Wei Gao

Contact Information

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Professional Experience

08/2017 –	Assistant Professor of Medical Engineering Division of Engineering and Applied Science California Institute of Technology (Caltech)	Pasadena, CA, USA
01/2021 –	Investigator, Heritage Medical Research Institute, Caltech	
10/2021 –	Ronald and JoAnne Willens Scholar, Caltech	

Education

07/2014 – 06/2017	Postdoctoral Fellow in Electrical Engineering & Computer Sciences University of California, Berkeley Advisor: Professor Ali Javey	Berkeley, CA, USA
09/2009 – 06/2014	Ph.D. in Chemical Engineering University of California, San Diego Advisor: Professor Joseph Wang	La Jolla, CA, USA
09/2007 – 07/2009	M.S. in Precision Instrument Tsinghua University	Beijing, China
09/2003 – 07/2007	B.S. in Mechanical Engineering Huazhong University of Science & Technology	Wuhan, Hubei, China

Research Interests

Wearable Devices, Biosensors, Micro/Nanorobotics, Flexible Electronics, Micro/Nanomachines, Nanomotors, Nanomaterials, Nanomedicine, BioMEMS, Electrochemistry.

Awards & Honors

2021 Heritage Medical Research Institute (HMRI) Investigator
2021 Pittsburgh Conference Achievement Award
2021 US Frontiers of Engineering Symposium (USFOE), National Academy of Engineering
2021 Office of Naval Research (ONR) Young Investigator Award
2021 3M Non-Tenured Faculty Award
2021 Alfred P. Sloan Research Fellowship
2021 Associate Editor of Science Advances
2020 Biocom Life Science Catalyst Award
2020 Highly Cited Researcher 2020 (Web of Science by Clarivate Analytics)
2020 IEEE Senior Member
2020 Young Scientist Award by Nature Research Journal - Microsystems & Nanoengineering
2020 IEEE EMBS Early Career Achievement Award
2020 Chemical Society Review Emerging Investigator
2020 World Economic Forum Young Scientist (Class 2020)
2020 Inaugural ACS Nano Rising Star Lecture (in Nanoscience and Nanotechnology)
2019 Amgen Chem-Bio-Engineering Award
2019 AHA Transformational Project Award (TPA)
2019 IEEE Sensors Council Technical Achievement Award (Early Career)
2019 Member of Global Young Academy (Class of 2019)
2018 McKenna Family Innovation Award
2018 Interstellar Initiative by the New York Academy of Sciences
2018 Sensors Young Investigator Award
2017 ACS Nano Junior Fellow

2016 R&D 100 Award, Finalist
2016 MIT Technology Review Top 35 Innovators Under 35 (TR35, Global List)
2015 ACS Young Investigator Award (Division of Inorganic Chemistry)
2015 IUPAC-SOLVAY International Award for Young Chemists (Honorable Mention Award)
2014 MRS Graduate Student Award
2013 AICHE Bionanotechnology Graduate Student Award (1st place)
2013 Distinguished Young Scholars Summer Seminar (Speaker), University of Washington
2013 MRS Graduate Student Award
2013 Chinese Government Award for Outstanding Students Abroad
2012 HHMI International Student Research Fellowship (2012-2014)
2009 Jacobs Fellowship, University of California, San Diego (2009-2010)

Professional Activities

- Associate Editor of *Science Advances (one of the five sister journals for Science Magazine)*.
- Associate Editor of *Sensors & Diagnostics (RSC).*
- Associate Editor of *IEEE Journal on Flexible Electronics (IEEE).*
- Member of Journal Editorial/Advisory Board of *Science Advances (AAAS), Matter (Cell Press), Microchimica Acta (Springer Nature), Advanced Intelligent Systems (Wiley)*, *Analysis & Sensing (Wiley)*, *Micromachines (MDPI), and Sensors (MDPI).*
- Member of *AAAS, ACS, AHA, AICHE, BMES, ECS, GYA, IEEE, MRS, and SPIE.*
- Invited Guest Editor for *Talanta*, Special Issue on Wearable Sensors, 2020.
- Invited Guest Editor for *Journal of Semiconductors*, Special Issue on Flexible Materials and Structures, 2020.
- Invited Guest Editor for *iScience (Cell Press)*, Special Issue on Wearable Electronics, 2021.
- Invited Guest Editor for *Advanced Healthcare Materials*, Special Issue on Wearable/Implantable Devices, 2021.
- Invited Guest Editor for *Biosensors and Bioelectronics*, Special Issue on Wearable Biosensors, 2021.
- Invited Guest Editor for *Applied Physical Reviews*, Special Issue on Flexible and Smart Electronics, 2021.
- Conference Organizer/Session or Track Chair: ECS PRiME 2020 (Wearable Biosensors and POCT); IEEE NEMS 2020 (Wearable Multifunctional Micro/Nanosystems); BMES 2020 (Wearable Sensors and Devices); 2021 IEEE Metronind 4.0 & IoT (Wearable Sensor Special Session); IEEE FLEPS 2021 (Bio- and Wearable Electronics); 2021 1st Workshop of Next Generation of Sensors (Springer Nature); ACS-Western Regional Meeting (WRM-2022) 'Chemical Sensors' Symposium.
- Panelist for *NSF (ECCS, Biosensing), DOD (CDMRP), NASA (HERO), and NIH*.
- Proposal Reviewer for *NIH, NSF*, *Congressionally Directed Medical Research Programs (CDMRP)*, *Air Force Office of Scientific Research (AFOSR), National Aeronautics and Space Administration (NASA), National Institute of Standards and Technology (NIST), European Research Council (ERC), Ontario Research Fund, AAAS/MTI, The Netherlands Organisation for Scientific Research, A*STAR, NWO Domain Applied and Engineering Sciences, etc.*
- Independent Reviewer of over 100 International Journals, including:
  Nature, Science, Nature Biotechnology, Nature Biomedical Engineering, Nature Electronics, Nature Materials, Nature Nanotechnology, Nature Review Materials, Nature Communications, Science Robotics, Science Translational Medicine, Science Advances, Proceedings of the National Academy of Sciences, Joule, Neuron, Matter, Light: Science & Applications, Journal of the American Chemical Society, Angewandte Chemie, Chemical Reviews, Accounts of Chemical Research, Nano Letters, ACS Nano, Advanced Materials, Advanced Functional Materials, Advanced Energy Materials, Advanced Healthcare Materials, Advanced Optical Materials, Advanced Materials Interfaces, Advanced Science, Advanced Biosystems, Advanced Intelligent System, MRS Bulletin, Trends in Chemistry, Research, Trends in Analytical Chemistry, Microsystems & Nanoengineering, Energy & Environmental Science, Nano Today, Nano Energy, Nano Research, Small, Small Methods, Chemistry - A European Journal, Chemistry – An Asian Journal, npj Digital Medicine, npj Flexible Electronics, Communication Materials, PLOS One, Scientific Reports, iScience, Heliyon, Analytical Chemistry, ACS Applied Materials & Interfaces, ACS Materials Letters, ACS Sensors, Langmuir, ACS Biomaterials Science & Engineering, Chemical Science, ChemSusChem, ChemCatChem, ChemElectroChem, The Chemical Record, Chemical Communications, Nanoscale, Journal of Materials Chemistry A, B, C, Lab on a Chip, Soft Matter, Analyst, RSC Advances, Physical Chemistry Chemical Physics, New Journal of Chemistry, Advanced Drug Delivery Reviews, Nano-Micro Letters, Biosensors and Bioelectronics, Electrochimica Acta, Sensors and Actuators B: Chemical, Talanta, Electroanalysis, ChemistrySelect, International Journal of Pharmaceutics, Materials Science & Engineering C, Materials Science & Engineering - R: Reports, Journal of Physics and

Chemistry of Solids, Applied Physics Letters, Journal of Applied Physics, AIP Advances, Applied Materials Today, Microchimica Acta, Microchemical Journal, Sensors, Annals of Biomedical Engineering, IEEE Sensors, IEEE Sensors Letters, IEEE Transactions on Electron Devices, IEEE Transactions on NanoBioscience, Journal of Fluids and Structures, IEEE Transactions on Biomedical Engineering, IEEE Journal of Translational Engineering in Health & Medicine, The Journal of The Electrochemical Society, ECS Journal of Solid State Science and Technology, Review of Scientific Instruments, etc.

Teaching

MedE 201a. Principles and Design of Medical Devices. Taught in Winter 2018-2021.
MedE 201b. Principles and Design of Medical Devices. Taught in Spring 2018-2020.
MedE 202. Sensors in Medicine. Taught in Winter 2019-2021.
MedE 100 abc. Medical Engineering Seminar. From Fall 2017 to Spring 2021.

Graduates and postdocs supervised

Current graduate students: Yiran (Isabella) Yang, Changhao Xu, Jihong Min, Jiaobing Tu, Heather Lukas, Daniel Mukasa, Jiahong Li, Wenzheng Heng, Samuel Solomon, Canran Wang, José Lasalde Ramírez, Hong Han.

Current postdoc scholars: You Yu, Ehsan Shirzaei Sani, Yu Song, Minqiang Wang, Ben Sadri, Juliane R. Sempionatto, Emil Karshalev, Roland Tay, Elham Davoodi, Cui Ye, Yongsuk Choi, Inho Kim, Jounghyun Yoo.

Past postdocs: Rebeca M. Torrente-Rodriguez, Joanna Nassar, Zhiguang Wu.

Research Grants

Serving as the Principal Investigator (PI) for projects funded by National Institutes of Health (NIH), National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), Translational Research Institute for Space Health (TRISH), Office of Naval Research (ONR), Alfred P. Sloan Foundation, American Heart Association (AHA), Amgen Inc., 3M, University of California Office of the President (UCOP), Tobacco-Related Disease Research Program (TRDRP), Caltech Rothenberg Innovation Initiative (RI^2), Rosen Bioengineering Center, Caltech-COH Initiative, Merkin Institute for Translational Research, and Information Science and Technology (IST) initiative for developing and evaluating the wearable biosensors and synthetic micro/nanorobots in research, clinical, and real life settings.

Publications (>100 papers, >17,800 citations, h-index 69, Google Scholar - 10/2021). *Corresponding author

1. M. Wang, Y. Yang, W. Gao*, Laser-Engraved Graphene for Flexible and Wearable Electronics, *Trends in Chemistry*, 2021, *in press*.
2. E. Shirzaei Sani, C. Wang, W. Gao*, A Soft Bioaffinity Sensor Array for Chronic Wound Monitoring, *Matter*, 2021, 4, 2613-2615.
3. Y. Chen, E. Demir, W. Gao, Y.-N. Young, O. S. Pak, Wall-Induced Translation of a Rotating Particle in a Shear-Thinning Fluid, *Journal of Fluid Mechanics*, 2021, *in press*.
4. J. Tu, W. Gao*, Ethical Considerations of Wearable Technologies in Human Research, *Advanced Healthcare Materials*, 2021, 2100127.
5. Y. Song, D. Mukasa, H. Zhang, W. Gao*, Self-Powered Wearable Biosensors, *Accounts of Materials Research*, 2021, 2, 184-197.
   Selected as ACS Editors' Choice (one paper per day from all ACS publications).
6. J. Min, J. R. Sempionatto, H. Teymourian, J. Wang, W. Gao*, Wearable Electrochemical Biosensors in North America, *Biosensors and Bioelectronics*, 2021, 172, 112750.
7. A. Hashemi Talkhooncheh, Y. Yu, A. Agarwal, W. Kuo, K. C. Chen, M. Wang, G. Hoskuldsdottir, W. Gao, A. Emami, A Biofuel-Cell-Based Energy Harvester With 86% Peak Efficiency and 0.25-V Minimum Input Voltage Using Source-Adaptive MPPT, *IEEE Journal of Solid-State Circuits (JSSC)*, 2021, 56, 715-728.
8. J. Tu, W. Gao*, Spray-on Magnetic Skin for Robotic Actuation, *Science Robotics*, 2020, 5, eabf1390.
9. H. Lukas, C. Xu, Y. Yu, W. Gao*, Emerging Telemedicine Tools for Remote COVID-19 Diagnosis, Monitoring, and Management, *ACS Nano*, 2020, 14, 16180-16193.
   Highlighted in Virtual Special Issue "Advances in COVID-19 Testing".
10. R. M. Torrente-Rodríguez, H. Lukas, J. Tu, J. Min, Y. Yang, C. Xu, H. B. Rossiter, W. Gao*, SARS-CoV-2 RapidPlex: A Graphene-based Multiplexed Telemedicine Platform for Rapid and Low-Cost COVID-19 Diagnosis and Monitoring, *Matter*, 2020, 3, 1981-1998.
    Highlighted in Journal Cover.
    Previewed by Prof. Wei Tao at Harvard Medical School, Matter, 2020, 3, 1818-1820.
    Highlighted in Caltech News, BBC, CGTV, Fast Company, Forbes, MSN, The Engineer, and Optics.

11. Y. Song, J. Min, Y. Yu, H. Wang, Y. Yang, H. Zhang, W. Gao*, Wireless Battery-free Wearable Sweat Sensor Powered by Human Motion, *Science Advances*, 2020, 6, eaay9842.
12. Z. Wu, Y. Chen, D. Mukasa, O. S. Pak, W. Gao*, Medical Micro/Nanorobots in Complex Media, *Chemical Society Review*, 2020, 49, 8088-8112.
    Emerging Investigator Themed Issue.
13. Y. Yu, J. Nassar, C. Xu, J. Min, Y. Yang, A. Dai, R. Doshi, A. Huang, Y. Song, R. Gehlhar, A. D. Ames, W. Gao*, Biofuel-powered Soft Electronic Skin with Multiplexed and Wireless Sensing for Human-Machine Interfaces, *Science Robotics*, 2020, 5, eaaz7946.
    Highlighted in Electronic skins sweat it out, Editor's Research Highlight, Nature Electronics, 2020, 3, 235.
    Highlighted in Caltech News, The Conversation, Yahoo News, The Engineer, CNET, Inside Science, and more.
14. C. Xu, Y. Yang, W. Gao*, Skin-interfaced Sensors in Digital Medicine: from Materials to Applications, *Matter*, 2020, 2, 1414-1445.
15. C. Xu, W. Gao*, Motile Microelectronics with Wireless Power, *Nature Electronics*, 2020, 3, 139-140.
16. R. M. Torrente-Rodríguez, J. Tu, Y. Yang, J. Min, M. Wang, Y. Song, Y. Yu, C. Xu, C. Ye, W. W. IsHak, W. Gao*, Investigation of Cortisol Dynamics in Human Sweat using a Graphene-based Wireless mHealth System, *Matter*, 2020, 2, 921-937.
    Highlighted in Preview Article by Prof. John Rogers at Northwestern University, Matter, 2020, 2 795-797.
    Highlighted in Caltech News, The Engineer, Xinhua, Science Daily, Yahoo News, and more.
17. Y. Yang, Y. Song, X. Bo, J. Min, O. S. Pak, L. Zhu, M. Wang, J. Tu, A. Kogan, H. Zhang, T. K. Hsiai, Z. Li, W. Gao*, A Laser-Engraved Wearable Sensor for Sensitive Detection of Uric Acid and Tyrosine in Sweat, *Nature Biotechnol*ogy, 2020, 38, 217-224.
    Highlighted as Editor's Choice by Science Translational Medicine.
    Highlighted in Caltech News, Caltech Magazine (Back Cover), Physics World, Xinhua, Science Daily, and more.
18. J. Tu, R. M. Torrente-Rodríguez, M. Wang, W. Gao*, The Era of Digital Health: A Review of Portable and Wearable Affinity Biosensors, *Advanced Functional Materials*, 2020, 30, 1906713.
    Featured on the Journal Cover.
19. A. Hashemi Talkhooncheh, Y. Yu, A. Agarwal, W. Kuo, K. C. Chen, M. Wang, G. Hoskuldsdottir, W. Gao, A. Emami, A Fully-Integrated Biofuel-Cell-Based Energy Harvester with 86% Peak Efficiency and 0.25V Minimum Input Voltage Using Source-Adaptive MPPT, *IEEE Custom Integrated Circuits Conference (CICC)*, 2020.
    Best Student Paper Award in CICC.
20. Y. Song, J. Min, W. Gao*, Wearable and Implantable Electronics: Moving Toward Precision Therapy, *ACS Nano*, 2019, 13, 12280.
21. J. Min, Y. Yang, Z. Wu, W. Gao*, Robotics in the Gut, *Advanced Therapeutics*, 2020, 3, 1900125.
22. Y. Yu, H. Y. Y. Nyein, W. Gao*, A. Javey, Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis, *Advanced Materials*, 2020, 32, 1902083.
    Featured on Journal Frontispiece.
23. Z. Wu, L. Li, Y. Yang, P. Hu, Y. Li, S.-Y. Yang, L. V. Wang, W. Gao*, A Microrobotic System Guided by Photoacoustic Computed Tomography for Targeted Navigation in Intestines *In Vivo*, *Science Robotics*, 2019, 4, eaax0613.
    Highlighted in Caltech News, New Scientist, Optics & Photonics News, SPIE, MSN.
24. Y. Ji, X. Lin, Z, Wu, Y. Wu, W. Gao*, Q. He, Macroscale Chemotaxis from a Swarm of Bacteria-Mimicking Nanoswimmers, *Angewandte Chemie International Edition*, 2019, 58, 12200-12205.
    Selected as 'Hot Paper' by the editors.
25. Y. Yang, W. Gao*, Wearable and Flexible Electronics for Continuous Molecular Monitoring, *Chemical Society Review*, 2019, 48, 1465-1491.
    Featured on Journal Front Cover. Highlighted by Science Daily and Chemistry Views.
26. W. Gao*, H. Ota, D. Kiriya, K. Takei, A. Javey, Flexible Electronics Toward Wearable Sensing, *Accounts of Chemical Research*, 2019, 52, 523-533.
    Featured on Special Issue Cover.
27. K. Takei, W. Gao*, C. Wang, A. Javey, Physical and Chemical Sensing with Electronic Skin, *Proceedings of the IEEE*, 2019, 107, 2155-2167.
28. Y. Yang, W. Gao*, Wearable pH sensing beyond the Nernst limit, *Nature Electronics*, 2018, 1, 580-581.
29. Y. Zhong, X. Tang, J. Li, Q. Lan, L. Min, C. Ren, X. Hu, R. M. Torrente-Rodríguez, W. Gao*, Z. Yang, Nanozyme Tags Enabled Chemiluminescence Imaging Immunoassay for Multiplexed Cytokine Monitoring, *Chemical Communications*, 2018, 54, 13813-13816.

30. L.-C. Tai,[§] W. Gao,[§] M. Chao, M. Bariya, Q. P. Ngo, Z. Shahpar, H. Y. Y. Nyein, H. Park, J. Sun, Y. Jung, E. Wu, H. M. Fahad, D.-H. Lien, H. Ota, G. Cho, and A. Javey, Methylxanthine drug monitoring with wearable sweat sensors, *Advanced Materials*, 2018, 1707442. *[§] Equal contribution*.
31. W. Gao, G. A. Brooks, D. C. Klonoff, Wearable Physiological Systems and Technologies for Metabolic Monitoring, *Journal of Applied Physiology*, 2018, 124, 548-556.
32. H. Wu, W. Gao*, Z. Yin, Materials, Devices and Systems of Soft Bioelectronics for Precision Therapy, *Advanced Healthcare Materials*, 2017, 6, 1700017.
    Highlighted in Advanced Science News, featured on Journal Cover.
33. S. Emaminejad,[§] W. Gao,[§] E. Wu, Z. Davies, H. Y. Y. Nyein, S. Challa, S. Ryan, H. M. Fahad, K. Chen, Z. Shahpar, S. Talebi, C. Milla, A. Javey, R. W. Davis, Autonomous Sweat Extraction and Analysis Applied to Cystic Fibrosis and Glucose Monitoring using a Fully Integrated Wearable Platform, *Proceedings of the National Academy of Sciences*, 2017, 114, 4624.
    Highlighted in NBC News, Reuters and Daily Mail.
34. W. Gao, H. Y. Y. Nyein, Z. Shahpar, L.-C. Tai, E. Wu, M. Bariya, H. Ota, H. M. Fahad, K. Chen and A. Javey, Wearable Sweat Biosensors, *IEEE IEDM*, 2016, pp. 6.6.1-6.6.4.
35. T. Xu,[§] W. Gao,[§] L.-P. Xu, S. Wang, X. Zhang, Fuel-Free Synthetic Micro/Nanomachines, *Advanced Materials* 2017, 29, 1603250.
    Highlighted in Advanced Science News, featured on Journal Frontispiece.
36. W. Gao,[§] S. Emaminejad,[§] H. Y. Y. Nyein, S. Challa, K. Chen, A. Peck, H. Fahad, H. Ota, S. Hiroshi, D. Kiriya, D. H. Lien, G. A. Brooks, R. W. Davis, A. Javey, Fully-Integrated Wearable Sensor Arrays for Multiplexed In-Situ Perspiration Analysis, *Nature*, 2016, 529, 509-514.
    Selected by Nature Publisher Group as 'Hot Topics' (one paper per week from all NPG journals).
    Highlighted in Nature, Science, The Wall Street Journal, New York Times, Time, Daily Mail, Yahoo!, The Times, LA Times, Newsweek, Forbes, Scientific American, IEEE Spectrum, MIT Technology Review, Chemical & Engineering News, VOA News, Fox News, Wired, Popular Science, Chemistry World, Science News, New Scientist, ScienceDaily, UC Berkeley News etc.
37. W. Gao,[§] H. Y. Y. Nyein,[§] Z. Shahpar, H. M. Fahad, K. Chen, S. Emaminejad, Y. Gao, L.-C. Tai, H. Ota, E. Wu, J. Bullock, Y. Zeng, D.-H. Lien, A. Javey, Wearable Microsensor Array for Multiplexed Heavy Metal Monitoring of Body Fluids, *ACS Sensors*, 2016, 1, 866.
    Selected as ACS Editors' Choice (one paper per day from all ACS publications).
    Featured on Journal Cover.
38. H. Y. Y. Nyein,[§] W. Gao,[§] Z. Shahpar, S. Emaminejad, K. Chen, H. M. Fahad, L.-C. Tai, H. Ota, Y. Gao, A. Javey, A Wearable Electrochemical Platform for Non-Invasive Monitoring of Ca^{2+} and pH, *ACS Nano*, 2016, *10*, 7216.
39. W. Gao,[§] R. Dong,[§] S. Thamphiwatana,[§] J. Li, W. Gao, L. Zhang and J. Wang, Artificial Micromotors in the Mouse's Stomach: A Step Towards In Vivo Use of Synthetic Motors, *ACS Nano*, 2015, 9, 117.
    Selected as ACS Editors' Choice (one paper per day from all ACS publications). Highlighted in Nature, Fox News, BBC News, Daily Mail, Scientific American, Yahoo, Popular Science, New Scientist, Chemical & Engineering News, Science Daily etc.
40. Z. Wu[§], T. Li[§], W. Gao[§], T. Xu, B. Jurado-Sánchez, J. Li, W. Gao, Q. He, L. Zhang, and J. Wang, Cell-Membrane-Coated Nanomotors for Effective Biodetoxification, *Advanced Functional Materials,* 2015*, 25*, 3881.
41. W. Gao, X. Feng, A. Pei, C. R Kane, R. Tam, C. Hennessy, J. Wang, Bio-Inspired Helical Microswimmer based on Vascular Plant, *Nano Letters,* 2014, 14, 305.
    Highlighted in PhysOrg, ScienceDaily, Nanowerk, Gizmodo, Gizmag, la Repubblica (Italy) etc.
42. J. Li,[§] W. Gao,[§] R. Dong, A. Pei, S. Sattayasamitsathit, J. Wang, Nanomotor Lithography, *Nature Communications*, 2014, 5, 5026. *[§] These authors contribute equally*.
    Highlighted in Nanowerk, ScienceDaily etc.
43. W. Gao, A. Pei, R. Dong, J. Wang, Catalytic Iridium-Based Janus Micromotors Powered by Ultralow Levels of Chemical Fuels, *Journal of the American Chemical Society*, 2014, 136, 2276.
44. W. Gao, J. Wang, Synthetic Micro/Nanomotors in Drug Delivery, *Nanoscale*, 2014, 6, 10486
45. W. Gao, J. Wang, The Environmental Impact of Micro/Nanomachines: A Review, *ACS Nano*, 2014, 8, 3170.
    Highlighted in Nanowerk.
46. W. Gao, S. Sattayasamitsathit, J. Orozco, J. Wang, Efficient Bubble Propulsion of Polymer-Based Microengines in Real-Life Environments, Nanoscale, 2013, 5, 8909. *'HOT' article.*
47. W. Gao[§], X. Feng[§], A. Pei[§], Y. Gu, J. Li, J. Wang, Seawater-Driven Magnesium based Janus Micromotors for Environmental Remediation, *Nanoscale*, 2013, 5, 4696.
    'HOT' article. Highlighted in Chemistry World.

48. W. Gao, A. Pei, X. Feng, C. Hennessy, J. Wang, Organized Self-Assembly of Janus Micromotors with Hydrophobic Hemispheres, *Journal of the American Chemical Society*, 2013, 135, 998.
49. W. Gao[§], M. D'Agostin[§], V. Garcia Gradilla[§], J. Orozco, J. Wang, Multi-Fuel Driven Janus Micromotors*, Small,* 2013, 9, 467.
"VIP" (Very Important Paper) by Wiley. *Highlighted in Materials Views*.
50. W. Gao, A. Pei, J. Wang, Water-Driven Micromotors, *ACS Nano*, 2012, 6, 8432.
Highlighted in Nanowerk, IEEE Spectrum, and Chemical & Engineering News etc.
51. W. Gao, S. Sattayasamitsathit, A. Uygun, A. Pei, A. Ponedal, J. Wang, Polymer-based Tubular Microbots: Role of Composition and Preparation, *Nanoscale*, 2012, 4, 2447.
52. W. Gao, A. Uygun, J. Wang, Hydrogen-Bubble Propelled Zinc-based Microrockets in Strongly Acidic Media, *Journal of the American Chemical Society*, 2012, 134, 897.
Highlighted in The Economist, *Chemical & Engineering News*, *Popular Science*, *Discovery News*, *ScienceDaily*, *American Scientist, New Scientist*, *The Scientist etc*.
53. W. Gao, S. Sattayasamitsathit, J. Wang, Catalytically-Propelled Micro/Nanomotors: How Fast Can They Move? *The Chemical Record*, 2012, 12, 224.
54. W. Gao[§], D. Kagan[§], O. S. Pak, C. Clawson, S. Campuzano, E. Chuluun-Erdene, E. Shipton, E. E. Fullerton, L. Zhang, E. Lauga, J. Wang, Cargo-Towing Fuel-Free Magnetic Nanoswimmers for Targeted Drug Delivery, *Small*, 2012, 8, 460.
VIP (Very Important Paper) by Wiley. Highlighted in Chemistry Views.
55. W. Gao, S. Sattayasamitsathit, J. Orozco, J. Wang, Highly Efficient Catalytic Microengines: Template Electrosynthesis of Polyaniline-Platinum Microtubes, *Journal of the American Chemical Society*, 2011, 133, 11862.
Highlighted in Materials Views.
56. W. Gao, K. M. Manesh, J. Hua, S. Sattayasamitsathit, J. Wang, Hybrid Nanomotor: A Catalytically/ Magnetically Powered Adaptive Nanowire Swimmer, *Small*, 2011, 7, 2047.
VIP (Very Important Paper) by Wiley. Highlighted in Materials Views.
57. O. S. Pak[§], W. Gao[§], J. Wang, E. Lauga. High-Speed Propulsion of Flexible Nanowire Motors: Theory and Experiments, *Soft Matter*, 2011, 7, 8169.
Highlighted in Chemistry World.
58. W. Gao, S. Sattayasamitsathit, K. M. Manesh, D. Weihs, J. Wang, Magnetically-Powered Flexible Metal Nanowire Motors, *Journal of the American Chemical Society*, 2010, 132, 14403.
Highlighted in Science, 2010, 330, 296-297.
59. X. He, T. Xu, Z. Gu, W. Gao, L.-P. Xu, T. Pan, and X. Zhang, Flexible and Superwettable Bands as a Platform Toward Sweat Sampling and Sensing, *Analytical Chemistry*, 2019, 91, 4296.
60. Q. Wang, R. Dong, C. Wang, S. Xu, D. Chen, Y. Liang, B. Ren, W. Gao, Y. P. Cai, Glucose-fueled Micromotors with Highly Efficient Visible Light Photocatalytic Propulsion, *ACS Applied Materials & Interfaces*, 2019, 11, 6201-6207.
61. X. He, T. Xu, W. Gao, L.-P. Xu, T. Pan, X. Zhang, Flexible Superwettable Tapes for On-Site Detection of Heavy Metals, *Analytical Chemistry*, 2018, 90, 14105.
62. R. Dong, Y. Cai, Y. Yang, W. Gao, B. Ren, Photocatalytic Micro-/Nanomotors: From Construction to Applications, *Accounts of Chemical Research*, 2018, 51, 1940.
63. M. Bariya, Z. Shahpar, H. Park, J. Sun, Y. Jung, W. Gao, H. Y. Y. Nyein, T. S. Liaw, L.-C. Tai, Q. P. Ngo, M. Chao, Y. Zhao, M. Hettick, G. Cho, and A. Javey, Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. *ACS Nano*, 2018, 12, 6978-6987.
64. H. Y. Y. Nyein, L.-C. Tai, Q. P. Ngo, M. Chao, G. Zhang, W. Gao, M. Bariya, J. Bullock, H. Kim, H. M. Fahad, A. Javey, A Wearable Microfluidic Sensing Patch for Dynamic Sweat Secretion Analysis, *ACS Sensors*, 2018, 3, 944.
65. T. Xu, Y. Song, W. Gao, T. Wu, L.-P. Xu, X. Zhang, and S. Wang, Superwettable Electrochemical Biosensor toward Detection of Cancer Biomarkers, *ACS Sensors*, 2018, 3, 72-78.
66. H. Wang, Y. Liang, W. Gao, R. Dong, and C. Wang, An Emulsion-Hydrogel Soft Motor Actuated by Thermal Stimulation, *ACS Applied Materials & Interfaces*, 2017, 9, 43211.
67. B. E.-F. de Ávila, P. Angsantikul, J. Li, W. Gao, L. Zhang, and J. Wang, Micromotors Go In Vivo: from Test Tubes to Live Animals, *Advanced Functional Materials*, 2018, 28, 1705640.
68. Y. Gao, H. Ota, E. W. Schaler, K. Chen, A. Zhao, W. Gao, H. M. Fahad, Y. Leng, A. Zheng, F. Xiong, C. Zhang, L. Tai, P. Zhao, R. S. Fearing, A. Javey, Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring, *Advanced Materials*, 2017, 29, 1701985.
Featured on Journal Cover.

69. H. Ota, M. Chao, Y. Gao, E. Wu, L.-C. Tai, K. Chen, Y. Matsuoka, K. Iwai, H. M. Fahad, W. Gao, H. Y. Y. Nyein, L. Lin, A. Javey. 3D Printed 'Earable' Smart Devices for Real-time Detection of Core Body Temperature, *ACS Sensors*, 2017, 2, 990.
    Selected as ACS Editors' Choice (one paper per day from all ACS publications).
    Highlighted in IEEE Spectrum.
70. H. M. Fahad, H. Shiraki, M. Amani, C. Zhang, V. S. Hebbar, W. Gao, H. Ota, M. Hettick, D. Kiriya, Y.-Z. Chen, Y.-L. Chueh and A. Javey, Room temperature multiplexed gas sensing using chemical-sensitive 3.5-nm-thin silicon transistors, *Science Advances*, 2017, 3, e1602557.
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71. J. Li, B. Esteban-Fernandez de Avila, W. Gao, L. Zhang, J. Wang, Micro/nanorobots for biomedicine: delivery, surgery, sensing and detoxification, *Science Robotics*, 2017, 2, eaam6431.
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76. H. Ota, S. Emaminejad, Y. Gao, A. Zhao, E. Wu, S. Challa, K. Chen, H. M. Fahad, A. K. Jha, D. Kiriya, W. Gao, H. Shiraki, K. Morioka, A. R. Ferguson, K. E. Healy, R. W. Davis, A. Javey, Application of 3D Printing for Smart Objects with Embedded Electronic Sensors and Systems, *Advanced Materials Technologies*, 2016, 1, 1600013.
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    Featured on Journal Cover. Highlighted in The Washington Post, Forbes, Fortune, Discovery News, Wired, BBC Focus, Popular Science, Science Daily etc.
81. S. Cinti, G. Valdés-Ramírez, W. Gao, J. Li, G. Palleschi, J. Wang, Microengine-Assisted Electrochemical Measurements at Printable Sensor Strips, *Chemical Communications*, 2015, 51, 8668.
82. T. Xu, F. Soto, W. Gao, R. Dong, V. Garcia-Gradilla, E. Magana, X. Zhang, J. Wang, Reversible Swarming and Separation of Self-propelled Chemically-Powered Nanomotors under Acoustic Fields, *Journal of the American Chemical Society*, 2015, 37, 2163.
83. B. Ezhilan, W. Gao, A. Pei, I. Rozen, R. Dong, B. Jurado-Sanchez, J. Wang, D. Saintillan, "Motion-based Threat Detection using Microparticles: Experiments and Numerical Simulations", *Nanoscale*, 2015, 7, 7833.
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85. Z. Wu, T. Li, J. Li, W. Gao, T. Xu, C. Christianson, W. Gao, M. Galarnyk, Q. He, L. Zhang, J. Wang, Turning Erythrocytes to Functional Micromotors, *ACS Nano*, 2014, 8, 12041.
86. J. Li, V. V. Singh, S. Sattayasamitsathit, J. Orozco, K. Kaufmann, R. Dong, W. Gao, B. Jurado-Sanchez, Y. Fedorak, J. Wang, Water-Driven Micromotors for Rapid Photocatalytic Degradation of Biological and Chemical Warfare Agents, *ACS Nano*, 2014, 8, 11118.
    Highlighted in BBC News, ScienceDaily, Nanowerk etc.
87. T. Xu, F. Soto, W. Gao, V. Garcia-Gradilla, J. Li, X. Zhang, J. Wang, Ultrasound-Modulated Bubble Propulsion of Chemically-Powered Microengines, *Journal of the American Chemical Society*, 2014, 136, 8552.

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91. E. S. Olson, J. Orozco, Z. Wu, C. D. Malone, B. Ha Yi, W. Gao, M. Eghtedari, J. Wang, R. F. Mattrey, Toward *In Vivo* Detection of Hydrogen Peroxide with Ultrasound Molecular Imaging, *Biomaterials*, 2013, 34, 8918.
92. V. Garcia-Gradilla, J. Orozco, S. Sattayasamitsathit, F. Soto, F. Kuralay, A. Pourazary, A. Katzenberg, W. Gao, Y. Shen, J. Wang, Functionalized Ultrasound-Propelled Magnetically-Guided Nanomotors: Towards Practical Biomedical Applications, *ACS Nano*, 2013, 7, 9232.
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93. J. Li, J. Zhang, W. Gao, G. Huang, Z. Di, R. Liu, J. Wang, Y. Mei, Dry-Released Nanotubes and Nanoengines by Particle-Assisted Rolling, *Advanced Materials*, 2013, 25, 3715.
94. Y. Gu, S. Sattayasamitsathit, K. Kaufmann, R. Vazquez-Duhalt, W. Gao, J. Wang, Self-Propelled Chemically-Powered Plant-Tissue Biomotors, *Chemical Communications,* 2013, 49, 7307.
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95. J. Orozco, A. Cortés, G. Cheng, S. Sattayasamitsathit, W. Gao, X. Feng, Y. Shen, J. Wang, Molecularly Imprinted Polymer-Based Catalytic Micromotors for Selective Protein Transport, *Journal of the American Chemical Society*, 2013, 135, 5336.
96. J. Orozco, V. García-Gradilla, M. D'Agostino, W. Gao, A. Cortés, J. Wang, Artificial Enzyme-Powered Microfish for Water-Quality Testing, *ACS Nano*, 2013, 7, 818.
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97. K. M. Manesh, S. Campuzano, W. Gao, M. J. Lobo-Castañón, I. Shitanda, K. Kiantaj, J. Wang, Nanomotor-Based Biocatalytic Patterning of Helical Metal Microstructures, *Nanoscale*, 2013, 5, 1310.
98. M. García, J. Orozco, M. Guix, W. Gao, S. Sattayasamitsathit, A. Escarpa, A. Merkoci, J. Wang, Micromotor-based Lab-on-Chip Immunoassay, *Nanoscale*, 2013, 5, 1325.
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99. F. Kuralay, S. Sattayasamitsathit, W. Gao, A. Uygun, A. Katzenberg, J. Wang, Self-Propelled Carbohydrate-Sensitive Microtransporters with 'Built-In' Boronic-Acid Recognition for Isolating Sugars and Cells, *Journal of the American Chemical Society*, 2012, 134, 15217.
100. J. Wang, W. Gao, Nano/Microscale Motors: Biomedical Opportunities and Challenges, *ACS Nano*, 2012, 6, 5745. *Highlighted in Nanowerk*.
101. M. Guix, J. Orozco, M. Garcia, W. Gao, S. Sattayasamitsathit, A. Merkoci, A. Escarpa, J. Wang, Superhydrophobic Alkanethiol-Coated Microsubmarines for Effective Removal of Oil, *ACS Nano*, 2012, 6, 4445. *Highlighted in Chemical & Engineering News*, *BBC News*, *The Engineer*, *Wired*, *Popular Science,* and *Discovery News* etc.
102. S. Sattayasamitsathit, A. M. O'Mahony, X. Xiao, S. M. Brozik, C. M. Washburn, D. R. Wheeler, W. Gao, S. Minteer, J. Cha, D. B. Burckel, R. Polsky, J. Wang, Highly Ordered Tailored Three-Dimensional Hierarchical Nano/Microporous Gold-Carbon Architectures, *Journal of Materials Chemistry*, 2012, 22, 11950.
103. S. Campuzano, J. Orozco, D. Kagan, M. Guix, W. Gao, S. Sattayasamitsathit, J. C. Claussen, A. Merkoçi, J. Wang, Bacterial Isolation by Lectin-Modified Microengines, *Nano Letters*, 2012, 12, 396.
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104. J. Orozco, S. Campuzano, D. Kagan, M. Zhou, W. Gao, J. Wang, Dynamic Isolation and Unloading of Target Proteins by Aptamer-Modified Microtransporters, *Analytical Chemistry*, 2011, 83, 7962.
105. S. Sattayasamitsathit, W. Gao, P. Calvo-Marzal, K. M. Manesh, J. Wang, Simplified Cost-Effective Preparation of High Performance Pt-Ag Nanowire Motors, *ChemPhysChem*, 2010, 11, 2802.
106. Y. Dong, W. Gao, Q. Zhou, Y. Zheng, Z. You, Characterization of the Gas Sensors based on Polymer-Coated Resonant Microcantilevers for the Detection of Volatile Organic Compounds, *Analytica Chimica Acta*, 2010, 671, 85.
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Patents and Invention Disclosures (13)

Invited/Keynote/Plenary Talks and Seminars (total>120)

1. W. Gao, International Conference on Smart Wearable Technology, by HK Productivity Council, Oct 2021.
2. W. Gao, Nanoenergy and Nanosystems 2021, Oct 2021.
3. W. Gao, IUMRS-International Conference in Asia (IUMRS-ICA 2021), Oct 2021.
4. W. Gao, The International Conference on Flexible and Printed Electronics (ICFPE), Sep 2021.
5. W. Gao, Amgen CBEA Lecture, Sep 2021.
6. W. Gao, The 72nd Annual Meeting of the International Society of Electrochemistry, Aug 2021.
7. W. Gao, ACS Fall 2021, Atlanta, GA, Aug 2021.
8. W. Gao, IEEE BHI-BSN 2021, Jul 2021.
9. W. Gao, Innovating Health Outstanding Young Speaker Webinar, National University of Singapore, Jul 2021.
10. W. Gao, *keynote*, 37th International Symposium on Microscale Separations and Bioanalysis (MSB), Jul 2021.
11. W. Gao, Journal of Semiconductors Public Webinar, Jul 2021.
12. W. Gao, Wiley SmartMat Webinar, Jul 2021.
13. W. Gao, *keynote*, 7th International Symposium of Flexible and Stretchable Electronics (ISFSE), Jun 2021.
14. W. Gao, RSC Chemical Society Review Emerging Investigator Webinar, Jun 2021.
15. W. Gao, IEEE 71st Electronic Components and Technology Conference (ETCT), Jun 2021.
16. W. Gao, World Economic Forum Community Young Scientist Seminar, Jun 2021.
17. W. Gao, Terasaki Institute Seminar, CA, Jun 2021.
18. W. Gao, Nature Conference - Microrobots and Nanorobots for Biotechnology, May 2021.
19. W. Gao, *Laser-engraved sensors*, 239th ECS Meeting with the 18th IMCS, May 2021.
20. W. Gao, *COVID-test*, 239th ECS Meeting with the 18th IMCS, May 2021.
21. W. Gao, *Sweat sensors*, 239th ECS Meeting with the 18th IMCS, May 2021.
22. W. Gao, *plenary*, 2021 Korean Society of Medical and Biological Engineering Annual Conference, May 2021.
23. W. Gao, Virtual MRS Spring Meeting & Exhibit, Apr 2021.
24. W. Gao, The Hong Kong Polytechnic University, Biomedical Engineering, Apr 2021.
25. W. Gao, University of California, Los Angeles, Bioengineering, Apr 2021.
26. W. Gao, *Laser-engraved wearable and mHealth sensors*, SPIE Defense + Commercial Sensing, Apr 2021.
27. W. Gao, *Self-powered sensors*, SPIE Defense + Commercial Sensing, Apr 2021.
28. W. Gao, Design of Medical Devices Conference, University of Minnesota, Apr 2021.
29. W. Gao, NanoBio Seminar, Massachusetts Institute of Technology, Mar 2021.
30. W. Gao, *keynote*, WNCST, Mar 2021.
31. W. Gao, *keynote*, International Symposium on Advanced Sensor Technology, Korean Sensor Society, 2021.
32. W. Gao, The University of British Columbia, Biomedical Engineering, Feb 2021.
33. W. Gao, Biosensors for Pandemics 2021, Feb 2021.
34. W. Gao, The 2021 NASA Human Research Program Investigators' Workshop (HRP IWS 2021), Feb 2021.
35. W. Gao, The 1st International Conference on Data Driven Materials Innovation 2021 (D2MI2021), Feb 2021.
36. W. Gao, University of Houston, Distinguished Seminar of Materials Science and Engineering, Jan 2021.
37. W. Gao, KNI Special Seminar, Caltech, Jan 2021.
38. W. Gao, Seoul National University, Materials Science and Engineering, Distinguished seminar, Jan 2021.
39. W. Gao, University of California, Davis, Biomedical Engineering Young Faculty Speaker Seminar, Jan 2021.
40. W. Gao, SJTU Workshop on Micro-nano Robotics, Dec 2020.
41. W. Gao, AIP Horizons Symposium on COVID-19 and Photonics, Dec 2020.
42. W. Gao, 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Nov 2020.
43. W. Gao, *keynote*, Virtual Symposium in Plant Omics Science, OMICAS, Nov 2020.
44. W. Gao, Webinar on Flexible Materials & Devices hosted by Nanyang Technological University, Nov 2020.
45. W. Gao, 2020 IEEE WSAIM, Nov 2020.
46. W. Gao, 20th Annual Diabetes Technology Meeting, Nov 2020.
47. W. Gao, Nano@Tech Seminar, Georgia Institute of Technology, Nov 2020.
48. W. Gao, 2020 BMES Virtual Annual Meeting, Oct 2020.
49. W. Gao, ECS PRiME 2020, I - Wearable biosensors (Virtual), Oct 2020.
50. W. Gao, ECS PRiME 2020, II - Biofuel cells (Virtual), Oct 2020.
51. W. Gao, POSTECH CiTE Seminar (Virtual), Oct 2020.
52. W. Gao, Frontiers in Engineering & Applied Science, Caltech, Oct 2020.
53. W. Gao, Virtual IEEE NEMS 2020, Sep 2020.
54. W. Gao, *keynote*, 5th Bioengineering & Translational Medicine Conference at UCLA (Virtual), Sep 2020.
55. W. Gao, CSMNT2020 (Virtual), Sep 2020.

56. W. Gao, University of Pennsylvania, Electrical and Systems Engineering (Virtual), Sep 2020.
57. W. Gao, Rice University, Bioengineering (Virtual), Sep 2020.
58. W. Gao, MINE 2020 Young Scientists Forum by Microsystems & Nanoengineering, Jul 2020.
59. W. Gao, US National Nanotechnology Initiative, Sensors NSI Webinar Series, Jun 2020.
60. W. Gao, iCANX ACS Nano Rising Star Lecture (in Nanoscience and Nanotechnology), Jun 2020.
61. W. Gao, 44th Annual Virtual Conference of American Society of Preventive Oncology, Jun 2020.
62. W. Gao, Wearable Tech + Digital Health + Neurotech conferences, Menlo Park, CA, Feb 2020.
63. W. Gao, Boston University, Precision Diagnostics Center Symposium, Boston, MA, Feb 2020.
64. W. Gao, National University of Singapore, Biomedical Engineering, Singapore, Dec 2019.
65. W. Gao, *keynote*, ICBME 2019, Singapore, Dec 2019.
66. W. Gao, University of Texas, Austin, Texas Wireless Summit, Nov 2019.
67. W. Gao, NASA Space Health Innovation Conference 2019, San Francisco, Nov 2019.
68. W. Gao, *President's Lecture*, The Lundquist Institute, Torrance, CA, Oct 2019.
69. W. Gao, AI4Science Workshop, Caltech, Oct 2019.
70. W. Gao, University of California, Irvine, Chemical & Biological Engineering, Oct 2019.
71. W. Gao, 258th National Meeting of the American Chemical Society, San Diego, Aug 2019.
72. W. Gao, 2019 Micro- Nanotechnologies for medicine Workshop, UCLA, Jul 2019.
73. W. Gao, *keynote*, International Conference on Flexible Electronics 2019, Hangzhou, Jul 2019.
74. W. Gao, Hamlyn Symposium on Medical Robotics, London, Jun 2019.
75. W. Gao, 10th International Conference on Materials for Advanced Technologies, Singapore, Jun 2019.
76. W. Gao, *keynote*, 2019 Joint Ontario-on-a-Chip and TOeP Symposium, Toronto, May 2019.
77. W. Gao, Pittcon 2019 - ACS Sensors Symposium, Philadelphia, Mar 2019.
78. W. Gao, *plenary*, AACR - Modernizing Population Sciences in the Digital Age, San Diego, Feb 2019.
79. W. Gao, IEEE EMBS Micro & Nanotechnology in Medicine Conference, Hawaii, Dec 2018.
80. W. Gao, IST Lunch Bunch Seminar, Caltech, Nov. 2018.
81. W. Gao, University of California, Riverside, Bioengineering, Nov 2018.
82. W. Gao, Washington University in St. Louis, ESE, Nov 2018.
83. W. Gao, "Wearable and Flexible Biosensor for Continuous Sweat Analysis", MRS Fall, Boston, Nov 2018.
84. W. Gao, "Ingestible Self-Propelled Microrobots - Toward In Vivo Use", MRS Fall, Boston, Nov 2018.
85. W. Gao, *keynote*, SES 2018, Madrid, Spain, Oct 2018.
86. W. Gao, *keynote*, SoCal Micro & Nanofluidics Symposium, Los Angeles, Aug 2018.
87. W. Gao, NASA TRISH 2018 AI Workshop, Pasadena, July 2018.
88. W. Gao, City of Hope National Medical Center, Los Angeles, May 2018.
89. W. Gao, Materials Science Research Lecture, Caltech, May 2018.
90. W. Gao, Cedars-Sinai Medical Center, Los Angeles, May 2018.
91. W. Gao, Purdue University, Birck Nanotechnology Center, Nov 2017.
92. W. Gao, International Conference on Micro/Nanomachines, Wuhan, August 2017.
93. W. Gao, Nanjing University, Chemistry and Chemical Engineering, July 2017.
94. W. Gao, Beijing Institute of Nanoenergy and Nanosystems, Chinese Academic of Sciences, July 2017.
95. W. Gao, Tsinghua University, Engineering Mechanics, July 2017.
96. W. Gao, Perking University, Institute of Microelectronics, July 2017.
97. W. Gao, University of Science and Technology Beijing, Chemistry and Biological Engineering, July 2017.
98. W. Gao, Institute of Chemistry, Chinese Academic of Sciences, July 2017.
99. W. Gao, Changchun Institute of Applied Chemistry, Chinese Academic of Sciences, July 2017.
100. W. Gao, ISFSE 2017 3rd International Symposium of Flexible and Stretchable Electronics, Wuhan, June 2017.
101. W. Gao, University of Washington, Mechanical Engineering, Apr 2017.
102. W. Gao, Massachusetts Institute of Technology, EECS & IMES, Mar 2017.
103. W. Gao, University of California, Berkeley, Mechanical Engineering, Mar 2017.
104. W. Gao, University of Illinois at Urbana–Champaign, Electrical and Computer Engineering, Mar 2017.
105. W. Gao, University of Southern California, Mechanical Engineering, Mar 2017.
106. W. Gao, California Institute of Technology, Medical Engineering, Feb 2017.
107. W. Gao, Rice University, Mechanical Engineering, Feb 2017.
108. W. Gao, University of Pennsylvania, Chemical and Biomolecular Engineering, Feb 2017.
109. W. Gao, University of California, Los Angeles, Bioengineering & Chemical Engineering, Feb 2017.
110. W. Gao, Ohio State University, Mechanical Engineering, Feb 2017.
111. W. Gao, UNC/NCSU Joint Bioengineering & UNC Applied Physical Sciences, Jan 2017.
112. W. Gao, University of Illinois at Urbana–Champaign, Chemical and Biomolecular Engineering, Jan 2017.

113. W. Gao, Johns Hopkins University, Chemical and Biomolecular Engineering, Jan 2017.
114. W. Gao, University of Maryland, Bioengineering, Dec 2016.
115. W. Gao, Solid State Technology and Devices Seminar, EECS, University of California, Berkeley, Nov 2016.
116. W. Gao, Innovators Under 35, EmTech MIT 2016.
117. W. Gao, Future Innovator Forum, IBM Edge 2016.
118. W. Gao, IEEE Workshop on Flexible/Printed/Fabric Sensors and Systems, 2016.
119. W. Gao, 2016 Fall BSAC Research Review & IAB Meeting.
120. W. Gao, Sensors Expo 2016.
121. W. Gao, 2015 Integrated Nanotechnologies Meeting, Sandia National Laboratories, Albuquerque, NM, 2015.
122. W. Gao, DIC Young Investigator Symposium, 250th ACS National Meeting & Exposition, 2015.
123. W. Gao, Graduate Student Award Session, 2014 MRS Spring Meeting & Exhibit.
124. W. Gao, Bionanotechnology Graduate Student Award Session, 2013 AIChE Annual Meeting, 2013.
125. W. Gao, University of Washington, Distinguished Young Scholars Summer Seminar Series (DYSS), 2013.
126. W. Gao, Graduate Student Award Session, 2013 MRS Spring Meeting & Exhibit, 2013.