



Guosong Hong

Assistant Professor of Materials Science and Engineering

Bio

BIO

Guosong Hong's research aims to bridge materials science and neuroscience, and blur the distinction between the living and non-living worlds by developing novel neuroengineering tools to interrogate and manipulate the brain in a minimally invasive way. Specifically, the Hong lab is currently developing ultrasound, near-infrared and microwave-based in-vivo neural interfaces with minimal invasiveness and targeted neural specificity.

Guosong received his Ph.D. degree in chemistry from Stanford University in 2014. His Ph.D. research focused on the development of a new fluorescence imaging method in the second near-infrared window (NIR-II window, 1,000-1,700 nm) to afford deep-tissue penetration in the brain and other biological tissues. During his postdoctoral training at Harvard University, Guosong developed tissue-like mesh electronics neural probes to interrogate the brain and the retina with chronic stability, and is a recipient of the American Heart Association (AHA) Postdoctoral Fellowship and the NIH Pathway to Independence Award (K99/R00). Guosong joined the Stanford faculty in September 2018, and is an assistant professor of Materials Science and Engineering, and the Wu Tsai Neurosciences Institute.

ACADEMIC APPOINTMENTS

- Assistant Professor, Materials Science and Engineering
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Abbott Laboratory Stanford Graduate Fellowship, Stanford University (2010)
- William S. Johnson Graduate Fellowship, Stanford University (2013)
- Graduate Student Award, Materials Research Society (2014)
- Honorable Mention Award, The International Union of Pure and Applied Chemistry (IUPAC) International Award for Young Chemists (2015)
- AHA Postdoctoral Fellowship, American Heart Association (2016)
- Pathway to Independence Award (Parent K99/R00), National Institutes of Health (2017)
- '35 Innovators Under 35' Award, MIT Technology Review (2019)
- Highly Cited Researcher, Web of Science (2019)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Seminar Organizer, NeuroTech Training Program (2019 - present)
- Colloquium Organizer, Stanford Materials Science and Engineering Colloquium Series (2019 - present)
- Young Star Editor, Nano Research (2019 - present)

- Member, Society for Neuroscience (2019 - present)
- Member, Materials Research Society (2013 - present)

PROFESSIONAL EDUCATION

- Postdoc training, Harvard University , Chemistry and Chemical Biology (2018)
- PhD, Stanford University , Chemistry (2014)

PATENTS

- Guosong Hong, Xiang Wu, Paul Chong, Huiliang Wang, Guosong Hong. "United States Patent 62/941, 234 Modulating Photosensitive ION Channels With Mechanoluminescent Particles", Leland Stanford Junior University
- Zhimin Tao, Guosong Hong, Yingping Zou, Chihiro Fukunaga, Hongjie Dai, Shuo Diao, Alex Antaris. "United States Patent US20150056142A1 Near-infrared-II fluorescent agents, methods of making near-infrared-II fluorescent agents, and methods of using water-soluble NIR-II fluorescent agents", Leland Stanford Junior University
- Hongjie Dai, Scott M. Tabakman, Guosong Hong, Bo Zhang. "United States Patent US9823246B2 Fluorescence enhancing plasmonic nanoscopic gold films and assays based thereon", Leland Stanford Junior University
- Guosong Hong, Jerry Chung-yu Lee, Ngan Fong Huang, John P. Cooke, Hongjie Dai. "United States Patent WO2014081419A2 High resolution imaging using near-infrared-II fluorescence", Leland Stanford Junior University

LINKS

- My Lab Site: <http://honglab.stanford.edu/>
- Google Scholar: <https://scholar.google.com/citations?user=IDKemKgAAAAJ&hl=en>
- NIH MyBibliography: <https://www.ncbi.nlm.nih.gov/myncbi/guosong.hong.1/bibliography/public/>

Teaching

COURSES

2019-20

- Materials Advances for Neurotechnology: Materials Meet the Mind: MATSCI 384 (Aut)
- Materials Science Colloquium: MATSCI 230 (Aut, Win, Spr)
- NeuroTech Training Seminar: NSUR 239, STATS 242 (Win)

2018-19

- Energy Materials Laboratory: MATSCI 161, MATSCI 171 (Spr)
- Materials Advances in Neurotechnology: Materials Meeting the Mind: MATSCI 384 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Dana Cortade, Yaakov Tuchman

Postdoctoral Faculty Sponsor

Fan Yang, Rongkang Yin

Doctoral Dissertation Advisor (AC)

Paul Chong, Kyrstyn Ong, Ajay Subramanian, Grace Woods, Xiang Wu

Orals Evaluator

Yucan Peng, David Wu, Yikai Yin

Master's Program Advisor

Caitlin Hogan, Sang Cheol Kim, Zongqi Li, Yu-Ching Lin, Xiang Wu

Doctoral Dissertation Co-Advisor (AC)

Ali Mahdi

Doctoral (Program)

Siddharth Doshi, Kyrstyn Ong

Postdoctoral Research Mentor

Rongkang Yin

Publications

PUBLICATIONS

- **Atomic-Precision Gold Clusters for NIR-II Imaging.** *Advanced materials (Deerfield Beach, Fla.)*
Liu, H., Hong, G., Luo, Z., Chen, J., Chang, J., Gong, M., He, H., Yang, J., Yuan, X., Li, L., Mu, X., Wang, J., Mi, et al
2019; e1901015
- **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-+
- **Novel electrode technologies for neural recordings** *NATURE REVIEWS NEUROSCIENCE*
Hong, G., Lieber, C. M.
2019; 20 (6): 330-45
- **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
- **Novel electrode technologies for neural recordings.** *Nature reviews. Neuroscience*
Hong, G., Lieber, C. M.
2019
- **Nanoenabled Direct Contact Interfacing of Syringe-Injectable Mesh Electronics.** *Nano letters*
Lee, J. M., Hong, G., Lin, D., Schuhmann, T. G., Sullivan, A. T., Viveros, R. D., Park, H. G., Lieber, C. M.
2019
- **Sono-optogenetics facilitated by a circulation-delivered rechargeable light source for minimally invasive optogenetics.** *Proceedings of the National Academy of Sciences of the United States of America*
Wu, X., Zhu, X., Chong, P., Liu, J., Andre, L. N., Ong, K. S., Brinson, K., Mahdi, A. I., Li, J., Fenno, L. E., Wang, H., Hong, G.
2019
- **Single-Cell Profiles of Retinal Ganglion Cells Differing in Resilience to Injury Reveal Neuroprotective Genes.** *Neuron*
Tran, N. M., Shekhar, K., Whitney, I. E., Jacobi, A., Benhar, I., Hong, G., Yan, W., Adiconis, X., Arnold, M. E., Lee, J. M., Levin, J. Z., Lin, D., Wang, et al
2019
- **Tissue-like Neural Probes for Understanding and Modulating the Brain** *BIOCHEMISTRY*
Hong, G., Viveros, R. D., Zwang, T. J., Yang, X., Lieber, C. M.
2018; 57 (27): 3995-4004
- **A method for single-neuron chronic recording from the retina in awake mice** *SCIENCE*
Hong, G., Fu, T., Qiao, M., Viveros, R. D., Yang, X., Zhou, T., Lee, J., Park, H., Sanes, J. R., Lieber, C. M.
2018; 360 (6396): 1447-+
- **Mesh electronics: a new paradigm for tissue-like brain probes** *CURRENT OPINION IN NEUROBIOLOGY*
Hong, G., Yang, X., Zhou, T., Lieber, C. M.
2018; 50: 33-41

- **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
- **Mesh Nanoelectronics: Seamless Integration of Electronics with Tissues** *ACCOUNTS OF CHEMICAL RESEARCH*
Dai, X., Hong, G., Gao, T., Lieber, C. M.
2018; 51 (2): 309–18
- **Highly scalable multichannel mesh electronics for stable chronic brain electrophysiology** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Fu, T., Hong, G., Viveros, R. D., Zhou, T., Lieber, C. M.
2017; 114 (47): E10046–E10055
- **Syringe-Injectable Electronics with a Plug-and-Play Input/Output Interface** *NANO LETTERS*
Schuhmann, T. G., Yao, J., Hong, G., Fu, T., Lieber, C. M.
2017; 17 (9): 5836–42
- **Syringe-injectable mesh electronics integrate seamlessly with minimal chronic immune response in the brain** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Zhou, T., Hong, G., Fu, T., Yang, X., Schuhmann, T. G., Viveros, R. D., Lieber, C. M.
2017; 114 (23): 5894–99
- **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
- **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
- **Near-infrared fluorophores for biomedical imaging** *NATURE BIOMEDICAL ENGINEERING*
Hong, G., Antaris, A. L., Dai, H.
2017; 1 (1)
- **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
- **Stable long-term chronic brain mapping at the single-neuron level** *NATURE METHODS*
Fu, T., Hong, G., Zhou, T., Schuhmann, T. G., Viveros, R. D., Lieber, C. M.
2016; 13 (10): 875–+
- **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
- **IN VIVO VASCULAR IMAGING OF TRAUMATIC BRAIN INJURY IN THE SECOND NEAR-INFRARED WINDOW**
Zhang, X., Wang, H., Antaris, A., Li, L., Diao, S., Ma, R., Nguyen, A., Hong, G., Ma, Z., Wang, J., Zhu, S., Castellano, J., Wyss-Coray, et al
MARY ANN LIEBERT, INC.2016: A48
- **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
- **Dispersion of High-Purity Semiconducting Arc-Discharged Carbon Nanotubes Using Backbone Engineered Diketopyrrolopyrrole (DPP)-Based Polymers** *ADVANCED ELECTRONIC MATERIALS*
Lei, T., Pitner, G., Chen, X., Hong, G., Park, S., Hayoz, P., Weitz, R. T., Wong, H. P., Bao, Z.
2016; 2 (1)
- **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
- **Carbon Nanomaterials for Biological Imaging and Nanomedicinal Therapy** *CHEMICAL REVIEWS*
Hong, G., Diao, S., Antaris, A. L., Dai, H.
2015; 115 (19): 10816–10906
- **Syringe Injectable Electronics: Precise Targeted Delivery with Quantitative Input/Output Connectivity** *NANO LETTERS*
Hong, G., Fu, T., Zhou, T., Schuhmann, T. G., Huang, J., Lieber, C. M.
2015; 15 (10): 6979–84
- **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
- **Diketopyrrolopyrrole-Based Semiconducting Polymer Nanoparticles for In Vivo Photoacoustic Imaging.** *Advanced materials*
Pu, K., Mei, J., Jokerst, J. V., Hong, G., Antaris, A. L., Chattopadhyay, N., Shuhendler, A. J., Kurosawa, T., Zhou, Y., Gambhir, S. S., Bao, Z., Rao, J.
2015; 27 (35): 5184–5190
- **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
- **Syringe-injectable electronics** *NATURE NANOTECHNOLOGY*
Liu, J., Fu, T., Cheng, Z., Hong, G., Zhou, T., Jin, L., Duvvuri, M., Jiang, Z., Kruskal, P., Xie, C., Suo, Z., Fang, Y., Lieber, et al
2015; 10 (7): 629–+
- **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
- **General Strategy for Biodetection in High Ionic Strength Solutions Using Transistor-Based Nanoelectronic Sensors** *NANO LETTERS*
Gao, N., Zhou, W., Jiang, X., Hong, G., Fu, T., Lieber, C. M.
2015; 15 (3): 2143–48
- **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

- **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
- **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
- **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-?
- **Diketopyrrolopyrrole (DPP)-based donor-acceptor polymers for scalable and selective dispersion of large-diameter carbon nanotubes**
Lei, T., Lai, Y., Hong, G., Wang, H., Dai, H., Bao, Z.
AMER CHEMICAL SOC.2014
- **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
- **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
- **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
- **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-?
- **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
- **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
- **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
- **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
 - **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
 - **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.
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 - **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.
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 - **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-?
 - **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-?
 - **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
 - **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
 - **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
 - **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
 - **Ag2S 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
 - **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
 - **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
 - **In Vivo Fluorescence Imaging with Ag2S 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
-

- **Metal enhanced fluorescence of carbon nanotubes: Observation and application in enhanced cell imaging** *242nd National Meeting of the American-Chemical-Society (ACS)*
Hong, G.
AMER CHEMICAL SOC.2011
- **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
- **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
- **Biomimetic morphogenesis of micropottery: helical coiling of mesostructured silica nanofibers** *SOFT MATTER*
Zhou, L., Ye, J., Hong, G., Qi, L.
2011; 7 (20): 9624-27
- **LiMn_{1-x}FexPO₄ Nanorods Grown on Graphene Sheets for Ultrahigh-Rate-Performance Lithium Ion Batteries** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
Wang, H., Yang, Y., Liang, Y., Cui, L., Casalongue, H. S., Li, Y., Hong, G., Cui, Y., Dai, H.
2011; 50 (32): 7364-7368
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