

TERI W. ODOM

Charles E. and Emma H. Morrison Professor of Chemistry, Northwestern University, Evanston, IL

SIGNIFICANT PROFESSIONAL ACTIVITIES

Editor: Executive Editor of *ACS Photonics* (2013 – current); Associate Editor of *Chemical Science*, RSC (2010 – 2013)

Editorial Advisory Board: Annual Review of Physical Chemistry (2015 – current); Nano Letters (ACS) (2010 – current); ACS Nano (ACS) (2010 – current); Chemical Physics Letters (Elsevier) (2009 – current); Materials Horizons (RSC) (2013 – current); Journal Physical Chemistry (ACS) (2009-2011)

Symposium Organizer: NSF Nano Grantees Meeting (2014); ACS Inorganic Nanoscience Award Symposium (2012); Gordon Research Conference (GRC) on *Noble Metal Nanostructures*, 2010 (Inaugural Chair); *Nanomedicine and Superresolution Imaging*, Japan-US Kavli Frontiers of Science Symposia (2008 & 2010)

Other: Chair of NIH EBIT Study Section (2016 – current); Chair of Nanoscience subdivision of Inorganic Chemistry (ACS) (2012); ACS Graduate Education Advisory Board (2012 – 2015); Cottrell Scholar Advisory Council (2011 – 2015)

Major University Service: Associate Director, International Institute of Nanotechnology (IIN) (2016 – current); Associate Chair, Chemistry (2015 – current); Chair of IIN Faculty Search Committee (2016 – current); Chair of Chemistry Faculty Search Committee (2016); Chair of Chemistry Faculty Search Committee (2016); Search Committee for Dean of Weinberg College (2014); Search Committee for Senior Vice President for Research (2014); Office of Research Integrity Investigation Panel (2014); Areas of Distinction co-chair for Strategic Plan for Northwestern Campaign (2010); Chair of Physical Chemistry Division (2008-2011)

HONORS AND AWARDS

Associated Student Government (ASG) Faculty Honor Roll (2016-2017); Fellow of the American Chemical Society (ACS) (2016); Materials Research Society (MRS) Fellow (2016); Blavatnik National Award for Young Scientists, Finalist (2016 Chemistry); Fellow of the Royal Society of Chemistry (FRSC) (2014); Blavatnik National Award for Young Scientists, Finalist (2014, Physical Sciences and Engineering); International Precious Metals Institute (IPMI) Carol Tyler Award (2014); Dalton Lecture Award (2013); Radcliffe Institute for Advanced Study Fellowship, Hrdy Fellow, Harvard University (2011-2012); American Chemical Society (ACS) Akron Section Award (2011); Defense Science Study Group (DSSG) Member (2010-2011); MRS Outstanding Young Investigator Award (2009); National Fresenius Award (Phi Lambda Upsilon and ACS) (2008); National Institutes of Health (NIH) Director's Pioneer Award (2008); Rohm and Haas New Faculty Award (2007); Exxon-Mobil Solid State Chemistry Faculty Fellowship (ACS Inorganic) (2006); Cottrell Scholar Award (Research Corporation) (2005); DuPont Young Investigator (2005); Alfred P. Sloan Research Fellowship (2004); TR100 MIT Technology Review Award for "one of world's top young innovators" (2004); NSF CAREER Award (2004); David and Lucile Packard Fellowship (2003); Victor K. LaMer Award (ACS Colloids and Surface Chemistry), Harvard University (2003); Research Innovation Award (Research Corporation) (2002); Dow Teacher-Scholar, Northwestern (2002); NIH NRSA Postdoctoral Fellowship, Harvard University (2001); IUPAC Prize for Young Chemists (international thesis prize), Harvard University (2001); NSF Predoctoral Fellowship, Harvard University (1996); Phi Beta Kappa, Stanford University (1996)

INVITED PRESENTATIONS

Research Presentations: Over 300 to date (> 60 international)

University Seminars and Colloquia: Over 125 to date

Gordon Research Conferences: Nanostructure Fabrication (2006), Plasmonics (2006, 2014), Chemistry of Electronic Materials (2007), Inorganic Chemistry (2007), Solid State Chemistry (2008), Clusters, Nanocrystals, and Nanostructures (2009), Noble Metal Nanoparticles (2010, 2012, 2014)

Education and Outreach Presentations: Over 40 to date, including 2008 Chicago Humanities Festival: THINKING BIG, Chicago, IL; Museum of Science and Industry, Chicago, IL. "Innovations in Nanotechnology" (2008)

SELECTED PUBLICATIONS (Reverse Order)

1. Culver KSB, Shin YJ, Rotz M, Meade TJ, Hersam MC, Odom TW. Shape-dependent Relaxivity of Nanoparticle-based Magnetic Resonance Imaging Contrast Agents. *J. Phys. Chem. C.* **2016**; 120, 22103.

2. Lee WK, Jung WB, Nagel S, Odom TW. Stretchable Superhydrophobicity from Monolithic, Three-Dimensional Hierarchical Wrinkles. *Nano Letters*. **2016**; 16, 3774.
3. Wang D, Yang A, Hryn A, Schatz GC, Odom TW. Superlattice Plasmons in Hierarchical Au Nanoparticle Arrays. *ACS Photonics*. **2015**; 2, 1789.
4. Yang A, Li Z, Knudson MP, Hryn AJ, Wang W, Aydin K, Odom TW. Unidirectional Lasing from Template-stripped Two-dimensional Plasmonic Crystals. *ACS Nano*. **2015**; 15, 11582.
5. Lee H, Dam DHM, Ha JW, Hu J, Odom TW. Enhanced Human Epidermal Growth Factor Receptor 2 Degradation in Breast Cancer Cells by Lysosome-Targeting Gold Nanoconstructs. *ACS Nano*. **2015**; 9, 9859-9867.
6. Lee WK, Engel CJ, Huntington MD, Odom TW. Controlled Three-Dimensional Hierarchical Structuring by Memory-Based, Sequential Wrinkling. *Nano Letters*. **2015**; 15, 5624-5629.
7. Yang A, Hoang TB, Dridi M, Deeb C, Mikkelsen MH, Schatz GC, Odom TW. Real-time Tunable Lasing from Plasmonic Nanocavity Arrays. *Nature Communications*. **2015**; 6, 6939.
8. Rotz MW, Culver KSB, Parigi G, Macrenaris KW, Luchinat C, Odom TW, Meade TJ. High Relaxivity Gd(III)-DNA Gold Nanostars: Investigation of Shape Effects on Proton Relaxation. *ACS Nano*. **2015**; 9, 3385-3396. [Cover]
9. Huntington MD, Lauhon LJ, Odom TW. Subwavelength optics by evolutionary design. *Nano Lett*. **2014**; 14, 7195.
10. Yang A, Huntington MD, Cardinal MF, Masango SS, Van Duyne RP, Odom TW. Hetero-oligomer Nanoparticle Arrays for Plasmon-Enhanced Hydrogen Sensing. *ACS Nano*. **2014**; 8:7639-7647.
11. Dam DHM, Lee RC, Odom TW. Improved in vitro efficacy of gold nanoconstructs by increased loading of G-quadruplex aptamer. *Nano Letters*. **2014**; 14:2843-2848.
12. Zhou W, Dridi M, Suh JY, Kim CH, Co DT, Wasielewski MR, et al. Lasing action in strongly coupled plasmonic nanocavity arrays. *Nature Nanotechnology*. **2013**; 8:506-11.
13. Suh JY, Kim CH, Zhou W, Huntington MD, Co DT, Wasielewski MR, Odom TW. Plasmonic bowtie nanolaser arrays. *Nano Letters*. **2012**; 12:5769-74.
14. Vivekchand SR, Engel CJ, Lubin SM, Blaber MG, Zhou W, Suh JY, et al. Liquid plasmonics: manipulating surface plasmon polaritons via phase transitions. *Nano Letters*. **2012**; 12:4324-8.
15. Dam DH, Lee JH, Sisco PN, Co DT, Zhang M, Wasielewski MR, Odom TW. Direct observation of nanoparticle-cancer cell nucleus interactions. *ACS Nano*. **2012**; 6:3318-26.
16. Zhou W, Odom TW. Tunable subradiant lattice plasmons by out-of-plane dipolar interactions. *Nature Nanotechnology*. **2011**; 6:423-7.
17. Lee MH, Huntington MD, Zhou W, Yang JC, Odom TW. Programmable soft lithography: solvent-assisted nanoscale embossing. *Nano Letters*. **2011**; 11:311-5.
18. Gao H, Hyun JK, Lee MH, Yang JC, Lauhon LJ, Odom TW. Broadband plasmonic microlenses based on patches of nanoholes. *Nano Letters*. **2010**; 10:4111-6.
19. Gao H, Yang JC, Lin JY, Stuparu AD, Lee MH, Mrksich M, Odom TW. Using the angle-dependent resonances of molded plasmonic crystals to improve the sensitivities of biosensors. *Nano Letters*. **2010**; 10:2549-54.
20. Henzie J, Lee J, Lee MH, Hasan W, Odom TW. Nanofabrication of plasmonic structures. *Annual Review of Physical Chemistry*. **2009**; 60:147-65.
21. Gao HW, Henzie J, Lee MH, Odom TW. Screening plasmonic materials using pyramidal gratings. *Proceedings of the National Academy of Sciences*. **2008**; 105:20146-51.
22. Henzie J, Lee MH, Odom TW. Multiscale patterning of plasmonic metamaterials. *Nature Nano*. **2007**; 2:549-54.
23. Gao H, Henzie J, Odom TW. Direct evidence for surface plasmon-mediated enhanced light transmission through metallic nanohole arrays. *Nano Letters*. **2006**; 6:2104-8.
24. Henzie J, Barton JE, Stender CL, Odom TW. Large-area nanoscale patterning: chemistry meets fabrication. *Accounts of Chemical Research*. **2006**; 39:249-57.
25. Kwak ES, Henzie J, Chang SH, Gray SK, Schatz GC, Odom TW. Surface plasmon standing waves in large-area subwavelength hole arrays. *Nano Letters*. **2005**; 5:1963-7.
26. Henzie J, Kwak ES, Odom TW. Mesoscale metallic pyramids with nanoscale tips. *Nano Letters*. **2005**; 5:1199-202.

SELECTED OP-EDS

1. "[Light Technologies Illuminate Global Challenges](#)," The Conversation, 13 January 2015.
2. "[Cheating in Schools is Rampant but there is an Easy Fix](#)," Washington Post, 13 March 2015.
3. "[Why Altering the Powdered Donuts at Dunkin' Donuts Is Bad for Innovation](#)," Huffington Post, 1 April 2015.
4. "[How to Remove Bias from Peer Review](#)," The Chronicle of Higher Education, 7 May 2015.

SELECTED PATENTS

Odom, T.W.; Henzie, J.; Kwak, E.S. "Mesoscale Pyramids, Arrays, and Method of Preparation" (US Patent no. 7,999,353); Odom, T.W.; Henzie, J.; Kwak, E.S.; Lee, M.H. "Mesoscale Pyramids, Arrays, and Method of Preparation" (US Patent no. 8,048,789); Odom, T.W.; Lee, M.H.; Huntington, M.D. "Programmable Soft Lithography: Solvent-Assisted Nanoscale Embossing" (US Patent Application no. 13/135,910); Odom, T.W.; Lee, J.H.; Dam, Duncan. "Aptamer-loaded, Biocompatible Nanoconstructs for Nuclear-targeted Cancer Therapy" (US Provisional Application no. 61/556,663)

SELECTED RECORD AND POSTED LECTURES

1. [Frontiers in optical materials](#) (Japan-American Kavli Frontiers of Science 2007, Frontiers in Optical Materials):
2. [Are we there yet? The road to a technology based on nanoscience](#) (German-American Kavli Frontiers of Science 2009, Nanotechnology: Dream or Reality?)
3. [Nanolasers the size of virus particles](#) (US-Israel Kavli Frontiers of Science 2013, Nanophotonics and the Art of Invisibility)
4. [Nano-basics for clinicians and gold nanostars](#) as tiny hitchhikers for cancer therapeutics (International Institute of Nanotechnology 2013 Nanotechnology Boot Camp for Clinicians)

SELECTED OTHER PUBLICITY

1. Our work on how size and shape affect the properties of nanoparticles is highlighted in [Chemistry World](#) (August 2016, Volume 13, Issue 8)
2. Odom and Mirkin are featured in the cover story of [Northwestern Research Magazine](#) for Spring and Summer 2016.
3. Our collaborative work with Wei Chen received the *Best Paper Award* at the 42th ASME Design Automation Conference: Yu, S., Zhang, Y., Wang, C., Lee, W-K, Dong, B., Sun, C., Odom, T., and Chen, W., "Characterization and Design of Functional Quasi-Random Nanostructured Materials using Spectral Density Function" (2016).
4. Our work on stretchable superhydrophobicity was highlighted in [nanowerk.com](#) on May 5, 2016.
5. Odom discusses promise and pitfalls of nanoscience as part of an [ACS White Paper](#) published in 2016.
6. Our work on sequential nanowrinkling was featured in [Science](#), August 21, 2015 and [nanowerk.com](#)
7. Our work on liquid nanolasers and how their emission can be tuned in real time was featured in [Northwestern News](#) (April 24, 2015), [C&E News](#), [BTN LiveBIG](#), [physicsworld.com](#) and other outlets
8. Odom was featured as the [December 2014 profile for AWIS](#) (Association for Women in Science, Chicago)
9. Our work on lattice opto-materials as ultra-flat lenses is highlighted in [Materials Today](#) (December 3, 2014)
10. Our work on delivery of gold nanostar constructs to the nucleus is mentioned in CNN. <http://www.cnn.com/interactive/2014/04/health/the-cnn-10-healing-the-future/> (story 2)
11. Our work on nanolasers made from 3D gold bowties was highlighted in numerous media outlets, including [Northwestern University News](#) and [Discover Magazine](#) (June 2013)
12. Odom was one of 60 women in chemistry selected to describe in 60 seconds today's major issues and opportunities facing [women in chemistry](#) and the sciences for the International year of Chemistry