



## Hongjie Dai

The J.G. Jackson and C.J. Wood Professor in Chemistry

### CONTACT INFORMATION

#### • Administrative Contact

Mei Yee "Maggie" Yeung - Administrative Associate

**Email** meiyee18@stanford.edu

**Tel** (650) 724-7306

### Bio

---

#### BIO

Professor Dai's research spans chemistry, physics, and materials and biomedical sciences, leading to materials with properties useful in electronics, energy storage and biomedicine. Recent developments include near-infrared-II fluorescence imaging, ultra-sensitive diagnostic assays, a fast-charging aluminum battery and inexpensive electrocatalysts that split water into oxygen and hydrogen fuels.

Born in 1966 in Shaoyang, China, Hongjie Dai began his formal studies in physics at Tsinghua U. in Beijing (B.S. 1989) and applied sciences at Columbia U. (M.S. 1991). His doctoral work under Dr. Charles Lieber at Harvard U. (Ph.D. 1994) focused on charge-density waves and superconductivity. During postdoctoral research at Rice U. with Dr. Richard Smalley, he developed carbon nanotube probes for atomic force microscopy. He joined the Stanford faculty in 1997, and in 2007 was named Jackson-Wood Professor of Chemistry. Among many awards, he has been recognized with the ACS Pure Chemistry Award, APS McGroddy Prize for New Materials, Julius Springer Prize for Applied Physics and Materials Research Society Mid-Career Award. He has been elected to the American Academy of Arts and Sciences, AAAS and National Academy of Sciences.

The Dai Laboratory has advanced the synthesis and basic understanding of carbon nanomaterials and applications in nanoelectronics, nanomedicine, energy storage and electrocatalysis.

#### Nanomaterials

The Dai Lab pioneered some of the now-widespread uses of chemical vapor deposition for carbon nanotube (CNT) growth, including vertically aligned nanotubes and patterned growth of single-walled CNTs on wafer substrates, facilitating fundamental studies of their intrinsic properties. The group developed the synthesis of graphene nanoribbons, and of nanocrystals and nanoparticles on CNTs and graphene with controlled degrees of oxidation, producing a class of strongly coupled hybrid materials with advanced properties for electrochemistry, electrocatalysis and photocatalysis. The lab's synthesis of a novel plasmonic gold film has enhanced near-infrared fluorescence up to 100-fold, enabling ultra-sensitive assays of disease biomarkers.

#### Nanoscale Physics and Electronics

High quality nanotubes from his group's synthesis are widely used to investigate the electrical, mechanical, optical, electro-mechanical and thermal properties of quasi-one-dimensional systems. Lab members have studied ballistic electron transport in nanotubes and demonstrated nanotube-based nanosensors, Pd ohmic contacts and ballistic field effect transistors with integrated high-kappa dielectrics.

#### Nanomedicine and NIR-II Imaging

Advancing biological research with CNTs and nano-graphene, group members have developed  $\pi$ - $\pi$  stacking non-covalent functionalization chemistry, molecular cellular delivery (drugs, proteins and siRNA), in vivo anti-cancer drug delivery and in vivo photothermal ablation of cancer. Using nanotubes as novel contrast agents, lab collaborations have developed in vitro and in vivo Raman, photoacoustic and fluorescence imaging. Lab members have exploited the physics of reduced light scattering in the near-infrared-II (1000-1700nm) window and pioneered NIR-II fluorescence imaging to increase tissue penetration depth in vivo. Video-rate NIR-II imaging can measure blood flow in single vessels in real time. The lab has developed novel NIR-II fluorescence agents, including CNTs, quantum dots, conjugated polymers and small organic dyes with promise for clinical translation.

#### Electrocatalysis and Batteries

The Dai group's nanocarbon-inorganic particle hybrid materials have opened new directions in energy research. Advances include electrocatalysts for oxygen reduction and water splitting catalysts including NiFe layered-double-hydroxide for oxygen evolution. Recently, the group also demonstrated an aluminum ion battery with graphite cathodes and ionic liquid electrolytes, a substantial breakthrough in battery science.

### ACADEMIC APPOINTMENTS

- Professor, Chemistry
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

### HONORS AND AWARDS

- NIH Director's Pioneer Award, National Institute of Health (2017)
- Member, National Academy of Sciences (2016)
- Mid-Career Researcher Award, Materials Research Society (2016)
- Honorary Chair Professor, National Taiwan University of Science and Technology (2015)
- Fellow, American Association for the Advancement of Sciences (2010)
- Fellow, American Academy of Arts and Sciences (2009)
- The Ramabrahmam and Balamani Guthikonda Award, Columbia University (2009)
- James McGroddy Prize for New Materials, American Physical Society (2006)
- Julius Springer Prize of Applied Physics, Editors of Applied Physics A and Applied Physics B, Springer (2004)
- Camille Dreyfus Teacher-Scholar Award, Camille & Henry Dreyfus Foundation (2002)
- Pure Chemistry Award, American Chemical Society (2002)
- Alfred P. Sloan Research Fellow, Alfred P. Sloan Foundation (2001)
- Packard Fellowship for Science and Engineering, David & Lucile Packard Foundation (1999)
- Terman Fellowship, Stanford University (1998)
- Young Microscopist of the Year Award, Molecular Imaging Co. (1998)

- Camille and Henry Dreyfus New Faculty Award, Rice University (1997)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Scientific Advisor and Co-founder, Nirmidas Biotech, Inc.
- Editor-in-Chief, Nano Research, Springer
- Editorial Board Member, Nano Letters, American Chemical Society
- Editorial Board Member, Nano Research, Springer and Tsinghua University Press
- Editorial Board Member, Advanced Functional Materials, Wiley-VCH Verlag GmbH.
- Editorial Board Member, International Journal of Nanoscience, World Scientific, Singapore
- Editorial Board Member, Chemical Physics Letters
- Editorial Board Member, Nanotechnology, Institute of Physics, England
- Editorial Board Member, Small, Wiley-VCH Verlag
- Editorial Board Member, Applied Physics A, Springer

## **PROFESSIONAL EDUCATION**

- Postdoc, Harvard University , Charge density waves/Superconductor (1997)
- Postdoc, Rice University , Carbon nanotubes for AFM (1995)
- PhD, Harvard University , Applied Physics/Physical Chemistry (1994)
- MS, Columbia University , Applied Sciences (1991)
- BS, TsingHua University , Physics (1989)

## **LINKS**

- The Dai Laboratory: <http://dailab.stanford.edu/>

## **Teaching**

---

### **COURSES**

#### **2018-19**

- Instrumental Analysis Principles and Practice: CHEM 134 (Spr)
- Materials Chemistry and Physics: CHEM 277 (Win)

#### **2017-18**

- Analytical Chemistry Laboratory: CHEM 134 (Spr)
- The What, Why, How and Wow's of Nanotechnology: CHEM 26N (Spr)

#### **2016-17**

- Analytical Chemistry Laboratory: CHEM 134 (Spr)
- The What, Why, How and wow's of Nanotechnology: CHEM 26N (Spr)

#### **2015-16**

- Analytical Chemistry Laboratory: CHEM 134 (Spr)
- Materials Chemistry and Physics: CHEM 277 (Win)
- The What, Why, How and wow's of Nanotechnology: CHEM 26N (Spr)

## STANFORD ADVISEES

### Doctoral Dissertation Reader (AC)

Rain Mariano, Sarah Noll

### Postdoctoral Faculty Sponsor

Hao Sun, Feifei Wang, Yeteng Zhong

### Doctoral Dissertation Advisor (AC)

Michael Angell, Haotian Du, Zhuoran Ma, Guanzhou Zhu

## Publications

---

### PUBLICATIONS

- **Dual electrolyte additives of potassium hexafluorophosphate and tris (trimethylsilyl) phosphite for anode-free lithium metal batteries** *ELECTROCHIMICA ACTA*  
Hagos, T., Berhe, G., Hagos, T., Bezabh, H., Abrha, L., Beyene, T., Huang, C., Yang, Y., Su, W., Dai, H., Hwang, B.  
2019; 316: 52–59
- **A safe and non-flammable sodium metal battery based on an ionic liquid electrolyte.** *Nature communications*  
Sun, H., Zhu, G., Xu, X., Liao, M., Li, Y., Angell, M., Gu, M., Zhu, Y., Hung, W. H., Li, J., Kuang, Y., Meng, Y., Lin, et al  
2019; 10 (1): 3302
- **Light-sheet microscopy in the near-infrared II window** *NATURE METHODS*  
Wang, F., Wan, H., Ma, Z., Zhong, Y., Sun, Q., Tian, Y., Qu, L., Du, H., Zhang, M., Li, L., Ma, H., Luo, J., Liang, et al  
2019; 16 (6): 545+
- **Molecular Imaging in the Second Near-Infrared Window** *ADVANCED FUNCTIONAL MATERIALS*  
Wan, H., Du, H., Wang, F., Dai, H.  
2019; 29 (25)
- **An electrodeposition approach to metal/metal oxide heterostructures for active hydrogen evolution catalysts in near-neutral electrolytes** *NANO RESEARCH*  
Kenney, M. J., Huang, J., Zhu, Y., Meng, Y., Xu, M., Zhu, G., Hung, W., Kuang, Y., Lin, M., Sun, X., Zhou, W., Dai, H.  
2019; 12 (6): 1431–35
- **Light-sheet microscopy in the near-infrared II window.** *Nature methods*  
Wang, F., Wan, H., Ma, Z., Zhong, Y., Sun, Q., Tian, Y., Qu, L., Du, H., Zhang, M., Li, L., Ma, H., Luo, J., Liang, et al  
2019
- **Concentrated Dual-Salt Electrolyte to Stabilize Li Metal and Increase Cycle Life of Anode Free Li-Metal Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Beyene, T., Bezabh, H., Weret, M., Hagos, T., Huang, C., Wang, C., Su, W., Dai, H., Hwang, B.  
2019; 166 (8): A1501–A1509
- **Plasmonic gold chips for the diagnosis of Toxoplasma gondii, CMV, and rubella infections using saliva with serum detection precision** *EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES*  
Li, X., Pomares, C., Peyron, F., Press, C. J., Ramirez, R., Geraldine, G., Cannavo, I., Chapey, E., Levigne, P., Wallon, M., Montoya, J. G., Dai, H.  
2019; 38 (5): 883–90
- **Solar-driven, highly sustained splitting of seawater into hydrogen and oxygen fuels** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Kuang, Y., Kenney, M. J., Meng, Y., Hung, W., Liu, Y., Huang, J., Prasanna, R., Li, P., Li, Y., Wang, L., Lin, M., McGehee, M. D., Sun, et al  
2019; 116 (14): 6624–29
- **A general route via formamide condensation to prepare atomically dispersed metal-nitrogen-carbon electrocatalysts for energy technologies** *ENERGY & ENVIRONMENTAL SCIENCE*  
Zhang, G., Jia, Y., Zhang, C., Xiong, X., Sun, K., Chen, R., Chen, W., Kuang, Y., Zheng, L., Tang, H., Liu, W., Liu, J., Sun, et al

2019; 12 (4): 1317–25

- **Solar-driven, highly sustained splitting of seawater into hydrogen and oxygen fuels.** *Proceedings of the National Academy of Sciences of the United States of America*  
Kuang, Y., Kenney, M. J., Meng, Y., Hung, W., Liu, Y., Huang, J. E., Prasanna, R., Li, P., Li, Y., Wang, L., Lin, M., McGehee, M. D., Sun, et al  
2019
- **Magnetic "Squashing" of Circulating Tumor Cells on Plasmonic Substrates for Ultrasensitive NIR Fluorescence Detection** *SMALL METHODS*  
Zhang, R., Le, B., Xu, W., Guo, K., Sun, X., Su, H., Huang, L., Huang, J., Shen, T., Liao, T., Liang, Y., Zhang, J. J., Dai, et al  
2019; 3 (2)
- **A theranostic agent for cancer therapy and imaging in the second near-infrared window** *NANO RESEARCH*  
Ma, Z., Wan, H., Wang, W., Zhang, X., Uno, T., Yang, Q., Yue, J., Gao, H., Zhong, Y., Tian, Y., Sun, Q., Liang, Y., Dai, et al  
2019; 12 (2): 273–79
- **Plasmonic gold chips for the diagnosis of *Toxoplasma gondii*, CMV, and rubella infections using saliva with serum detection precision.** *European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology*  
Li, X., Pomares, C., Peyron, F., Press, C. J., Ramirez, R., Geraldine, G., Cannavo, I., Chapey, E., Levigne, P., Wallon, M., Montoya, J. G., Dai, H.  
2019
- **Near-Infrared-II Molecular Dyes for Cancer Imaging and Surgery.** *Advanced materials (Deerfield Beach, Fla.)*  
Zhu, S., Tian, R., Antaris, A. L., Chen, X., Dai, H.  
2019; e1900321
- **Site Activity and Population Engineering of NiRu-Layered Double Hydroxide Nanosheets Decorated with Silver Nanoparticles for Oxygen Evolution and Reduction Reactions** *ACS CATALYSIS*  
Chala, S., Tsai, M., Su, W., Ibrahim, K., Duma, A., Yeh, M., Wen, C., Yu, C., Chan, T., Dai, H., Hwang, B.  
2019; 9 (1): 117–29
- **Rechargeable aluminum batteries: effects of cations in ionic liquid electrolytes** *RSC ADVANCES*  
Zhu, G., Angell, M., Pan, C., Lin, M., Chen, H., Huang, C., Lin, J., Achazi, A. J., Kaghazchi, P., Hwang, B., Dai, H.  
2019; 9 (20): 11322–30
- **Stabilizing lithium into cross-stacked nanotube sheets with ultra-high specific capacity for lithium oxygen battery.** *Angewandte Chemie (International ed. in English)*  
Ye, L., Liao, M., Sun, H., Yang, Y., Tang, C., Zhao, Y., Wang, L., Xu, Y., Zhang, L., Wang, B., Xu, F., Sun, X., Zhang, et al  
2018
- **Developing a Bright NIR-II Fluorophore with Fast Renal Excretion and Its Application in Molecular Imaging of Immune Checkpoint PD-L1** *ADVANCED FUNCTIONAL MATERIALS*  
Wan, H., Ma, H., Zhu, S., Wang, F., Tian, Y., Ma, R., Yang, Q., Hu, Z., Zhu, T., Wang, W., Ma, Z., Zhang, M., Zhong, et al  
2018; 28 (50)
- **The inaugural Nano Research Young Innovators (NR45) Award in nanobiotechnology** *NANO RESEARCH*  
Gu, Z., Dai, H.  
2018; 11 (10): 4931–35
- **Near-Infrared IIb Fluorescence Imaging of Vascular Regeneration with Dynamic Tissue Perfusion Measurement and High Spatial Resolution** *ADVANCED FUNCTIONAL MATERIALS*  
Ma, Z., Zhang, M., Yue, J., Alcazar, C., Zhong, Y., Doyle, T. C., Dai, H., Huang, N. F.  
2018; 28 (36)
- **Bright quantum dots emitting at 1,600 nm in the NIR-IIb window for deep tissue fluorescence imaging.** *Proceedings of the National Academy of Sciences of the United States of America*  
Zhang, M., Yue, J., Cui, R., Ma, Z., Wan, H., Wang, F., Zhu, S., Zhou, Y., Kuang, Y., Zhong, Y., Pang, D., Dai, H.  
2018; 115 (26): 6590–95
- **Molecular Cancer Imaging in the Second Near-Infrared Window Using a Renal-Excreted NIR-II Fluorophore-Peptide Probe** *ADVANCED MATERIALS*  
Wang, W., Ma, Z., Zhu, S., Wan, H., Yue, J., Ma, H., Ma, R., Yang, Q., Wang, Z., Li, Q., Qian, Y., Yue, C., Wang, et al  
2018; 30 (22): e1800106

- **An operando X-ray diffraction study of chloroaluminate anion-graphite intercalation in aluminum batteries** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Pan, C., Yuan, C., Zhu, G., Zhang, Q., Huang, C., Lin, M., Angell, M., Hwang, B., Kaghazchi, P., Dai, H.  
2018; 115 (22): 5670–75
- **Robust and conductive Magneli Phase Ti4O7 decorated on 3D-nanoflower NiRu-LDH as high-performance oxygen reduction electrocatalyst** *NANO ENERGY*  
Ibrahim, K., Su, W., Tsai, M., Chala, S., Kahsay, A., Yeh, M., Chen, H., Duma, A., Dai, H., Hwang, B.  
2018; 47: 309–15
- **3D NIR-II Molecular Imaging Distinguishes Targeted Organs with High-Performance NIR-II Bioconjugates** *ADVANCED MATERIALS*  
Zhu, S., Herraiz, S., Yue, J., Zhang, M., Wan, H., Yang, Q., Ma, Z., Wang, Y., He, J., Antaris, A. L., Zhong, Y., Diao, S., Feng, et al  
2018; 30 (13): e1705799
- **A bright organic NIR-II nanofluorophore for three-dimensional imaging into biological tissues** *NATURE COMMUNICATIONS*  
Wan, H., Yue, J., Zhu, S., Uno, T., Zhang, X., Yang, Q., Yu, K., Hong, G., Wang, J., Li, L., Ma, Z., Gao, H., Zhong, et al  
2018; 9: 1171
- **Donor Engineering for NIR-II Molecular Fluorophores with Enhanced Fluorescent Performance** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Yang, Q., Hu, Z., Zhu, S., Ma, R., Ma, H., Ma, Z., Wan, H., Zhu, T., Jiang, Z., Liu, W., Jiao, L., Sun, H., Liang, et al  
2018; 140 (5): 1715–24
- **Near-Infrared IIb Fluorescence Imaging of Vascular Regeneration with Dynamic Tissue Perfusion Measurement and High Spatial Resolution.** *Advanced functional materials*  
Ma, Z., Zhang, M., Yue, J., Alcazar, C., Zhong, Y., Doyle, T. C., Dai, H., Huang, N. F.  
2018; 28 (36)
- **Identification of the physical origin behind disorder, heterogeneity, and reconstruction and their correlation with the photoluminescence lifetime in hybrid perovskite thin films** *JOURNAL OF MATERIALS CHEMISTRY A*  
Berhe, T., Cheng, J., Su, W., Pan, C., Tsai, M., Chen, H., Yang, Z., Tan, H., Chen, C., Yeh, M., Tamirat, A., Huang, S., Chen, et al  
2017; 5 (39): 21002–15
- **A high quantum yield molecule-protein complex fluorophore for near-infrared II imaging** *NATURE COMMUNICATIONS*  
Antaris, A. L., Chen, H., Diao, S., Ma, Z., Zhang, Z., Zhu, S., Wang, J., Lozano, A. X., Fan, Q., Chew, L., Zhu, M., Cheng, K., Hong, et al  
2017; 8
- **Live imaging of follicle stimulating hormone receptors in gonads and bones using near infrared II fluorophore** *CHEMICAL SCIENCE*  
Feng, Y., Zhu, S., Antaris, A. L., Chen, H., Xiao, Y., Lu, X., Jiang, L., Diao, S., Yu, K., Wang, Y., Herraiz, S., Yue, J., Hong, et al  
2017; 8 (5): 3703-3711
- **Diagnosis of Zika virus infection on a nanotechnology platform.** *Nature medicine*  
Zhang, B., Pinsky, B. A., Ananta, J. S., Zhao, S., Arulkumar, S., Wan, H., Sahoo, M. K., Abeynayake, J., Waggoner, J. J., Hopes, C., Tang, M., Dai, H.  
2017
- **Validation of IgG, IgM multiplex plasmonic gold platform in French clinical cohorts for the serodiagnosis and follow-up of Toxoplasma gondii infection.** *Diagnostic microbiology and infectious disease*  
Pomares, C., Zhang, B., Arulkumar, S., Gonfrier, G., Marty, P., Zhao, S., Cheng, S., Tang, M., Dai, H., Montoya, J. G.  
2017; 87 (3): 213-218
- **Advanced rechargeable aluminium ion battery with a high-quality natural graphite cathode** *NATURE COMMUNICATIONS*  
Wang, D., Wei, C., Lin, M., Pan, C., Chou, H., Chen, H., Gong, M., Wu, Y., Yuan, C., Angell, M., Hsieh, Y., Chen, Y., Wen, et al  
2017; 8
- **Molecular imaging of biological systems with a clickable dye in the broad 800-to 1,700-nm near-infrared window** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Zhu, S., Yang, Q., Antaris, A. L., Yue, J., Ma, Z., Wang, H., Huang, W., Wan, H., Wang, J., Diao, S., Zhang, B., Li, X., Zhong, et al  
2017; 114 (5): 962-967
- **High Coulombic efficiency aluminum-ion battery using an AlCl<sub>3</sub>-urea ionic liquid analog electrolyte** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Angell, M., Pan, C., Rong, Y., Yuan, C., Lin, M., Hwang, B., Dai, H.

2017; 114 (5): 834-839

- **Rational Design of Molecular Fluorophores for Biological Imaging in the NIR-II Window.** *Advanced materials*  
Yang, Q., Ma, Z., Wang, H., Zhou, B., Zhu, S., Zhong, Y., Wang, J., Wan, H., Antaris, A., Ma, R., Zhang, X., Yang, J., Zhang, et al  
2017
- **Direct Evidence for Coupled Surface and Concentration Quenching Dynamics in Lanthanide-Doped Nanocrystals.** *Journal of the American Chemical Society*  
Johnson, N. J., He, S., Diao, S., Chan, E. M., Dai, H., Almutairi, A.  
2017; 139 (8): 3275-82
- **Autoantibody profiling on a plasmonic nano-gold chip for the early detection of hypertensive heart disease.** *Proceedings of the National Academy of Sciences of the United States of America*  
Li, X., Kuznetsova, T., Cauwenberghs, N., Wheeler, M., Maecker, H., Wu, J. C., Haddad, F., Dai, H.  
2017; 114 (27): 7089-94
- **Proteoliposome-based full-length ZnT8 self-antigen for type 1 diabetes diagnosis on a plasmonic platform.** *Proceedings of the National Academy of Sciences of the United States of America*  
Wan, H., Merriman, C., Atkinson, M. A., Wasserfall, C. H., Mcgrail, K. M., Liang, Y., Fu, D., Dai, H.  
2017; 114 (38): 10196-201
- **Live imaging of follicle stimulating hormone receptors in gonads and bones using near infrared II fluorophore.** *Chemical science*  
Feng, Y., Zhu, S., Antaris, A. L., Chen, H., Xiao, Y., Lu, X., Jiang, L., Diao, S., Yu, K., Wang, Y., Herraiz, S., Yue, J., Hong, et al  
2017; 8 (5): 3703-11
- **Near-infrared fluorophores for biomedical imaging** *NATURE BIOMEDICAL ENGINEERING*  
Hong, G., Antaris, A. L., Dai, H.  
2017; 1 (1)
- **Boosting the down-shifting luminescence of rare-earth nanocrystals for biological imaging beyond 1500 nm.** *Nature communications*  
Zhong, Y., Ma, Z., Zhu, S., Yue, J., Zhang, M., Antaris, A. L., Yuan, J., Cui, R., Wan, H., Zhou, Y., Wang, W., Huang, N. F., Luo, et al  
2017; 8 (1): 737
- **A novel quantitative microarray antibody capture (Q-MAC) assay identifies an extremely high HDV prevalence amongst HBV infected Mongolians.** *Hepatology*  
Chen, X., Oidovsambuu, O., Liu, P., Grosely, R., Elazar, M., Winn, V. D., Fram, B., Boa, Z., Dai, H., Dashtseren, B., Yagaanbuyant, D., Genden, Z., Dashdorj, et al  
2016
- **3D Graphitic Foams Derived from Chloroaluminate Anion Intercalation for Ultrafast Aluminum-Ion Battery.** *Advanced materials*  
Wu, Y., Gong, M., Lin, M., Yuan, C., Angell, M., Huang, L., Wang, D., Zhang, X., Yang, J., Hwang, B., Dai, H.  
2016; 28 (41): 9218-9222
- **Hybrid anisotropic nanostructures for dual-modal cancer imaging and image-guided chemo-thermo therapies.** *Biomaterials*  
Zhang, R., Cheng, K., Antaris, A. L., Ma, X., Yang, M., Ramakrishnan, S., Liu, G., Lu, A., Dai, H., Tian, M., Cheng, Z.  
2016; 103: 265-277
- **Traumatic Brain Injury Imaging in the Second Near-Infrared Window with a Molecular Fluorophore.** *Advanced materials*  
Zhang, X., Wang, H., Antaris, A. L., Li, L., Diao, S., Ma, R., Nguyen, A., Hong, G., Ma, Z., Wang, J., Zhu, S., Castellano, J. M., Wyss-Coray, et al  
2016; 28 (32): 6872-6879
- **Multiplexed Anti-Toxoplasma IgG, IgM, and IgA Assay on Plasmonic Gold Chips: towards Making Mass Screening Possible with Dye Test Precision** *JOURNAL OF CLINICAL MICROBIOLOGY*  
Li, X., Pomares, C., Gonfrier, G., Koh, B., Zhu, S., Gong, M., Montoya, J. G., Dai, H.  
2016; 54 (7): 1726-1733
- **A small-molecule dye for NIR-II imaging** *NATURE MATERIALS*  
Antaris, A. L., Chen, H., Cheng, K., Sun, Y., Hong, G., Qu, C., Diao, S., Deng, Z., Hu, X., Zhang, B., Zhang, X., Yaghi, O. K., Alamparambil, et al  
2016; 15 (2): 235-?
- **In Vivo Fluorescence Imaging in the Second Near-Infrared Window Using Carbon Nanotubes** *IN VIVO FLUORESCENCE IMAGING: METHODS AND PROTOCOLS*

Hong, G., Dai, H., Bai, M.

2016; 1444: 167–81

- **A small-molecule dye for NIR-II imaging.** *Nature materials*  
Antaris, A. L., Chen, H., Cheng, K., Sun, Y., Hong, G., Qu, C., Diao, S., Deng, Z., Hu, X., Zhang, B., Zhang, X., Yaghi, O. K., Alamparambil, et al  
2016; 15 (2): 235–42
- **Visible to Near-Infrared Fluorescence Enhanced Cellular Imaging on Plasmonic Gold Chips.** *Small*  
Koh, B., Li, X., Zhang, B., Yuan, B., Lin, Y., Antaris, A. L., Wan, H., Gong, M., Yang, J., Zhang, X., Liang, Y., Dai, H.  
2016; 12 (4): 457-465
- **A mini review on nickel-based electrocatalysts for alkaline hydrogen evolution reaction** *NANO RESEARCH*  
Gong, M., Wang, D., Chen, C., Hwang, B., Dai, H.  
2016; 9 (1): 28-46
- **Single Chirality (6,4) Single-Walled Carbon Nanotubes for Fluorescence Imaging with Silicon Detectors** *SMALL*  
Antaris, A. L., Yaghi, O. K., Hong, G., Diao, S., Zhang, B., Yang, J., Chew, L., Dai, H.  
2015; 11 (47): 6325-6330
- **Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Diao, S., Blackburn, J. L., Hong, G., Antaris, A. L., Chang, J., Wu, J. Z., Zhang, B., Cheng, K., Kuo, C. J., Dai, H.  
2015; 54 (49): 14758-14762
- **Energy Migration Engineering of Bright Rare-Earth Upconversion Nanoparticles for Excitation by Light-Emitting Diodes** *ADVANCED MATERIALS*  
Zhong, Y., Rostami, I., Wang, Z., Dai, H., Hu, Z.  
2015; 27 (41): 6418-?
- **Highly active and durable methanol oxidation electrocatalyst based on the synergy of platinum-nickel hydroxide-graphene** *NATURE COMMUNICATIONS*  
Huang, W., Wang, H., Zhou, J., Wang, J., Duchesne, P. N., Muir, D., Zhang, P., Han, N., Zhao, F., Zeng, M., Zhong, J., Jin, C., Li, et al  
2015; 6
- **Carbon Nanomaterials for Biological Imaging and Nanomedicinal Therapy** *CHEMICAL REVIEWS*  
Hong, G., Diao, S., Antaris, A. L., Dai, H.  
2015; 115 (19): 10816-10906
- **Blending Cr<sub>2</sub>O<sub>3</sub> into a NiO-Ni Electrocatalyst for Sustained Water Splitting.** *Angewandte Chemie (International ed. in English)*  
Gong, M., Zhou, W., Kenney, M. J., Kapusta, R., Cowley, S., Wu, Y., Lu, B., Lin, M., Wang, D., Yang, J., Hwang, B., Dai, H.  
2015; 54 (41): 11989-11993
- **Biological imaging without autofluorescence in the second near-infrared region** *NANO RESEARCH*  
Diao, S., Hong, G., Antaris, A. L., Blackburn, J. L., Cheng, K., Cheng, Z., Dai, H.  
2015; 8 (9): 3027-3034
- **Cytokine detection and simultaneous assessment of rheumatoid factor interference in human serum and synovial fluid using high-sensitivity protein arrays on plasmonic gold chips** *BMC BIOTECHNOLOGY*  
Valentina, M., Jan, F., Peder, N. L., Bo, Z., Dai Hongjie, H. J., Pernille, K.  
2015; 15
- **Aligned-Braided Nanofibrillar Scaffold with Endothelial Cells Enhances Arteriogenesis.** *ACS nano*  
Nakayama, K. H., Hong, G., Lee, J. C., Patel, J., Edwards, B., Zaitseva, T. S., Paukshto, M. V., Dai, H., Cooke, J. P., Woo, Y. J., Huang, N. F.  
2015; 9 (7): 6900-6908
- **Aligned-Braided Nanofibrillar Scaffold with Endothelial Cells Enhances Arteriogenesis** *ACS NANO*  
Nakayama, K. H., Hong, G., Lee, J. C., Patel, J., Edwards, B., Zaitseva, T. S., Paukshto, M. V., Dai, H., Cooke, J. P., Woo, Y. J., Huang, N. F.  
2015; 9 (7): 6900-6908
- **Diketopyrrolopyrrole (DPP)-Based Donor-Acceptor Polymers for Selective Dispersion of Large-Diameter Semiconducting Carbon Nanotubes** *SMALL*  
Lei, T., Lai, Y., Hong, G., Wang, H., Hayoz, P., Weitz, R. T., Chen, C., Dai, H., Bao, Z.  
2015; 11 (24): 2946-2954



- **Nickel-coated silicon photocathode for water splitting in alkaline electrolytes** *NANO RESEARCH*  
Feng, J., Gong, M., Kenney, M. J., Wu, J. Z., Zhang, B., Li, Y., Dai, H.  
2015; 8 (5): 1577-1583
- **An ultrafast rechargeable aluminium-ion battery.** *Nature*  
Lin, M., Gong, M., Lu, B., Wu, Y., Wang, D., Guan, M., Angell, M., Chen, C., Yang, J., Hwang, B., Dai, H.  
2015; 520 (7547): 325-328
- **An ultrafast rechargeable aluminium-ion battery** *NATURE*  
Lin, M., Gong, M., Lu, B., Wu, Y., Wang, D., Guan, M., Angell, M., Chen, C., Yang, J., Hwang, B., Dai, H.  
2015; 520 (7547): 325-?
- **Highly Active and Stable Hybrid Catalyst of Cobalt-Doped FeS<sub>2</sub> Nanosheets-Carbon Nanotubes for Hydrogen Evolution Reaction.** *Journal of the American Chemical Society*  
Wang, D., Gong, M., Chou, H., Pan, C., Chen, H., Wu, Y., Lin, M., Guan, M., Yang, J., Chen, C., Wang, Y., Hwang, B., Chen, et al  
2015; 137 (4): 1587-1592
- **Graphene nanoribbons under mechanical strain.** *Advanced materials*  
Chen, C., Wu, J. Z., Lam, K. T., Hong, G., Gong, M., Zhang, B., Lu, Y., Antaris, A. L., Diao, S., Guo, J., Dai, H.  
2015; 27 (2): 303-309
- **Energy Migration Engineering of Bright Rare-Earth Upconversion Nanoparticles for Excitation by Light-Emitting Diodes.** *Advanced materials (Deerfield Beach, Fla.)*  
Zhong, Y., Rostami, I., Wang, Z., Dai, H., Hu, Z.  
2015; 27 (41): 6418-22
- **Single Chirality (6,4) Single-Walled Carbon Nanotubes for Fluorescence Imaging with Silicon Detectors.** *Small (Weinheim an der Bergstrasse, Germany)*  
Antaris, A. L., Yaghi, O. K., Hong, G., Diao, S., Zhang, B., Yang, J., Chew, L., Dai, H.  
2015; 11 (47): 6325-30
- **Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm.** *Angewandte Chemie (International ed. in English)*  
Diao, S., Blackburn, J. L., Hong, G., Antaris, A. L., Chang, J., Wu, J. Z., Zhang, B., Cheng, K., Kuo, C. J., Dai, H.  
2015; 54 (49): 14758-62
- **A mini review of NiFe-based materials as highly active oxygen evolution reaction electrocatalysts** *NANO RESEARCH*  
Gong, M., Dai, H.  
2015; 8 (1): 23-39
- **Top-Down Patterning and Self-Assembly for Regular Arrays of Semiconducting Single-Walled Carbon Nanotubes** *ADVANCED MATERIALS*  
Wu, J., Antaris, A., Gong, M., Dai, H.  
2014; 26 (35): 6151-?
- **Top-down patterning and self-assembly for regular arrays of semiconducting single-walled carbon nanotubes.** *Advanced materials*  
Wu, J., Antaris, A., Gong, M., Dai, H.  
2014; 26 (35): 6151-6156
- **Through-skull fluorescence imaging of the brain in a new near-infrared window** *NATURE PHOTONICS*  
Hong, G., Diao, S., Chang, J., Antaris, A. L., Chen, C., Zhang, B., Zhao, S., Atochin, D. N., Huang, P. L., Andreasson, K. I., Kuo, C. J., Dai, H.  
2014; 8 (9): 723-730
- **Tumor Metastasis Inhibition by Imaging-Guided Photothermal Therapy with Single-Walled Carbon Nanotubes** *ADVANCED MATERIALS*  
Liang, C., Diao, S., Wang, C., Gong, H., Liu, T., Hong, G., Shi, X., Dai, H., Liu, Z.  
2014; 26 (32): 5646-?
- **Recent advances in zinc-air batteries** *CHEMICAL SOCIETY REVIEWS*  
Li, Y., Dai, H.  
2014; 43 (15): 5257-5275
- **A plasmonic chip for biomarker discovery and diagnosis of type 1 diabetes.** *Nature medicine*  
Zhang, B., Kumar, R. B., Dai, H., Feldman, B. J.

2014; 20 (8): 948-953

- **Ultrathin WS<sub>2</sub> Nanoflakes as a High-Performance Electrocatalyst for the Hydrogen Evolution Reaction** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Cheng, L., Huang, W., Gong, Q., Liu, C., Liu, Z., Li, Y., Dai, H.  
2014; 53 (30): 7860-7863
- **Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window** *NATURE COMMUNICATIONS*  
Hong, G., Zou, Y., Antaris, A. L., Diao, S., Wu, D., Cheng, K., Zhang, X., Chen, C., Liu, B., He, Y., Wu, J. Z., Yuan, J., Zhang, et al  
2014; 5
- **Ultrafast high-capacity NiZn battery with NiAlCo-layered double hydroxide** *ENERGY & ENVIRONMENTAL SCIENCE*  
Gong, M., Li, Y., Zhang, H., Zhang, B., Zhou, W., Feng, J., Wang, H., Liang, Y., Fan, Z., Liu, J., Dai, H.  
2014; 7 (6): 2025-2032
- **Ly108 expression distinguishes subsets of invariant NKT cells that help autoantibody production and secrete IL-21 from those that secrete IL-17 in lupus prone NZB/W mice.** *Journal of autoimmunity*  
Tang, X., Zhang, B., Jarrell, J. A., Price, J. V., Dai, H., Utz, P. J., Strober, S.  
2014; 50: 87-98
- **Near-infrared II fluorescence for imaging hindlimb vessel regeneration with dynamic tissue perfusion measurement.** *Circulation. Cardiovascular imaging*  
Hong, G., Lee, J. C., Jha, A., Diao, S., Nakayama, K. H., Hou, L., Doyle, T. C., Robinson, J. T., Antaris, A. L., Dai, H., Cooke, J. P., Huang, N. F.  
2014; 7 (3): 517-525
- **Near-Infrared II Fluorescence for Imaging Hindlimb Vessel Regeneration With Dynamic Tissue Perfusion Measurement.** *Circulation. Cardiovascular imaging*  
Hong, G., Lee, J. C., Jha, A., Diao, S., Nakayama, K. H., Hou, L., Doyle, T. C., Robinson, J. T., Antaris, A. L., Dai, H., Cooke, J. P., Huang, N. F.  
2014; 7 (3): 517-525
- **Graphite Oxide Nanoparticles with Diameter Greater than 20 nm Are Biocompatible with Mouse Embryonic Stem Cells and Can Be Used in a Tissue Engineering System.** *Small*  
Wang, I. E., Robinson, J. T., Do, G., Hong, G., Gould, D. R., Dai, H., Yang, P. C.  
2014; 10 (8): 1479-1484
- **Dependence of the Absorption and Optical Surface Plasmon Scattering of MoS<sub>2</sub> Nanoparticles on Aspect Ratio, Size, and Media** *ACS NANO*  
Yadgarov, L., Choi, C. L., Sedova, A., Cohen, A., Rosentsveig, R., Bar-Elli, O., Oron, D., Dai, H., Tenne, R.  
2014; 8 (4): 3575-3583
- **Fe-N bonding in a carbon nanotube-graphene complex for oxygen reduction: an XAS study** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Zhou, J., Duchesne, P. N., Hu, Y., Wang, J., Zhang, P., Li, Y., Regier, T., Dai, H.  
2014; 16 (30): 15787-15791
- **Through-skull fluorescence imaging of the brain in a new near-infrared window.** *Nature photonics*  
Hong, G., Diao, S., Chang, J., Antaris, A. L., Chen, C., Zhang, B., Zhao, S., Atochin, D. N., Huang, P. L., Andreasson, K. I., Kuo, C. J., Dai, H.  
2014; 8 (9): 723-30
- **Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window.** *Nature communications*  
Hong, G., Zou, Y., Antaris, A. L., Diao, S., Wu, D., Cheng, K., Zhang, X., Chen, C., Liu, B., He, Y., Wu, J. Z., Yuan, J., Zhang, et al  
2014; 5: 4206-?
- **Nanoscale nickel oxide/nickel heterostructures for active hydrogen evolution electrocatalysis.** *Nature communications*  
Gong, M., Zhou, W., Tsai, M., Zhou, J., Guan, M., Lin, M., Zhang, B., Hu, Y., Wang, D., Yang, J., Pennycook, S. J., Hwang, B., Dai, et al  
2014; 5: 4695-?
- **Nanoscale nickel oxide/nickel heterostructures for active hydrogen evolution electrocatalysis.** *Nature communications*  
Gong, M., Zhou, W., Tsai, M., Zhou, J., Guan, M., Lin, M., Zhang, B., Hu, Y., Wang, D., Yang, J., Pennycook, S. J., Hwang, B., Dai, et al  
2014; 5: 4695-?
- **Plasmonic micro-beads for fluorescence enhanced, multiplexed protein detection with flow cytometry** *CHEMICAL SCIENCE*  
Zhang, B., Yang, J., Zou, Y., Gong, M., Chen, H., Hong, G., Antaris, A. L., Li, X., Liu, C., Chen, C., Dai, H.  
2014; 5 (10): 4070-4075

- **Self-assembly of semiconducting single-walled carbon nanotubes into dense, aligned rafts.** *Small*  
Wu, J., Jiao, L., Antaris, A., Choi, C. L., Xie, L., Wu, Y., Diao, S., Chen, C., Chen, Y., Dai, H.  
2013; 9 (24): 4142-4148
- **Biological Imaging Using Nanoparticles of Small Organic Molecules with Fluorescence Emission at Wavelengths Longer than 1000 nm.** *Angewandte Chemie (International ed. in English)*  
Tao, Z., Hong, G., Shinji, C., Chen, C., Diao, S., Antaris, A. L., Zhang, B., Zou, Y., Dai, H.  
2013; 52 (49): 13002-13006
- **WS2 nanoflakes from nanotubes for electrocatalysis** *NANO RESEARCH*  
Choi, C. L., Feng, J., Li, Y., Wu, J., Zak, A., Tenne, R., Dai, H.  
2013; 6 (12): 921-928
- **High-performance silicon photoanodes passivated with ultrathin nickel films for water oxidation.** *Science*  
Kenney, M. J., Gong, M., Li, Y., Wu, J. Z., Feng, J., Lanza, M., Dai, H.  
2013; 342 (6160): 836-840
- **HREM analysis of graphite-encapsulated metallic nanoparticles for possible medical applications.** *Ultramicroscopy*  
Sinclair, R., Li, H., Madsen, S., Dai, H.  
2013; 134: 167-174
- **An advanced ni-fe layered double hydroxide electrocatalyst for water oxidation.** *Journal of the American Chemical Society*  
Gong, M., Li, Y., Wang, H., Liang, Y., Wu, J. Z., Zhou, J., Wang, J., Regier, T., Wei, F., Dai, H.  
2013; 135 (23): 8452-8455
- **Biodistribution, pharmacokinetics and toxicology of Ag2S near-infrared quantum dots in mice** *BIOMATERIALS*  
Zhang, Y., Zhang, Y., Hong, G., He, W., Zhou, K., Yang, K., Li, F., Chen, G., Liu, Z., Dai, H., Wang, Q.  
2013; 34 (14): 3639-3646
- **High-resolution, serial intravital microscopic imaging of nanoparticle delivery and targeting in a small animal tumor model** *NANO TODAY*  
Smith, B. R., Zavaleta, C., Rosenberg, J., Tong, R., Ramunas, J., Liu, Z., Dai, H., Gambhir, S. S.  
2013; 8 (2): 126-137
- **Ultra-Low Doses of Chirality Sorted (6,5) Carbon Nanotubes for Simultaneous Tumor Imaging and Photothermal Therapy** *ACS NANO*  
Antaris, A. L., Robinson, J. T., Yaghi, O. K., Hong, G., Diao, S., Luong, R., Dai, H.  
2013; 7 (4): 3644-3652
- **Strongly Coupled Inorganic/Nanocarbon Hybrid Materials for Advanced Electrocatalysis** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liang, Y., Li, Y., Wang, H., Dai, H.  
2013; 135 (6): 2013-2036
- **Multiplexed cytokine detection on plasmonic gold substrates with enhanced near-infrared fluorescence** *NANO RESEARCH*  
Zhang, B., Price, J., Hong, G., Tabakman, S. M., Wang, H., Jarrell, J. A., Feng, J., Utz, P. J., Dai, H.  
2013; 6 (2): 113-120
- **Single-Walled Carbon Nanotube Surface Control of Complement Recognition and Activation** *ACS NANO*  
Andersen, A. J., Robinson, J. T., Dai, H., Hunter, A. C., Andresen, T. L., Moghimi, S. M.  
2013; 7 (2): 1108-1119
- **Advanced zinc-air batteries based on high-performance hybrid electrocatalysts.** *Nature communications*  
Li, Y., Gong, M., Liang, Y., Feng, J., Kim, J., Wang, H., Hong, G., Zhang, B., Dai, H.  
2013; 4: 1805-?
- **High-resolution, serial intravital microscopic imaging of nanoparticle delivery and targeting in a small animal tumor model.** *Nano today*  
Smith, B. R., Zavaleta, C., Rosenberg, J., Tong, R., Ramunas, J., Liu, Z., Dai, H., Gambhir, S. S.  
2013; 8 (2)
- **An integrated Peptide-antigen microarray on plasmonic gold films for sensitive human antibody profiling.** *PLoS one*  
Zhang, B., Jarrell, J. A., Price, J. V., Tabakman, S. M., Li, Y., Gong, M., Hong, G., Feng, J., Utz, P. J., Dai, H.  
2013; 8 (7): e71043

- **Advanced zinc-air batteries based on high-performance hybrid electrocatalysts.** *Nature communications*  
Li, Y., Gong, M., Liang, Y., Feng, J., Kim, J., Wang, H., Hong, G., Zhang, B., Dai, H.  
2013; 4: 1805-?
- **Imaging state of charge and its correlation to interaction variation in an LiMn<sub>0.75</sub>Fe<sub>0.25</sub>PO<sub>4</sub> 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
- **Experimentally Engineering the Edge Termination of Graphene Nanoribbons** *ACS NANO*  
Zhang, X., Yazyev, O. V., Feng, J., Xie, L., Tao, C., Chen, Y., Jiao, L., Pedramrazi, Z., Zettl, A., Louie, S. G., Dai, H., Crommie, M. F.  
2013; 7 (1): 198-202
- **An integrated peptide-antigen microarray on plasmonic gold films for sensitive human antibody profiling.** *PloS one*  
Zhang, B., Jarrell, J. A., Price, J. V., Tabakman, S. M., Li, Y., Gong, M., Hong, G., Feng, J., Utz, P. J., Dai, H.  
2013; 8 (7)
- **Strongly coupled inorganic-nano-carbon hybrid materials for energy storage** *CHEMICAL SOCIETY REVIEWS*  
Wang, H., Dai, H.  
2013; 42 (7): 3088-3113
- **Multifunctional in vivo vascular imaging using near-infrared II fluorescence** *NATURE MEDICINE*  
Hong, G., Lee, J. C., Robinson, J. T., Raaz, U., Xie, L., Huang, N. F., Cooke, J. P., Dai, H.  
2012; 18 (12): 1841-?
- **Near infrared imaging and photothermal ablation of vascular inflammation using single-walled carbon nanotubes.** *Journal of the American Heart Association*  
Kosuge, H., Sherlock, S. P., Kitagawa, T., Dash, R., Robinson, J. T., Dai, H., McConnell, M. V.  
2012; 1 (6)
- **Chirality Enriched (12,1) and (11,3) Single-Walled Carbon Nanotubes for Biological Imaging** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Diao, S., Hong, G., Robinson, J. T., Jiao, L., Antaris, A. L., Wu, J. Z., Choi, C. L., Dai, H.  
2012; 134 (41): 16971-16974
- **Engineering manganese oxide/nanocarbon hybrid materials for oxygen reduction electrocatalysis** *NANO RESEARCH*  
Feng, J., Liang, Y., Wang, H., Li, Y., Zhang, B., Zhou, J., Wang, J., Regier, T., Dai, H.  
2012; 5 (10): 718-725
- **Oxygen Reduction Electrocatalyst Based on Strongly Coupled Cobalt Oxide Nanocrystals and Carbon Nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liang, Y., Wang, H., Diao, P., Chang, W., Hong, G., Li, Y., Gong, M., Xie, L., Zhou, J., Wang, J., Regier, T. Z., Wei, F., Dai, et al  
2012; 134 (38): 15849-15857
- **Shape Matters: Intravital Microscopy Reveals Surprising Geometrical Dependence for Nanoparticles in Tumor Models of Extravasation** *NANO LETTERS*  
Smith, B. R., Kempen, P., Bouley, D., Xu, A., Liu, Z., Melosh, N., Dai, H., Sinclair, R., Gambhir, S. S.  
2012; 12 (7): 3369-3377
- **Rechargeable Li-O<sub>2</sub> batteries with a covalently coupled MnCo<sub>2</sub>O<sub>4</sub>-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
- **In Vivo Fluorescence Imaging in the Second Near-Infrared Window with Long Circulating Carbon Nanotubes Capable of Ultrahigh Tumor Uptake** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Robinson, J. T., Hong, G., Liang, Y., Zhang, B., Yaghi, O. K., Dai, H.  
2012; 134 (25): 10664-10669
- **Flexible Control of Block Copolymer Directed Self-Assembly using Small, Topographical Templates: Potential Lithography Solution for Integrated Circuit Contact Hole Patterning** *ADVANCED MATERIALS*  
Yi, H., Bao, X., Zhang, J., Bencher, C., Chang, L., Chen, X., Tiberio, R., Conway, J., Dai, H., Chen, Y., Mitra, S., Wong, H. P.

2012; 24 (23): 3107-3114

- **Family of Enhanced Photoacoustic Imaging Agents for High-Sensitivity and Multiplexing Studies in Living Mice** *ACS NANO*  
de la Zerda, A., Bodapati, S., Teed, R., May, S. Y., Tabakman, S. M., Liu, Z., Khuri-Yakub, B. T., Chen, X., Dai, H., Gambhir, S. S.  
2012; 6 (6): 4694-4701
- **An oxygen reduction electrocatalyst based on carbon nanotube-graphene complexes** *NATURE NANOTECHNOLOGY*  
Li, Y., Zhou, W., Wang, H., Xie, L., Liang, Y., Wei, F., Idrobo, J., Pennycook, S. J., Dai, H.  
2012; 7 (6): 394-400
- **Short channel field-effect transistors from highly enriched semiconducting carbon nanotubes** *NANO RESEARCH*  
Wu, J., Xie, L., Hong, G., Lim, H. E., Thendie, B., Miyata, Y., Shinohara, H., Dai, H.  
2012; 5 (6): 388-394
- **An ultrafast nickel-iron battery from strongly coupled inorganic nanoparticle/nanocarbon hybrid materials** *NATURE COMMUNICATIONS*  
Wang, H., Liang, Y., Gong, M., Li, Y., Chang, W., Mefford, T., Zhou, J., Wang, J., Regier, T., Wei, F., Dai, H.  
2012; 3
- **Ag<sub>2</sub>S Quantum Dot: A Bright and Biocompatible Fluorescent Nanoprobe in the Second Near-Infrared Window** *ACS NANO*  
Zhang, Y., Hong, G., Zhang, Y., Chen, G., Li, F., Dai, H., Wang, Q.  
2012; 6 (5): 3695-3702
- **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
- **Densely aligned graphene nanoribbons at similar to 35 nm pitch** *NANO RESEARCH*  
Jiao, L., Xie, L., Dai, H.  
2012; 5 (4): 292-296
- **Covalent Hybrid of Spinel Manganese-Cobalt Oxide and Graphene as Advanced Oxygen Reduction Electrocatalysts** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liang, Y., Wang, H., Zhou, J., Li, Y., Wang, J., Regier, T., Dai, H.  
2012; 134 (7): 3517-3523
- **Graphite-Coated Magnetic Nanoparticle Microarray for Few-Cells Enrichment and Detection** *ACS NANO*  
Chen, Z., Hong, G., Wang, H., Welsher, K., Tabakman, S. M., Sherlock, S. P., Robinson, J. T., Liang, Y., Dai, H.  
2012; 6 (2): 1094-1101
- **Three-dimensional imaging of single nanotube molecule endocytosis on plasmonic substrates** *NATURE COMMUNICATIONS*  
Hong, G., Wu, J. Z., Robinson, J. T., Wang, H., Zhang, B., Dai, H.  
2012; 3
- **Spectroscopic understanding of ultra-high rate performance for LiMn<sub>0.75</sub>Fe<sub>0.25</sub>PO<sub>4</sub> nanorods-graphene hybrid in lithium ion battery** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Zhou, J., Wang, J., Zuin, L., Regier, T., Hu, Y., Wang, H., Liang, Y., Maley, J., Sammynaiken, R., Dai, H.  
2012; 14 (27): 9578-9581
- **In Vivo Fluorescence Imaging with Ag<sub>2</sub>S Quantum Dots in the Second Near-Infrared Region** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Hong, G., Robinson, J. T., Zhang, Y., Diao, S., Antaris, A. L., Wang, Q., Dai, H.  
2012; 51 (39): 9818-9821
- **Controlled Chlorine Plasma Reaction for Noninvasive Graphene Doping** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wu, J., Xie, L., Li, Y., Wang, H., Ouyang, Y., Guo, J., Dai, H.  
2011; 133 (49): 19668-19671
- **Multifunctional FeCo-graphitic carbon nanocrystals for combined imaging, drug delivery and tumor-specific photothermal therapy in mice** *NANO RESEARCH*  
Sherlock, S. P., Dai, H.  
2011; 4 (12): 1248-1260

- **Co3O4 nanocrystals on graphene as a synergistic catalyst for oxygen reduction reaction** *NATURE MATERIALS*  
Liang, Y., Li, Y., Wang, H., Zhou, J., Wang, J., Regier, T., Dai, H.  
2011; 10 (10): 780-786
- **Graphene nanoribbons with smooth edges behave as quantum wires** *NATURE NANOTECHNOLOGY*  
Wang, X., Ouyang, Y., Jiao, L., Wang, H., Xie, L., Wu, J., Guo, J., Dai, H.  
2011; 6 (9): 563-567
- **Plasmonic substrates for multiplexed protein microarrays with femtomolar sensitivity and broad dynamic range** *NATURE COMMUNICATIONS*  
Tabakman, S. M., Lau, L., Robinson, J. T., Price, J., Sherlock, S. P., Wang, H., Zhang, B., Chen, Z., Tangsombatvisit, S., Jarrell, J. A., Utz, P. J., Dai, H.  
2011; 2
- **Advanced asymmetrical supercapacitors based on graphene hybrid materials** *NANO RESEARCH*  
Wang, H., Liang, Y., Mirfakhrai, T., Chen, Z., Casalongue, H. S., Dai, H.  
2011; 4 (8): 729-736
- **Spatially resolving edge states of chiral graphene nanoribbons** *NATURE PHYSICS*  
Tao, C., Jiao, L., Yazyev, O. V., Chen, Y., Feng, J., Zhang, X., Capaz, R. B., Tour, J. M., Zettl, A., Louie, S. G., Dai, H., Crommie, M. F.  
2011; 7 (8): 616-620
- **Graphene Nanoribbons from Unzipped Carbon Nanotubes: Atomic Structures, Raman Spectroscopy, and Electrical Properties** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Xie, L., Wang, H., Jin, C., Wang, X., Jiao, L., Suenaga, K., Dai, H.  
2011; 133 (27): 10394-10397
- **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
- **Carbon materials for drug delivery & cancer therapy** *MATERIALS TODAY*  
Liu, Z., Robinson, J. T., Tabakman, S. M., Yang, K., Dai, H.  
2011; 14 (7-8): 316-323
- **Thermally Limited Current Carrying Ability of Graphene Nanoribbons** *PHYSICAL REVIEW LETTERS*  
Liao, A. D., Wu, J. Z., Wang, X., Tahy, K., Jena, D., Dai, H., Pop, E.  
2011; 106 (25)
- **Deep-tissue anatomical imaging of mice using carbon nanotube fluorophores in the second near-infrared window** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Welsher, K., Sherlock, S. P., Dai, H.  
2011; 108 (22): 8943-8948
- **MoS2 Nanoparticles Grown on Graphene: An Advanced Catalyst for the Hydrogen Evolution Reaction** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Li, Y., Wang, H., Xie, L., Liang, Y., Hong, G., Dai, H.  
2011; 133 (19): 7296-7299
- **Ultrasmall Reduced Graphene Oxide with High Near-Infrared Absorbance for Photothermal Therapy** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Robinson, J. T., Tabakman, S. M., Liang, Y., Wang, H., Casalongue, H. S., Daniel Vinh, D., Dai, H.  
2011; 133 (17): 6825-6831
- **Hydrogen Spillover in Pt-Single-Walled Carbon Nanotube Composites: Formation of Stable C-H Bonds** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Bhowmick, R., Rajasekaran, S., Friebe, D., Beasley, C., Jiao, L., Ogasawara, H., Dai, H., Clemens, B., Nilsson, A.  
2011; 133 (14): 5580-5586
- **Solution-phase growth of plasmonic gold films for surface-enhanced Raman scattering and metal-enhanced fluorescence detection applications** *241st National Meeting and Exposition of the American-Chemical-Society (ACS)*  
Tabakman, S. M., Chen, Z., Wang, H., Robinson, J. T., Dai, H.

AMER CHEMICAL SOC.2011

- **Graphene-based hybrid nanomaterials for energy storage applications** *241st National Meeting and Exposition of the American-Chemical-Society (ACS)*  
Wang, H., Liang, Y., Sanchez, H., Yang, Y., Cui, L., Cui, Y., Dai, H.  
AMER CHEMICAL SOC.2011
- **FeCo-Graphitic carbon nanocrystals as multifunctional imaging and therapeutic agents** *241st National Meeting and Exposition of the American-Chemical-Society (ACS)*  
Sherlock, S. P., Tabakman, S. M., Dai, H.  
AMER CHEMICAL SOC.2011
- **Room-Temperature Edge Functionalization and Doping of Graphene by Mild Plasma** *SMALL*  
Kato, T., Jiao, L., Wang, X., Wang, H., Li, X., Zhang, L., Hatakeyama, R., Dai, H.  
2011; 7 (5): 574-577
- **A New Approach to Solution-Phase Gold Seeding for SERS Substrates** *SMALL*  
Tabakman, S. M., Chen, Z., Casalongue, H. S., Wang, H., Dai, H.  
2011; 7 (4): 499-505
- **Photothermally Enhanced Drug Delivery by Ultrasmall Multifunctional FeCo/Graphitic Shell Nanocrystals** *ACS NANO*  
Sherlock, S. P., Tabakman, S. M., Xie, L., Dai, H.  
2011; 5 (2): 1505-1512
- **FeCo/Graphite Nanocrystals for Multi-Modality Imaging of Experimental Vascular Inflammation** *PLOS ONE*  
Kosuge, H., Sherlock, S. P., Kitagawa, T., Terashima, M., Barral, J. K., Nishimura, D. G., Dai, H., McConnell, M. V.  
2011; 6 (1)
- **LiMn<sub>1-x</sub>FexPO<sub>4</sub> 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
- **Near-Infrared-Fluorescence-Enhanced Molecular Imaging of Live Cells on Gold Substrates** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Hong, G., Tabakman, S. M., Welsher, K., Chen, Z., Robinson, J. T., Wang, H., Zhang, B., Dai, H.  
2011; 50 (20): 4644-4648
- **Co<sub>1-x</sub>S-Graphene Hybrid: A High-Performance Metal Chalcogenide Electrocatalyst for Oxygen Reduction** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wang, H., Liang, Y., Li, Y., Dai, H.  
2011; 50 (46): 10969-10972
- **A Dual Platform for Selective Analyte Enrichment and Ionization in Mass Spectrometry Using Aptamer-Conjugated Graphene Oxide** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Gulbakan, B., Yasun, E., Shukoor, M. I., Zhu, Z., You, M., Tan, X., Sanchez, H., Powell, D. H., Dai, H., Tan, W.  
2010; 132 (49): 17408-17410
- **Optical Properties of Single-Walled Carbon Nanotubes Separated in a Density Gradient: Length, Bundling, and Aromatic Stacking Effects** *JOURNAL OF PHYSICAL CHEMISTRY C*  
Tabakman, S. M., Welsher, K., Hong, G., Dai, H.  
2010; 114 (46): 19569-19575
- **Metal-Enhanced Fluorescence of Carbon Nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Hong, G., Tabakman, S. M., Welsher, K., Wang, H., Wang, X., Dai, H.  
2010; 132 (45): 15920-15923
- **High Performance In Vivo Near-IR (> 1  $\mu$  m) Imaging and Photothermal Cancer Therapy with Carbon Nanotubes** *NANO RESEARCH*  
Robinson, J. T., Welsher, K., Tabakman, S. M., Sherlock, S. P., Wang, H., Luong, R., Dai, H.  
2010; 3 (11): 779-793
- **Carbon Nanotubes Enable Noninvasive Optical Imaging of Macrophages in Mouse Atherosclerosis and Have Intrinsic Fluorescence for Near Infrared Imaging** *Scientific Sessions on Arteriosclerosis, Thrombosis and Vascular Biology*



Kitagawa, T., Kosuge, H., Sherlock, S., Bogyo, M., Dai, H., McConnell, M.  
LIPPINCOTT WILLIAMS & WILKINS.2010: E298–E298

- **Selective Etching of Graphene Edges by Hydrogen Plasma** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Xie, L., Jiao, L., Dai, H.  
2010; 132 (42): 14751-14753
- **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
- **TiO2 Nanocrystals Grown on Graphene as Advanced Photocatalytic Hybrid Materials** *NANO RESEARCH*  
Liang, Y., Wang, H., Casalongue, H. S., Chen, Z., Dai, H.  
2010; 3 (10): 701-705
- **Etching and narrowing of graphene from the edges** *NATURE CHEMISTRY*  
Wang, X., Dai, H.  
2010; 2 (8): 661-665
- **Edge magnetotransport fingerprints in disordered graphene nanoribbons** *PHYSICAL REVIEW B*  
Poumirol, J., Cresti, A., Roche, S., Escoffier, W., Goiran, M., Wang, X., Li, X., Dai, H., Raquet, B.  
2010; 82 (4)
- **Ni(OH)(2) Nanoplates Grown on Graphene as Advanced Electrochemical Pseudocapacitor Materials** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, H., Casalongue, H. S., Liang, Y., Dai, H.  
2010; 132 (21): 7472-7477
- **Aligned graphene nanoribbons and crossbars from unzipped carbon nanotubes** *NANO RESEARCH*  
Jiao, L., Zhang, L., Ding, L., Liu, J., Dai, H.  
2010; 3 (6): 387-394
- **Ultrahigh Sensitivity Carbon Nanotube Agents for Photoacoustic Molecular Imaging in Living Mice** *NANO LETTERS*  
de la Zerda, A., Liu, Z., Bodapati, S., Teed, R., Vaithilingam, S., Khuri-Yakub, B. T., Chen, X., Dai, H., Gambhir, S. S.  
2010; 10 (6): 2168-2172
- **Facile synthesis of high-quality graphene nanoribbons** *NATURE NANOTECHNOLOGY*  
Jiao, L., Wang, X., Diankov, G., Wang, H., Dai, H.  
2010; 5 (5): 321-325
- **Nanocrystal Growth on Graphene with Various Degrees of Oxidation** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, H., Robinson, J. T., Diankov, G., Dai, H.  
2010; 132 (10): 3270-?
- **Multiplexed Five-Color Molecular Imaging of Cancer Cells and Tumor Tissues with Carbon Nanotube Raman Tags in the Near-Infrared** *NANO RESEARCH*  
Liu, Z., Tabakman, S., Sherlock, S., Li, X., Chen, Z., Jiang, K., Fan, S., Dai, H.  
2010; 3 (3): 222-233
- **Projected Performance Advantage of Multilayer Graphene Nanoribbons as a Transistor Channel Material** *NANO RESEARCH*  
Ouyang, Y., Dai, H., Guo, J.  
2010; 3 (1): 8-15
- **High Performance In Vivo Near-IR (>1 μm) Imaging and Photothermal Cancer Therapy with Carbon Nanotubes.** *Nano research*  
Robinson, J. T., Welsher, K., Tabakman, S. M., Sherlock, S. P., Wang, H., Luong, R., Dai, H.  
2010; 3 (11): 779–93
- **Optical Properties of Single-Walled Carbon Nanotubes Separated in a Density Gradient; Length, Bundling, and Aromatic Stacking Effects.** *The journal of physical chemistry. C, Nanomaterials and interfaces*  
Tabakman, S. M., Welsher, K., Hong, G., Dai, H.  
2010; 114 (46): 19569–75



- **High-Contrast In Vivo Visualization of Microvessels Using Novel FeCo/GC Magnetic Nanocrystals** *MAGNETIC RESONANCE IN MEDICINE*  
Lee, J. H., Sherlock, S. P., Terashima, M., Kosuge, H., Suzuki, Y., Goodwin, A., Robinson, J., Seo, W. S., Liu, Z., Luong, R., McConnell, M. V., Nishimura, D. G., Dai, et al  
2009; 62 (6): 1497-1509
- **Simultaneous Nitrogen Doping and Reduction of Graphene Oxide** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Li, X., Wang, H., Robinson, J. T., Sanchez, H., Diankov, G., Dai, H.  
2009; 131 (43): 15939-15944
- **Carbon Nanotubes Allow Fluorescence Imaging of Macrophages in Mouse Carotid Atherosclerosis** *82nd National Conference and Exhibitions and Scientific Sessions of the American-Heart-Association*  
Kosuge, H., Terashima, M., Sherlock, S., Kitagawa, T., Dai, H., McConnell, M. V.  
LIPPINCOTT WILLIAMS & WILKINS.2009: S1113-S1113
- **A route to brightly fluorescent carbon nanotubes for near-infrared imaging in mice** *NATURE NANOTECHNOLOGY*  
Welsher, K., Liu, Z., Sherlock, S. P., Robinson, J. T., Chen, Z., Daranciang, D., Dai, H.  
2009; 4 (11): 773-780
- **Hierarchy of Electronic Properties of Chemically Derived and Pristine Graphene Probed by Microwave Imaging** *NANO LETTERS*  
Kundhikanjana, W., Lai, K., Wang, H., Dai, H., Kelly, M. A., Shen, Z.  
2009; 9 (11): 3762-3765
- **COLL 346-Brightly fluorescent carbon nanotubes for near infrared imaging in mice**  
Welsher, K., Liu, Z., Sherlock, S., Robinson, J., Chen, Z., Daranciang, D., Dai, H.  
AMER CHEMICAL SOC.2009
- **Chemically derived graphene nanoribbons and large-scale high quality graphene sheets: Synthesis, assembly, and devices**  
Li, X., Wang, X., Wang, H., Dai, H.  
AMER CHEMICAL SOC.2009
- **Chemically derived graphene nanoribbons and large-scale high quality graphene sheets: Synthesis, assembly, and devices**  
Li, X., Dai, H.  
AMER CHEMICAL SOC.2009: 25-25
- **ANYL 250-Carbon nanotube as Raman tag for biomolecule sensing**  
Chen, Z., Tabakman, S., Dai, H.  
AMER CHEMICAL SOC.2009
- **Solvothermal Reduction of Chemically Exfoliated Graphene Sheets** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, H., Robinson, J. T., Li, X., Dai, H.  
2009; 131 (29): 9910-?
- **N-Doping of Graphene Through Electrothermal Reactions with Ammonia** *SCIENCE*  
Wang, X., Li, X., Zhang, L., Yoon, Y., Weber, P. K., Wang, H., Guo, J., Dai, H.  
2009; 324 (5928): 768-771
- **Narrow graphene nanoribbons from carbon nanotubes** *NATURE*  
Jiao, L., Zhang, L., Wang, X., Diankov, G., Dai, H.  
2009; 458 (7240): 877-880
- **PEG Branched Polymer for Functionalization of Nanomaterials with Ultralong Blood Circulation** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Prencipe, G., Tabakman, S. M., Welsher, K., Liu, Z., Goodwin, A. P., Zhang, L., Henry, J., Dai, H.  
2009; 131 (13): 4783-4787
- **Chemical Self-Assembly of Graphene Sheets** *NANO RESEARCH*  
Wang, H., Wang, X., Li, X., Dai, H.  
2009; 2 (4): 336-342
- **Optical Characterizations and Electronic Devices of Nearly Pure (10,5) Single-Walled Carbon Nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*

- Zhang, L., Tu, X., Welsher, K., Wang, X., Zheng, M., Dai, H.  
2009; 131 (7): 2454-?
- **Carbon Nanotubes in Biology and Medicine: In vitro and in vivo Detection, Imaging and Drug Delivery** *NANO RESEARCH*  
Liu, Z., Tabakman, S., Welsher, K., Dai, H.  
2009; 2 (2): 85-120
  - **Phospholipid-Dextran with a Single Coupling Point: A Useful Amphiphile for Functionalization of Nanomaterials** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Goodwin, A. P., Tabakman, S. M., Welsher, K., Sherlock, S. P., Prencipe, G., Dai, H.  
2009; 131 (1): 289-296
  - **Preparation of carbon nanotube bioconjugates for biomedical applications** *NATURE PROTOCOLS*  
Liu, Z., Tabakman, S. M., Chen, Z., Dai, H.  
2009; 4 (9): 1372-1382
  - **Carbon Nanotubes in Biology and Medicine: In vitro and in vivo Detection, Imaging and Drug Delivery.** *Nano research*  
Liu, Z., Tabakman, S., Welsher, K., Dai, H.  
2009; 2 (2): 85-120
  - **Supramolecular Stacking of Doxorubicin on Carbon Nanotubes for In Vivo Cancer Therapy** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Liu, Z., Fan, A. C., Rakhra, K., Sherlock, S., Goodwin, A., Chen, X., Yang, Q., Felsher, D. W., Dai, H.  
2009; 48 (41): 7668-7672
  - **Separation of Nanoparticles in a Density Gradient: FeCo@C and Gold Nanocrystals** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Sun, X., Tabakman, S. M., Seo, W., Zhang, L., Zhang, G., Sherlock, S., Bai, L., Dai, H.  
2009; 48 (5): 939-942
  - **Photoacoustic Molecular Imaging using Single Walled Carbon Nanotubes in Living Mice** *Conference on Photons Plus Ultrasound - Imaging and Sensing 2009*  
de la Zerda, A., Zavaleta, C., Keren, S., Vaithilingam, S., Bodapati, S., Teed, R., Liu, Z., Levi, J., Smith, B. R., Ma, T., Oralkan, O., Cheng, Z., Chen, et al  
SPIE-INT SOC OPTICAL ENGINEERING.2009
  - **Enhanced Sensitivity Carbon Nanotubes as Targeted Photoacoustic Molecular Imaging Agents** *Conference on Photons Plus Ultrasound - Imaging and Sensing 2009*  
de la Zerda, A., Liu, Z., Zavaleta, C., Bodapati, S., Teed, R., Vaithilingam, S., Ma, T., Oralkan, O., Chen, X., Khuri-Yakub, B. T., Dai, H., Gambhir, S. S.  
SPIE-INT SOC OPTICAL ENGINEERING.2009
  - **Synthesis of Ultrasmall Ferromagnetic Face-Centered Tetragonal FePt-Graphite Core-Shell Nanocrystals** *SMALL*  
Seo, W. S., Kim, S. M., Kim, Y., Sun, X., Dai, H.  
2008; 4 (11): 1968-1971
  - **Protein microarrays with carbon nanotubes as multicolor Raman labels** *NATURE BIOTECHNOLOGY*  
Chen, Z., Tabakman, S. M., Goodwin, A. P., Kattah, M. G., Darancioglu, D., Wang, X., Zhang, G., Li, X., Liu, Z., Utz, P. J., Jiang, K., Fan, S., Dai, et al  
2008; 26 (11): 1285-1292
  - **Multiplexed multicolor Raman imaging of live cells with isotopically modified single walled carbon nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liu, Z., Li, X., Tabakman, S. M., Jiang, K., Fan, S., Dai, H.  
2008; 130 (41): 13540-?
  - **Converting Metallic Single-Walled Carbon Nanotubes into Semiconductors by Boron/Nitrogen Co-Doping** *ADVANCED MATERIALS*  
Xu, Z., Lu, W., Wang, W., Gu, C., Liu, K., Bai, X., Wang, E., Dai, H.  
2008; 20 (19): 3615-?
  - **Carbon nanotubes as photoacoustic molecular imaging agents in living mice** *NATURE NANOTECHNOLOGY*  
de la Zerda, A., Zavaleta, C., Keren, S., Vaithilingam, S., Bodapati, S., Liu, Z., Levi, J., Smith, B. R., Ma, T., Oralkan, O., Cheng, Z., Chen, X., Dai, et al  
2008; 3 (9): 557-562
  - **Noninvasive Raman spectroscopy in living mice for evaluation of tumor targeting with carbon nanotubes** *NANO LETTERS*  
Zavaleta, C., de la Zerda, A., Liu, Z., Keren, S., Cheng, Z., Schipper, M., Chen, X., Dai, H., Gambhir, S. S.

2008; 8 (9): 2800-2805

- **Nano-Graphene Oxide for Cellular Imaging and Drug Delivery** *NANO RESEARCH*  
Sun, X., Liu, Z., Welsher, K., Robinson, J. T., Goodwin, A., Zaric, S., Dai, H.  
2008; 1 (3): 203-212
- **Highly conducting graphene sheets and Langmuir-Blodgett films** *NATURE NANOTECHNOLOGY*  
Li, X., Zhang, G., Bai, X., Sun, X., Wang, X., Wang, E., Dai, H.  
2008; 3 (9): 538-542
- **Targeted single-wall carbon nanotube-mediated Pt(IV) prodrug delivery using folate as a homing device** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Dhar, S., Liu, Z., Thomale, J., Dai, H., Lippard, S. J.  
2008; 130 (34): 11467-11476
- **PEGylated nanographene oxide for delivery of water-insoluble cancer drugs** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liu, Z., Robinson, J. T., Sun, X., Dai, H.  
2008; 130 (33): 10876-?
- **Drug delivery with carbon nanotubes for in vivo cancer treatment** *CANCER RESEARCH*  
Liu, Z., Chen, K., Davis, C., Sherlock, S., Cao, Q., Chen, X., Dai, H.  
2008; 68 (16): 6652-6660
- **Complement activation by PEGylated single-walled carbon nanotubes is independent of C1q and alternative pathway turnover** *MOLECULAR IMMUNOLOGY*  
Hamad, I., Hunter, A. C., Rutt, K. J., Liu, Z., Dai, H., Moghimi, S. M.  
2008; 45 (14): 3797-3803
- **Atomic layer deposition of metal oxides on pristine and functionalized graphene** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, X., Tabakman, S. M., Dai, H.  
2008; 130 (26): 8152-?
- **Carrier scattering in graphene nanoribbon field-effect transistors** *APPLIED PHYSICS LETTERS*  
Ouyang, Y., Wang, X., Dai, H., Guo, J.  
2008; 92 (24)
- **Room-temperature all-semiconducting sub-10-nm graphene nanoribbon field-effect transistors** *PHYSICAL REVIEW LETTERS*  
Wang, X., Ouyang, Y., Li, X., Wang, H., Guo, J., Dai, H.  
2008; 100 (20)
- **Optical properties of ultrashort semiconducting single-walled carbon nanotube capsules down to sub-10 nm** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Sun, X., Zaric, S., Daranciang, D., Welsher, K., Lu, Y., Li, X., Dai, H.  
2008; 130 (20): 6551-6555
- **Peptide-coated nanotube-based biosensor for the detection of disease-specific autoantibodies in human serum** *BIOSENSORS & BIOELECTRONICS*  
Drouvalakis, K. A., Bangsaruntip, S., Hueber, W., Kozar, L. G., Utz, P. J., Dai, H.  
2008; 23 (10): 1413-1421
- **Thermal properties of metal-coated vertically aligned single-wall nanotube arrays** *JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME*  
Panzer, M. A., Zhang, G., Mann, D., Hu, X., Pop, E., Dai, H., Goodson, K. E.  
2008; 130 (5)
- **PHYS 711-Carbon nanotubes chemistry for potential cancer therapy** *235th American-Chemical-Society National Meeting*  
Liu, Z., Dai, H.  
AMER CHEMICAL SOC.2008
- **A pilot toxicology study of single-walled carbon nanotubes in a small sample of mice** *NATURE NANOTECHNOLOGY*  
Schipper, M. L., Nakayama-Ratchford, N., Davis, C. R., Kam, N. W., Chu, P., Liu, Z., Sun, X., Dai, H., Gambhir, S. S.  
2008; 3 (4): 216-221

- **Chemically derived, ultrasmooth graphene nanoribbon semiconductors** *SCIENCE*  
Li, X., Wang, X., Zhang, L., Lee, S., Dai, H.  
2008; 319 (5867): 1229-1232
- **Assessment of chemically separated carbon nanotubes for nanoelectronics** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Zhang, L., Zaric, S., Tu, X., Wang, X., Zhao, W., Dai, H.  
2008; 130 (8): 2686-2691
- **Circulation and long-term fate of functionalized, biocompatible single-walled carbon nanotubes in mice probed by Raman spectroscopy** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Liu, Z., Davis, C., Cai, W., He, L., Chen, X., Dai, H.  
2008; 105 (5): 1410-1415
- **Selective probing and imaging of cells with single walled carbon nanotubes as near-infrared fluorescent molecules** *NANO LETTERS*  
Welsher, K., Liu, Z., Daranciang, D., Dai, H.  
2008; 8 (2): 586-590
- **Hydrogen storage in carbon nanotubes through the formation of stable C-H bonds** *NANO LETTERS*  
Nikitin, A., Li, X., Zhang, Z., Ogasawara, H., Dai, H., Nilsson, A.  
2008; 8 (1): 162-167
- **Nano-Graphene Oxide for Cellular Imaging and Drug Delivery.** *Nano research*  
Sun, X., Liu, Z., Welsher, K., Robinson, J. T., Goodwin, A., Zaric, S., Dai, H.  
2008; 1 (3): 203-12
- **Carbon nanotube synthesis and organization** *CARBON NANOTUBES*  
Joselevich, E., Dai, H., Liu, J., Hata, K., Windle, A. H.  
2008; 111: 101-164
- **Selective synthesis combined with chemical separation of single-walled carbon nanotubes for chirality selection** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Li, X., Tu, X., Zaric, S., Welsher, K., Seo, W. S., Zhao, W., Dai, H.  
2007; 129 (51): 15770-?
- **Electrically driven light emission from hot single-walled carbon nanotubes at various temperatures and ambient pressures** *APPLIED PHYSICS LETTERS*  
Wang, X., Zhang, L., Lu, Y., Dai, H., Kato, Y. K., Pop, E.  
2007; 91 (26)
- **Moment switching in nanotube magnetic force probes** *NANOTECHNOLOGY*  
Kirtley, J. R., Deng, Z., Luan, L., Yenilmez, E., Dai, H., Moler, K. A.  
2007; 18 (46)
- **Theoretical investigations on thermal light emission from metallic carbon nanotubes** *IEEE TRANSACTIONS ON NANOTECHNOLOGY*  
Ouyang, Y., Mann, D., Dai, H., Guo, J.  
2007; 6 (6): 682-687
- **Supramolecular chemistry on water-soluble carbon nanotubes for drug loading and delivery** *ACS NANO*  
Liu, Z., Sun, X., Nakayama-Ratchford, N., Dai, H.  
2007; 1 (1): 50-56
- **Tomonaga-luttinger liquid features in ballistic single-walled carbon nanotubes: Conductance and shot noise** *PHYSICAL REVIEW LETTERS*  
Kim, N. Y., Recher, P., Oliver, W. D., Yamamoto, Y., Kong, J., Dai, H.  
2007; 99 (3)
- **Soluble single-walled carbon nanotubes as longboat delivery systems for Platinum(IV) anticancer drug design** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Feazell, R. P., Nakayama-Ratchford, N., Dai, H., Lippard, S. J.  
2007; 129 (27): 8438-?
- **Measuring the capacitance of individual semiconductor nanowires for carrier mobility assessment** *NANO LETTERS*

- Tu, R., Zhang, L., Nishi, Y., Dai, H.  
2007; 7 (6): 1561-1565
- **Electrical and thermal transport in metallic single-wall carbon nanotubes on insulating substrates** *JOURNAL OF APPLIED PHYSICS*  
Pop, E., Mann, D. A., Goodson, K. E., Dai, H.  
2007; 101 (9)
  - **Langmuir-Blodgett assembly of densely aligned single-walled carbon nanotubes from bulk materials** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Li, X., Zhang, L., Wang, X., Shimoyama, I., Sun, X., Seo, W., Dai, H.  
2007; 129 (16): 4890-?
  - **Noncovalent functionalization of carbon nanotubes by fluorescein-polyethylene glycol: Supramolecular conjugates with pH-dependent absorbance and fluorescence** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Nakayama-Ratchford, N., Bangsaruntip, S., Sun, X., Welscher, K., Dai, H.  
2007; 129 (9): 2448-?
  - **siRNA delivery into human T cells and primary cells with carbon-nanotube transporters** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Liu, Z., Winters, M., Holodniy, M., Dai, H.  
2007; 46 (12): 2023-2027
  - **In vivo biodistribution and highly efficient tumour targeting of carbon nanotubes in mice** *NATURE NANOTECHNOLOGY*  
Liu, Z., Cai, W., He, L., Nakayama, N., Chen, K., Sun, X., Chen, X., Dai, H.  
2007; 2 (1): 47-52
  - **Electrically driven thermal light emission from individual single-walled carbon nanotubes** *NATURE NANOTECHNOLOGY*  
Mann, D., Kato, Y. K., Kinkhabwala, A., Pop, E., Cao, J., Wang, X., Zhang, L., Wang, Q., Guo, J., Dai, H.  
2007; 2 (1): 33-38
  - **Parallel core-shell metal-dielectric-semiconductor germanium nanowires for high-current surround-gate field-effect transistors** *NANO LETTERS*  
Zhang, L., Tu, R., Dai, H.  
2006; 6 (12): 2785-2789
  - **FeCo/graphitic-shell nanocrystals as advanced magnetic-resonance-imaging and near-infrared agents** *NATURE MATERIALS*  
Seo, W. S., Lee, J. H., Sun, X., Suzuki, Y., Mann, D., Liu, Z., Terashima, M., Yang, P. C., McConnell, M. V., Nishimura, D. G., Dai, H.  
2006; 5 (12): 971-976
  - **Selective etching of metallic carbon nanotubes by gas-phase reaction** *SCIENCE*  
Zhang, G., Qi, P., Wang, X., Lu, Y., Li, X., Tu, R., Bangsaruntip, S., Mann, D., Zhang, L., Dai, H.  
2006; 314 (5801): 974-977
  - **Single walled carbon nanotubes for transport and delivery of biological cargos** *20th International Winterschool/Euroconference on Electronic Properties of Novel Materials*  
Kam, N. W., Dai, H.  
WILEY-VCH VERLAG GMBH.2006: 3561-66
  - **Germanium nanowires: from synthesis, surface chemistry, and assembly to devices** *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*  
Wang, D., Dai, H.  
2006; 85 (3): 217-225
  - **Neural stimulation with a carbon nanotube microelectrode array** *NANO LETTERS*  
Wang, K., Fishman, H. A., Dai, H., Harris, J. S.  
2006; 6 (9): 2043-2048
  - **FUEL 239-Hydrogen storage enhancement of HiPCO SWNTs by palladium catalyst doping**  
Lee, Y., Bhowmick, R., Dai, H., Clemens, B. M.  
AMER CHEMICAL SOC.2006
  - **Electrical transport properties and field effect transistors of carbon nanotubes** *NANO*  
Dai, H., Javey, A., Pop, E., Mann, D., Kim, W., Lu, Y.  
2006; 1 (1): 1-13

- **Hydrogenation and hydrocarbonation and etching of single-walled carbon nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Zhang, G., Qi, P., Wang, X., Lu, Y., Mann, D., Li, X., Dai, H.  
2006; 128 (18): 6026-6027
- **DNA functionalization of carbon nanotubes for ultrathin atomic layer deposition of high kappa dielectrics for nanotube transistors with 60 mV/decade switching** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Lu, Y. R., Bangsaruntip, S., Wang, X. R., Zhang, L., Nishi, Y., Dai, H. J.  
2006; 128 (11): 3518-3519
- **Nanotube manipulation with focused ion beam** *APPLIED PHYSICS LETTERS*  
Deng, Z. F., Yenilmez, E., Reilein, A., Leu, J., DAI, H. J., Moler, K. A.  
2006; 88 (2)
- **Carbon nanotubes as intracellular transporters for proteins and DNA: An investigation of the uptake mechanism and pathway** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Kam, N. W., Liu, Z. A., Dai, H. J.  
2006; 45 (4): 577-581
- **Electro-thermal transport in silicon and carbon nanotube devices** *14th International Conference on Nonequilibrium Carrier Dynamics in Semiconductors*  
Pop, E., Mann, D., ROWLETTE, J., Goodson, K., Dai, H.  
SPRINGER-VERLAG BERLIN.2006: 195-199
- **Thermal properties of metal-coated vertically-aligned single wall nanotube films** *10th Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems*  
Panzer, M., Zhang, G., Mann, D., Hu, X., Pop, E., Dai, H., Goodson, K. E.  
IEEE.2006: 1306-1313
- **Carbon nanotubes: From growth, placement and assembly control to 60mV/decade and sub-60 mV/decade tunnel transistors** *IEEE International Electron Devices Meeting*  
Zhang, G., Wang, X., Li, X., Lu, Y., Javey, A., Dai, H.  
IEEE.2006: 160-163
- **Thermal conductance of an individual single-wall carbon nanotube above room temperature** *NANO LETTERS*  
Pop, E., Mann, D., Wang, Q., Goodson, K. E., Dai, H. J.  
2006; 6 (1): 96-100
- **Hydrogenation of single-walled carbon nanotubes** *PHYSICAL REVIEW LETTERS*  
Nikitin, A., Ogasawara, H., Mann, D., Denecke, R., Zhang, Z., Dai, H., Cho, K., Nilsson, A.  
2005; 95 (22)
- **Ultra-high-yield growth of vertical single-walled carbon nanotubes: Hidden roles of hydrogen and oxygen** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Zhang, G. Y., Mann, D., Zhang, L., Javey, A., Li, Y. M., Yenilmez, E., Wang, Q., McVittie, J. P., Nishi, Y., Gibbons, J., Dai, H. J.  
2005; 102 (45): 16141-16145
- **Electrical contacts to carbon nanotubes down to 1 nm in diameter** *APPLIED PHYSICS LETTERS*  
Kim, W., Javey, A., Tu, R., Cao, J., Wang, Q., Dai, H. J.  
2005; 87 (17)
- **Negative differential conductance and hot phonons in suspended nanotube molecular wires** *PHYSICAL REVIEW LETTERS*  
Pop, E., Mann, D., Cao, J., Wang, Q., Goodson, K. E., Dai, H. J.  
2005; 95 (15)
- **Electron transport in very clean, as-grown suspended carbon nanotubes** *NATURE MATERIALS*  
Cao, J., Wang, Q., Dai, H.  
2005; 4 (10): 745-749
- **Functionalization of carbon nanotubes via cleavable disulfide bonds for efficient intracellular delivery of siRNA and potent gene silencing** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Kam, N. W., Liu, Z., Dai, H. J.

2005; 127 (36): 12492-12493

- **Regular arrays of 2 nm metal nanoparticles for deterministic synthesis of nanomaterials** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Javey, A., Dai, H. J.  
2005; 127 (34): 11942-11943
- **Oxidation resistant germanium nanowires: Bulk synthesis, long chain alkanethiol functionalization, and Langmuir-Blodgett assembly** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, D. W., Chang, Y. L., Liu, Z., Dai, H. J.  
2005; 127 (33): 11871-11875
- **Carbon nanotubes as multifunctional biological transporters and near-infrared agents for selective cancer cell destruction** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Kam, N. W., O'Connell, M., Wisdom, J. A., Dai, H. J.  
2005; 102 (33): 11600-11605
- **Carbon nanotubes as intracellular protein transporters: Generality and biological functionality** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Kam, N. W., Dai, H. J.  
2005; 127 (16): 6021-6026
- **Carbon nanotubes: Synthesis, properties and new directions (tutorial).** *229th National Meeting of the American-Chemical-Society (ACS)*  
Dai, H. J.  
AMER CHEMICAL SOC.2005: U910-U910
- **Robustness, scalability, and integration of a wound-response gene expression signature in predicting breast cancer survival** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Chang, H. Y., Nuyten, D. S., Sneddon, J. B., Hastie, T., Tibshirani, R., Sorlie, T., Dai, H. Y., He, Y. D., Van't Veer, L. J., Bartelink, H., van de Rijn, M., Brown, P. O., van de Vijver, et al  
2005; 102 (10): 3738-3743
- **Piezoresistance of carbon nanotubes on deformable thin-film membranes** *APPLIED PHYSICS LETTERS*  
Grow, R. J., Wang, Q., Cao, J., Wang, D. W., Dai, H. J.  
2005; 86 (9)
- **Resonances in  $J/\psi \rightarrow \phi \pi^+ \pi^-$  and  $\phi K^+ K^-$**  *PHYSICS LETTERS B*  
Ablikim, M., Bai, J. Z., Ban, Y., Bian, J. G., Bugg, D., Cai, X., Chang, J. F., Chen, H. F., Chen, H. S., Chen, H. X., Chen, J. C., Chen, J., Chen, et al  
2005; 607 (3-4): 243-253
- **Measurement of ionizing radiation using carbon nanotube field effect transistor** *PHYSICS IN MEDICINE AND BIOLOGY*  
Tang, X. W., Yang, Y., Kim, W., Wang, Q., Qi, P. F., Dai, H. J., Xing, L.  
2005; 50 (3): N23-N31
- **High performance n-type carbon nanotube field-effect transistors with chemically doped contacts** *NANO LETTERS*  
Javey, A., Tu, R., Farmer, D. B., Guo, J., Gordon, R. G., Dai, H. J.  
2005; 5 (2): 345-348
- **2,4-dinitrobenzenesulfonyl fluoresceins as fluorescent alternatives to Ellman's reagent in thiol-quantification enzyme assays** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Maeda, H., Matsuno, H., Ushida, M., Katayama, K., Saeki, K., Itoh, N.  
2005; 44 (19): 2922-2925
- **Carbon nanotube electronics** *19TH INTERNATIONAL CONFERENCE ON VLSI DESIGN, PROCEEDINGS*  
Javey, A., DAI, H. J.  
2005: 453-458
- **Electro-thermal transport in metallic single-wall carbon nanotubes for interconnect applications** *IEEE International Electron Devices Meeting*  
Pop, E., Mann, D., Reifenberg, J., Goodson, K., Dai, H. J.  
IEEE.2005: 261-264
- **Fabrication of a carbon nanotube protruding electrode array for a retinal prosthesis** *Conference on Microfluidics, BioMEMS, and Medical Microsystems III*  
Wang, K., Dai, H., Fishman, H. A., Harris, J. S.

SPIE-INT SOC OPTICAL ENGINEERING.2005: 22-29

- **Deterministic one-to-one synthesis of germanium nanowires and individual gold nanoseed patterning for aligned arrays** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wang, D. W., Tu, R., Zhang, L., Dai, H. J.  
2005; 44 (19): 2925-2929
- **Self-aligned 40 nm channel carbon nanotube field-effect transistors with subthreshold swings down to 70mV/decade** *Conference on Quantum Sensing and Nanophotonic Devices II*  
Javey, A., Farmer, D., Gordon, R., DAI, H. J.  
SPIE-INT SOC OPTICAL ENGINEERING.2005: 14-18
- **Suspended carbon nanotube quantum wires with two gates** *SMALL*  
Cao, H., Wang, Q., Wang, D. W., Dai, H. J.  
2005; 1 (1): 138-141
- **Study of  $J/\psi \rightarrow \omega K^+ K^-$**  *PHYSICS LETTERS B*  
Ablikim, M., Bai, J. Z., Ban, Y., Bian, J. G., Bugg, D. V., Cai, X., Chang, J. F., Chen, H. F., Chen, H. S., Chen, H. X., Chen, J. C., Chen, J., Chen, et al  
2004; 603 (3-4): 138-145
- **Aharonov-Bohm interference and beating in single-walled carbon-nanotube interferometers** *PHYSICAL REVIEW LETTERS*  
Cao, J., Wang, Q., Rolandi, M., Dai, H. J.  
2004; 93 (21)
- **Electric-field-directed growth of carbon nanotubes in two dimensions** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Nojeh, A., Ural, A., Pease, R. F., DAI, H. J.  
A V S AMER INST PHYSICS.2004: 3421-25
- **Electron beam stimulated field-emission from single-walled carbon nanotubes** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Nojeh, A., Wong, W. K., Yieh, E., Pease, R. F., DAI, H. J.  
A V S AMER INST PHYSICS.2004: 3124-27
- **Miniature organic transistors with carbon nanotubes as quasi-one-dimensional electrodes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Qi, P. F., Javey, A., Rolandi, M., Wang, Q., Yenilmez, E., Dai, H. J.  
2004; 126 (38): 11774-11775
- **Surface chemistry and electrical properties of germanium nanowires** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, D. W., Chang, Y. L., Wang, Q., Cao, J., Farmer, D. B., Gordon, R. G., Dai, H. J.  
2004; 126 (37): 11602-11611
- **Ten- to 50-nm-long quasi-ballistic carbon nanotube devices obtained without complex lithography** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Javey, A., Qi, P. F., Wang, Q., Dai, H. J.  
2004; 101 (37): 13408-13410
- **Scanning electron microscopy of field-emitting individual single-walled carbon nanotubes** *APPLIED PHYSICS LETTERS*  
Nojeh, A., Wong, W. K., Baum, A. W., Pease, R. F., Dai, H.  
2004; 85 (1): 112-114
- **Self-aligned ballistic molecular transistors and electrically parallel nanotube arrays** *NANO LETTERS*  
Javey, A., Guo, J., Farmer, D. B., Wang, Q., Yenilmez, E., Gordon, R. G., Lundstrom, M., Dai, H. J.  
2004; 4 (7): 1319-1322
- **Nanotube molecular transporters: Internalization of carbon nanotube-protein conjugates into mammalian cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Kam, N. W., Jessop, T. C., Wender, P. A., Dai, H. J.  
2004; 126 (22): 6850-6851
- **Measurement of ionizing radiation using carbon nanotube field effect transistor** *46th Annual Meeting of the American-Association-of-Physicists-in-Medicine*



---

Tang, X., Yang, Y., Kim, W., Wang, Q., Xing, L., Dai, H.

AMER ASSOC PHYSICISTS MEDICINE AMER INST PHYSICS.2004: 1839-39

- **Dendrimer monolayers as negative and positive tone resists for scanning probe lithography** *NANO LETTERS*  
Rolandi, M., Suez, I., Dai, H. J., Frechet, J. M.  
2004; 4 (5): 889-893
- **Ab initio study of CNT NO<sub>2</sub> gas sensor** *CHEMICAL PHYSICS LETTERS*  
Peng, S., Cho, K. J., Qi, P. F., DAI, H. J.  
2004; 387 (4-6): 271-276
- **Carbon nanotubes: Continued innovations and challenges** *MRS BULLETIN*  
Dresselhaus, M. S., Dai, H.  
2004; 29 (4): 237-239
- **Recent advances in methods of forming carbon nanotubes** *MRS BULLETIN*  
Liu, J., Fan, S. S., Dai, H. J.  
2004; 29 (4): 244-250
- **Fabrication and characterization of a carbon nanotube microelectrode array for retinal prostheses** *Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology*  
Wang, K., Dai, H., Leng, T., Mehenti, N. Z., Harris, J. S., Fishman, H. A.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2004: U379-U379
- **Electron transport in short macromolecular carbon nanotubes.** *227th National Meeting of the American-Chemical Society*  
Javey, A., DAI, H. J.  
AMER CHEMICAL SOC.2004: U260-U260
- **Phospholipids-functionalized carbon nanotubes for chemical, biological and electronic applications.** *227th National Meeting of the American-Chemical Society*  
Kam, N. W., Kim, W., DAI, H. J.  
AMER CHEMICAL SOC.2004: U508-U508
- **Semiconducting versus metallic nanotubes: Preferential synthesis or separation.** *227th National Meeting of the American-Chemical Society*  
Kim, W., Li, Y. M., DAI, H. J.  
AMER CHEMICAL SOC.2004: U1277-U1277
- **High-field quasiballistic transport in short carbon nanotubes** *PHYSICAL REVIEW LETTERS*  
Javey, A., Guo, J., Paulsson, M., Wang, Q., Mann, D., Lundstrom, M., Dai, H. J.  
2004; 92 (10)
- **Carbon nanotube field-effect transistors with integrated ohmic contacts and high-k gate dielectrics** *NANO LETTERS*  
Javey, A., Guo, J., Farmer, D. B., Wang, Q., Wang, D. W., Gordon, R. G., Lundstrom, M., Dai, H. J.  
2004; 4 (3): 447-450
- **An investigation of the mechanisms of electronic sensing of protein adsorption on carbon nanotube devices** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Chen, R. J., Choi, H. C., Bangsaruntip, S., Yenilmez, E., Tang, X. W., Wang, Q., Chang, Y. L., Dai, H. J.  
2004; 126 (5): 1563-1568
- **Preferential growth of semiconducting single-walled carbon nanotubes by a plasma enhanced CVD method** *NANO LETTERS*  
Li, Y. M., Mann, D., Rolandi, M., Kim, W., Ural, A., Hung, S., Javey, A., Cao, J., Wang, D. W., Yenilmez, E., Wang, Q., Gibbons, J. F., Nishi, et al  
2004; 4 (2): 317-321
- **Dispatching operation schemes of the three gorges project in cofferdam impoundment period** *9th International Symposium on River Sedimentation*  
Dai, H. C., He, W. S.  
TSINGHUA UNIVERSITY PRESS.2004: 292-298
- **Monolithic integration of carbon nanotube devices with silicon MOS technology** *NANO LETTERS*  
Tseng, Y. C., Xuan, P. Q., Javey, A., Malloy, R., Wang, Q., Bokor, J., DAI, H. J.  
2004; 4 (1): 123-127

- **Germanium nanowire field-effect transistors with SiO<sub>2</sub> and high-kappa HfO<sub>2</sub> gate dielectrics** *APPLIED PHYSICS LETTERS*  
Wang, D. W., Wang, Q., Javey, A., Tu, R., Dai, H. J., Kim, H., McIntyre, P. C., Krishnamohan, T., Saraswat, K. C.  
2003; 83 (12): 2432-2434
- **Ballistic carbon nanotube field-effect transistors** *NATURE*  
Javey, A., Guo, J., Wang, Q., Lundstrom, M., Dai, H. J.  
2003; 424 (6949): 654-657
- **Noncovalent functionalization of carbon nanotubes for highly specific electronic biosensors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Chen, R. J., Bangsaruntip, S., Drouvalakis, K. A., Kam, N. W., Shim, M., Li, Y. M., Kim, W., Utz, P. J., DAI, H. J.  
2003; 100 (9): 4984-4989
- **Electromechanical properties of metallic, quasimetallic, and semiconducting carbon nanotubes under stretching** *PHYSICAL REVIEW LETTERS*  
Cao, J., Wang, Q., Dai, H. J.  
2003; 90 (15)
- **Toward large arrays of multiplex functionalized carbon nanotube sensors for highly sensitive and selective molecular detection** *NANO LETTERS*  
Pengfei, Q. F., Vermesh, O., Grecu, M., Javey, A., Wang, O., Dai, H. J., Peng, S., Cho, K. J.  
2003; 3 (3): 347-351
- **Spontaneous and selective formation of quantum dots on single-walled carbon nanotube surfaces** *225th National Meeting of the American-Chemical-Society*  
Choi, H. C., DAI, H. J.  
AMER CHEMICAL SOC.2003: U16-U16
- **Controlled polymerization methods for the synthesis of novel polymer architectures and materials.** *225th National Meeting of the American-Chemical-Society*  
Waymouth, R. M., Bowden, N. B., Willets, K. A., Gomez, F. J., Chen, R., Gavranovic, G., Fuller, G. G., DAI, H. J., HEDRICK, J. L., Hawker, C. J.  
AMER CHEMICAL SOC.2003: U589-U589
- **Ring opening metathesis polymerization on non-covalently functionalized single-walled carbon nanotubes** *CHEMICAL COMMUNICATIONS*  
Gomez, F. J., Chen, R. J., Wang, D. W., Waymouth, R. M., Dai, H. J.  
2003: 190-191
- **Advancements in complementary carbon nanotube field-effect transistors** *IEEE International Electron Devices Meeting*  
Javey, A., Wang, Q., Kim, W., Dai, H. J.  
IEEE.2003: 741-744
- **Delivery of catalytic metal species onto surfaces with dendrimer carriers for the synthesis of carbon nanotubes with narrow diameter distribution** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Choi, H. C., Kim, W., Wang, D. W., Dai, H. J.  
2002; 106 (48): 12361-12365
- **High-kappa dielectrics for advanced carbon-nanotube transistors and logic gates** *NATURE MATERIALS*  
Javey, A., Kim, H., Brink, M., Wang, Q., Ural, A., Guo, J., McIntyre, P., McEuen, P., Lundstrom, M., DAI, H. J.  
2002; 1 (4): 241-246
- **Carbon nanotubes: Synthesis, integration, and properties** *ACCOUNTS OF CHEMICAL RESEARCH*  
DAI, H. J.  
2002; 35 (12): 1035-1044
- **Electric-field-aligned growth of single-walled carbon nanotubes on surfaces** *APPLIED PHYSICS LETTERS*  
Ural, A., Li, Y. M., Dai, H. J.  
2002; 81 (18): 3464-3466
- **Carbon nanotube transistor arrays for multistage complementary logic and ring oscillators** *NANO LETTERS*  
Javey, A., Wang, Q., Ural, A., Li, Y. M., Dai, H. J.  
2002; 2 (9): 929-932
- **Ordered nanomaterial architectures: Carbon nanotubes.**

- Dai, H.  
AMER CHEMICAL SOC.2002: U318-U318
- **Nanoparticles and carbon nanotubes synthesis.**  
Dai, H. J.  
AMER CHEMICAL SOC.2002: U308-U308
  - **Spontaneous reduction of metal ions on the sidewalls of carbon nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Choi, H. C., Shim, M., Bangsaruntip, S., Dai, H. J.  
2002; 124 (31): 9058-9059
  - **Integration of suspended carbon nanotube arrays into electronic devices and electromechanical systems** *APPLIED PHYSICS LETTERS*  
Franklin, N. R., Wang, Q., Tomblor, T. W., Javey, A., Shim, M., Dai, H. J.  
2002; 81 (5): 913-915
  - **Synthesis of ultralong and high percentage of semiconducting single-walled carbon nanotubes** *NANO LETTERS*  
Kim, W., Choi, H. C., Shim, M., Li, Y. M., Wang, D. W., Dai, H. J.  
2002; 2 (7): 703-708
  - **Carbon nanotube as a model system for nanoscale science.**  
Dai, H. J.  
AMER CHEMICAL SOC.2002: C46-C46
  - **Functionalization of carbon nanotubes for biocompatibility and biomolecular recognition** *NANO LETTERS*  
Shim, M., Kam, N. W., Chen, R. J., Li, Y. M., Dai, H. J.  
2002; 2 (4): 285-288
  - **Wafer scale production of carbon nanotube scanning probe tips for atomic force microscopy** *APPLIED PHYSICS LETTERS*  
Yenilmez, E., Wang, Q., Chen, R. J., Wang, D. W., Dai, H. J.  
2002; 80 (12): 2225-2227
  - **Carbon nanotubes: opportunities and challenges** *SURFACE SCIENCE*  
Dai, H. J.  
2002; 500 (1-3): 218-241
  - **Imaging as-grown single-walled carbon nanotubes originated from isolated catalytic nanoparticles** *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*  
Zhang, Y., Li, Y., Kim, W., Wang, D., Dai, H.  
2002; 74 (3): 325-328
  - **Electrical properties and devices of large-diameter single-walled carbon nanotubes** *APPLIED PHYSICS LETTERS*  
Javey, A., Shim, M., Dai, H. J.  
2002; 80 (6): 1064-1066
  - **A new scanning probe lithography scheme with a novel metal resist** *ADVANCED MATERIALS*  
Rolandi, M., Quate, C. F., Dai, H. J.  
2002; 14 (3): 191-?
  - **Chemical profiling of single nanotubes: Intramolecular p-n-p junctions and on-tube single-electron transistors** *APPLIED PHYSICS LETTERS*  
Kong, J., Cao, J., Dai, H. J., Anderson, E.  
2002; 80 (1): 73-75
  - **Low-temperature synthesis of single-crystal germanium nanowires by chemical vapor deposition** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wang, D. W., DAI, H. J.  
2002; 41 (24): 4783-4786
  - **Patterned growth of single-walled carbon nanotubes on full 4-inch wafers** *APPLIED PHYSICS LETTERS*  
Franklin, N. R., Li, Y. M., Chen, R. J., Javey, A., Dai, H. J.  
2001; 79 (27): 4571-4573

- **Polymer functionalization for air-stable n-type carbon nanotube field-effect transistors** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Shim, M., Javey, A., Kam, N. W., DAI, H. J.  
2001; 123 (46): 11512-11513
- **Molecular photodesorption from single-walled carbon nanotubes** *APPLIED PHYSICS LETTERS*  
Chen, R. J., Franklin, N. R., Kong, J., Cao, J., Tomblor, T. W., Zhang, Y. G., Dai, H. J.  
2001; 79 (14): 2258-2260
- **Functionalized carbon nanotubes for molecular hydrogen sensors** *ADVANCED MATERIALS*  
Kong, J., Chapline, M. G., DAI, H. J.  
2001; 13 (18): 1384-1386
- **Quantum interference and ballistic transmission in nanotube electron waveguides** *PHYSICAL REVIEW LETTERS*  
Kong, J., Yenilmez, E., Tomblor, T. W., Kim, W., DAI, H. J., Laughlin, R. B., Liu, L., Jayanthi, C. S., Wu, S. Y.  
2001; 87 (10)
- **Noncovalent sidewall functionalization of single-walled carbon nanotubes for protein immobilization** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Chen, R. J., Zhang, Y. G., Wang, D. W., DAI, H. J.  
2001; 123 (16): 3838-3839
- **Integrated nanotubes for chemical sensors.**  
Dai, H. J.  
AMER CHEMICAL SOC.2001: U380-U381
- **Nanotube growth and characterization** *CARBON NANOTUBES*  
Dai, H. J.  
2001; 80: 29-53
- **Modulated chemical doping of individual carbon nanotubes** *SCIENCE*  
Zhou, C. W., Kong, J., Yenilmez, E., DAI, H. J.  
2000; 290 (5496): 1552-1555
- **Metal coating on suspended carbon nanotubes and its implication to metal-tube interaction** *CHEMICAL PHYSICS LETTERS*  
Zhang, Y., Franklin, N. W., Chen, R. J., Dai, H. J.  
2000; 331 (1): 35-41
- **An enhanced CVD approach to extensive nanotube networks with directionality** *ADVANCED MATERIALS*  
Franklin, N. R., DAI, H. J.  
2000; 12 (12): 890-894
- **Controlling nanotube growth** *PHYSICS WORLD*  
DAI, H. J.  
2000; 13 (6): 43-47
- **Superconducting proximity effect in single-wall carbon nanotubes** *22nd International Conference on Low Temperature Physics*  
Morpurgo, A. F., Kong, J., Marcus, C. M., Dai, H.  
ELSEVIER SCIENCE BV.2000: 382-83
- **Electrical measurements of individual semiconducting single-walled carbon nanotubes of various diameters** *APPLIED PHYSICS LETTERS*  
Zhou, C. W., Kong, J., Dai, H. J.  
2000; 76 (12): 1597-1599
- **Nanotube molecular wires as chemical sensors** *SCIENCE*  
Kong, J., Franklin, N. R., Zhou, C. W., Chapline, M. G., Peng, S., Cho, K. J., DAI, H. J.  
2000; 287 (5453): 622-625
- **Intrinsic electrical properties of individual single-walled carbon nanotubes with small band gaps** *Physical review letters*  
Zhou, C., Kong, J., Dai, H.  
2000; 84 (24): 5604-7

- **Reversible electromechanical characteristics of carbon nanotubes under local-probe manipulation** *Nature*  
Tombler, T. W., Zhou, C., Alexseyev, L., Kong, J., Dai, H., Liu, L., Jayanthi, C. S., Tang, M., Wu, S. Y.  
2000; 405 (6788): 769–72
- **Nanotube molecular wires as chemical sensors** *Science (New York, N.Y.)*  
Kong, J., Franklin, N. R., Zhou, C., Chapline, M. G., Peng, S., Cho, K., Dai, H.  
2000; 287 (5453): 622–25
- **Terabit-per-square-inch data storage with the atomic force microscope** *APPLIED PHYSICS LETTERS*  
Cooper, E. B., Manalis, S. R., Fang, H., Dai, H., Matsumoto, K., Minne, S. C., Hunt, T., Quate, C. F.  
1999; 75 (22): 3566-3568
- **Gate-controlled superconducting proximity effect in carbon nanotubes** *SCIENCE*  
Morpurgo, A. F., Kong, J., Marcus, C. M., Dai, H.  
1999; 286 (5438): 263-265
- **Directed growth of free-standing single-walled carbon nanotubes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Cassell, A. M., Franklin, N. R., Tombler, T. W., Chan, E. M., Han, J., DAI, H. J.  
1999; 121 (34): 7975-7976
- **Synthesis, integration, and electrical properties of individual single-walled carbon nanotubes** *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*  
Kong, J., Zhou, C., Morpurgo, A., Soh, H. T., Quate, C. F., Marcus, C., Dai, H.  
1999; 69 (3): 305-308
- **Integrated nanotube circuits: Controlled growth and ohmic contacting of single-walled carbon nanotubes** *APPLIED PHYSICS LETTERS*  
Soh, H. T., Quate, C. F., Morpurgo, A. F., Marcus, C. M., Kong, J., Dai, H. J.  
1999; 75 (5): 627-629
- **Carbon nanotubes as AFM tips: Measuring DNA molecules at the liquid/solid interface** *Asia-Pacific Surface and Interface Analysis Conference 1998 (APSIAC 98)*  
Li, J., Cassell, A. M., DAI, H. J.  
WILEY-BLACKWELL.1999: 8–11
- **Self-oriented regular arrays of carbon nanotubes and their field emission properties** *SCIENCE*  
Fan, S. S., Chapline, M. G., Franklin, N. R., Tombler, T. W., Cassell, A. M., DAI, H. J.  
1999; 283 (5401): 512-514
- **Self-oriented regular arrays of carbon nanotubes and their field emission properties** *Science (New York, N.Y.)*  
Fan, S., Chapline, M. G., Franklin, N. R., Tombler, T. W., Cassell, A. M., Dai, H.  
1999; 283 (5401): 512–14
- **Gate-Controlled Superconducting Proximity Effect in Carbon Nanotubes.** *Science (New York, N.Y.)*  
Morpurgo, A. F., Kong, J., Marcus, C. M., Dai, H.  
1999; 286 (5438): 263–65
- **Synthesis of individual single-walled carbon nanotubes on patterned silicon wafers** *NATURE*  
Kong, J., Soh, H. T., Cassell, A. M., Quate, C. F., Dai, H. J.  
1998; 395 (6705): 878-881
- **Exploiting the properties of carbon nanotubes for nanolithography** *APPLIED PHYSICS LETTERS*  
Dai, H. J., Franklin, N., Han, J.  
1998; 73 (11): 1508-1510
- **Chemical vapor deposition of methane for single-walled carbon nanotubes** *CHEMICAL PHYSICS LETTERS*  
Kong, J., Cassell, A. M., Dai, H. J.  
1998; 292 (4-6): 567-574
- **Cellulose acetate hollow fiber performance for ultra-low pressure reverse osmosis** *International Congress on Membranes and Membrane Processes*  
Hao, J. H., Dai, H. P., Yang, P. C., Wei, J. M., Wang, Z.

ELSEVIER SCIENCE BV.1996: 217–21

- **Atmospheric studies using the High-Resolution Fly's Eye xenon flasher array** *Conference on Ultraviolet Atmospheric and Space Remote Sensing - Methods and Instrumentation*  
Wiencke, L. R., Bird, D. J., Chen, G. F., Clay, R. W., Dai, H. Y., Dawson, B. R., Huang, M. A., Jui, C. C., Kidd, M. J., Kieda, D. B., Ko, S., Larsen, C. G., Loh, et al  
SPIE - INT SOC OPTICAL ENGINEERING.1996: 241–251
- **An analysis of criteria for the evaluation of learning performance** *1996 Australian/New-Zealand Conference on Intelligent Information Systems (ANZIS 96)*  
Dai, H. H., Liu, J., Ciesielski, V.  
I E E E.1996: 84–87
- **Actively controlled forced-steering bogie and its H-infinity controller** *5th Mini Conference on Vehicle System Dynamics, Identification and Anomalies (VSDIA 96)*  
Dai, H. Y., SHEN, Z. Y.  
BUDAPEST UNIV TECHNOLOGY ECONOMICS.1996: 133–140
- **Component observations of 10(17) eV EAS with the CASA-MIA and HiRes detectors** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Borione, A., Boyer, J., Catanese, M., Chen, G. F., Clay, R. W., Covault, C. E., Cronin, J. W., Dai, H. Y., Dawson, B. R., Elbert, J. W., Fick, B. E., Fortson, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 760–763
- **Atmospheric monitoring for fluorescence detector experiments** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Boyer, J., Chen, G. F., Dai, H. Y., Dawson, B. R., Elbert, J. W., Ho, Y., Huang, M. A., Jui, C. C., Kidd, M. J., Kieda, D. B., Ko, S., Larsen, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 560–563
- **The HiRes2 prototype and coincident measurement with HiRes1** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Boyer, J., Chen, G. F., Clay, R. W., Dai, H. Y., Dawson, B. R., Ho, Y., Huang, A., Jui, C. C., Kidd, M. J., Kieda, D. B., Knapp, B. C., Ko, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 548–551
- **The use of GPS clocks for high relative timing accuracy between HiRes sites** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Boyer, J., Chen, G. F., Clay, R. W., Dai, H. Y., Dawson, B. R., Elbert, J. W., Ho, Y., Huang, M. A., Jui, C. C., Kidd, M. J., Kieda, D. B., Ko, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 746–749
- **Preliminary analysis of monocular HiRes prototype data** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Boyer, J., Chen, G. F., Dai, H. Y., Dawson, B. R., Elbert, J. W., Ho, Y., Huang, M. A., Jui, C. C., Kidd, M. J., Kieda, D. B., Ko, S., Larsen, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 500–503
- **The High Resolution Fly's Eye Project** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Bird, D. J., Boyer, J., Chen, G. F., Clay, R. W., Dai, H. Y., Dawson, B. R., Elbert, J. W., Ho, Y., Huang, A., Jui, C. C., Kidd, M. J., Kieda, D. B., Knapp, et al  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 504–507
- **Re-examination on primary cosmic ray composition above 10(17) eV** *24th International Cosmic Ray Conference (XXIV ICRC)*  
Dai, H. Y., Ding, L. K., Jing, C. L., Jing, G. R., Loh, E. C., Ren, J. L., Zhu, Q. Q.  
ARGALIA EDITORE DELLE ARTI GRAFICHE EDITORIALI SRL.1995: 672–675

## PRESENTATIONS

- WIN Distinguished Lecture: Novel Materials for Nanoscience and Nanotechnology - Waterloo Institute for Nanotechnology (January 17, 2013)
- GCEP Symposium Tech Talk: Energy Storage & Conversion - Global Climate and Energy Project Symposium (October 14, 2015)
- Precourt Institute lecture: Nanotechnology for Energy Research - Stanford Precourt Institute for Energy (September 14, 2012)
- The Washington Post: Stanford Develops Flexible, Fast-charging Aluminum Battery - The Washington Post (April 6, 2015)
- Precourt Institute video: Stanford Scientists Develop Low-cost Water Splitter - Stanford Precourt Institute for Energy (August 2014)
- ABC News: Stanford Dye Opens Window into Body - ABC News (March 18, 2016)