n., Ye, Y. n., Pei, A. n., Wu, Y. n., Peng, Y. n., Li, Y. n., Liang, Z. n., Liu, et al
2020; 6 (21): eaay5098
- **A molten battery consisting of Li metal anode, AlCl₃-LiCl cathode and solid electrolyte** *ENERGY STORAGE MATERIALS*
Lang, J., Liu, K., Jin, Y., Long, Y., Qi, L., Wu, H., Cui, Y.

2020; 24: 412–16

- **Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities** *Nature Nanotechnology*
Yang, A., Zhou, G., et al
2020
- **Electrotunable liquid sulfur microdroplets.** *Nature communications*
Zhou, G. n., Yang, A. n., Wang, Y. n., Gao, G. n., Pei, A. n., Yu, X. n., Zhu, Y. n., Zong, L. n., Liu, B. n., Xu, J. n., Liu, N. n., Zhang, J. n., Li, et al
2020; 11 (1): 606
- **A Single-Ion Conducting Borate Network Polymer as a Viable Quasi-Solid Electrolyte for Lithium Metal Batteries.** *Advanced materials (Deerfield Beach, Fla.)*
Shin, D. M., Bachman, J. E., Taylor, M. K., Kamcev, J. n., Park, J. G., Ziebel, M. E., Velasquez, E. n., Jarenwattananon, N. N., Sethi, G. K., Cui, Y. n., Long, J. R.
2020: e1905771
- **Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities.** *Nature nanotechnology*
Yang, A. n., Zhou, G. n., Kong, X. n., Vilá, R. A., Pei, A. n., Wu, Y. n., Yu, X. n., Zheng, X. n., Wu, C. L., Liu, B. n., Chen, H. n., Xu, Y. n., Chen, et al
2020
- **An ultrathin ionomer interphase for high efficiency lithium anode in carbonate based electrolyte.** *Nature communications*
Weng, Y., Liu, H., Pei, A., Shi, F., Wang, H., Lin, C., Huang, S., Su, L., Hsu, J., Fang, C., Cui, Y., Wu, N.
2019; 10 (1): 5824
- **A Water Stable, Near-Zero-Strain O3-Layered Titanium-Based Anode for Long Cycle Sodium-Ion Battery** *ADVANCED FUNCTIONAL MATERIALS*
Cao, Y., Zhang, Q., Wei, Y., Guo, Y., Zhang, Z., Huang, W., Yang, K., Chen, W., Zhai, T., Li, H., Cui, Y.
2019
- **Artificial Solid Electrolyte Interphase for Suppressing Surface Reactions and Cathode Dissolution in Aqueous Zinc Ion Batteries** *ACS ENERGY LETTERS*
Guo, J., Ming, J., Lei, Y., Zhang, W., Xia, C., Cui, Y., Alshareef, H. N.
2019; 4 (12): 2776–81
- **Improved Oxygen Reduction Reaction Activity of Nanostructured CoS₂ through Electrochemical Tuning** *ACS APPLIED ENERGY MATERIALS*
Zhao, W., Bothra, P., Lu, Z., Li, Y., Mei, L., Liu, K., Zhao, Z., Chen, G., Back, S., Siahrostami, S., Kulkarni, A., Nørskov, J. K., Bajdich, et al
2019; 2 (12): 8605–14
- **Decoupling of mechanical properties and ionic conductivity in supramolecular lithium ion conductors.** *Nature communications*
Mackanic, D. G., Yan, X., Zhang, Q., Matsuhisa, N., Yu, Z., Jiang, Y., Manika, T., Lopez, J., Yan, H., Liu, K., Chen, X., Cui, Y., Bao, et al
2019; 10 (1): 5384
- **Energy storage: The future enabled by nanomaterials.** *Science (New York, N.Y.)*
Pomerantseva, E., Bonaccorso, F., Feng, X., Cui, Y., Gogotsi, Y.
2019; 366 (6468)
- **Unravelling Degradation Mechanisms and Atomic Structure of Organic-Inorganic Halide Perovskites by Cryo-EM** *JOULE*
Li, Y., Zhou, W., Li, Y., Huang, W., Zhang, Z., Chen, G., Wang, H., Wu, G., Rolston, N., Vila, R., Chiu, W., Cui, Y.
2019; 3 (11): 2854–66
- **A Dynamic, Electrolyte-Blocking, and Single-Ion-Conductive Network for Stable Lithium-Metal Anodes** *JOULE*
Yu, Z., Mackanic, D. G., Michaels, W., Lee, M., Pei, A., Feng, D., Zhang, Q., Tsao, Y., Amanchukwu, C., Yan, X., Wang, H., Chen, S., Liu, et al
2019; 3 (11): 2761–76
- **Minimized lithium trapping by isovalent isomorphism for high initial Coulombic efficiency of silicon anodes.** *Science advances*
Zhu, B., Liu, G., Lv, G., Mu, Y., Zhao, Y., Wang, Y., Li, X., Yao, P., Deng, Y., Cui, Y., Zhu, J.
2019; 5 (11): eaax0651

- **Two-dimensional inorganic molecular crystals.** *Nature communications*
Han, W., Huang, P., Li, L., Wang, F., Luo, P., Liu, K., Zhou, X., Li, H., Zhang, X., Cui, Y., Zhai, T.
2019; 10 (1): 4728
- **Nonpolar Alkanes Modify Lithium-Ion Solvation for Improved Lithium Deposition and Stripping** *ADVANCED ENERGY MATERIALS*
Amanchukwu, C., Kong, X., Qin, J., Cui, Y., Bao, Z.
2019
- **Design of Hollow Nanostructures for Energy Storage, Conversion and Production** *ADVANCED MATERIALS*
Wang, J., Cui, Y., Wang, D.
2019; 31 (38)
- **Monolithic solid-electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization** *NATURE ENERGY*
Cao, X., Ren, X., Zou, L., Engelhard, M. H., Huang, W., Wang, H., Matthews, B. E., Lee, H., Niu, C., Arey, B. W., Cui, Y., Wang, C., Xiao, et al
2019; 4 (9): 796–805
- **Preventing Li depletion and pulverization by monolithic SEI layer generated in fluorinated orthoformate based electrolytes**
Cao, X., Ren, X., Zou, L., Engelhard, M., Huang, W., Wang, H., Matthews, B., Lee, H., Niu, C., Arey, B., Cui, Y., Wang, C., Xiao, et al
AMER CHEMICAL SOC.2019
- **Intrinsically flexible redox-active polyurethanes for electrochemical energy storage**
Mackanic, D., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2019
- **Scalable and facile preparation of SSNs for lithium metal stabilization**
Mackanic, D., Yu, Z., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2019
- **Understanding and redesigning metallic lithium for next-generation batteries**
Liu, Y., Lin, D., Lin, Y., Chen, G., Pei, A., Lie, Y., Cui, Y.
AMER CHEMICAL SOC.2019
- **Dynamic single-ion-conductive network as a stable lithium metal artificial solid electrolyte interphase in carbonate electrolyte**
Mackanic, D., Yu, Z., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2019
- **Decoupling of mechanical properties and ionic conductivity in supramolecular stretchable battery materials**
Mackanic, D., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2019
- **Self-Selective Catalyst Synthesis for CO₂ Reduction** *JOULE*
Wang, H., Liang, Z., Tang, M., Chen, G., Li, Y., Chen, W., Lin, D., Zhang, Z., Zhou, G., Li, J., Lu, Z., Chan, K., Tan, et al
2019; 3 (8): 1927–36
- **Cryo-EM Structures of Atomic Surfaces and Host-Guest Chemistry in Metal-Organic Frameworks** *MATTER*
Li, Y., Wang, K., Zhou, W., Li, Y., Vila, R., Huang, W., Wang, H., Chen, G., Wu, G., Tsao, Y., Wang, H., Sinclair, R., Chiu, et al
2019; 1 (2): 428–38
- **Improving cyclability of Li metal batteries at elevated temperatures and its origin revealed by cryo-electron microscopy** *NATURE ENERGY*
Wang, J., Huang, W., Pei, A., Li, Y., Shi, F., Yu, X., Cui, Y.
2019; 4 (8): 664–70
- **Superconductivity in an infinite-layer nickelate.** *Nature*
Li, D., Lee, K., Wang, B. Y., Osada, M., Crossley, S., Lee, H. R., Cui, Y., Hikita, Y., Hwang, H. Y.
2019; 572 (7771): 624–27
- **Challenges and opportunities towards fast-charging battery materials** *NATURE ENERGY*
Liu, Y., Zhu, Y., Cui, Y.
2019; 4 (7): 540–50

- **An Autotransferable g-C₃N₄ Li⁺-Modulating Layer toward Stable Lithium Anodes** *ADVANCED MATERIALS*
Guo, Y., Niu, P., Liu, Y., Ouyang, Y., Li, D., Zhai, T., Li, H., Cui, Y.
2019; 31 (27)
- **Surface-engineered mesoporous silicon microparticles as high-Coulombic-efficiency anodes for lithium-ion batteries** *NANO ENERGY*
Wang, J., Liao, L., Lee, H., Shi, F., Huang, W., Zhao, J., Pei, A., Tang, J., Zheng, X., Chen, W., Cui, Y.
2019; 61: 404–10
- **Temperature Regulation in Colored Infrared-Transparent Polyethylene Textiles** *JOULE*
Cai, L., Peng, Y., Xu, J., Zhou, C., Zhou, C., Wu, P., Lin, D., Fan, S., Cui, Y.
2019; 3 (6): 1478–86
- **Uniform High Ionic Conducting Lithium Sulfide Protection Layer for Stable Lithium Metal Anode** *ADVANCED ENERGY MATERIALS*
Chen, H., Pei, A., Lin, D., Xie, J., Yang, A., Xu, J., Lin, K., Wang, J., Wang, H., Shi, F., Boyle, D., Cui, Y.
2019; 9 (22)
- **Ultrathin, flexible, solid polymer composite electrolyte enabled with aligned nanoporous host for lithium batteries.** *Nature nanotechnology*
Wan, J., Xie, J., Kong, X., Liu, Z., Liu, K., Shi, F., Pei, A., Chen, H., Chen, W., Chen, J., Zhang, X., Zong, L., Wang, et al
2019
- **Direct/Alternating Current Electrochemical Method for Removing and Recovering Heavy Metal from Water Using Graphene Oxide Electrode.** *ACS nano*
Liu, C., Wu, T., Hsu, P., Xie, J., Zhao, J., Liu, K., Sun, J., Xu, J., Tang, J., Ye, Z., Lin, D., Cui, Y.
2019
- **Fast lithium growth and short circuit induced by localized-temperature hotspots in lithium batteries.** *Nature communications*
Zhu, Y., Xie, J., Pei, A., Liu, B., Wu, Y., Lin, D., Li, J., Wang, H., Chen, H., Xu, J., Yang, A., Wu, C., Wang, et al
2019; 10 (1): 2067
- **Fast lithium growth and short circuit induced by localized-temperature hotspots in lithium batteries** *NATURE COMMUNICATIONS*
Zhu, Y., Xie, J., Pei, A., Liu, B., Wu, Y., Lin, D., Li, J., Wang, H., Chen, H., Xu, J., Yang, A., Wu, C., Wang, et al
2019; 10
- **High-Rate and Large-Capacity Lithium Metal Anode Enabled by Volume Conformal and Self-Healable Composite Polymer Electrolyte** *ADVANCED SCIENCE*
Xia, S., Lopez, J., Liang, C., Zhang, Z., Bao, Z., Cui, Y., Liu, W.
2019; 6 (9)
- **In Situ X-ray Absorption Spectroscopic Investigation of the Capacity Degradation Mechanism in Mg/S Batteries** *NANO LETTERS*
Xu, Y., Ye, Y., Zhao, S., Feng, J., Li, J., Chen, H., Yang, A., Shi, F., Jia, L., Wu, Y., Yu, X., Glans-Suzuki, P., Cui, et al
2019; 19 (5): 2928–34
- **Designing polymers for advanced battery chemistries** *NATURE REVIEWS MATERIALS*
Lopez, J., Mackanic, D. G., Cui, Y., Bao, Z.
2019; 4 (5): 312–30
- **Bright sub-20-nm cathodoluminescent nanoprobes for electron microscopy** *NATURE NANOTECHNOLOGY*
Prigozhin, M. B., Maurer, P. C., Courtis, A. M., Liu, N., Wisser, M. D., Siefe, C., Tian, B., Chan, E., Song, G., Fischer, S., Aloni, S., Ogletree, D., Barnard, et al
2019; 14 (5): 420+
- **Aqueous Zinc-Ion Storage in MoS₂ by Tuning the Intercalation Energy** *NANO LETTERS*
Liang, H., Cao, Z., Ming, F., Zhang, W., Anjum, D. H., Cui, Y., Cavallo, L., Alshareef, H. N.
2019; 19 (5): 3199–3206
- **Amidoxime-Functionalized Macroporous Carbon Self-Refreshed Electrode Materials for Rapid and High-Capacity Removal of Heavy Metal from Water.** *ACS central science*
Wu, T., Liu, C., Kong, B., Sun, J., Gong, Y., Liu, K., Xie, J., Pei, A., Cui, Y.
2019; 5 (4): 719–26

- **Amidoxime-Functionalized Macroporous Carbon Self-Refreshed Electrode Materials for Rapid and High-Capacity Removal of Heavy Metal from Water** *ACS CENTRAL SCIENCE*
Wu, T., Liu, C., Kong, B., Sun, J., Gong, Y., Liu, K., Xie, J., Pei, A., Cui, Y.
2019; 5 (4): 719–26
- **Design of Red Phosphorus Nanostructured Electrode for Fast-Charging Lithium-Ion Batteries with High Energy Density** *JOULE*
Sun, Y., Wang, L., Li, Y., Li, Y., Lee, H., Pei, A., He, X., Cui, Y.
2019; 3 (4): 1080–93
- **Aqueous Zinc-Ion Storage in MoS₂ by Tuning the Intercalation Energy.** *Nano letters*
Liang, H., Cao, Z., Ming, F., Zhang, W., Anjum, D. H., Cui, Y., Cavallo, L., Alshareef, H. N.
2019
- **Practical Challenges and Future Perspectives of All-Solid-State Lithium-Metal Batteries** *CHEM*
Xia, S., Wu, X., Zhang, Z., Cui, Y., Liu, W.
2019; 5 (4): 753–85
- **In Situ X-ray Absorption Spectroscopic Investigation of the Capacity Degradation Mechanism in Mg/S Batteries.** *Nano letters*
Xu, Y., Ye, Y., Zhao, S., Feng, J., Li, J., Chen, H., Yang, A., Shi, F., Jia, L., Wu, Y., Yu, X., Glans-Suzuki, P., Cui, et al
2019
- **Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films** *NANO LETTERS*
Sood, A., Xiong, F., Chen, S., Cheaito, R., Lian, F., Asheghi, M., Cui, Y., Donadio, D., Goodson, K. E., Pop, E.
2019; 19 (4): 2434–42
- **Fast galvanic lithium corrosion involving a Kirkendall-type mechanism** *NATURE CHEMISTRY*
Lin, D., Liu, Y., Li, Y., Li, Y., Pei, A., Xie, J., Huang, W., Cui, Y.
2019; 11 (4): 382–89
- **Effects of polymer coatings on electrodeposited lithium metal**
Lopez, J., Pei, A., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2019
- **Designing a Quinone-Based Redox Mediator to Facilitate Li₂S Oxidation in Li-S Batteries** *JOULE*
Tsao, Y., Lee, M., Miller, E. C., Gao, G., Park, J., Chen, S., Katsumata, T., Tran, H., Wang, L., Toney, M. F., Cui, Y., Bao, Z.
2019; 3 (3): 872–84
- **Quasi-Ballistic Thermal Transport Across MoS₂ Thin Films.** *Nano letters*
Sood, A., Xiong, F., Chen, S., Cheaito, R., Lian, F., Asheghi, M., Cui, Y., Donadio, D., Goodson, K. E., Pop, E.
2019
- **Bright sub-20-nm cathodoluminescent nanoprobe for electron microscopy.** *Nature nanotechnology*
Prigozhin, M. B., Maurer, P. C., Courtis, A. M., Liu, N., Wissler, M. D., Siefert, C., Tian, B., Chan, E., Song, G., Fischer, S., Aloni, S., Ogletree, D. F., Barnard, et al
2019
- **Composite lithium electrode with mesoscale skeleton via simple mechanical deformation.** *Science advances*
Liang, Z., Yan, K., Zhou, G., Pei, A., Zhao, J., Sun, Y., Xie, J., Li, Y., Shi, F., Liu, Y., Lin, D., Liu, K., Wang, et al
2019; 5 (3): eaau5655
- **Pathways for practical high-energy long-cycling lithium metal batteries** *NATURE ENERGY*
Liu, J., Bao, Z., Cui, Y., Dufek, E. J., Goodenough, J. B., Khalifah, P., Li, Q., Liaw, B., Liu, P., Manthiram, A., Meng, Y., Subramanian, V. R., Toney, et al
2019; 4 (3): 180–86
- **Improving a Mg/S Battery with YCl₃ Additive and Magnesium Polysulfide** *ADVANCED SCIENCE*
Xu, Y., Zhou, G., Zhao, S., Li, W., Shi, F., Li, J., Feng, J., Zhao, Y., Wu, Y., Guo, J., Cui, Y., Zhang, Y.
2019; 6 (4): 1800981
- **Breathing-Mimicking Electrocatalysis for Oxygen Evolution and Reduction** *JOULE*

- Li, J., Zhu, Y., Chen, W., Lu, Z., Xu, J., Pei, A., Peng, Y., Zheng, X., Zhang, Z., Chu, S., Cui, Y.
2019; 3 (2): 557–69
- **An Interconnected Channel-Like Framework as Host for Lithium Metal Composite Anodes** *ADVANCED ENERGY MATERIALS*
Wang, H., Lin, D., Xie, J., Liu, Y., Chen, H., Li, Y., Xu, J., Zhou, G., Zhang, Z., Pei, A., Zhu, Y., Liu, K., Wang, et al
2019; 9 (7)
 - **Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy.** *Nano letters*
Wang, H., Li, Y., Li, Y., Liu, Y., Lin, D., Zhu, C., Chen, G., Yang, A., Yan, K., Chen, H., Zhu, Y., Li, J., Xie, et al
2019
 - **Mitigation of Shuttle Effect in Li-S Battery Using a Self-Assembled Ultrathin Molybdenum Disulfide Interlayer** *ACS APPLIED MATERIALS & INTERFACES*
Yu, X., Zhou, G., Cui, Y.
2019; 11 (3): 3080–86
 - **Machine Learning-Assisted Discovery of Solid Li-Ion Conducting Materials** *CHEMISTRY OF MATERIALS*
Sendek, A. D., Cubuk, E. D., Antoniuk, E. R., Cheon, G., Cui, Y., Reed, E. J.
2019; 31 (2): 342–52
 - **Fast galvanic lithium corrosion involving a Kirkendall-type mechanism.** *Nature chemistry*
Lin, D., Liu, Y., Li, Y., Li, Y., Pei, A., Xie, J., Huang, W., Cui, Y.
2019
 - **Direct electrochemical generation of supercooled sulfur microdroplets well below their melting temperature.** *Proceedings of the National Academy of Sciences of the United States of America*
Liu, N., Zhou, G., Yang, A., Yu, X., Shi, F., Sun, J., Zhang, J., Liu, B., Wu, C., Tao, X., Sun, Y., Cui, Y., Chu, et al
2019
 - **A Gradient Lithiophilic-Lithiophobic Strategy for Lithium Metal Anode Protection** *ACTA PHYSICO-CHIMICA SINICA*
Cui Yi
2019; 35 (7): 661–62
 - **Diatomite derived hierarchical hybrid anode for high performance all-solid-state lithium metal batteries.** *Nature communications*
Zhou, F. n., Li, Z. n., Lu, Y. Y., Shen, B. n., Guan, Y. n., Wang, X. X., Yin, Y. C., Zhu, B. S., Lu, L. L., Ni, Y. n., Cui, Y. n., Yao, H. B., Yu, et al
2019; 10 (1): 2482
 - **Evolution of the Solid-Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy.** *Nano letters*
Huang, W. n., Attia, P. M., Wang, H. n., Renfrew, S. E., Jin, N. n., Das, S. n., Zhang, Z. n., Boyle, D. T., Li, Y. n., Bazant, M. Z., McCloskey, B. D., Chueh, W. C., Cui, et al
2019
 - **Theory-guided Sn/Cu alloying for efficient CO₂ electroreduction at low overpotentials** *NATURE CATALYSIS*
Zheng, X., Ji, Y., Tang, J., Wang, J., Liu, B., Steinruck, H., Lim, K., Li, Y., Toney, M. F., Chan, K., Cui, Y.
2019; 2 (1): 55–61
 - **High-Rate and Large-Capacity Lithium Metal Anode Enabled by Volume Conformal and Self-Healable Composite Polymer Electrolyte.** *Advanced science (Weinheim, Baden-Wuerttemberg, Germany)*
Xia, S. n., Lopez, J. n., Liang, C. n., Zhang, Z. n., Bao, Z. n., Cui, Y. n., Liu, W. n.
2019; 6 (9): 1802353
 - **Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy** *Matter*
Huang, W., Wang, J., Braun, M. R., Zhang, Z., Li, Y., Boyle, D. T., McIntyre, P. C., Cui, Y.
2019; 1 (5)
 - **Nanostructural and Electrochemical Evolution of the Solid-Electrolyte Interphase on CuO Nanowires Revealed by Cryogenic-Electron Microscopy and Impedance Spectroscopy** *ACS NANO*
Huang, W., Boyle, D. T., Li, Y., Li, Y., Pei, A., Chen, H., Cui, Y.
2019; 13 (1): 737–44

- **Membrane curvature underlies actin reorganization in response to nanoscale surface topography.** *Proceedings of the National Academy of Sciences of the United States of America*
Lou, H. Y., Zhao, W. n., Li, X. n., Duan, L. n., Powers, A. n., Akamatsu, M. n., Santoro, F. n., McGuire, A. F., Cui, Y. n., Drubin, D. G., Cui, B. n.
2019
- **Temperature-dependent Nucleation and Growth of Dendrite-free Lithium Metal Anodes.** *Angewandte Chemie (International ed. in English)*
Yan, K. n., Wang, J. n., Zhao, S. n., Zhou, D. n., Sun, B. n., Cui, Y. n., Wang, G. n.
2019
- **An Autotransferable g-C₃N₄ Li⁺-Modulating Layer toward Stable Lithium Anodes.** *Advanced materials (Deerfield Beach, Fla.)*
Guo, Y. n., Niu, P. n., Liu, Y. n., Ouyang, Y. n., Li, D. n., Zhai, T. n., Li, H. n., Cui, Y. n.
2019: e1900342
- **Remediation of heavy metal contaminated soil by asymmetrical alternating current electrochemistry.** *Nature communications*
Xu, J. n., Liu, C. n., Hsu, P. C., Zhao, J. n., Wu, T. n., Tang, J. n., Liu, K. n., Cui, Y. n.
2019; 10 (1): 2440
- **Diatomite derived hierarchical hybrid anode for high performance all-solid-state lithium metal batteries.** *Nature communications*
Zhou, F. n., Li, Z. n., Lu, Y. Y., Shen, B. n., Guan, Y. n., Wang, X. X., Yin, Y. C., Zhu, B. S., Lu, L. L., Ni, Y. n., Cui, Y. n., Yao, H. B., Yu, et al
2019; 10 (1): 2482
- **Evolution of the Solid-Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy.** *Nano letters*
Huang, W. n., Attia, P. M., Wang, H. n., Renfrew, S. E., Jin, N. n., Das, S. n., Zhang, Z. n., Boyle, D. T., Li, Y. n., Bazant, M. Z., McCloskey, B. D., Chueh, W. C., Cui, et al
2019
- **Theory-guided Sn/Cu alloying for efficient CO₂ electroreduction at low overpotentials** *NATURE CATALYSIS*
Zheng, X., Ji, Y., Tang, J., Wang, J., Liu, B., Steinruck, H., Lim, K., Li, Y., Toney, M. F., Chan, K., Cui, Y.
2019; 2 (1): 55–61
- **High-Rate and Large-Capacity Lithium Metal Anode Enabled by Volume Conformal and Self-Healable Composite Polymer Electrolyte.** *Advanced science (Weinheim, Baden-Wuerttemberg, Germany)*
Xia, S. n., Lopez, J. n., Liang, C. n., Zhang, Z. n., Bao, Z. n., Cui, Y. n., Liu, W. n.
2019; 6 (9): 1802353
- **Reversible and selective ion intercalation through the top surface of few-layer MoS₂.** *Nature communications*
Zhang, J., Yang, A., Wu, X., van de Groep, J., Tang, P., Li, S., Liu, B., Shi, F., Wan, J., Li, Q., Sun, Y., Lu, Z., Zheng, et al
2018; 9 (1): 5289
- **Reversible and selective ion intercalation through the top surface of few-layer MoS₂** *NATURE COMMUNICATIONS*
Zhang, J., Yang, A., Wu, X., van de Groep, J., Tang, P., Li, S., Liu, B., Shi, F., Wan, J., Li, Q., Sun, Y., Lu, Z., Zheng, et al
2018; 9
- **Lithium Electrochemical Tuning for Electrocatalysis** *ADVANCED MATERIALS*
Lu, Z., Jiang, K., Chen, G., Wang, H., Cui, Y.
2018; 30 (48)
- **A Li-ion sulfur full cell with ambient resistant Al-Li alloy anode** *ENERGY STORAGE MATERIALS*
Sun, J., Zeng, Q., Lv, R., Lv, W., Yang, Q., Amal, R., Wang, D.
2018; 15: 209–17
- **Energy Materials Research at the University of Science and Technology of China.** *Advanced materials (Deerfield Beach, Fla.)*
Xiong, Y., Cui, Y.
2018; 30 (48): e1806572
- **An electrochemical thermal transistor** *NATURE COMMUNICATIONS*
Sood, A., Xiong, F., Chen, S., Wang, H., Selli, D., Zhang, J., McClellan, C. J., Sun, J., Donadio, D., Cui, Y., Pop, E., Goodson, K. E.
2018; 9

- **Shell-Protective Secondary Silicon Nanostructures as Pressure-Resistant High-Volumetric-Capacity Anodes for Lithium-Ion Batteries.** *Nano letters*
Wang, J., Liao, L., Li, Y., Zhao, J., Shi, F., Yan, K., Pei, A., Chen, G., Li, G., Lu, Z., Cui, Y.
2018
- **An electrochemical thermal transistor.** *Nature communications*
Sood, A., Xiong, F., Chen, S., Wang, H., Selli, D., Zhang, J., McClellan, C. J., Sun, J., Donadio, D., Cui, Y., Pop, E., Goodson, K. E.
2018; 9 (1): 4510
- **Nickel-hydrogen batteries for large-scale energy storage.** *Proceedings of the National Academy of Sciences of the United States of America*
Chen, W., Jin, Y., Zhao, J., Liu, N., Cui, Y.
2018
- **Flexible and stable high-energy lithium-sulfur full batteries with only 100% oversized lithium** *NATURE COMMUNICATIONS*
Chang, J., Shang, J., Sun, Y., Ono, L. K., Wang, D., Ma, Z., Huang, Q., Chen, D., Liu, G., Cui, Y., Qi, Y., Zheng, Z.
2018; 9
- **Flexible and stable high-energy lithium-sulfur full batteries with only 100% oversized lithium.** *Nature communications*
Chang, J., Shang, J., Sun, Y., Ono, L. K., Wang, D., Ma, Z., Huang, Q., Chen, D., Liu, G., Cui, Y., Qi, Y., Zheng, Z.
2018; 9 (1): 4480
- **A Dual-Crosslinking Design for Resilient Lithium-Ion Conductors** *ADVANCED MATERIALS*
Lopez, J., Sun, Y., Mackanic, D. G., Lee, M., Foudeh, A. M., Song, M., Cui, Y., Bao, Z.
2018; 30 (43)
- **Tuning Cu/Cu₂O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions.** *Angewandte Chemie (International ed. in English)*
Chang, X., Wang, T., Zhao, Z., Yang, P., Greeley, J., Mu, R., Zhang, G., Gong, Z., Luo, Z., Chen, J., Cui, Y., Ozin, G. A., Gong, et al
2018
- **Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy** *JOULE*
Li, Y., Huang, W., Li, Y., Pei, A., Boyle, D., Cui, Y.
2018; 2 (10): 2167–77
- **Catalyst: How Cryo-EM Shapes the Development of Next-Generation Batteries** *CHEM*
Li, Y., Li, Y., Cui, Y.
2018; 4 (10): 2250–52
- **Concentrated mixed cation acetate "water-in-salt" solutions as green and low-cost high voltage electrolytes for aqueous batteries** *ENERGY & ENVIRONMENTAL SCIENCE*
Lukatskaya, M. R., Feldblyum, J. I., Mackanic, D. G., Lissel, F., Michels, D. L., Cui, Y., Bao, Z.
2018; 11 (10): 2876–83
- **Design of Hollow Nanostructures for Energy Storage, Conversion and Production.** *Advanced materials (Deerfield Beach, Fla.)*
Wang, J., Cui, Y., Wang, D.
2018: e1801993
- **Stretchable Lithium Metal Anode with Improved Mechanical and Electrochemical Cycling Stability** *JOULE*
Liu, K., Kong, B., Liu, W., Sun, Y., Song, M., Chen, J., Liu, Y., Lin, D., Pei, A., Cui, Y.
2018; 2 (9): 1857–65
- **Effects of Polymer Coatings on Electrodeposited Lithium Metal** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Lopez, J., Pei, A., Oh, J., Wang, G., Cui, Y., Bao, Z.
2018; 140 (37): 11735–44
- **Lithium Electrochemical Tuning for Electrocatalysis.** *Advanced materials (Deerfield Beach, Fla.)*
Lu, Z., Jiang, K., Chen, G., Wang, H., Cui, Y.
2018: e1800978
- **A Dual-Crosslinking Design for Resilient Lithium-Ion Conductors.** *Advanced materials (Deerfield Beach, Fla.)*

- Lopez, J., Sun, Y., Mackanic, D. G., Lee, M., Foudeh, A. M., Song, M., Cui, Y., Bao, Z.
2018; e1804142
- **Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode.** *Nature communications*
Liu, Y., Lin, D., Li, Y., Chen, G., Pei, A., Nix, O., Li, Y., Cui, Y.
2018; 9 (1): 3656
 - **Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode** *NATURE COMMUNICATIONS*
Liu, Y., Lin, D., Li, Y., Chen, G., Pei, A., Nix, O., Li, Y., Cui, Y.
2018; 9
 - **Crosslinked Poly(tetrahydrofuran) as a Loosely Coordinating Polymer Electrolyte** *ADVANCED ENERGY MATERIALS*
Mackanic, D. G., Michaels, W., Lee, M., Feng, D., Lopez, J., Qin, J., Cui, Y., Bao, Z.
2018; 8 (25)
 - **Fundamental study on the wetting property of liquid lithium** *ENERGY STORAGE MATERIALS*
Wang, J., Wang, H., Xie, J., Yang, A., Pei, A., Wu, C., Shi, F., Liu, Y., Lin, D., Gong, Y., Cui, Y.
2018; 14: 345–50
 - **Strategy for Boosting Li-Ion Current in Silicon Nanoparticles** *ACS ENERGY LETTERS*
Song, M., Chang, G., Jung, D., Kwon, M., Li, P., Ku, J., Choi, J., Zhang, K., Yi, G., Cui, Y., Park, J.
2018; 3 (9): 2252–58
 - **An intermediate temperature garnet-type solid electrolyte-based molten lithium battery for grid energy storage** *NATURE ENERGY*
Jin, Y., Liu, K., Lang, J., Zhuo, D., Huang, Z., Wang, C., Wu, H., Cui, Y.
2018; 3 (9): 732–38
 - **Resonance-Enhanced Absorption in Hollow Nanoshell Spheres with Omnidirectional Detection and High Responsivity and Speed** *ADVANCED MATERIALS*
Lien, D., Dong, Z., Retamal, J., Wang, H., Wei, T., Wang, D., He, J., Cui, Y.
2018; 30 (34): e1801972
 - **Dual-crosslinking design for resilient lithium ion conductor**
Lopez, J., Sun, Y., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2018
 - **Cryo-electron microscopy for battery materials**
Li, Y., Cui, Y.
AMER CHEMICAL SOC.2018
 - **Insights on the interaction of polymer coatings with electrodeposited lithium metal**
Lopez, J., Pei, A., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2018
 - **Understanding the influence of polymer properties on the stability of high capacity silicon and lithium metal anodes**
Lopez, J., Pei, A., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2018
 - **Stabilization of Hexaaminobenzene in a 2D Conductive Metal-Organic Framework for High Power Sodium Storage** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Park, J., Lee, M., Feng, D., Huang, Z., Hinckley, A. C., Yakoyenko, A., Zou, X., Cui, Y., Bao, Z.
2018; 140 (32): 10315–23
 - **An Ultrastrong Double-Layer Nanodiamond Interface for Stable Lithium Metal Anodes** *JOULE*
Liu, Y., Tzeng, Y., Lin, D., Pei, A., Lu, H., Melosh, N. A., Shen, Z., Chu, S., Cui, Y.
2018; 2 (8): 1595–1609
 - **A Silica-Aerogel-Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus** *ADVANCED MATERIALS*
Lin, D., Yuen, P., Liu, Y., Liu, W., Liu, N., Dauskardt, R. H., Cui, Y.

2018; 30 (32)

- **Lithium metal stripping beneath the solid electrolyte interphase.** *Proceedings of the National Academy of Sciences of the United States of America*
Shi, F., Pei, A., Boyle, D. T., Xie, J., Yu, X., Zhang, X., Cui, Y.
2018
- **Efficient electrocatalytic CO₂ reduction on a three-phase interface** *NATURE CATALYSIS*
Li, J., Chen, G., Zhu, Y., Liang, Z., Pei, A., Wu, C., Wang, H., Lee, H., Liu, K., Chu, S., Cui, Y.
2018; 1 (8): 592–600
- **Core-Shell Nanofibrous Materials with High Particulate Matter Removal Efficiencies and Thermally Triggered Flame Retardant Properties.** *ACS central science*
Liu, K., Liu, C., Hsu, P., Xu, J., Kong, B., Wu, T., Zhang, R., Zhou, G., Huang, W., Sun, J., Cui, Y.
2018; 4 (7): 894–98
- **Spectrally Selective Nanocomposite Textile for Outdoor Personal Cooling.** *Advanced materials (Deerfield Beach, Fla.)*
Cai, L., Song, A. Y., Li, W., Hsu, P., Lin, D., Catrysse, P. B., Liu, Y., Peng, Y., Chen, J., Wang, H., Xu, J., Yang, A., Fan, et al
2018: e1802152
- **Engineering stable interfaces for three-dimensional lithium metal anodes.** *Science advances*
Xie, J., Wang, J., Lee, H. R., Yan, K., Li, Y., Shi, F., Huang, W., Pei, A., Chen, G., Subbaraman, R., Christensen, J., Cui, Y.
2018; 4 (7): eaat5168
- **Quantitative investigation of polysulfide adsorption capability of candidate materials for Li-S batteries** *ENERGY STORAGE MATERIALS*
Wu, D., Shi, F., Zhou, G., Zu, C., Liu, C., Liu, K., Liu, Y., Wang, J., Peng, Y., Cui, Y.
2018; 13: 241–46
- **A Silica-Aerogel-Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus.** *Advanced materials (Deerfield Beach, Fla.)*
Lin, D., Yuen, P. Y., Liu, Y., Liu, W., Liu, N., Dauskardt, R. H., Cui, Y.
2018: e1802661
- **Sea-Sponge-like Structure of Nano-Fe₃O₄ on Skeleton-C with Long Cycle Life under High Rate for Li-Ion Batteries** *ACS APPLIED MATERIALS & INTERFACES*
Chen, S., Wu, Q., Wen, M., Wu, Q., Li, J., Cui, Y., Pinna, N., Fan, Y., Wu, T.
2018; 10 (23): 19656–63
- **Materials for lithium-ion battery safety.** *Science advances*
Liu, K., Liu, Y., Lin, D., Pei, A., Cui, Y.
2018; 4 (6): eaas9820
- **Morphology and property investigation of primary particulate matter particles from different sources** *NANO RESEARCH*
Zhang, R., Liu, C., Zhou, G., Sun, J., Liu, N., Hsu, P., Wang, H., Qiu, Y., Zhao, J., Wu, T., Zhao, W., Cui, Y.
2018; 11 (6): 3182–92
- **Wood-Inspired High-Performance Ultrathick Bulk Battery Electrodes** *ADVANCED MATERIALS*
Lu, L., Lu, Y., Xiao, Z., Zhang, T., Zhou, F., Ma, T., Ni, Y., Yao, H., Yu, S., Cui, Y.
2018; 30 (20): e1706745
- **Ionically Conductive Self-Healing Binder for Low Cost Si Microparticles Anodes in Li-Ion Batteries** *ADVANCED ENERGY MATERIALS*
Munaoka, T., Yan, X., Lopez, J., To, J. W. F., Park, J., Tok, J., Cui, Y., Bao, Z.
2018; 8 (14)
- **Vertically Aligned and Continuous Nanoscale Ceramic-Polymer Interfaces in Composite Solid Polymer Electrolytes for Enhanced Ionic Conductivity.** *Nano letters*
Zhang, X., Xie, J., Shi, F., Lin, D., Liu, Y., Liu, W., Pei, A., Gong, Y., Wang, H., Liu, K., Xiang, Y., Cui, Y.
2018
- **Hierarchical assembly and superior sodium storage properties of a sea-sponge structured C/SnS@C nanocomposite** *JOURNAL OF MATERIALS CHEMISTRY A*

- Chen, S., Xing, K., Wen, J., Wen, M., Wu, Q., Cui, Y.
2018; 6 (17): 7631–38
- **A manganese-hydrogen battery with potential for grid-scale energy storage** *NATURE ENERGY*
Chen, W., Li, G., Pei, A., Li, Y., Liao, L., Wang, H., Wan, J., Liang, Z., Chen, G., Zhang, H., Wang, J., Cui, Y.
2018; 3 (5): 428–35
 - **Spatially controlled doping of two-dimensional SnS₂ through intercalation for electronics** *NATURE NANOTECHNOLOGY*
Gong, Y., Yuan, H., Wu, C., Tang, P., Yang, S., Yang, A., Li, G., Liu, B., van de Groep, J., Brongersma, M. L., Chisholm, M. F., Zhang, S., Zhou, et al
2018; 13 (4): 294–+
 - **Gate-Induced Metal-Insulator Transition in MoS₂ by Solid Superionic Conductor LaF₃** *NANO LETTERS*
Wu, C., Yuan, H., Li, Y., Gong, Y., Hwang, H. Y., Cui, Y.
2018; 18 (4): 2387–92
 - **Tuning of Plasmons in Transparent Conductive Oxides by Carrier Accumulation** *ACS PHOTONICS*
Liu, X., Kang, J., Yuan, H., Park, J., Cui, Y., Hwang, H. Y., Brongersma, M. L.
2018; 5 (4): 1493–98
 - **An Aqueous Inorganic Polymer Binder for High Performance Lithium-Sulfur Batteries with Flame-Retardant Properties** *ACS CENTRAL SCIENCE*
Zhou, G., Liu, K., Fan, Y., Yuan, M., Liu, B., Liu, W., Shi, F., Liu, Y., Chen, W., Lopez, J., Zhuo, D., Zhao, J., Tsao, et al
2018; 4 (2): 260–67
 - **Deformable Organic Nanowire Field-Effect Transistors** *ADVANCED MATERIALS*
Lee, Y., Oh, J., Kim, T., Gu, X., Kim, Y., Wang, G., Wu, H., Pfattner, R., To, J. W. F., Katsumata, T., Son, D., Kang, J., Matthews, et al
2018; 30 (7)
 - **Nanoporous polyethylene microfibrils for large-scale radiative cooling fabric** *NATURE SUSTAINABILITY*
Peng, Y., Chen, J., Song, A. Y., Catrysse, P. B., Hsu, P., Cai, L., Liu, B., Zhu, Y., Zhou, G., Wu, D. S., Lee, H., Fan, S., Cui, et al
2018; 1 (2): 105–12
 - **Deformable Organic Nanowire Field-Effect Transistors.** *Advanced materials (Deerfield Beach, Fla.)*
Lee, Y., Oh, J. Y., Kim, T. R., Gu, X., Kim, Y., Wang, G. N., Wu, H. C., Pfattner, R., To, J. W., Katsumata, T., Son, D., Kang, J., Matthews, et al
2018; 30 (7)
 - **In Situ Investigation on the Nanoscale Capture and Evolution of Aerosols on Nanofibers** *NANO LETTERS*
Zhang, R., Liu, B., Yang, A., Zhu, Y., Liu, C., Zhou, G., Sun, J., Hsu, P., Zhao, W., Lin, D., Liu, Y., Pei, A., Xie, et al
2018; 18 (2): 1130–38
 - **High-efficiency oxygen reduction to hydrogen peroxide catalysed by oxidized carbon materials** *NATURE CATALYSIS*
Lu, Z., Chen, G., Siahrostami, S., Chen, Z., Liu, K., Xie, J., Liao, L., Wu, T., Lin, D., Liu, Y., Jaramillo, T. F., Nørskov, J. K., Cui, et al
2018; 1 (2): 156–62
 - **Gate-Induced Interfacial Superconductivity in 1T-SnSe₂** *NANO LETTERS*
Zeng, J., Liu, E., Fu, Y., Chen, Z., Pan, C., Wang, C., Wang, M., Wang, Y., Xu, K., Cai, S., Yan, X., Wang, Y., Liu, et al
2018; 18 (2): 1410–15
 - **Robust Pinhole-free Li₃N Solid Electrolyte Grown from Molten Lithium.** *ACS central science*
Li, Y., Sun, Y., Pei, A., Chen, K., Vailionis, A., Li, Y., Zheng, G., Sun, J., Cui, Y.
2018; 4 (1): 97–104
 - **Robust and conductive two-dimensional metal-organic frameworks with exceptionally high volumetric and areal capacitance** *NATURE ENERGY*
Feng, D., Lei, T., Lukatskaya, M. R., Park, J., Huang, Z., Lee, M., Shaw, L., Chen, S., Yakovenko, A. A., Kulkarni, A., Xiao, J., Fredrickson, K., Tok, et al
2018; 3 (1): 30–36
 - **A general prelithiation approach for group IV elements and corresponding oxides** *ENERGY STORAGE MATERIALS*
Zhao, J., Sun, J., Pei, A., Zhou, G., Yan, K., Liu, Y., Lin, D., Cui, Y.
2018; 10: 275–81

- **Lithium Metal Anodes: A Recipe for Protection** *JOULE*
Liu, Y., Cui, Y.
2017; 1 (4): 649–50
- **Design of Complex Nanomaterials for Energy Storage: Past Success and Future Opportunity.** *Accounts of chemical research*
Liu, Y., Zhou, G., Liu, K., Cui, Y.
2017; 50 (12): 2895–2905
- **Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis** *CHEM*
Jiang, K., Siahrostami, S., Akey, A. J., Li, Y., Lu, Z., Lattimer, J., Hu, Y., Stokes, C., Gangishetty, M., Chen, G., Zhou, Y., Hill, W., Cai, et al
2017; 3 (6): 950–60
- **Nanoscale perspective: Materials designs and understandings in lithium metal anodes** *NANO RESEARCH*
Lin, D., Liu, Y., Pei, A., Cui, Y.
2017; 10 (12): 4003–26
- **Photoinduced Field-Effect Passivation from Negative Carrier Accumulation for High-Efficiency Silicon/Organic Heterojunction Solar Cells** *ACS NANO*
Liu, Z., Yang, Z., Wu, S., Zhu, J., Guo, W., Sheng, J., Ye, J., Cui, Y.
2017; 11 (12): 12687–95
- **Design of Complex Nanomaterials for Energy Storage: Past Success and Future Opportunity Published as part of the Accounts of Chemical Research special issue "Energy Storage: Complexities Among Materials and Interfaces at Multiple Length Scales"** *ACCOUNTS OF CHEMICAL RESEARCH*
Liu, Y., Zhou, G., Liu, K., Cui, Y.
2017; 50 (12): 2895–2905
- **Strong texturing of lithium metal in batteries** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Shi, F., Pei, A., Vailionis, A., Xie, J., Liu, B., Zhao, J., Gong, Y., Cui, Y.
2017; 114 (46): 12138–43
- **Stretchable Lithium-Ion Batteries Enabled by Device-Scaled Wavy Structure and Elastic-Sticky Separator** *ADVANCED ENERGY MATERIALS*
Liu, W., Chen, J., Chen, Z., Liu, K., Zhou, G., Sun, Y., Song, M., Bao, Z., Cui, Y.
2017; 7 (21)
- **Engineering the surface of LiCoO₂ electrodes using atomic layer deposition for stable high-voltage lithium ion batteries** *NANO RESEARCH*
Xie, J., Zhao, J., Liu, Y., Wang, H., Liu, C., Wu, T., Hsu, P., Lin, D., Jin, Y., Cui, Y.
2017; 10 (11): 3754–64
- **Stitching h-BN by atomic layer deposition of LiF as a stable interface for lithium metal anode.** *Science advances*
Xie, J., Liao, L., Gong, Y., Li, Y., Shi, F., Pei, A., Sun, J., Zhang, R., Kong, B., Subbaraman, R., Christensen, J., Cui, Y.
2017; 3 (11): eaao3170
- **A dual-mode textile for human body radiative heating and cooling** *SCIENCE ADVANCES*
Hsu, P., Liu, C., Song, A. Y., Zhang, Z., Peng, Y., Xie, J., Liu, K., Wu, C., Catrysse, P. B., Cai, L., Zhai, S., Majumdar, A., Fan, et al
2017; 3 (11): e1700895
- **Stitching h-BN by atomic layer deposition of LiF as a stable interface for lithium metal anode** *SCIENCE ADVANCES*
Xie, J., Liao, L., Gong, Y., Li, Y., Shi, F., Pei, A., Sun, J., Zhang, R., Kong, B., Subbaraman, R., Christensen, J., Cui, Y.
2017; 3 (11)
- **High-performance sodium-organic battery by realizing four-sodium storage in disodium rhodizonate** *NATURE ENERGY*
Lee, M., Hong, J., Lopez, J., Sun, Y., Feng, D., Lim, K., Chueh, W. C., Toney, M. F., Cui, Y., Bao, Z.
2017; 2 (11)
- **Atomic structure of sensitive battery materials and interfaces revealed by cryo-electron microscopy** *SCIENCE*
Li, Y., Li, Y., Pei, A., Yan, K., Sun, Y., Wu, C., Joubert, L., Chin, R., Koh, A., Yu, Y., Perrino, J., Butz, B., Chu, et al

2017; 358 (6362): 506–10

- **Transforming from planar to three-dimensional lithium with flowable interphase for solid lithium metal batteries** *SCIENCE ADVANCES*
Liu, Y., Lin, D., Jin, Y., Liu, K., Tao, X., Zhang, Q., Zhang, X., Cui, Y.
2017; 3 (10): eaao0713
- **Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes.** *Nature nanotechnology*
Zhao, J., Zhou, G., Yan, K., Xie, J., Li, Y., Liao, L., Jin, Y., Liu, K., Hsu, P. C., Wang, J., Cheng, H. M., Cui, Y.
2017; 12 (10): 993-999
- **Non-encapsulation approach for high-performance Li-S batteries through controlled nucleation and growth** *NATURE ENERGY*
Pan, H., Chen, J., Cao, R., Murugesan, V., Rajput, N., Han, K., Persson, K., Estevez, L., Engelhard, M. H., Zhang, J., Mueller, K. T., Cui, Y., Shao, et al
2017; 2 (10)
- **Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes** *NATURE NANOTECHNOLOGY*
Zhao, J., Zhou, G., Yan, K., Xie, J., Li, Y., Liao, L., Jin, Y., Liu, K., Hsu, P., Wang, J., Cheng, H., Cui, Y.
2017; 12 (10): 993–99
- **Warming up human body by nanoporous metallized polyethylene textile** *NATURE COMMUNICATIONS*
Cai, L., Song, A. Y., Wu, P., Hsu, P., Peng, Y., Chen, J., Liu, C., Catrysse, P. B., Liu, Y., Yang, A., Zhou, C., Zhou, C., Fan, et al
2017; 8: 496
- **Gated tuned superconductivity and phonon softening in monolayer and bilayer MoS₂** *NPJ QUANTUM MATERIALS*
Fu, Y., Liu, E., Yuan, H., Tang, P., Lian, B., Xu, G., Zeng, J., Chen, Z., Wang, Y., Zhou, W., Xu, K., Gao, A., Pan, et al
2017; 2
- **Reactivation of dead sulfide species in lithium polysulfide flow battery for grid scale energy storage** *NATURE COMMUNICATIONS*
Jin, Y., Zhou, G., Shi, F., Zhuo, D., Zhao, J., Liu, K., Liu, Y., Zu, C., Chen, W., Zhang, R., Huang, X., Cui, Y.
2017; 8: 462
- **Electrical tuning of a quantum plasmonic resonance** *NATURE NANOTECHNOLOGY*
Liu, X., Kang, H., Yuan, H., Park, J., Kim, S., Cui, Y., Hwang, H. Y., Brongersma, M. L.
2017; 12 (9): 866–+
- **High performance lithium metal anode with a soft and flowable polymer coating**
Lopez, J., Pei, A., Cui, Y., Bao, Z.
AMER CHEMICAL SOC.2017
- **Se.** *Nature nanotechnology*
Wu, J., Yuan, H., Meng, M., Chen, C., Sun, Y., Chen, Z., Dang, W., Tan, C., Liu, Y., Yin, J., Zhou, Y., Huang, S., Xu, et al
2017; 12 (6): 530-534
- **Nanoscale manipulation of membrane curvature for probing endocytosis in live cells.** *Nature nanotechnology*
Zhao, W., Hanson, L., Lou, H., Akamatsu, M., Chowdary, P. D., Santoro, F., Marks, J. R., Grassart, A., Drubin, D. G., Cui, Y., Cui, B.
2017
- **Conformal Lithium Fluoride Protection Layer on Three-Dimensional Lithium by Nonhazardous Gaseous Reagent Freon.** *Nano letters*
Lin, D., Liu, Y., Chen, W., Zhou, G., Liu, K., Dunn, B., Cui, Y.
2017
- **Carbon Foam and Polymer.** *Nano letters*
Tao, X., Liu, Y., Liu, W., Zhou, G., Zhao, J., Lin, D., Zu, C., Sheng, O., Zhang, W., Lee, H., Cui, Y.
2017; 17 (5): 2967-2972
- **for Oxygen Evolution Reaction.** *Journal of the American Chemical Society*
Lu, Z., Chen, G., Li, Y., Wang, H., Xie, J., Liao, L., Liu, C., Liu, Y., Wu, T., Li, Y., Luntz, A. C., Bajdich, M., Cui, et al
2017; 139 (17): 6270-6276
- **Three-dimensional stable lithium metal anode with nanoscale lithium islands embedded in ionically conductive solid matrix** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

- Lin, D., Zhao, J., Sun, J., Yao, H., Liu, Y., Yan, K., Cui, Y.
2017; 114 (18): 4613-4618
- **Solid-State Lithium Sulfur Batteries Operated at 37 degrees C with Composites of Nanostructured Li₇La₃Zr₂O₁₂/Carbon Foam and Polymer** *NANO LETTERS*
Tao, X., Liu, Y., Liu, W., Zhou, G., Zhao, J., Lin, D., Zu, C., Sheng, O., Zhang, W., Lee, H., Cui, Y.
2017; 17 (5): 2967-2972
 - **Sulfiphilic Nickel Phosphosulfide Enabled Li₂S Impregnation in 3D Graphene Cages for Li-S Batteries** *ADVANCED MATERIALS*
Zhou, G., Sun, J., Jin, Y., Chen, W., Zu, C., Zhang, R., Qiu, Y., Zhao, J., Zhuo, D., Liu, Y., Tao, X., Liu, W., Yan, et al
2017; 29 (12)
 - *Nano letters*
Zhang, J., Sun, J., Li, Y., Shi, F., Cui, Y.
2017; 17 (3): 1741-1747
 - **Reviving the lithium metal anode for high-energy batteries.** *Nature nanotechnology*
Lin, D., Liu, Y., Cui, Y.
2017; 12 (3): 194-206
 - **An Artificial Solid Electrolyte Interphase with High Li-Ion Conductivity, Mechanical Strength, and Flexibility for Stable Lithium Metal Anodes.** *Advanced materials*
Liu, Y., Lin, D., Yuen, P. Y., Liu, K., Xie, J., Dauskardt, R. H., Cui, Y.
2017; 29 (10)
 - **Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal.** *Nano letters*
Pei, A., Zheng, G., Shi, F., Li, Y., Cui, Y.
2017; 17 (2): 1132-1139
 - **Silicon/Organic Hybrid Solar Cells with 16.2% Efficiency and Improved Stability by Formation of Conformal Heterojunction Coating and Moisture-Resistant Capping Layer.** *Advanced materials*
He, J., Gao, P., Yang, Z., Yu, J., Yu, W., Zhang, Y., Sheng, J., Ye, J., Amine, J. C., Cui, Y.
2017
 - **Core-Shell Nanoparticle Coating as an Interfacial Layer for Dendrite Free Lithium Metal Anodes** *ACS CENTRAL SCIENCE*
Liu, W., Li, W., Zhuo, D., Zheng, G., Lu, Z., Liu, K., Cui, Y.
2017; 3 (2): 135-140
 - **Catalytic oxidation of Li₂S on the surface of metal sulfides for Li-S batteries** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Zhou, G., Tian, H., Jin, Y., Tao, X., Liu, B., Zhang, R., Seh, Z. W., Zhuo, D., Liu, Y., Sun, J., Zhao, J., Zu, C., Wu, et al
2017; 114 (5): 840-845
 - **S Impregnation in 3D Graphene Cages for Li-S Batteries.** *Advanced materials*
Zhou, G., Sun, J., Jin, Y., Chen, W., Zu, C., Zhang, R., Qiu, Y., Zhao, J., Zhuo, D., Liu, Y., Tao, X., Liu, W., Yan, et al
2017
 - **Extending the Life of Lithium-Based Rechargeable Batteries by Reaction of Lithium Dendrites with a Novel Silica Nanoparticle Sandwiched Separator** *ADVANCED MATERIALS*
Liu, K., Zhuo, D., Lee, H., Liu, W., Lin, D., Lu, Y., Cui, Y.
2017; 29 (4)
 - **Unsupervised clustering of quantitative image phenotypes reveals breast cancer subtypes with distinct prognoses and molecular pathways.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Wu, J., Cui, Y., Sun, X., Cao, G., Li, B., Ikeda, D. M., Kurian, A. W., Li, R.
2017
 - **Flexible and Stretchable Energy Storage: Recent Advances and Future Perspectives** *ADVANCED MATERIALS*
Liu, W., Song, M., Kong, B., Cui, Y.
2017; 29 (1)

- **Electrospun core-shell microfiber separator with thermal-triggered flame-retardant properties for lithium-ion batteries.** *Science advances*
Liu, K., Liu, W., Qiu, Y., Kong, B., Sun, Y., Chen, Z., Zhuo, D., Lin, D., Cui, Y.
2017; 3 (1)
- **Direct Blow-Spinning of Nanofibers on a Window Screen for Highly Efficient PM2.5 Removal.** *Nano letters*
Khalid, B. n., Bai, X. n., Wei, H. n., Huang, Y. n., Wu, H. n., Cui, Y. n.
2017; 17 (2): 1140–48
- **Continuous Draw Spinning of Extra-Long Silver Submicron Fibers with Micrometer Patterning Capability.** *Nano letters*
Bai, X. n., Liao, S. n., Huang, Y. n., Song, J. n., Liu, Z. n., Fang, M. n., Xu, C. n., Cui, Y. n., Wu, H. n.
2017; 17 (3): 1883–91
- **Revealing Nanoscale Passivation and Corrosion Mechanisms of Reactive Battery Materials in Gas Environments.** *Nano letters*
Li, Y. n., Li, Y. n., Sun, Y. n., Butz, B. n., Yan, K. n., Koh, A. L., Zhao, J. n., Pei, A. n., Cui, Y. n.
2017; 17 (8): 5171–78
- **Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability.** *Journal of the American Chemical Society*
Zhao, J. n., Liao, L. n., Shi, F. n., Lei, T. n., Chen, G. n., Pei, A. n., Sun, J. n., Yan, K. n., Zhou, G. n., Xie, J. n., Liu, C. n., Li, Y. n., Liang, et al
2017; 139 (33): 11550–58
- **Ultrahigh-current density anodes with interconnected Li metal reservoir through overlithiation of mesoporous AIF₃ framework.** *Science advances*
Wang, H. n., Lin, D. n., Liu, Y. n., Li, Y. n., Cui, Y. n.
2017; 3 (9): e1701301
- **The path towards sustainable energy** *NATURE MATERIALS*
Chu, S., Cui, Y., Liu, N.
2017; 16 (1): 16-22
- **Shape-Controlled TiO₂ Nanocrystals for Na-Ion Battery Electrodes: The Role of Different Exposed Crystal Facets on the Electrochemical Properties.** *Nano letters*
Longoni, G. n., Pena Cabrera, R. L., Polizzi, S. n., D'Arienzo, M. n., Mari, C. M., Cui, Y. n., Ruffo, R. n.
2017; 17 (2): 992–1000
- **Phase Separation of Dirac Electrons in Topological Insulators at the Spatial Limit** *NANO LETTERS*
Parra, C., Rodrigues da Cunha, T. H., Contrynan, A. W., Kong, D., Montero-Silva, F., Rezende Goncalves, P. H., dos Reis, D. D., Giraldo-Gallo, P., Segura, R., Olivares, F., Niestemski, F., Cui, Y., Magalhaes-Paniago, et al
2017; 17 (1): 97-103
- **Two-dimensional limit of crystalline order in perovskite membrane films.** *Science advances*
Hong, S. S., Yu, J. H., Lu, D. n., Marshall, A. F., Hikita, Y. n., Cui, Y. n., Hwang, H. Y.
2017; 3 (11): eaa05173
- **Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO₂ to Formate** *Joule*
Zheng, X., De luna, P., de Arquer, F., Zhang, B., Becknell, N., Cui, Y., Du, X., Yang, P., Sargent, E.
2017
- **Development and Validation of an Individualized Immune Prognostic Signature in Early-Stage Nonsquamous Non-Small Cell Lung Cancer.** *JAMA oncology*
Li, B. n., Cui, Y. n., Diehn, M. n., Li, R. n.
2017
- **The path towards sustainable energy.** *Nature materials*
Chu, S., Cui, Y., Liu, N.
2016; 16 (1): 16-22
- **High-Efficiency Silicon/Organic Heterojunction Solar Cells with Improved Junction Quality and Interface Passivation** *ACS NANO*
He, J., Gao, P., Ling, Z., Ding, L., Yang, Z., Ye, J., Cui, Y.
2016; 10 (12): 11525-11531

- **In Situ Electrochemically Derived Nanoporous Oxides from Transition Metal Dichalcogenides for Active Oxygen Evolution Catalysts** *NANO LETTERS*
Chen, W., Liu, Y., Li, Y., Sun, J., Qiu, Y., Liu, C., Zhou, G., Cui, Y.
2016; 16 (12): 7588-7596
- **Improved Lithium Ionic Conductivity in Composite Polymer Electrolytes with Oxide-Ion Conducting Nanowires** *ACS NANO*
Liu, W., Lin, D., Sun, J., Zhou, G., Cui, Y.
2016; 10 (12): 11407-11413
- **Stabilizing Lithium Metal Anodes by Uniform Li-Ion Flux Distribution in Nanochannel Confinement** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Liu, W., Lin, D., Pei, A., Cui, Y.
2016; 138 (47): 15443-15450
- **Direct and continuous strain control of catalysts with tunable battery electrode materials** *SCIENCE*
Wang, H., Xu, S., Tsai, C., Li, Y., Liu, C., Zhao, J., Liu, Y., Yuan, H., Abild-Pedersen, F., Prinz, F. B., Nørskov, J. K., Cui, Y.
2016; 354 (6315): 1031-1036
- **Entrapment of Polysulfides by a Black-Phosphorus-Modified Separator for Lithium-Sulfur Batteries** *ADVANCED MATERIALS*
Sun, J., Sun, Y., Pasta, M., Zhou, G., Li, Y., Liu, W., Xiong, F., Cui, Y.
2016; 28 (44): 9797-?
- **Development of an Activated Carbon-Based Electrode for the Capture and Rapid Electrolytic Reductive Debromination of Methyl Bromide from Postharvest Fumigations.** *Environmental science & technology*
Li, Y., Liu, C., Cui, Y., Walse, S. S., Olver, R., Zilberman, D., Mitch, W. A.
2016; 50 (20): 11200-11208
- **Subzero-Temperature Cathode for a Sodium-Ion Battery** *ADVANCED MATERIALS*
You, Y., Yao, H., Xin, S., Yin, Y., Zuo, T., Yang, C., Guo, Y., Cui, Y., Wan, L., Goodenough, J. B.
2016; 28 (33): 7243-?
- **Radiative human body cooling by nanoporous polyethylene textile** *SCIENCE*
Hsu, P., Song, A. Y., Catrysse, P. B., Liu, C., Peng, Y., Xie, J., Fan, S., Cui, Y.
2016; 353 (6303): 1019-1023
- **All-Integrated Bifunctional Separator for Li Dendrite Detection via Novel Solution Synthesis of a Thermostable Polyimide Separator.** *Journal of the American Chemical Society*
Lin, D., Zhuo, D., Liu, Y., Cui, Y.
2016; 138 (34): 11044-11050
- **Rapid water disinfection using vertically aligned MoS₂ nanofilms and visible light.** *Nature nanotechnology*
Liu, C., Kong, D., Hsu, P., Yuan, H., Lee, H., Liu, Y., Wang, H., Wang, S., Yan, K., Lin, D., Maraccini, P. A., Parker, K. M., Boehm, et al
2016
- **Evolution of the Valley Position in Bulk Transition-Metal Chalcogenides and Their Monolayer Limit.** *Nano letters*
Yuan, H., Liu, Z., Xu, G., Zhou, B., Wu, S., Dumcenco, D., Yan, K., Zhang, Y., Mo, S., Dudin, P., Kandyba, V., Yablonskikh, M., Barinov, et al
2016; 16 (8): 4738-4745
- **Metallurgically lithiated SiO_x anode with high capacity and ambient air compatibility** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Zhao, J., Lee, H., Sun, J., Yan, K., Liu, Y., Liu, W., Lu, Z., Lin, D., Zhou, G., Cui, Y.
2016; 113 (27): 7408-7413
- **Layered reduced graphene oxide with nanoscale interlayer gaps as a stable host for lithium metal anodes** *NATURE NANOTECHNOLOGY*
Lin, D., Liu, Y., Liang, Z., Lee, H., Sun, J., Wang, H., Yan, K., Xie, J., Cui, Y.
2016; 11 (7): 626-?
- **Lithium Sulfi de/Metal Nanocomposite as a High-Capacity Cathode Prelithiation Material** *ADVANCED ENERGY MATERIALS*
Sun, Y., Lee, H., Seh, Z. W., Zheng, G., Sun, J., Li, Y., Cui, Y.
2016; 6 (12)

- **Avoiding short circuits from zinc metal dendrites in anode by backside-plating configuration** *NATURE COMMUNICATIONS*
Higashi, S., Lee, S., Lee, J., Takechi, K., Cui, Y.
2016; 7: 11801
- **Efficient solar-driven water splitting by nanocone BiVO₄-perovskite tandem cells.** *Science advances*
Qiu, Y., Liu, W., Chen, W., Chen, W., Zhou, G., Hsu, P., Zhang, R., Liang, Z., Fan, S., Zhang, Y., Cui, Y.
2016; 2 (6)
- **Porous MoO₂ Nanosheets as Non-noble Bifunctional Electrocatalysts for Overall Water Splitting** *ADVANCED MATERIALS*
Jin, Y., Wang, H., Li, J., Yue, X., Han, Y., Shen, P. K., Cui, Y.
2016; 28 (19): 3785-3790
- **3D Porous Sponge-Inspired Electrode for Stretchable Lithium-Ion Batteries** *ADVANCED MATERIALS*
Liu, W., Chen, Z., Zhou, G., Sun, Y., Lee, H. R., Liu, C., Yao, H., Bao, Z., Cui, Y.
2016; 28 (18): 3578-?
- **Schottky Barrier Catalysis Mechanism in Metal-Assisted Chemical Etching of Silicon.** *ACS applied materials & interfaces*
Lai, R. A., Hymel, T. M., Narasimhan, V. K., Cui, Y.
2016; 8 (14): 8875-8879
- **Balancing surface adsorption and diffusion of lithium-polysulfides on nonconductive oxides for lithium-sulfur battery design** *NATURE COMMUNICATIONS*
Tao, X., Wang, J., Liu, C., Wang, H., Yao, H., Zheng, G., Seh, Z. W., Cai, Q., Li, W., Zhou, G., Zu, C., Cui, Y.
2016; 7
- **A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Self-Healing Elastic Polymer** *ADVANCED MATERIALS*
Sun, Y., Lopez, J., Lee, H., Liu, N., Zheng, G., Wu, C., Sun, J., Liu, W., Chung, J. W., Bao, Z., Cui, Y.
2016; 28 (12): 2455-2461
- **Composite lithium metal anode by melt infusion of lithium into a 3D conducting scaffold with lithiophilic coating.** *Proceedings of the National Academy of Sciences of the United States of America*
Liang, Z., Lin, D., Zhao, J., Lu, Z., Liu, Y., Liu, C., Lu, Y., Wang, H., Yan, K., Tao, X., Cui, Y.
2016; 113 (11): 2862-7
- **A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Self-Healing Elastic Polymer.** *Advanced materials*
Sun, Y., Lopez, J., Lee, H., Liu, N., Zheng, G., Wu, C., Sun, J., Liu, W., Chung, J. W., Bao, Z., Cui, Y.
2016; 28 (12): 2455-2461
- **Roll-to-Roll Transfer of Electrospun Nanofiber Film for High-Efficiency Transparent Air Filter** *NANO LETTERS*
Xu, J., Liu, C., Hsu, P., Liu, K., Zhang, R., Liu, Y., Cui, Y.
2016; 16 (2): 1270-1275
- **In Situ Chemical Synthesis of Lithium Fluoride/Metal Nanocomposite for High Capacity Prelithiation of Cathodes** *NANO LETTERS*
Sun, Y., Lee, H., Zheng, G., Seh, Z. W., Sun, J., Li, Y., Cui, Y.
2016; 16 (2): 1497-1501
- **Interwall Friction and Sliding Behavior of Centimeters Long Double-Walled Carbon Nanotubes** *NANO LETTERS*
Zhang, R., Ning, Z., Xu, Z., Zhang, Y., Xie, H., Ding, F., Chen, Q., Zhang, Q., Qian, W., Cui, Y., Wei, F.
2016; 16 (2): 1367-1374
- **The Effects of Cross-Linking in a Supramolecular Binder on Cycle Life in Silicon Microparticle Anodes.** *ACS applied materials & interfaces*
Lopez, J., Chen, Z., Wang, C., Andrews, S. C., Cui, Y., Bao, Z.
2016; 8 (3): 2318-2324
- **Lithium-coated polymeric matrix as a minimum volume-change and dendrite-free lithium metal anode.** *Nature communications*
Liu, Y., Lin, D., Liang, Z., Zhao, J., Yan, K., Cui, Y.
2016; 7: 10992-?
- **Direct Intertube Cross-Linking of Carbon Nanotubes at Room Temperature.** *Nano letters*
Gao, Y. n., Chen, H. n., Ge, J. n., Zhao, J. n., Li, Q. n., Tang, J. n., Cui, Y. n., Chen, L. n.

2016; 16 (10): 6541–47

- **Highly Nitridated Graphene-Li₂S Cathodes with Stable Modulated Cycles** *ADVANCED ENERGY MATERIALS*
Qiu, Y., Rong, G., Yang, J., Li, G., Ma, S., Wang, X., Pan, Z., Hou, Y., Liu, M., Ye, F., Li, W., Seh, Z. W., Tao, et al
2015; 5 (23)
- **Hybrid Metal-Semiconductor Nanostructure for Ultrahigh Optical Absorption and Low Electrical Resistance at Optoelectronic Interfaces.** *ACS nano*
Narasimhan, V. K., Hymel, T. M., Lai, R. A., Cui, Y.
2015; 9 (11): 10590-10597
- **Nanopurification of silicon from 84% to 99.999% purity with a simple and scalable process** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Zong, L., Zhu, B., Lu, Z., Tan, Y., Jin, Y., Liu, N., Hu, Y., Gu, S., Zhu, J., Cui, Y.
2015; 112 (44): 13473-13477
- **Magnetic Field-Controlled Lithium Polysulfide Semiliquid Battery with Ferrofluidic Properties** *NANO LETTERS*
Li, W., Liang, Z., Lu, Z., Tao, X., Liu, K., Yao, H., Cui, Y.
2015; 15 (11): 7394-7399
- **A phosphorene-graphene hybrid material as a high-capacity anode for sodium-ion batteries.** *Nature nanotechnology*
Sun, J., Lee, H., Pasta, M., Yuan, H., Zheng, G., Sun, Y., Li, Y., Cui, Y.
2015; 10 (11): 980-985
- **Surface Coating Constraint Induced Self-Discharging of Silicon Nanoparticles as Anodes for Lithium Ion Batteries** *NANO LETTERS*
Luo, L., Zhao, P., Yang, H., Liu, B., Zhang, J., Cui, Y., Yu, G., Zhang, S., Wang, C.
2015; 15 (10): 7016-7022
- **In Situ Electrochemical Oxidation Tuning of Transition Metal Disulfides to Oxides for Enhanced Water Oxidation.** *ACS central science*
Chen, W., Wang, H., Li, Y., Liu, Y., Sun, J., Lee, S., Lee, J., Cui, Y.
2015; 1 (5): 244-251
- **A Sulfur Cathode with Pomegranate-Like Cluster Structure** *ADVANCED ENERGY MATERIALS*
Li, W., Liang, Z., Lu, Z., Yao, H., Seh, Z. W., Yan, K., Zheng, G., Cui, Y.
2015; 5 (16)
- **Polarization-sensitive broadband photodetector using a black phosphorus vertical p-n junction** *NATURE NANOTECHNOLOGY*
Yuan, H., Liu, X., Afshinmanesh, F., Li, W., Xu, G., Sun, J., Lian, B., Curto, A. G., Ye, G., Hikita, Y., Shen, Z., Zhang, S., Chen, et al
2015; 10 (8): 707-713
- **Theory of Half-Space Light Absorption Enhancement for Leaky Mode Resonant Nanowires** *NANO LETTERS*
Jia, Y., Qiu, M., Wu, H., Cui, Y., Fan, S., Ruan, Z.
2015; 15 (8): 5513-5518
- **Direct Imaging of Nanoscale Conductance Evolution in Ion-Gel-Gated Oxide Transistors.** *Nano letters*
Ren, Y., Yuan, H., Wu, X., Chen, Z., Iwasa, Y., Cui, Y., Hwang, H. Y., Lai, K.
2015; 15 (7): 4730-4736
- **Artificial Solid Electrolyte Interphase-Protected Li_xSi Nanoparticles: An Efficient and Stable Prelithiation Reagent for Lithium-Ion Batteries.** *Journal of the American Chemical Society*
Zhao, J., Lu, Z., Wang, H., Liu, W., Lee, H., Yan, K., Zhuo, D., Lin, D., Liu, N., Cui, Y.
2015; 137 (26): 8372-8375
- **Large-Area Nanosphere Self-Assembly by a Micro-Propulsive Injection Method for High Throughput Periodic Surface Nanotexturing** *NANO LETTERS*
Gao, P., He, J., Zhou, S., Yang, X., Li, S., Sheng, J., Wang, D., Yu, T., Ye, J., Cui, Y.
2015; 15 (7): 4591-4598
- **Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes** *NANO LETTERS*
Deng, B., Hsu, P., Chen, G., Chandrashekar, B. N., Liao, L., Ayitimuda, Z., Wu, J., Guo, Y., Lin, L., Zhou, Y., Aisijiang, M., Xie, Q., Cui, et al

2015; 15 (6): 4206-4213

- **Vertical nanopillars for in situ probing of nuclear mechanics in adherent cells.** *Nature nanotechnology*
Hanson, L., Zhao, W., Lou, H., Lin, Z. C., Lee, S. W., Chowdary, P., Cui, Y., Cui, B.
2015; 10 (6): 554-562
- **Understanding the Anchoring Effect of Two-Dimensional Layered Materials for Lithium-Sulfur Batteries** *NANO LETTERS*
Zhang, Q., Wang, Y., Seh, Z. W., Fu, Z., Zhang, R., Cui, Y.
2015; 15 (6): 3780-3786
- **Realization of 13.6% Efficiency on 20 μ m Thick Si/Organic Hybrid Heterojunction Solar Cells via Advanced Nanotexturing and Surface Recombination Suppression** *ACS NANO*
He, J., Gao, P., Liao, M., Yang, X., Ying, Z., Zhou, S., Ye, J., Cui, Y.
2015; 9 (6): 6522-6531
- **Ultrahigh Surface Area Three-Dimensional Porous Graphitic Carbon from Conjugated Polymeric Molecular Framework.** *ACS central science*
To, J. W., Chen, Z., Yao, H., He, J., Kim, K., Chou, H. H., Pan, L., Wilcox, J., Cui, Y., Bao, Z.
2015; 1 (2): 68-76
- **Self-assembled three-dimensional and compressible interdigitated thin-film supercapacitors and batteries** *NATURE COMMUNICATIONS*
Nystrom, G., Marais, A., Karabulut, E., Wagberg, L., Cui, Y., Hamed, M. M.
2015; 6
- **Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery** *ACS NANO*
Luo, L., Yang, H., Yan, P., Travis, J. J., Lee, Y., Liu, N., Piper, D. M., Lee, S., Zhao, P., George, S. M., Zhang, J., Cui, Y., Zhang, et al
2015; 9 (5): 5559-5566
- **High-Areal-Capacity Silicon Electrodes with Low-Cost Silicon Particles Based on Spatial Control of Self-Healing Binder** *ADVANCED ENERGY MATERIALS*
Chen, Z., Wang, C., Lopez, J., Lu, Z., Cui, Y., Bao, Z.
2015; 5 (8)
- **Ionic Conductivity Enhancement of Polymer Electrolytes with Ceramic Nanowire Fillers** *NANO LETTERS*
Liu, W., Liu, N., Sun, J., Hsu, P., Li, Y., Lee, H., Cui, Y.
2015; 15 (4): 2740-2745
- **Electrically tunable coherent optical absorption in graphene with ion gel.** *Nano letters*
Thareja, V., Kang, J., Yuan, H., Milaninia, K. M., Hwang, H. Y., Cui, Y., Kik, P. G., Brongersma, M. L.
2015; 15 (3): 1570-1576
- **Nonfilling Carbon Coating of Porous Silicon Micrometer-Sized Particles for High-Performance Lithium Battery Anodes** *ACS NANO*
Lu, Z., Liu, N., Lee, H., Zhao, J., Li, W., Li, Y., Cui, Y.
2015; 9 (3): 2540-2547
- **In situ observation of divergent phase transformations in individual sulfide nanocrystals.** *Nano letters*
McDowell, M. T., Lu, Z., Koski, K. J., Yu, J. H., Zheng, G., Cui, Y.
2015; 15 (2): 1264-1271
- **Vertical Heterostructure of Two-Dimensional MoS₂ and WSe₂ with Vertically Aligned Layers.** *Nano letters*
Yu, J. H., Lee, H. R., Hong, S. S., Kong, D., Lee, H., Wang, H., Xiong, F., Wang, S., Cui, Y.
2015; 15 (2): 1031-1035
- **Personal thermal management by metallic nanowire-coated textile.** *Nano letters*
Hsu, P., Liu, X., Liu, C., Xie, X., Lee, H. R., Welch, A. J., Zhao, T., Cui, Y.
2015; 15 (1): 365-371
- **Pressure induced metallization with absence of structural transition in layered molybdenum diselenide.** *Nature communications*
Zhao, Z., Zhang, H., Yuan, H., Wang, S., Lin, Y., Zeng, Q., Xu, G., Liu, Z., Solanki, G. K., Patel, K. D., Cui, Y., Hwang, H. Y., Mao, et al
2015; 6: 7312-?
- **A reaction-controlled diffusion model for the lithiation of silicon in lithium-ion batteries** *Extreme Mechanics Letters*

- Zhang, X., Lee, S., Lee, H., Cui, Y., Linder, C.
2015; 4: 61–75
- **Bifunctional non-noble metal oxide nanoparticle electrocatalysts through lithium-induced conversion for overall water splitting.** *Nature communications*
Wang, H., Lee, H., Deng, Y., Lu, Z., Hsu, P., Liu, Y., Lin, D., Cui, Y.
2015; 6: 7261-?
 - **Kinetics and fracture resistance of lithiated silicon nanostructure pairs controlled by their mechanical interaction.** *Nature communications*
Lee, S. W., Lee, H., Ryu, I., Nix, W. D., Gao, H., Cui, Y.
2015; 6: 7533-?
 - **Transparent air filter for high-efficiency PM2.5 capture.** *Nature communications*
Liu, C., Hsu, P., Lee, H., Ye, M., Zheng, G., Liu, N., Li, W., Cui, Y.
2015; 6: 6205-?
 - **A Highly Reversible Room-Temperature Sodium Metal Anode.** *ACS central science*
Seh, Z. W., Sun, J. n., Sun, Y. n., Cui, Y. n.
2015; 1 (8): 449–55
 - **The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth.** *Nature communications*
Li, W., Yao, H., Yan, K., Zheng, G., Liang, Z., Chiang, Y., Cui, Y.
2015; 6: 7436-?
 - **Physical and chemical tuning of two-dimensional transition metal dichalcogenides** *CHEMICAL SOCIETY REVIEWS*
Wang, H., Yuan, H., Hong, S. S., Li, Y., Cui, Y.
2015; 44 (9): 2664-2680
 - **Two-Dimensional Layered Chalcogenides: From Rational Synthesis to Property Control via Orbital Occupation and Electron Filling** *ACCOUNTS OF CHEMICAL RESEARCH*
Yuan, H., Wang, H., Cui, Y.
2015; 48 (1): 81-90
 - **Integrated digital inverters based on two-dimensional anisotropic ReS₂ field-effect transistors.** *Nature communications*
Liu, E., Fu, Y., Wang, Y., Feng, Y., Liu, H., Wan, X., Zhou, W., Wang, B., Shao, L., Ho, C., Huang, Y., Cao, Z., Wang, et al
2015; 6: 6991-?
 - **Enhancing the nanomaterial bio-interface by addition of mesoscale secondary features: crinkling of carbon nanotube films to create subcellular ridges.** *ACS nano*
Xie, X., Zhao, W., Lee, H. R., Liu, C., Ye, M., Xie, W., Cui, B., Criddle, C. S., Cui, Y.
2014; 8 (12): 11958-11965
 - **Large-Scale Production of Graphene Nanoribbons from Electrospun Polymers** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Liu, N., Kim, K., Hsu, P., Sokolov, A. N., Yap, F. L., Yuan, H., Xie, Y., Yan, H., Cui, Y., Hwang, H. Y., Bao, Z.
2014; 136 (49): 17284-17291
 - **Charging-free electrochemical system for harvesting low-grade thermal energy** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yang, Y., Lee, S. W., Ghasemi, H., Loomis, J., Li, X., Kraemer, D., Zheng, G., Cui, Y., Chen, G.
2014; 111 (48): 17011-17016
 - **High Electrochemical Selectivity of Edge versus Terrace Sites in Two-Dimensional Layered MoS₂ Materials** *NANO LETTERS*
Wang, H., Zhang, Q., Yao, H., Liang, Z., Lee, H., Hsu, P., Zheng, G., Cui, Y.
2014; 14 (12): 7138-7144
 - **Optical transmission enhancement through chemically tuned two-dimensional bismuth chalcogenide nanoplates** *NATURE COMMUNICATIONS*
Yao, J., Koski, K. J., Luo, W., Cha, J. J., Hu, L., Kong, D., Narasimhan, V. K., Huo, K., Cui, Y.
2014; 5
 - **Bifacial solar cell with SnS absorber by vapor transport deposition** *APPLIED PHYSICS LETTERS*

Wangperawong, A., Hsu, P., Yee, Y., Herron, S. M., Clemens, B. M., Cui, Y., Bent, S. F.

2014; 105 (17)

- **Static electricity powered copper oxide nanowire microbicidal electroporation for water disinfection.** *Nano letters*
Liu, C., Xie, X., Zhao, W., Yao, J., Kong, D., Boehm, A. B., Cui, Y.
2014; 14 (10): 5603-5608
- **Ultrathin two-dimensional atomic crystals as stable interfacial layer for improvement of lithium metal anode.** *Nano letters*
Yan, K., Lee, H., Gao, T., Zheng, G., Yao, H., Wang, H., Lu, Z., Zhou, Y., Liang, Z., Liu, Z., Chu, S., Cui, Y.
2014; 14 (10): 6016-6022
- **Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection** *NANO LETTERS*
Liu, C., Xie, X., Zhao, W., Yao, J., Kong, D., Boehm, A. B., Cui, Y.
2014; 14 (10): 5603-5608
- **Generation and electric control of spin-valley-coupled circular photogalvanic current in WSe₂.** *Nature nanotechnology*
Yuan, H., Wang, X., Lian, B., Zhang, H., Fang, X., Shen, B., Xu, G., Xu, Y., Zhang, S., Hwang, H. Y., Cui, Y.
2014; 9 (10): 851-857
- **Dry-air-stable lithium silicide-lithium oxide core-shell nanoparticles as high-capacity prelithiation reagents** *NATURE COMMUNICATIONS*
Zhao, J., Lu, Z., Liu, N., Lee, H., McDowell, M. T., Cui, Y.
2014; 5
- **Manganese hexacyanomanganate open framework as a high-capacity positive electrode material for sodium-ion batteries** *NATURE COMMUNICATIONS*
Lee, H., Wang, R. Y., Pasta, M., Lee, S. W., Liu, N., Cui, Y.
2014; 5
- **Ultrathin Two-Dimensional Atomic Crystals as Stable Interfacial Layer for Improvement of Lithium Metal Anode** *NANO LETTERS*
Yan, K., Lee, H., Gao, T., Zheng, G., Yao, H., Wang, H., Lu, Z., Zhou, Y., Liang, Z., Liu, Z., Chu, S., Cui, Y.
2014; 14 (10): 6016-6022
- **Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes** *NATURE COMMUNICATIONS*
Seh, Z. W., Yu, J. H., Li, W., Hsu, P., Wang, H., Sun, Y., Yao, H., Zhang, Q., Cui, Y.
2014; 5
- **Formation of stable phosphorus-carbon bond for enhanced performance in black phosphorus nanoparticle-graphite composite battery anodes.** *Nano letters*
Sun, J., Zheng, G., Lee, H., Liu, N., Wang, H., Yao, H., Yang, W., Cui, Y.
2014; 14 (8): 4573-4580
- **Interconnected hollow carbon nanospheres for stable lithium metal anodes.** *Nature nanotechnology*
Zheng, G., Lee, S. W., Liang, Z., Lee, H., Yan, K., Yao, H., Wang, H., Li, W., Chu, S., Cui, Y.
2014; 9 (8): 618-623
- **Electrolessly deposited electrospun metal nanowire transparent electrodes.** *Journal of the American Chemical Society*
Hsu, P., Kong, D., Wang, S., Wang, H., Welch, A. J., Wu, H., Cui, Y.
2014; 136 (30): 10593-10596
- **Metamaterial mirrors in optoelectronic devices.** *Nature nanotechnology*
Esfandiyarpour, M., Garnett, E. C., Cui, Y., McGehee, M. D., Brongersma, M. L.
2014; 9 (7): 542-547
- **Electrochemical Tuning of MoS₂ Nanoparticles on Three-Dimensional Substrate for Efficient Hydrogen Evolution.** *ACS nano*
Wang, H., Lu, Z., Kong, D., Sun, J., Hymel, T. M., Cui, Y.
2014; 8 (5): 4940-4947
- **Sulfur cathodes with hydrogen reduced titanium dioxide inverse opal structure.** *ACS nano*
Liang, Z., Zheng, G., Li, W., Seh, Z. W., Yao, H., Yan, K., Kong, D., Cui, Y.
2014; 8 (5): 5249-5256

- **One-dimensional helical transport in topological insulator nanowire interferometers.** *Nano letters*
Hong, S. S., Zhang, Y., Cha, J. J., Qi, X., Cui, Y.
2014; 14 (5): 2815-2821
- **Light management for photovoltaics using high-index nanostructures** *NATURE MATERIALS*
Brongersma, M. L., Cui, Y., Fan, S.
2014; 13 (5): 451-460
- **CoSe₂ Nanoparticles Grown on Carbon Fiber Paper: An Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction.** *Journal of the American Chemical Society*
Kong, D., Wang, H., Lu, Z., Cui, Y.
2014; 136 (13): 4897-4900
- **Tuning the threshold voltage of carbon nanotube transistors by n-type molecular doping for robust and flexible complementary circuits.** *Proceedings of the National Academy of Sciences of the United States of America*
Wang, H., Wei, P., Li, Y., Han, J., Lee, H. R., Naab, B. D., Liu, N., Wang, C., Adjianto, E., Tee, B. C., Morishita, S., Li, Q., Gao, et al
2014; 111 (13): 4776-4781
- **A pomegranate-inspired nanoscale design for large-volume-change lithium battery anodes.** *Nature nanotechnology*
Liu, N., Lu, Z., Zhao, J., McDowell, M. T., Lee, H., Zhao, W., Cui, Y.
2014; 9 (3): 187-192
- **Facile synthesis of Li₂S-polypyrrole composite structures for high-performance Li₂S cathodes** *Energy and Environmental Science*
Seh, Z., W., Wang, H., Hsu, P., C., Zhang, Q., Li, W., Zheng, G., Cui, Y.
2014
- **An electrochemical system for efficiently harvesting low-grade heat energy.** *Nature communications*
Lee, S. W., Yang, Y., Lee, H., Ghasemi, H., Kraemer, D., Chen, G., Cui, Y.
2014; 5: 3942-?
- **Dry-air-stable lithium silicide-lithium oxide core-shell nanoparticles as high-capacity prelithiation reagents.** *Nature communications*
Zhao, J., Lu, Z., Liu, N., Lee, H., McDowell, M. T., Cui, Y.
2014; 5: 5088-?
- **Manganese hexacyanomanganate open framework as a high-capacity positive electrode material for sodium-ion batteries.** *Nature communications*
Lee, H., Wang, R. Y., Pasta, M., Woo Lee, S., Liu, N., Cui, Y.
2014; 5: 5280-?
- **Full open-framework batteries for stationary energy storage.** *Nature communications*
Pasta, M., Wessells, C. D., Liu, N., Nelson, J., McDowell, M. T., Huggins, R. A., Toney, M. F., Cui, Y.
2014; 5: 3007-?
- **Improving lithium-sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface.** *Nature communications*
Yao, H., Zheng, G., Hsu, P., Kong, D., Cha, J. J., Li, W., Seh, Z. W., McDowell, M. T., Yan, K., Liang, Z., Narasimhan, V. K., Cui, Y.
2014; 5: 3943-?
- **Electrochemical tuning of layered lithium transition metal oxides for improvement of oxygen evolution reaction.** *Nature communications*
Lu, Z., Wang, H., Kong, D., Yan, K., Hsu, P., Zheng, G., Yao, H., Liang, Z., Sun, X., Cui, Y.
2014; 5: 4345-?
- **Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes.** *Nature communications*
Seh, Z. W., Yu, J. H., Li, W., Hsu, P., Wang, H., Sun, Y., Yao, H., Zhang, Q., Cui, Y.
2014; 5: 5017-?
- **Improving battery safety by early detection of internal shorting with a bifunctional separator.** *Nature communications*
Wu, H., Zhuo, D., Kong, D., Cui, Y.
2014; 5: 5193-?

- **A residue-free green synergistic antifungal nanotechnology for pesticide thiram by ZnO nanoparticles.** *Scientific reports*
Xue, J., Luo, Z., Li, P., Ding, Y., Cui, Y., Wu, Q.
2014; 4: 5408-?
- **Iridium oxide nanotube electrodes for sensitive and prolonged intracellular measurement of action potentials.** *Nature communications*
Lin, Z. C., Xie, C., Osakada, Y., Cui, Y., Cui, B.
2014; 5: 3206-?
- **Effect of the alkali insertion ion on the electrochemical properties of nickel hexacyanoferrate electrodes.** *Faraday discussions*
Lee, H., Pasta, M., Wang, R. Y., Ruffo, R., Cui, Y.
2014; 176: 69-81
- **Light Trapping in Photonic Crystals** *Conference on Thin Films for Solar and Energy Technology VI*
Wang, K. X., Yu, Z., Liu, V., Raman, A., Cui, Y., Fan, S.
SPIE-INT SOC OPTICAL ENGINEERING.2014
- **Full open-framework batteries for stationary energy storage** *Nature Communications*
Pasta, M., Wessells, C., D., Liu, N., Nelson, J., McDowell, M., T., Huggins, R., A., Cui, Y.
2014; 3007 (5)
- **Two-dimensional chalcogenide nanoplates as tunable metamaterials via chemical intercalation.** *Nano letters*
Cha, J. J., Koski, K. J., Huang, K. C., Wang, K. X., Luo, W., Kong, D., Yu, Z., Fan, S., Brongersma, M. L., Cui, Y.
2013; 13 (12): 5913-5918
- **Electrochemical tuning of vertically aligned MoS₂ nanofilms and its application in improving hydrogen evolution reaction** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Wang, H., Lu, Z., Xu, S., Kong, D., Cha, J. J., Zheng, G., Hsu, P., Yan, K., Bradshaw, D., Prinz, F. B., Cui, Y.
2013; 110 (49): 19701-19706
- **First-row transition metal dichalcogenide catalysts for hydrogen evolution reaction** *ENERGY & ENVIRONMENTAL SCIENCE*
Kong, D., Cha, J. J., Wang, H., Lee, H. R., Cui, Y.
2013; 6 (12): 3553-3558
- **Self-healing chemistry enables the stable operation of silicon microparticle anodes for high-energy lithium-ion batteries.** *Nature chemistry*
Wang, C., Wu, H., Chen, Z., McDowell, M. T., Cui, Y., Bao, Z.
2013; 5 (12): 1042-8
- **Elastic moduli of polycrystalline Li₁₅Si₄ produced in lithium ion batteries** *JOURNAL OF POWER SOURCES*
Zeng, Z., Liu, N., Zeng, Q., Ding, Y., Qu, S., Cui, Y., Mao, W. L.
2013; 242: 732-735
- **Highly reversible open framework nanoscale electrodes for divalent ion batteries.** *Nano letters*
Wang, R. Y., Wessells, C. D., Huggins, R. A., Cui, Y.
2013; 13 (11): 5748-5752
- **Understanding the role of different conductive polymers in improving the nanostructured sulfur cathode performance.** *Nano letters*
Li, W., Zhang, Q., Zheng, G., Seh, Z. W., Yao, H., Cui, Y.
2013; 13 (11): 5534-5540
- **High-Efficiency Nanostructured Window GaAs Solar Cells.** *Nano letters*
Liang, D., Kang, Y., Huo, Y., Chen, Y., Cui, Y., Harris, J. S.
2013; 13 (10): 4850-4856
- **Microbial battery for efficient energy recovery** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Xie, X., Ye, M., Hsu, P., Liu, N., Criddle, C. S., Cui, Y.
2013; 110 (40): 15925-15930
- **Conducting nanosponge electroporation for affordable and high-efficiency disinfection of bacteria and viruses in water.** *Nano letters*
Liu, C., Xie, X., Zhao, W., Liu, N., Maraccini, P. A., Sassoubre, L. M., Boehm, A. B., Cui, Y.

2013; 13 (9): 4288-4293

- **Large-area free-standing ultrathin single-crystal silicon as processable materials.** *Nano letters*
Wang, S., Weil, B. D., Li, Y., Wang, K. X., Garnett, E., Fan, S., Cui, Y.
2013; 13 (9): 4393-4398
- **25th Anniversary Article: Understanding the Lithiation of Silicon and Other Alloying Anodes for Lithium-Ion Batteries** *ADVANCED MATERIALS*
McDowell, M. T., Lee, S. W., Nix, W. D., Cui, Y.
2013; 25 (36): 4966-4984
- **Crab shells as sustainable templates from nature for nanostructured battery electrodes.** *Nano letters*
Yao, H., Zheng, G., Li, W., McDowell, M. T., Seh, Z., Liu, N., Lu, Z., Cui, Y.
2013; 13 (7): 3385-3390
- **MoSe₂ and WSe₂ nanofilms with vertically aligned molecular layers on curved and rough surfaces.** *Nano letters*
Wang, H., Kong, D., Johannes, P., Cha, J. J., Zheng, G., Yan, K., Liu, N., Cui, Y.
2013; 13 (7): 3426-3433
- **Reliable reference electrodes for lithium-ion batteries** *ELECTROCHEMISTRY COMMUNICATIONS*
La Mantia, F., Wessells, C. D., Deshazer, H. D., Cui, Y.
2013; 31: 141-144
- **The new skinny in two-dimensional nanomaterials.** *ACS nano*
Koski, K. J., Cui, Y.
2013; 7 (5): 3739-3743
- **A transparent electrode based on a metal nanotrough network.** *Nature nanotechnology*
Wu, H., Kong, D., Ruan, Z., Hsu, P., Wang, S., Yu, Z., Carney, T. J., Hu, L., Fan, S., Cui, Y.
2013; 8 (6): 421-425
- **Tuning the Dirac Point in CVD-Grown Graphene through Solution Processed n-Type Doping with 2-(2-Methoxyphenyl)-1,3-dimethyl-2,3-dihydro-1H-benzimidazole.** *Nano letters*
Wei, P., Liu, N., Lee, H. R., Adijanto, E., Ci, L., Naab, B. D., Zhong, J. Q., Park, J., Chen, W., Cui, Y., Bao, Z.
2013; 13 (5): 1890-1897
- **A membrane-free lithium/polysulfide semi-liquid battery for large-scale energy storage** *ENERGY & ENVIRONMENTAL SCIENCE*
Yang, Y., Zheng, G., Cui, Y.
2013; 6 (5): 1552-1558
- **High-performance hollow sulfur nanostructured battery cathode through a scalable, room temperature, one-step, bottom-up approach.** *Proceedings of the National Academy of Sciences of the United States of America*
Li, W., Zheng, G., Yang, Y., Seh, Z. W., Liu, N., Cui, Y.
2013; 110 (18): 7148-7153
- **CuInSe₂ Nanowires from Facile Chemical Transformation of In₂Se₃ and Their Integration in Single-Nanowire Devices** *ACS NANO*
Schoen, D. T., Peng, H., Cui, Y.
2013; 7 (4): 3205-3211
- **Progress, Challenges, and Opportunities in Two-Dimensional Materials Beyond Graphene** *ACS NANO*
Butler, S. Z., Hollen, S. M., Cao, L., Cui, Y., Gupta, J. A., Gutierrez, H. R., Heinz, T. F., Hong, S. S., Huang, J., Ismach, A. F., Johnston-Halperin, E., Kuno, M., Plashnitsa, et al
2013; 7 (4): 2898-2926
- **Nanostructured paper for flexible energy and electronic devices** *MRS BULLETIN*
Zheng, G., Cui, Y., Karabulut, E., Wagberg, L., Zhu, H., Hu, L.
2013; 38 (4): 320-325
- **Amphiphilic Surface Modification of Hollow Carbon Nanofibers for Improved Cycle Life of Lithium Sulfur Batteries** *NANO LETTERS*
Zheng, G., Zhang, Q., Cha, J. J., Yang, Y., Li, W., Seh, Z. W., Cui, Y.
2013; 13 (3): 1265-1270

- **Synthesis of MoS₂ and MoSe₂ Films with Vertically Aligned Layers** *NANO LETTERS*
Kong, D., Wang, H., Cha, J. J., Pasta, M., Koski, K. J., Yao, J., Cui, Y.
2013; 13 (3): 1341-1347
- **Hybrid nanostructured materials for high-performance electrochemical capacitors** *NANO ENERGY*
Yu, G., Xie, X., Pan, L., Bao, Z., Cui, Y.
2013; 2 (2): 213-234
- **Ambipolar field effect in Sb-doped Bi₂Se₃ nanoplates by solvothermal synthesis.** *Nano letters*
Kong, D., Koski, K. J., Cha, J. J., Hong, S. S., Cui, Y.
2013; 13 (2): 632-636
- **Behaviors of Fe, Zn, and Ga Substitution in CuInS₂ Nanoparticles Probed with Anomalous X-ray Diffraction** *CHEMISTRY OF MATERIALS*
Connor, S. T., Weil, B. D., Misra, S., Cui, Y., Toney, M. F.
2013; 25 (3): 320-325
- **Observation of Temperature-Induced Crossover to an Orbital-Selective Mott Phase in A(x)Fe(2-y)Se(2) (A = K, Rb) Superconductors** *PHYSICAL REVIEW LETTERS*
Yi, M., Lu, D. H., Yu, R., Riggs, S. C., Chu, J., Lv, B., Liu, Z. K., Lu, M., Cui, Y., Hashimoto, M., Mo, S., Hussain, Z., Chu, et al
2013; 110 (6)
- **Topological insulator nanostructures** *PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS*
Cha, J. J., Koski, K. J., Cui, Y.
2013; 7 (1-2): 15-25
- **In Situ TEM of Two-Phase Lithiation of Amorphous Silicon Nanospheres** *NANO LETTERS*
McDowell, M. T., Lee, S. W., Harris, J. T., Korgel, B. A., Wang, C., Nix, W. D., Cui, Y.
2013; 13 (2): 758-764
- **Transparent and conductive paper from nanocellulose fibers** *ENERGY & ENVIRONMENTAL SCIENCE*
Hu, L., Zheng, G., Yao, J., Liu, N., Weil, B., Eskilsson, M., Karabulut, E., Ruan, Z., Fan, S., Bloking, J. T., McGehee, M. D., Wagberg, L., Cui, et al
2013; 6 (2): 513-518
- **Critical-temperature/Peierls-stress dependent size effects in body centered cubic nanopillars** *APPLIED PHYSICS LETTERS*
Han, S. M., Feng, G., Jung, J. Y., Jung, H. J., Groves, J. R., Nix, W. D., Cui, Y.
2013; 102 (4)
- **Sulphur-TiO₂ yolk-shell nanoarchitecture with internal void space for long-cycle lithium-sulphur batteries.** *Nature communications*
Wei Seh, Z., Li, W., Cha, J. J., Zheng, G., Yang, Y., McDowell, M. T., Hsu, P., Cui, Y.
2013; 4: 1331-?
- **A transparent electrode based on a metal nanotrough network** *Nature Nanotechnology*
Fan, S., H., Wu, H., Kong, S., D., Ruan et al., C., Z.
2013; 8 (6): 421-425
- **Stable Li-ion Battery Anodes by In-situ Polymerization of Conducting Hydrogel to Conformally Coat Silicon Nanoparticles** *Nature Comm.*
Wu, H., Yu, G., Pan, L., Liu, N., McDowell, M., T., Bao, Z.
2013; 4: 1943
- **Performance enhancement of metal nanowire transparent conducting electrodes by mesoscale metal wires.** *Nature communications*
Hsu, P., Wang, S., Wu, H., Narasimhan, V. K., Kong, D., Ryoung Lee, H., Cui, Y.
2013; 4: 2522-?
- **All-back-contact ultra-thin silicon nanocone solar cells with 13.7% power conversion efficiency.** *Nature communications*
Jeong, S., McGehee, M. D., Cui, Y.
2013; 4: 2950-?
- **Strengthening effect of single-atomic-layer graphene in metal-graphene nanolayered composites** *Nature Communications*
Kim, Y., Lee, J., Yeom, M. S., Shin, J., W., Kim, H., Cui, Y.
2013; 2114 (4)

- **Performance enhancement of metal nanowire transparent conducting electrodes by mesoscale metal wires** *Nature Communications*
Hsu, P., C., Wang, S., Wu, H., Narasimhan, V., K., Kong, D., Lee, H., R., Cui, Y.
2013; 2522 (4)
- **Self-healing chemistry enables the stable operation of silicon microparticle anodes for high-energy lithium-ion batteries** *Nature Chemistry*
Wang, C., Wu, H., Chen, Z., McDowell, M., T., Cui, Y., Bao, Z.
2013
- **High-performance hollow sulfur nanostructured battery cathode through a scalable, room temperature, one-step, bottom-up approach** *PNAS*
Li, W., Zheng, G., Yang, Y., Seh, Z., W., Liu, N., Cui, Y.
2013: 7148–53
- **Stable cycling of lithium sulfide cathodes through strong affinity with a bifunctional binder** *Chemical Science*
Seh, Z., W., Zhang, Q., Li, W., Zheng, G., Yao, H., Cui, Y.
2013
- **Critical-temperature/Peierls-stress dependent size effects in body centered cubic nanopillars** *Applied Physics Letters*
Han, S., M., Feng, G., Jung, J., Y., Jung, H., J., Groves, J., R., Nix, W., D., Cui, Y.
2013; 102: 41910
- **Electrochemical tuning of vertically aligned MoS₂ nanofilms and its application in improving hydrogen evolution reaction**
Wang, H., Lu, Z., Xu, S., Kong, D., Cha, J., J., Zheng, G., Cui, Y.
2013
- **Conducting nano-sponge electroporation for affordable and high-efficiency disinfection of bacteria and viruses in water.** *Nano Letters*
Liu, C., Xie, X., Zhao, W., Liu, N., Maraccini, P., A., Sassoubre, L., M., Cui, Y.
2013; 9 (13): 4288-4293
- **All-back-contact ultra-thin silicon nanocone solar cells with 13.7% power conversion efficiency** *Nature Communications*
Jeong, S., McGehee, M., D., Cui, Y.
2013; 2950 (4)
- **Understanding the Role of Different Conductive Polymers in Improving the Nanostructured Sulfur Cathode Performance** *Nano Letters*
Li, W., Zhang, Q., Zheng, G., Seh, Z., W., Yao, H., Cui, Y.
2013; 13: 5534-5540
- **Understanding the Lithiation of Silicon and Other Alloying Anodes for Lithium-Ion Batteries (25th Anniversary Article)** *Advanced Materials*
McDowell, M., T., Lee, S., W., Nix, W., D., Cui, Y.
2013
- **Microbial battery for efficient energy recovery.** *PNAS*
Xie, X., Ye, M., Hsu, P., C., Liu, N., Criddle, C., S., Cui, Y.
2013: 15925–30
- **Large-Area Free-Standing Ultrathin Single-Crystal Silicon as Processable Materials** *Nano Letters*
Wang, S., Weil, B., Li, Y., Wang, K., X., Garnett, E., Fan, S., Cui, Y.
2013: 4393–98
- **First-row transition metal dichalcogenide catalysts for hydrogen evolution reaction** *Energy and Environmental Science*
Kong, D., Cha, J., J., Wang, H., Lee, H., R., Cui, Y.
2013; 3553 (6)
- **Oxidation processes on conducting carbon additives for lithium-ion batteries** *JOURNAL OF APPLIED ELECTROCHEMISTRY*
La Mantia, F., Huggins, R. A., Cui, Y.
2013; 43 (1): 1-7
- **Nanostructured sulfur cathodes** *CHEMICAL SOCIETY REVIEWS*
Yang, Y., Zheng, G., Cui, Y.
2013; 42 (7): 3018-3032

- **The mechanism of ultrafast structural switching in superionic copper (I) sulphide nanocrystals** *NATURE COMMUNICATIONS*
Miller, T. A., Wittenberg, J. S., Wen, H., Connor, S., Cui, Y., Lindenberg, A. M.
2013; 4
- **Nanoporous silicon networks as anodes for lithium ion batteries** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
Zhu, J., Gladden, C., Liu, N., Cui, Y., Zhang, X.
2013; 15 (2): 440-443
- **Stable Li-ion battery anodes by in-situ polymerization of conducting hydrogel to conformally coat silicon nanoparticles.** *Nature communications*
Wu, H., Yu, G., Pan, L., Liu, N., McDowell, M. T., Bao, Z., Cui, Y.
2013; 4: 1943-?
- **Rice husks as a sustainable source of nanostructured silicon for high performance Li-ion battery anodes.** *Scientific reports*
Liu, N., Huo, K., McDowell, M. T., Zhao, J., Cui, Y.
2013; 3: 1919-?
- **Magnetically ultrasensitive nanoscavengers for next-generation water purification systems.** *Nature communications*
Zhang, M., Xie, X., Tang, M., Criddle, C. S., Cui, Y., Wang, S. X.
2013; 4: 1866-?
- **Imaging state of charge and its correlation to interaction variation in an LiMn_{0.75}Fe_{0.25}PO₄ nanorods-graphene hybrid** *CHEMICAL COMMUNICATIONS*
Zhou, J., Wang, J., Hu, Y., Regier, T., Wang, H., Yang, Y., Cui, Y., Dai, H.
2013; 49 (17): 1765-1767
- **Silicon-conductive nanopaper for Li-ion batteries** *NANO ENERGY*
Hu, L., Liu, N., Eskilsson, M., Zheng, G., McDonough, J., Wagberg, L., Cui, Y.
2013; 2 (1): 138-145
- **fSulphur-TiO₂ yolk-shell nanoarchitecture with internal void space for long-cycle lithium-sulphur batteries** *NATURE COMMUNICATIONS*
Seh, Z. W., Li, W., Cha, J. J., Zheng, G., Yang, Y., McDowell, M. T., Hsu, P., Cui, Y.
2013; 4
- **Nanoparticle and Microparticle Flow in Porous and Fractured Media-An Experimental Study** *SPE Annual Technical Conference and Exhibition*
Alaskar, M., Ames, M., Connor, S., Liu, C., Cui, Y., Li, K., Horne, R.
SOC PETROLEUM ENG.2012: 1160-71
- **Reaction Front Evolution during Electrochemical Lithiation of Crystalline Silicon Nanopillars** *ISRAEL JOURNAL OF CHEMISTRY*
Lee, S. W., Berla, L. A., McDowell, M. T., Nix, W. D., Cui, Y.
2012; 52 (11-12): 1118-1123
- **Studying the Kinetics of Crystalline Silicon Nanoparticle Lithiation with In Situ Transmission Electron Microscopy** *ADVANCED MATERIALS*
McDowell, M. T., Ryu, I., Lee, S. W., Wang, C., Nix, W. D., Cui, Y.
2012; 24 (45): 6034-?
- **Nanoscale photon management in silicon solar cells** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*
Jeong, S., Wang, S., Cui, Y.
2012; 30 (6)
- **Characterization of the Cell-Nanopillar Interface by Transmission Electron Microscopy** *NANO LETTERS*
Hanson, L., Lin, Z. C., Xie, C., Cui, Y., Cui, B.
2012; 12 (11): 5815-5820
- **A high-rate and long cycle life aqueous electrolyte battery for grid-scale energy storage** *NATURE COMMUNICATIONS*
Pasta, M., Wessells, C. D., Huggins, R. A., Cui, Y.
2012; 3
- **Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays** *ADVANCED ENERGY MATERIALS*
Liang, D., Huo, Y., Kang, Y., Wang, K. X., Gu, A., Tan, M., Yu, Z., Li, S., Jia, J., Bao, X., Wang, S., Yao, Y., Wong, et al

2012; 2 (10): 1254-1260

- **Designing nanostructured Si anodes for high energy lithium ion batteries** *NANO TODAY*
Wu, H., Cui, Y.
2012; 7 (5): 414-429
- **High-capacity micrometer-sized Li₂S particles as cathode materials for advanced rechargeable lithium-ion batteries.** *Journal of the American Chemical Society*
Yang, Y., Zheng, G., Misra, S., Nelson, J., Toney, M. F., Cui, Y.
2012; 134 (37): 15387-15394
- **Chemical Intercalation of Zerovalent Metals into 2D Layered Bi₂Se₃ Nanoribbons** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Koski, K. J., Wessells, C. D., Reed, B. W., Cha, J. J., Kong, D., Cui, Y.
2012; 134 (33): 13773-13779
- **Effects of Magnetic Doping on Weak Antilocalization in Narrow Bi₂Se₃ Nanoribbons** *NANO LETTERS*
Cha, J. J., Claassen, M., Kong, D., Hong, S. S., Koski, K. J., Qi, X., Cui, Y.
2012; 12 (8): 4355-4359
- **External push and internal pull forces recruit curvature-sensing N-BAR domain proteins to the plasma membrane** *NATURE CELL BIOLOGY*
Galic, M., Jeong, S., Tsai, F., Joubert, L., Wu, Y. I., Hahn, K. M., Cui, Y., Meyer, T.
2012; 14 (8): 874-U212
- **Unconventional Josephson Effect in Hybrid Superconductor-Topological Insulator Devices** *PHYSICAL REVIEW LETTERS*
Williams, J. R., Bestwick, A. J., Gallagher, P., Hong, S. S., Cui, Y., Bleich, A. S., Analytis, J. G., Fisher, I. R., Goldhaber-Gordon, D.
2012; 109 (5)
- **Rechargeable Li-O₂ batteries with a covalently coupled MnCo₂O₄-graphene hybrid as an oxygen cathode catalyst** *ENERGY & ENVIRONMENTAL SCIENCE*
Wang, H., Yang, Y., Liang, Y., Zheng, G., Li, Y., Cui, Y., Dai, H.
2012; 5 (7): 7931-7935
- **Improving the cycling stability of silicon nanowire anodes with conducting polymer coatings** *ENERGY & ENVIRONMENTAL SCIENCE*
Yao, Y., Liu, N., McDowell, M. T., Pasta, M., Cui, Y.
2012; 5 (7): 7927-7930
- **Hierarchical nanostructured conducting polymer hydrogel with high electrochemical activity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Pan, L., Yu, G., Zhai, D., Lee, H. R., Zhao, W., Liu, N., Wang, H., Tee, B. C., Shi, Y., Cui, Y., Bao, Z.
2012; 109 (24): 9287-9292
- **Hybrid Silicon Nanocone-Polymer Solar Cells** *NANO LETTERS*
Jeong, S., Garnett, E. C., Wang, S., Yu, Z., Fan, S., Brongersma, M. L., McGehee, M. D., Cui, Y.
2012; 12 (6): 2971-2976
- **High-Efficiency Amorphous Silicon Solar Cell on a Periodic Nanocone Back Reflector** *ADVANCED ENERGY MATERIALS*
Hsu, C., Battaglia, C., Pahud, C., Ruan, Z., Haug, F., Fan, S., Ballif, C., Cui, Y.
2012; 2 (6): 628-633
- **A Yolk-Shell Design for Stabilized and Scalable Li-Ion Battery Alloy Anodes** *NANO LETTERS*
Liu, N., Wu, H., McDowell, M. T., Yao, Y., Wang, C., Cui, Y.
2012; 12 (6): 3315-3321
- **Passivation Coating on Electrospun Copper Nanofibers for Stable Transparent Electrodes** *ACS NANO*
Hsu, P., Wu, H., Carney, T. J., McDowell, M. T., Yang, Y., Garnett, E. C., Li, M., Hu, L., Cui, Y.
2012; 6 (6): 5150-5156
- **In Situ X-ray Diffraction Studies of (De)lithiation Mechanism in Silicon Nanowire Anodes** *ACS NANO*
Misra, S., Liu, N., Nelson, J., Hong, S. S., Cui, Y., Toney, M. F.
2012; 6 (6): 5465-5473

- **Electrodeposited gold nanoparticles on carbon nanotube-textile: Anode material for glucose alkaline fuel cells** *ELECTROCHEMISTRY COMMUNICATIONS*
Pasta, M., Hu, L., La Mantia, F., Cui, Y.
2012; 19: 81-84
- **High-Density Chemical Intercalation of Zero-Valent Copper into Bi₂Se₃ Nanoribbons** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Koski, K. J., Cha, J. J., Reed, B. W., Wessells, C. D., Kong, D., Cui, Y.
2012; 134 (18): 7584-7587
- **Stable cycling of double-walled silicon nanotube battery anodes through solid-electrolyte interphase control.** *Nature nanotechnology*
Wu, H., Chan, G., Choi, J. W., Ryu, I., Yao, Y., McDowell, M. T., Lee, S. W., Jackson, A., Yang, Y., Hu, L., Cui, Y.
2012; 7 (5): 310-315
- **The effect of metallic coatings and crystallinity on the volume expansion of silicon during electrochemical lithiation/delithiation** *NANO ENERGY*
McDowell, M. T., Lee, S. W., Wang, C., Cui, Y.
2012; 1 (3): 401-410
- **Stable cycling of double-walled silicon nanotube battery anodes through solid-electrolyte interphase control** *NATURE NANOTECHNOLOGY*
Wu, H., Chan, G., Choi, J. W., Ryu, I., Yao, Y., McDowell, M. T., Lee, S. W., Jackson, A., Yang, Y., Hu, L., Cui, Y.
2012; 7 (5): 309-314
- **Graphene-sponges as high-performance low-cost anodes for microbial fuel cells** *ENERGY & ENVIRONMENTAL SCIENCE*
Xie, X., Yu, G., Liu, N., Bao, Z., Criddle, C. S., Cui, Y.
2012; 5 (5): 6862-6866
- **In Operando X-ray Diffraction and Transmission X-ray Microscopy of Lithium Sulfur Batteries** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Nelson, J., Misra, S., Yang, Y., Jackson, A., Liu, Y., Wang, H., Dai, H., Andrews, J. C., Cui, Y., Toney, M. F.
2012; 134 (14): 6337-6343
- **Energy and environmental nanotechnology in conductive paper and textiles** *ENERGY & ENVIRONMENTAL SCIENCE*
Hu, L., Cui, Y.
2012; 5 (4): 6423-6435
- **Fracture of crystalline silicon nanopillars during electrochemical lithium insertion** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Lee, S. W., McDowell, M. T., Berla, L. A., Nix, W. D., Cui, Y.
2012; 109 (11): 4080-4085
- **Intracellular recording of action potentials by nanopillar electroporation** *NATURE NANOTECHNOLOGY*
Xie, C., Lin, Z., Hanson, L., Cui, Y., Cui, B.
2012; 7 (3): 185-190
- **Light Trapping in Solar Cells: Can Periodic Beat Random?** *ACS NANO*
Battaglia, C., Hsu, C., Soederstroem, K., Escarre, J., Haug, F., Charriere, M., Boccard, M., Despeisse, M., Alexander, D. T., Cantoni, M., Cui, Y., Ballif, C.
2012; 6 (3): 2790-2797
- **Exotic Topological Insulator States and Topological Phase Transitions in Sb₂Se₃-Bi₂Se₃ Heterostructures** *ACS NANO*
Zhang, Q., Zhang, Z., Zhu, Z., Schwingenschloegl, U., Cui, Y.
2012; 6 (3): 2345-2352
- **Ultra-low carrier concentration and surface-dominant transport in antimony-doped Bi₂Se₃ topological insulator nanoribbons** *NATURE COMMUNICATIONS*
Hong, S. S., Cha, J. J., Kong, D., Cui, Y.
2012; 3
- **Self-limited plasmonic welding of silver nanowire junctions** *NATURE MATERIALS*
Garnett, E. C., Cai, W., Cha, J. J., Mahmood, F., Connor, S. T., Christoforo, M. G., Cui, Y., McGehee, M. D., Brongersma, M. L.

2012; 11 (3): 241-249

- **Absorption Enhancement in Ultrathin Crystalline Silicon Solar Cells with Antireflection and Light-Trapping Nanocone Gratings** *NANO LETTERS*
Wang, K. X., Yu, Z., Liu, V., Cui, Y., Fan, S.
2012; 12 (3): 1616-1619
- **High-Mobility Field-Effect Transistors from Large-Area Solution-Grown Aligned C-60 Single Crystals** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Li, H., Tee, B. C., Cha, J. J., Cui, Y., Chung, J. W., Lee, S. Y., Bao, Z.
2012; 134 (5): 2760-2765
- **Weak Antilocalization in Bi-2(SexTe1-x)(3) Nanoribbons and Nanoplates** *NANO LETTERS*
Cha, J. J., Kong, D., Hong, S., Analytis, J. G., Lai, K., Cui, Y.
2012; 12 (2): 1107-1111
- **Engineering Empty Space between Si Nanoparticles for Lithium-Ion Battery Anodes** *NANO LETTERS*
Wu, H., Zheng, G., Liu, N., Carney, T. J., Yang, Y., Cui, Y.
2012; 12 (2): 904-909
- **TOPOLOGICAL INSULATORS The surface surfaces** *NATURE NANOTECHNOLOGY*
Cha, J. J., Cui, Y.
2012; 7 (2): 85-86
- **Broadband light management using low-Q whispering gallery modes in spherical nanoshells** *NATURE COMMUNICATIONS*
Yao, Y., Yao, J., Narasimhan, V. K., Ruan, Z., Xie, C., Fan, S., Cui, Y.
2012; 3
- **Functionalization of silicon nanowire surfaces with metal-organic frameworks** *NANO RESEARCH*
Liu, N., Yao, Y., Cha, J. J., McDowell, M. T., Han, Y., Cui, Y.
2012; 5 (2): 109-116
- **A Desalination Battery** *NANO LETTERS*
Pasta, M., Wessells, C. D., Cui, Y., La Mantia, F.
2012; 12 (2): 839-843
- **Tunable Reaction Potentials in Open Framework Nanoparticle Battery Electrodes for Grid-Scale Energy Storage** *ACS NANO*
Wessells, C. D., McDowell, M. T., Peddada, S. V., Pasta, M., Huggins, R. A., Cui, Y.
2012; 6 (2): 1688-1694
- **Nanosecond in situ transmission electron microscope studies of the reversible Ge2Sb2Te5 crystalline double left right arrow amorphous phase transformation** *JOURNAL OF APPLIED PHYSICS*
Santala, M. K., Reed, B. W., Topuria, T., Raoux, S., Meister, S., Cui, Y., LaGrange, T., Campbell, G. H., Browning, N. D.
2012; 111 (2)
- **Nanofabricated optical and detector elements for light-field camera sensors** *Conference on Nanoengineering - Fabrication, Properties, Optics, and Devices IX*
Narasimhan, V. K., Cui, Y.
SPIE-INT SOC OPTICAL ENGINEERING.2012
- **The surface surfaces** *Nature Nanotechnology*
Cha, J. J., Cui, Y.
2012; 7: 85-86
- **High-capacity micrometer-sized Li(2)S particles as cathode materials for advanced rechargeable lithium-ion batteries** *JACS*
Yang, Y., Zheng, G., Misra, S., Nelson, J., Toney, M. F., Cui, Y.
2012; 37 (134): 15387-94
- **Antimicrobial Nanomaterials for Water Disinfection** *in Nano-Antimicrobials*
Liu, C., Xie, X., Cui, Y.
2012: 465-494

- **GaAs thin film nanostructure arrays for III-V solar cell applications** *Conference on Photonic and Phononic Properties of Engineered Nanostructures II*
Liang, D., Kang, Y., Huo, Y., Wang, K. X., Gu, A., Tan, M., Yu, Z., Lia, S., Jia, J., Bao, X., Wang, S., Yao, Y., Fan, et al
SPIE-INT SOC OPTICAL ENGINEERING.2012
- **The Effect of Insertion Species on Nanostructured Open Framework Hexacyanoferrate Battery Electrodes** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Wessells, C. D., Peddada, S. V., McDowell, M. T., Huggins, R. A., Cui, Y.
2012; 159 (2): A98-A103
- **Carbon nanotube-coated macroporous sponge for microbial fuel cell electrodes** *ENERGY & ENVIRONMENTAL SCIENCE*
Xie, X., Ye, M., Hu, L., Liu, N., McDonough, J. R., Chen, W., Alshareef, H. N., Criddle, C. S., Cui, Y.
2012; 5 (1): 5265-5270
- **Nickel Hexacyanoferrate Nanoparticle Electrodes For Aqueous Sodium and Potassium Ion Batteries** *NANO LETTERS*
Wessells, C. D., Peddada, S. V., Huggins, R. A., Cui, Y.
2011; 11 (12): 5421-5425
- **High-Performance Nanostructured Supercapacitors on a Sponge** *NANO LETTERS*
Chen, W., Rakhi, R. B., Hu, L., Xie, X., Cui, Y., Alshareef, H. N.
2011; 11 (12): 5165-5172
- **Lithium-Ion Textile Batteries with Large Areal Mass Loading** *ADVANCED ENERGY MATERIALS*
Hu, L., La Mantia, F., Wu, H., Xie, X., McDonough, J., Pasta, M., Cui, Y.
2011; 1 (6): 1012-1017
- **Ambipolar field effect in the ternary topological insulator (BixSb1-x)(2)Te-3 by composition tuning** *NATURE NANOTECHNOLOGY*
Kong, D., Chen, Y., Cha, J. J., Zhang, Q., Analytis, J. G., Lai, K., Liu, Z., Hong, S. S., Koski, K. J., Mo, S., Hussain, Z., Fisher, I. R., Shen, et al
2011; 6 (11): 705-709
- **Opportunities in chemistry and materials science for topological insulators and their nanostructures** *NATURE CHEMISTRY*
Kong, D., Cui, Y.
2011; 3 (11): 845-849
- **Copper hexacyanoferrate battery electrodes with long cycle life and high power** *NATURE COMMUNICATIONS*
Wessells, C. D., Huggins, R. A., Cui, Y.
2011; 2
- **Improving the Performance of Lithium-Sulfur Batteries by Conductive Polymer Coating** *ACS NANO*
Yang, Y., Yu, G., Cha, J. J., Wu, H., Vosgueritchian, M., Yao, Y., Bao, Z., Cui, Y.
2011; 5 (11): 9187-9193
- **Symmetrical MnO2-Carbon Nanotube-Textile Nanostructures for Wearable Pseudocapacitors with High Mass Loading** *ACS NANO*
Hu, L., Chen, W., Xie, X., Liu, N., Yang, Y., Wu, H., Yao, Y., Pasta, M., Alshareef, H. N., Cui, Y.
2011; 5 (11): 8904-8913
- **Single Nanostructure Electrochemical Devices for Studying Electronic Properties and Structural Changes in Lithiated Si Nanowires** *ADVANCED ENERGY MATERIALS*
McDowell, M. T., Cui, Y.
2011; 1 (5): 894-900
- **Metal nanogrids, nanowires, and nanofibers for transparent electrodes** *MRS BULLETIN*
Hu, L., Wu, H., Cui, Y.
2011; 36 (10): 760-765
- **Highly Conductive, Mechanically Robust, and Electrochemically Inactive TiC/C Nanofiber Scaffold for High-Performance Silicon Anode Batteries** *ACS NANO*
Yao, Y., Huo, K., Hu, L., Liu, N., Ha, J. J., McDowell, M. T., Chu, P. K., Cui, Y.
2011; 5 (10): 8346-8351

- **Hollow Carbon Nanofiber-Encapsulated Sulfur Cathodes for High Specific Capacity Rechargeable Lithium Batteries** *NANO LETTERS*
Zheng, G., Yang, Y., Cha, J. J., Hong, S. S., Cui, Y.
2011; 11 (10): 4462-4467
- **Enhancing the Supercapacitor Performance of Graphene/MnO₂ Nanostructured Electrodes by Conductive Wrapping** *NANO LETTERS*
Yu, G., Hu, L., Liu, N., Wang, H., Vosgueritchian, M., Yang, Y., Cui, Y., Bao, Z.
2011; 11 (10): 4438-4442
- **Size-dependent fracture of Si nanowire battery anodes** *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*
Ryu, I., Choi, J. W., Cui, Y., Nix, W. D.
2011; 59 (9): 1717-1730
- **Novel Size and Surface Oxide Effects in Silicon Nanowires as Lithium Battery Anodes** *NANO LETTERS*
McDowell, M. T., Lee, S. W., Ryu, I., Wu, H., Nix, W. D., Choi, J. W., Cui, Y.
2011; 11 (9): 4018-4025
- **Paper supercapacitors by a solvent-free drawing method** *ENERGY & ENVIRONMENTAL SCIENCE*
Zheng, G., Hu, L., Wu, H., Xie, X., Cui, Y.
2011; 4 (9): 3368-3373
- **Transparent lithium-ion batteries** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yang, Y., Jeong, S., Hu, L., Wu, H., Lee, S. W., Cui, Y.
2011; 108 (32): 13013-13018
- **Prelithiated Silicon Nanowires as an Anode for Lithium Ion Batteries** *ACS NANO*
Liu, N., Hu, L., McDowell, M. T., Jackson, A., Cui, Y.
2011; 5 (8): 6487-6493
- **Improved Solid Oxide Fuel Cell Performance with Nanostructured Electrolytes** *ACS NANO*
Chao, C., Hsu, C., Cui, Y., Prinz, F. B.
2011; 5 (7): 5692-5696
- **Graphene-Wrapped Sulfur Particles as a Rechargeable Lithium-Sulfur Battery Cathode Material with High Capacity and Cycling Stability** *NANO LETTERS*
Wang, H., Yang, Y., Liang, Y., Robinson, J. T., Li, Y., Jackson, A., Cui, Y., Dai, H.
2011; 11 (7): 2644-2647
- **Low-Temperature Self-Catalytic Growth of Tin Oxide Nanocones over Large Areas** *ACS NANO*
Jeong, S., McDowell, M. T., Cui, Y.
2011; 5 (7): 5800-5807
- **Interconnected Silicon Hollow Nanospheres for Lithium-Ion Battery Anodes with Long Cycle Life** *NANO LETTERS*
Yao, Y., McDowell, M. T., Ryu, I., Wu, H., Liu, N., Hu, L., Nix, W. D., Cui, Y.
2011; 11 (7): 2949-2954
- **Solution-Processed Graphene/MnO₂ Nanostructured Textiles for High-Performance Electrochemical Capacitors** *NANO LETTERS*
Yu, G., Hu, L., Vosgueritchian, M., Wang, H., Xie, X., McDonough, J. R., Cui, X., Cui, Y., Bao, Z.
2011; 11 (7): 2905-2911
- **Anomalous Shape Changes of Silicon Nanopillars by Electrochemical Lithiation** *NANO LETTERS*
Lee, S. W., McDowell, M. T., Choi, J. W., Cui, Y.
2011; 11 (7): 3034-3039
- **Silicon-Carbon Nanotube Coaxial Sponge as Li-Ion Anodes with High Areal Capacity** *ADVANCED ENERGY MATERIALS*
Hu, L., Wu, H., Gao, Y., Cao, A., Li, H., McDough, J., Xie, X., Zhou, M., Cui, Y.
2011; 1 (4): 523-527
- **Electrochemical characterization of LiCoO₂ as rechargeable electrode in aqueous LiNO₃ electrolyte** *17th International Conference on Solid State Ionics*
Ruffo, R., La Mantia, F., Wessells, C., Huggins, R. A., Cui, Y.

ELSEVIER SCIENCE BV.2011: 289–92

- **Rapid Surface Oxidation as a Source of Surface Degradation Factor for Bi₂Se₃** *ACS NANO*
Kong, D., Cha, J. J., Lai, K., Peng, H., Analytis, J. G., Meister, S., Chen, Y., Zhang, H., Fisher, I. R., Shen, Z., Cui, Y.
2011; 5 (6): 4698–4703
- **Compressional Behavior of Bulk and Nanorod LiMn₂O₄ under Nonhydrostatic Stress** *JOURNAL OF PHYSICAL CHEMISTRY C*
Lin, Y., Yang, Y., Ma, H., Cui, Y., Mao, W. L.
2011; 115 (20): 9844–9849
- **Anisotropic Lithium Insertion Behavior in Silicon Nanowires: Binding Energy, Diffusion Barrier, and Strain Effect** *JOURNAL OF PHYSICAL CHEMISTRY C*
Zhang, Q., Cui, Y., Wang, E.
2011; 115 (19): 9376–9381
- **Batteries for Efficient Energy Extraction from a Water Salinity Difference** *NANO LETTERS*
La Mantia, F., Pasta, M., Deshazer, H. D., Logan, B. E., Cui, Y.
2011; 11 (4): 1810–1813
- **Nano-structured textiles as high-performance aqueous cathodes for microbial fuel cells** *ENERGY & ENVIRONMENTAL SCIENCE*
Xie, X., Pasta, M., Hu, L., Yang, Y., McDonough, J., Cha, J., Criddle, C. S., Cui, Y.
2011; 4 (4): 1293–1297
- **In Situ Transmission Electron Microscopy Observation of Nanostructural Changes in Phase-Change Memory** *ACS NANO*
Meister, S., Kim, S., Cha, J. J., Wong, H. P., Cui, Y.
2011; 5 (4): 2742–2748
- **Vertical nanopillars for highly localized fluorescence imaging** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Xie, C., Hanson, L., Cui, Y., Cui, B.
2011; 108 (10): 3894–3899
- **Recent results on aqueous electrolyte cells** *JOURNAL OF POWER SOURCES*
Wessells, C., Huggins, R. A., Cui, Y.
2011; 196 (5): 2884–2888
- **Effects of Nanostructured Back Reflectors on the External Quantum Efficiency in Thin Film Solar Cells** *NANO RESEARCH*
Hsu, C., Burkhard, G. F., McGehee, M. D., Cui, Y.
2011; 4 (2): 153–158
- **Low Reflectivity and High Flexibility of Tin-Doped Indium Oxide Nanofiber Transparent Electrodes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Wu, H., Hu, L., Carney, T., Ruan, Z., Kong, D., Yu, Z., Yao, Y., Cha, J. J., Zhu, J., Fan, S., Cui, Y.
2011; 133 (1): 27–29
- **Plasmonic Dye-Sensitized Solar Cells** *ADVANCED ENERGY MATERIALS*
Ding, I., Zhu, J., Cai, W., Moon, S., Cai, N., Wang, P., Zakeeruddin, S. M., Graetzel, M., Brongersma, M. L., Cui, Y., McGehee, M. D.
2011; 1 (1): 52–57
- **Carbon nanotube-coated macroporous sponge for microbial fuel cell electrodes** *Energy Environ. Sci.*
Xie, X., Ye, M., Hu, L., Liu, N., McDonough, J., R., Chen, W., Cui, Y.
2011
- **Symmetrical MnO₂ Carbon Nanotube Textile Nanostructures for Wearable Pseudocapacitors with High Mass Loading** *ACS Nano*
Hu, L., Chen, W., Xie, X., Liu, N., Yang, Y., Wu, H., Cui, Y.
2011
- **Low-Temperature Self-Catalytic Growth of Tin Oxide Nanocones over Large Area** *ACS Nano*
Jeong, S., McDowell, M., T., Cui, Y.
2011; 5: 5800–5807

- **Copper hexacyanoferrate battery electrodes with long cycle life and high power** *Nature Communications*
Wessells, C., D., Huggins, R., A., Cui, Y.
2011; 2:550
- **Inorganic Glue Enabling High Performance of Silicon Particles as Lithium Ion Battery Anode** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Cui, L., Hu, L., Wu, H., Choi, J. W., Cui, Y.
2011; 158 (5): A592-A596
- **Synthesis and Electrochemical Performance of a Lithium Titanium Phosphate Anode for Aqueous Lithium-Ion Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Wessells, C., La Mantia, F., Deshazer, H., Huggins, R. A., Cui, Y.
2011; 158 (3): A352-A355
- **One dimensional Si/Sn - based nanowires and nanotubes for lithium-ion energy storage materials** *JOURNAL OF MATERIALS CHEMISTRY*
Choi, N., Yao, Y., Cui, Y., Cho, J.
2011; 21 (27): 9825-9840
- **Si nanoparticle-decorated Si nanowire networks for Li-ion battery anodes** *CHEMICAL COMMUNICATIONS*
Hu, L., Wu, H., Hong, S. S., Cui, L., McDonough, J. R., Bohy, S., Cui, Y.
2011; 47 (1): 367-369
- **One Nanometer Resolution Electrical Probe via Atomic Metal Filament Formation** *NANO LETTERS*
Hong, S. S., Cha, J. J., Cui, Y.
2011; 11 (1): 231-235
- **LiMn_{1-x}FexPO₄ Nanorods Grown on Graphene Sheets for Ultrahigh-Rate-Performance Lithium Ion Batteries** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
Wang, H., Yang, Y., Liang, Y., Cui, L., Casalongue, H. S., Li, Y., Hong, G., Cui, Y., Dai, H.
2011; 50 (32): 7364-7368
- **Synthesis of Nanoscale Lithium-Ion Battery Cathode Materials Using a Porous Polymer Precursor Method** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Deshazer, H. D., La Mantia, F., Wessells, C., Huggins, R. A., Cui, Y.
2011; 158 (10): A1079-A1082
- **Nanowire Solar Cells** *ANNUAL REVIEW OF MATERIALS RESEARCH, VOL 41*
Garnett, E. C., Brongersma, M. L., Cui, Y., McGehee, M. D.
2011; 41: 269-295
- **Three-Dimensional Carbon Nanotube-Textile Anode for High-Performance Microbial Fuel Cells** *NANO LETTERS*
Xie, X., Hu, L., Pasta, M., Wells, G. F., Kong, D., Criddle, C. S., Cui, Y.
2011; 11 (1): 291-296
- **Metal current collector-free freestanding silicon-carbon 1D nanocomposites for ultralight anodes in lithium ion batteries** *JOURNAL OF POWER SOURCES*
Choi, J. W., Hu, L., Cui, L., McDonough, J. R., Cui, Y.
2010; 195 (24): 8311-8316
- **Microcompression of Fused Silica Nanopillars Synthesized Using Reactive Ion Etching** *NANOSCIENCE AND NANOTECHNOLOGY LETTERS*
Han, S. M., Xie, C., Cui, Y.
2010; 2 (4): 344-347
- **Nanostructured photon management for high performance solar cells** *MATERIALS SCIENCE & ENGINEERING R-REPORTS*
Zhu, J., Yu, Z., Fan, S., Cui, Y.
2010; 70 (3-6): 330-340
- **First principles study of lithium insertion in bulk silicon** *JOURNAL OF PHYSICS-CONDENSED MATTER*
Wan, W., Zhang, Q., Cui, Y., Wang, E.

2010; 22 (41)

- **Mn3O4-Graphene Hybrid as a High-Capacity Anode Material for Lithium Ion Batteries** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Wang, H., Cui, L., Yang, Y., Casalongue, H. S., Robinson, J. T., Liang, Y., Cui, Y., Dai, H.
2010; 132 (40): 13978-13980
- **A new approach to glucose sensing at gold electrodes** *ELECTROCHEMISTRY COMMUNICATIONS*
Pasta, M., La Mantia, F., Cui, Y.
2010; 12 (10): 1407-1410
- **Noninvasive Neuron Pinning with Nanopillar Arrays** *NANO LETTERS*
Xie, C., Hanson, L., Xie, W., Lin, Z., Cui, B., Cui, Y.
2010; 10 (10): 4020-4024
- **Electrospun Metal Nanofiber Webs as High-Performance Transparent Electrode** *NANO LETTERS*
Wu, H., Hu, L., Rowell, M. W., Kong, D., Cha, J. J., McDonough, J. R., Zhu, J., Yang, Y., McGehee, M. D., Cui, Y.
2010; 10 (10): 4242-4248
- **Ultrathin Spinel LiMn2O4 Nanowires as High Power Cathode Materials for Li-Ion Batteries** *NANO LETTERS*
Lee, H., Muralidharan, P., Ruffo, R., Mari, C. M., Cui, Y., Kim, D. K.
2010; 10 (10): 3852-3856
- **Thin, Flexible Secondary Li-Ion Paper Batteries** *ACS NANO*
Hu, L., Wu, H., La Mantia, F., Yang, Y., Cui, Y.
2010; 4 (10): 5843-5848
- **High Speed Water Sterilization Using One-Dimensional Nanostructures** *NANO LETTERS*
Schoen, D. T., Schoen, A. P., Hu, L., Kim, H. S., Heilshorn, S. C., Cui, Y.
2010; 10 (9): 3628-3632
- **Lithium Insertion In Silicon Nanowires: An ab Initio Study** *NANO LETTERS*
Zhang, Q., Zhang, W., Wan, W., Cui, Y., Wang, E.
2010; 10 (9): 3243-3249
- **Fast and Scalable Printing of Large Area Monolayer Nanoparticles for Nanotexturing Applications** *NANO LETTERS*
Jeong, S., Hu, L., Lee, H. R., Garnett, E., Choi, J. W., Cui, Y.
2010; 10 (8): 2989-2994
- **Ultrathin Topological Insulator Bi2Se3 Nanoribbons Exfoliated by Atomic Force Microscopy** *NANO LETTERS*
Hong, S. S., Kundhikanjana, W., Cha, J. J., Lai, K., Kong, D., Meister, S., Kelly, M. A., Shen, Z., Cui, Y.
2010; 10 (8): 3118-3122
- **Mechanism of glucose electrochemical oxidation on gold surface** *ELECTROCHIMICA ACTA*
Pasta, M., La Mantia, F., Cui, Y.
2010; 55 (20): 5561-5568
- **Light-Weight Free-Standing Carbon Nanotube-Silicon Films for Anodes of Lithium Ion Batteries** *ACS NANO*
Cui, L., Hu, L., Choi, J. W., Cui, Y.
2010; 4 (7): 3671-3678
- **Nanodome Solar Cells with Efficient Light Management and Self-Cleaning** *NANO LETTERS*
Zhu, J., Hsu, C., Yu, Z., Fan, S., Cui, Y.
2010; 10 (6): 1979-1984
- **Aqueous supercapacitors on conductive cotton** *NANO RESEARCH*
Pasta, M., La Mantia, F., Hu, L., Deshazer, H. D., Cui, Y.
2010; 3 (6): 452-458
- **Few-Layer Nanoplates of Bi2Se3 and Bi2Te3 with Highly Tunable Chemical Potential** *NANO LETTERS*
Kong, D., Dang, W., Cha, J. J., Li, H., Meister, S., Peng, H., Liu, Z., Cui, Y.

2010; 10 (6): 2245-2250

- **CuInS₂ Solar Cells by Air-Stable Ink Rolling** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Weil, B. D., Connor, S. T., Cui, Y.
2010; 132 (19): 6642-?
- **Printed energy storage devices by integration of electrodes and separators into single sheets of paper** *APPLIED PHYSICS LETTERS*
Hu, L., Wu, H., Cui, Y.
2010; 96 (18)
- **Scalable Coating and Properties of Transparent, Flexible, Silver Nanowire Electrodes** *ACS NANO*
Hu, L., Kim, H. S., Lee, J., Peumans, P., Cui, Y.
2010; 4 (5): 2955-2963
- **Stepwise Nanopore Evolution in One-Dimensional Nanostructures** *NANO LETTERS*
Choi, J. W., McDonough, J., Jeong, S., Yoo, J. S., Chan, C. K., Cui, Y.
2010; 10 (4): 1409-1413
- **New Nanostructured Li₂S/Silicon Rechargeable Battery with High Specific Energy** *NANO LETTERS*
Yang, Y., McDowell, M. T., Jackson, A., Cha, J. J., Hong, S. S., Cui, Y.
2010; 10 (4): 1486-1491
- **Semitransparent Organic Photovoltaic Cells with Laminated Top Electrode** *NANO LETTERS*
Lee, J., Connor, S. T., Cui, Y., Peumans, P.
2010; 10 (4): 1276-1279
- **Nanowire platform for mapping neural circuits** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Xie, C., Cui, Y.
2010; 107 (10): 4489-4490
- **Aharonov-Bohm interference in topological insulator nanoribbons** *NATURE MATERIALS*
Peng, H., Lai, K., Kong, D., Meister, S., Chen, Y., Qi, X., Zhang, S., Shen, Z., Cui, Y.
2010; 9 (3): 225-229
- **PHOTOVOLTAICS More solar cells for less** *NATURE MATERIALS*
Zhu, J., Cui, Y.
2010; 9 (3): 183-184
- **Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons** *NANO LETTERS*
Cha, J. J., Williams, J. R., Kong, D., Meister, S., Peng, H., Bestwick, A. J., Gallagher, P., Goldhaber-Gordon, D., Cui, Y.
2010; 10 (3): 1076-1081
- **Solution-Grown Silicon Nanowires for Lithium-Ion Battery Anodes** *ACS NANO*
Chan, C. K., Patel, R. N., O'Connell, M. J., Korgel, B. A., Cui, Y.
2010; 4 (3): 1443-1450
- **Stretchable, Porous, and Conductive Energy Textiles** *NANO LETTERS*
Hu, L., Pasta, M., La Mantia, F., Cui, L., Jeong, S., Deshazer, H. D., Choi, J. W., Han, S. M., Cui, Y.
2010; 10 (2): 708-714
- **FACETING AND DISORDER IN NANOWIRE SOLAR CELL ARRAYS** *35th IEEE Photovoltaic Specialists Conference*
Pickett, E., Gu, A., Huo, Y., Garnett, E., Hu, S., Sarmiento, T., Thombare, S., Liang, D., Li, S., Cui, Y., McGehee, M., McIntyre, P., Harris, et al
IEEE.2010: 1848-1853
- **Amorphous silicon core-shell nanowire solar cells**
Zhu, J., Xu, Y., Wang, Q., Cui, Y.
2010
- **High Speed Water Sterilization Using One-Dimensional Nanostructures** *Nano Letters*
Schoen, D., T., Schoen, A., P., Hu, L., Kim, H., S., Heilshorn, S., C., Cui, Y.

2010; 10: 3628-3632

- **Silicon nanowire hybrid photovoltaics**
Garnett, E. C., Peters, C., Brongersma, M., Cui, Y., McGehee, M., D.
2010
- **More solar cells for less** *Nature Materials*
Zhu, J., Cui, Y.
2010; 9: 183-184
- **Low Reflectivity and High Flexibility of Tin-Doped Indium Oxide Nanofiber Transparent Electrodes** *Journal of the American Chemical Society*
Wu, H., Hu, L., Carney, T., Ruan, Z., Kong, D., Yu, Z., Cui, Y.
2010
- **DESIGN AND GROWTH OF III-V NANOWIRE SOLAR CELL ARRAYS ON LOW COST SUBSTRATES** *35th IEEE Photovoltaic Specialists Conference*
Gu, A., Huo, Y., Hu, S., Sarmiento, T., Pickett, E., Liang, D., Li, S., Lin, A., Thombare, S., Yu, Z., Fan, S., McIntyre, P., Cui, et al
IEEE.2010: 2034–2037
- **Nanopore Patterned Pt Array Electrodes for Triple Phase Boundary Study in Low Temperature SOFC** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Kim, Y. B., Hsu, C., Connor, S. T., Guer, T. M., Cui, Y., Prinz, F. B.
2010; 157 (9): B1269-B1274
- **Topological Insulator Nanowires and Nanoribbons** *NANO LETTERS*
Kong, D., Randel, J. C., Peng, H., Cha, J. J., Meister, S., Lai, K., Chen, Y., Shen, Z., Manoharan, H. C., Cui, Y.
2010; 10 (1): 329-333
- **SILICON NANOWIRE HYBRID PHOTOVOLTAICS** *35th IEEE Photovoltaic Specialists Conference*
Garnett, E. C., Peters, C., Brongersma, M., Cui, Y., McGehee, M.
IEEE.2010: 934–938
- **Investigations of the Electrochemical Stability of Aqueous Electrolytes for Lithium Battery Applications** *ELECTROCHEMICAL AND SOLID STATE LETTERS*
Wessells, C., Ruffo, R., Huggins, R. A., Cui, Y.
2010; 13 (5): A59-A61
- **AMORPHOUS SILICON CORE-SHELL NANOWIRE Schottky SOLAR CELLS** *35th IEEE Photovoltaic Specialists Conference*
Zhu, J., Xu, Y., Wang, Q., Cui, Y.
IEEE.2010: 453–456
- **Hard X-ray Full Field Nano-imaging of Bone and Nanowires at SSRL** *10th International Conference on Synchrotron Radiation Instrumentation*
Andrews, J. C., Pianetta, P., Meirer, F., Chen, J., Almeida, E., van der Meulen, M. C., Alwood, J. S., Lee, C., Zhu, J., Cui, Y.
AMER INST PHYSICS.2010: 79–82
- **Nanostructured Photon Management for High Performance Solar Cells** *3rd IEEE International NanoElectronics Conference (INEC)/Symposium on Nanoscience and Nanotechnology in China*
Cui, Y.
IEEE.2010: 32–33
- **Highly conductive paper for energy-storage devices** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Hu, L., Choi, J. W., Yang, Y., Jeong, S., La Mantia, F., Cui, L., Cui, Y.
2009; 106 (51): 21490-21494
- **Carbon nanofiber supercapacitors with large areal capacitances** *APPLIED PHYSICS LETTERS*
McDonough, J. R., Choi, J. W., Yang, Y., La Mantia, F., Zhang, Y., Cui, Y.
2009; 95 (24)
- **Single Nanorod Devices for Battery Diagnostics: A Case Study on LiMn2O4** *NANO LETTERS*
Yang, Y., Xie, C., Ruffo, R., Peng, H., Kim, D. K., Cui, Y.

2009; 9 (12): 4109-4114

- **Silicon Nanotube Battery Anodes** *NANO LETTERS*
Park, M., Kim, M. G., Joo, J., Kim, K., Kim, J., Ahn, S., Cui, Y., Cho, J.
2009; 9 (11): 3844-3847
- **Carbon-Silicon Core-Shell Nanowires as High Capacity Electrode for Lithium Ion Batteries** *NANO LETTERS*
Cui, L., Yang, Y., Hsu, C., Cui, Y.
2009; 9 (9): 3370-3374
- **Impedance Analysis of Silicon Nanowire Lithium Ion Battery Anodes** *JOURNAL OF PHYSICAL CHEMISTRY C*
Ruffo, R., Hong, S. S., Chan, C. K., Huggins, R. A., Cui, Y.
2009; 113 (26): 11390-11398
- **Anisotropy of Chemical Transformation from In₂Se₃ to CuInSe₂ Nanowires through Solid State Reaction** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Schoen, D. T., Peng, H., Cui, Y.
2009; 131 (23): 7973-?
- **Printable Thin Film Supercapacitors Using Single-Walled Carbon Nanotubes** *NANO LETTERS*
Kaempgen, M., Chan, C. K., Ma, J., Cui, Y., Gruner, G.
2009; 9 (5): 1872-1876
- **Surface chemistry and morphology of the solid electrolyte interphase on silicon nanowire lithium-ion battery anodes** *JOURNAL OF POWER SOURCES*
Chan, C. K., Ruffo, R., Hong, S. S., Cui, Y.
2009; 189 (2): 1132-1140
- **Phase Transformation of Biphasic Cu₂S-CuInS₂ to Monophasic CuInS₂ Nanorods** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Connor, S. T., Hsu, C., Weil, B. D., Aloni, S., Cui, Y.
2009; 131 (13): 4962-4966
- **Vacancy Ordering and Lithium Insertion in III₂VI₃ Nanowires** *NANO RESEARCH*
Peng, H., Zhang, X. F., Twisten, R. D., Cui, Y.
2009; 2 (4): 327-335
- **Structural and electrochemical study of the reaction of lithium with silicon nanowires** *14th International Meeting on Lithium Batteries*
Chan, C. K., Ruffo, R., Hong, S. S., Huggins, R. A., Cui, Y.
ELSEVIER SCIENCE BV.2009: 34-39
- **Tapping mode microwave impedance microscopy** *REVIEW OF SCIENTIFIC INSTRUMENTS*
Lai, K., Kundhikanjana, W., Peng, H., Cui, Y., Kelly, M. A., Shen, Z. X.
2009; 80 (4)
- **Nanoscale Electronic Inhomogeneity in In₂Se₃ Nanoribbons Revealed by Microwave Impedance Microscopy** *NANO LETTERS*
Lai, K., Peng, H., Kundhikanjana, W., Schoen, D. T., Xie, C., Meister, S., Cui, Y., Kelly, M. A., Shen, Z.
2009; 9 (3): 1265-1269
- **Efficient Multiple Exciton Generation Observed in Colloidal PbSe Quantum Dots with Temporally and Spectrally Resolved Intra-band Excitation** *NANO LETTERS*
Ji, M., Park, S., Connor, S. T., Mokari, T., Cui, Y., Gaffney, K. J.
2009; 9 (3): 1217-1222
- **Three-Dimensional Interconnected Silica Nanotubes Templated from Hyperbranched Nanowires** *SMALL*
Zhu, J., Peng, H., Connor, S. T., Cui, Y.
2009; 5 (4): 437-439
- **Nanoscale Electronic Inhomogeneity in In₂(Se)₃ Nanoribbons Revealed by Microwave Impedance Microscopy.** *Nano letters*
Lai, K., Peng, H., Kundhikanjana, W., Schoen, D. T., Xie, C., Meister, S., Cui, Y., Kelly, M. A., Shen, Z. X.
2009

- **Electrochemical behavior of LiCoO₂ as aqueous lithium-ion battery electrodes** *ELECTROCHEMISTRY COMMUNICATIONS*
Ruffo, R., Wessells, C., Huggins, R. A., Cui, Y.
2009; 11 (2): 247-249
- **Shape Evolution of Layer-Structured Bismuth Oxychloride Nanostructures via Low-Temperature Chemical Vapor Transport** *CHEMISTRY OF MATERIALS*
Peng, H., Chan, C. K., Meister, S., Zhang, X. F., Cui, Y.
2009; 21 (2): 247-252
- **Crystalline-Amorphous Core-Shell Silicon Nanowires for High Capacity and High Current Battery Electrodes** *NANO LETTERS*
Cui, L., Ruffo, R., Chan, C. K., Peng, H., Cui, Y.
2009; 9 (1): 491-495
- **Phase transformations in one-dimensional materials: applications in electronics and energy sciences** *JOURNAL OF MATERIALS CHEMISTRY*
Schoen, D. T., Meister, S., Peng, H., Chan, C., Yang, Y., Cui, Y.
2009; 19 (33): 5879-5890
- **Optical Absorption Enhancement in Amorphous Silicon Nanowire and Nanocone Arrays** *NANO LETTERS*
Zhu, J., Yu, Z., Burkhard, G. F., Hsu, C., Connor, S. T., Xu, Y., Wang, Q., McGehee, M., Fan, S., Cui, Y.
2009; 9 (1): 279-282
- **Void Formation Induced Electrical Switching in Phase-Change Nanowires** *NANO LETTERS*
Meister, S., Schoen, D. T., Topinka, M. A., Minor, A. M., Cui, Y.
2008; 8 (12): 4562-4567
- **Spinel LiMn₂O₄ Nanorods as Lithium Ion Battery Cathodes** *NANO LETTERS*
Kim, D. K., Muralidharan, P., Lee, H., Ruffo, R., Yang, Y., Chan, C. K., Peng, H., Huggins, R. A., Cui, Y.
2008; 8 (11): 3948-3952
- **Wafer-scale silicon nanopillars and nanocones by Langmuir-Blodgett assembly and etching** *APPLIED PHYSICS LETTERS*
Hsu, C., Connor, S. T., Tang, M. X., Cui, Y.
2008; 93 (13)
- **Formation of chiral branched nanowires by the Eshelby Twist** *NATURE NANOTECHNOLOGY*
Zhu, J., Peng, H., Marshall, A. F., Barnett, D. M., Nix, W. D., Cui, Y.
2008; 3 (8): 477-481
- **Large anisotropy of electrical properties in layer-structured In₂Se₃ nanowires** *NANO LETTERS*
Peng, H., Xie, C., Schoen, D. T., Cui, Y.
2008; 8 (5): 1511-1516
- **Solution-processed metal nanowire mesh transparent electrodes** *NANO LETTERS*
Lee, J., Connor, S. T., Cui, Y., Peumans, P.
2008; 8 (2): 689-692
- **High-performance lithium battery anodes using silicon nanowires** *NATURE NANOTECHNOLOGY*
Chan, C. K., Peng, H., Liu, G., McIlwrath, K., Zhang, X. F., Huggins, R. A., Cui, Y.
2008; 3 (1): 31-35
- **Nanowire Batteries for Next Generation Electronics** *IEEE International Electron Devices Meeting*
Chan, C. K., Connor, S. T., Yang, Y., Hsu, C., Huggins, R. A., Cui, Y.
IEEE.2008: 175-178
- **High capacity Li ion battery anodes using Ge nanowires** *NANO LETTERS*
Chan, C. K., Zhang, X. F., Cui, Y.
2008; 8 (1): 307-309
- **Ordered vacancy compounds and nanotube formation in CuInSe₂-CdS core-shell nanowires** *NANO LETTERS*
Peng, H., Xie, C., Schoen, D. T., McIlwrath, K., Zhang, X. F., Cui, Y.

2007; 7 (12): 3734-3738

- **Towards electrically driven nanowire single-photon sources** *SMALL*
Zhu, J., Cui, Y.
2007; 3 (8): 1322-1323
- **Electrical switching and phase transformation in silver selenide nanowires** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Schoen, D. T., Xie, C., Cui, Y.
2007; 129 (14): 4116-?
- **Hyperbranched lead selenide nanowire networks** *NANO LETTERS*
Zhu, J., Peng, H., Chan, C. K., Jarausch, K., Zhang, X. F., Cui, Y.
2007; 7 (4): 1095-1099
- **Fast, completely reversible Li insertion in vanadium pentoxide nanoribbons** *NANO LETTERS*
Chan, C. K., Peng, H., Twisten, R. D., Jarausch, K., Zhang, X. F., Cui, Y.
2007; 7 (2): 490-495
- **Synthesis and phase transformation of In₂Se₃ and CuInSe₂ nanowires** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Peng, H., Schoen, D. T., Meister, S., Zhang, X. F., Cui, Y.
2007; 129 (1): 34-35
- **Phase-change nanowires for non volatile memory** *Symposium on Materials and Processes for Nonvolatile Memories II held at the 2007 MRS Spring Meeting*
Cui, Y., Meister, S., Peng, H.
MATERIALS RESEARCH SOCIETY.2007: 299-304
- **Nanowires for Nanoscale Electronics, Biosensors and Energy Applications (invited paper)**
Meister, S., Chan, C., K., Peng, H., Cui, Y.
2007
- **Mechanical and Electrical Properties of CdTe Tetrapods Studied by Atomic Force Microscopy** *J. Chem. Phys.*
Fang, L., Park, J., Y., Cui, Y., Alivisatos, P., Shcrier, J., Lee, B.
2007; 127: 184704
- **Phase-Change Nanowires for Non Volatile Memory**
Meister, S., Peng, H., Cui, Y.
2007
- **Morphology control of layer-structured gallium selenide nanowires** *NANO LETTERS*
Peng, H., Meister, S., Chan, C. K., Zhang, X. F., Cui, Y.
2007; 7 (1): 199-203
- **Synthesis and characterization of phase-change nanowires** *NANO LETTERS*
Meister, S., Peng, H., Mcilwrath, K., Jarausch, K., Zhang, X. F., Cui, Y.
2006; 6 (7): 1514-1517
- **Electrical Transport Through a Single Nanoscale Semiconductor Branch Point** *Nano Letters*
Cui, Y., Banin, U., Björk, M., Alivisatos, A., P.
2005; 5: 1519-1523
- **Multiplexed Electrical Detection of Cancer Markers with Nanowire Sensor Arrays** *Nature Biotech.*
Zheng, G., Patolsky, F., Cui, Y., Wang, W., U., Lieber, C., M.
2005; 23: 1294-1301
- **Colloidal Nanocrystal Heterostructures with Linear and Branched Topology** *Nature*
Milliron, D., Hughes, S., Cui, Y., Manna, L., Li, J., Wang, L., W.
2004; 430: 190-195
- **Lithographically Directed Self-Assembly of Nanostructures** *J. Vac. Sci. Tech.*
Liddle, J., A., Cui, Y., Alivisatos, A., P.

2004; B22: 3409-3414

- **Controlled Growth and Structures of Molecular-Scale Silicon Nanowires** *Nano Letters*
Wu, Y., Cui, Y., Huynh, L., Barlett, C., Lieber, C., M.
2004; 4: 433-436
- **Integration of Colloidal Nanocrystals into Lithographically Patterned Devices** *Nano Letters*
Cui, Y., Bjork, M., Liddle, J., A., S?nnichsen, C., Boussert, B., Alivisatos, A., P.
2004; 4: 1093-1098
- **in Molecular Nanoelectronics** *Nanowires as Building Blocks for Nanoscale Electronics and Optoelectronic*
Duan, X., Huang, Y., Cui, Y., Lieber, C., M.
edited by Reed, M., Lee, T.
American Scientific Publisher.2003: 1
- **Nanowire Crossbar Arrays as Address Decoders for Integrated Nanosystems** *Science*
Zhong, Z., Wang, D., Cui, Y., Bockrath, M., W., Lieber, C., M.
2003; 302: 1377-1379
- **High Performance Silicon Nanowire Field Effect Transistors** *Nano Letters*
Cui, Y., Zhong, Z., Wang, D., Wang, W., U., Lieber, C., M.
2003; 3: 149-152
- **Nanowires as Building Blocks for Nanoscale Electronics and Optoelectronics** *in Molecular Nanoelectronics*
Duan, X., Huang, Y., Cui, Y., Lieber, C., M.
edited by Reed, M., Lee, T.
American Scientific Publisher.2003: 1
- **in Nanowires and Nanobelts- Materials, Properties, and Devices** *Nanowires as Building Blocks for Nanoscale Science and Technology*
Cui, Y., Duan, X., Huang, Y., Lieber, C., M.
edited by Wang, Z., L.
Kluwer Academic/Plenum Publishers.2003: 1
- **Nanowires as Building Blocks for Nanoscale Science and Technology** *in Nanowires and Nanobelts- Materials, Properties, and Devices*
Cui, Y., Duan, X., C., Y., Huang
edited by Wang, Z., L.
Kluwer Academic/Plenum Publishers.2003: 1
- **Gallium Nitride Nanowire Nanodevices** *Nano Letters*
Huang, Y., Duan, X., Cui, Y., Lieber, C., M.
2002; 2: 101-104
- **Diameter-Controlled Synthesis of Single Crystal Silicon Nanowires** *App. Phys. Lett.*
Cui, Y., Lauhon, L., J., Gudiksen, M., S., Wang, J., Lieber, C., M.
2001; 78: 2214-2216
- **Functional Nanoscale Electronic Devices Assembled using Silicon Nanowire Building Block** *Scienc*
Cui, Y., Lieber, C., M.
2001; 291: 851-853
- **Indium Phosphide Nanowires as Building Blocks for Nanoscale Electronic and Optoelectronic Devices** *Nature*
Duan, X., Huang, Y., Cui, Y., Wang, J., Lieber, C., M.
2001; 409: 66-69
- **Logic Gates and Computation from Assembled Nanowire Building Blocks** *Science*
Huang, Y., Duan, X., Cui, Y., Lauhon, L., J., Kim, K., Lieber, C., M.
2001; 294: 1313-1317
- **Nanowire Nanosensors for Highly-Sensitive, Selective and Integrated Detection of Biological and Chemical Species** *Scienc*
Cui, Y., Wei, Q., Park, H., Lieber, C., M.

2001; 293: 1289-1292

- **Highly Polarized Photoluminescence and Polarization-Sensitive Photodetectors from Single Indium Phosphide Nanowires** *Science*

Wang, J., Gudiksen, M., K., Duan, X., Cui, Y., Lieber, C., M.

2001; 293: 1455-1457

- **Doping and Electrical Transport in Silicon Nanowires** *J. Phys. Chem.*

Cui, Y., Duan, X., Hu, J., Lieber, C., M.

2000; B 104: 5213-5216

- **Two-dimensional chalcogenide nanoplates as tunable metamaterials via chemical intercalation** *Nano Letters*

Cha, J., J., Koski, K., J., Huang, K., C. Y., Wang, K., X., Luo, W., Kong, D., Cui, Y.