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Professional Experience

2024-pres. Affiliate Faculty Member, Koch Institute for Integrative Cancer Biology
2018-pres. Scientific Director, Center for Enhanced Nanofluidic Transport (CENT),
Department of Energy EFRC.
2018-pres. Lead Principal Investigator, Disruptive and Sustainable Technology for
Agricultural Precision (DiSTAP), MIT-SMART Program
2013-pres. Carbon P. Dubbs Professor of Chemical Engineering, Department of Chemical
Engineering, MIT
2012-2013 Professor of Chemical Engineering, Department of Chemical Engineering, MIT
2009-2012 Charles and Hilda Roddey Associate Professor of Chemical Engineering, Tenured,
Department of Chemical Engineering, MIT
2007-2009 Charles and Hilda Roddey Associate Professor of Chemical Engineering, WOT,
Department of Chemical Engineering, MIT
2006-2007 Associate Professor, Department of Chemical and Biomolecular Engineering,
University of Illinois, Urbana-Champaign
2005-2007 Affiliate, Bioengineering Department, University of Illinois, Urbana-Champaign
2004-2007 Affiliate, Beckman Institute, University of Illinois, Urbana-Champaign
2003-2007 Faculty Appointment, Center for Nanoscale Science and Technology, University
of Illinois, Urbana-Champaign
2003-2006 Assistant Professor, Department of Chemical and Biomolecular Engineering,
University of Illinois, Urbana-Champaign
2002-2003 *Postdoctoral Fellow*, Center of Nanoscale Science and Technology with Prof.
Richard E. Smalley, Rice University, Houston, TX
1998-2001 *Visiting Scientist*, Central Research and Development, DuPont Company Laboratory

Education

1997-2001 Ph.D. Chemical Engineering, University of Delaware, Newark, DE
Thesis Title: Nanoporous Reactive Membranes – the Influence of Pore Structure
on Membrane Selectivity
Thesis Advisor: Henry C. Foley
Graduation summa cum laude

1993-1997 B.S. Chemical Engineering, Polytechnic University, Brooklyn, NY
Senior Thesis Title: A Multivariable Metric Approach to Simultaneous Chemical
and Physical Thermodynamic Equilibrium
Graduation summa cum laude

**Awards and
Honors**

- 2024 International Advisory Board Member, Carbon 2025
- 2024 Founding Editorial Board Member, EcoMat
- 2024 Oliver Brand Memorial Lectureship, Georgia Institute of Technology
- 2024 Nature Biosensors, Founding Editorial Board Member
- 2022 Highly Cited Researcher, Thompson Reuters
- 2021 Highly Cited Researcher, Thompson Reuters
- 2020 Thompson Reuters, Listed as one of the World's Most Influential Scientific Minds 2020
- 2020 Highly Cited Researcher, Thompson Reuters
- 2019 Andreas Acrivos Award for Professional Progress in Chemical Engineering
- 2019 Highly Cited Researcher, Thompson Reuters
- 2018 Volume Editor, MRS Bulletin, Materials Research Society
- 2018 Highly Cited Researcher, Thompson Reuters
- 2017 National Academy of Engineering, (elected at age 42)
- 2016 Highly Cited Researcher, Thompson Reuters
- 2016 Blavatnik National Award for Young Scientist, Finalist (Chemistry)
- 2015 Robert W. Vaughn Lecture, California Institute of Technology
- 2015 World's Most Influential Minds, Thompson Reuters
- 2015 Blavatnik National Award for Young Scientist, Finalist (Chemistry)
- 2015 Highly Cited Researcher, Thompson Reuters
- 2015 Selected for Defense Study Board, Department of Defense
- 2015 Charles Edison Lecture, University of Notre Dame
- 2014 Selected for Defense Science Study Group, Department of Defense
- 2014 Blavatnik National Award for Young Scientist, Finalist (Chemistry)
- 2013 Stratis V. Sotirchos Lectureship, University of Athens
- 2013 Editorial Board, 2D Materials
- 2013 Associate Editor, Current Protocols in Chemical Biology
- 2013 Barnett F. Dodge Distinguished Lecture in Chemical Engineering, Yale University
- 2012 Nanoscale Science and Engineering Forum Award, American Institute of Chemical Engineering
- 2012 Editorial board, Langmuir
- 2011 Kavli Frontiers of Science Fellow, National Academy of Sciences
- 2011 Thompson Reuters, Ranked 19th, Top 20 Chemist of the Decade 2000-2010
- 2010 Council of Scientific Society Presidents, Honorary Lecturer
- 2010 R. M. Langer Lectureship, Yale University
- 2010 Editorial Board, Advanced Energy Materials
- 2010 Editorial Board, Chemistry of Materials
- 2009 NSF Alan T. Waterman Award, Honorable Mention
- 2009 Brilliant 10, Popular Science Magazine

2009 Thiele Lectureship, Notre Dame University
2008 Allen P. Colburn Award, American Institute of Chemical Engineers
2008 Office of Naval Research, Young Investigator Award
2008 Colburn Memorial Lectureship, University of Delaware
2008 Outstanding Young Investigator Award, Materials Research Society
2008 Alfred P. Sloan Foundation Research Fellowship
2007 National Academy of Engineers, Frontiers of Engineering
2007 American Chemical Society Unilever Award for Colloidal Science
2007 Henry and Camille Dreyfus Teacher-Scholar Award
2006 Presidential Early Career Award for Scientists and Engineers (PECASE)
2006 Collaboration Success Award from the Council of Chemical Research
2006 Beckman Young Investigator Award
2006 3M Nontenured Faculty Award
2006 Coblenz Award for Excellence in Molecular Spectroscopy
2005 Young Investigator Award, Nanoscale Science and Engineering Forum, AIChE
2005 Top 1% of Highly Cited Researchers, Essential Science Indicators/Web of Science
2005 National Science Foundation Career Award
2004 Top Young Innovator Award, MIT Technology Review (TR100)
2004 Dupont Young Investigator Award

Publications

Patents

35 patents granted
15 provisional

Peer Reviewed Journal Publications (591 total)

(h-index = 101 as of Nov 2024, total citations = 65,015, 110.19 citations per article)

Publications

1.
Acharya M, Strano Ms, Mathews Jp, Billinge JI, Petkov V and Subramoney S, Foley Hc. Simulation of nanoporous carbons: a chemically constrained structure. Philosophical Magazine B-physics of Condensed Matter Statistical Mechanics Electronic Optical And Magnetic Properties. 1999 Oct;79(10):1499–518.
2.
Strano Ms, Foley Hc. Deconvolution of permeance in supported nanoporous membranes. Aiche Journal. 2000 Mar;46(3):651–8.
3.
Strano Ms, Foley Hc. Synthesis and characterization of heteropolyacid nanoporous carbon membranes. Catalysis Letters. 2001;74(3–4):177–84.
4.
Strano Ms, Rempel J, Halverson J, Burket C, Mathews J and Foley Hc. Structural modeling of nanoporous carbon: A review of approaches to simulating an aperiodic and non-equilibrium solid. In: Billinge Sjl,

Thorpe Mf, editors. From Semiconductors To Proteins: Beyond The Average Structure. 233 Spring St, New York, Ny 10013 Usa: Kluwer Academic/plenum Publ; 2002. p. 169–81. (fundamental Materials Research).

5.

Strano Ms, Foley Hc. Synthesis and characterization of catalytic nanoporous carbon membranes. *Aiche Journal*. 2001 Jan;47(1):66–78.

6.

Strano Ms, Foley Hc. Temperature- and pressure-dependent transient analysis of single component permeation through nanoporous carbon membranes. *Carbon*. 2002;40(7):1029–41.

7.

Strano Ms, Zydney Al, Barth H, Wooler G, Agarwal H, Foley Hc. Ultrafiltration membrane synthesis by nanoscale templating of porous carbon. *Journal of Membrane Science*. 2002 Apr;198(2):173–86.

8.

O’Connell Mj, Bachilo Sm, Huffman Cb, Moore Vc, Strano M, Haroz Eh, et al. Band gap fluorescence from individual single-walled carbon nanotubes. *Science*. 2002 Jul;297(5581):593–6.

9.

Bachilo Sm, Strano Ms, Kittrell C, Hauge Rh, Smalley Re and Weisman Rb. Structure-assigned optical spectra of single-walled carbon nanotubes. *Science*. 2002 Dec;298(5602):2361–6.

10.

Weisman Rb, Bachilo Sm, Strano Ms, Kittrell C, Hauge Rh and Smalley Re. (n,m)-assigned absorption and emission spectra of single-walled carbon nanotubes. In: Kuzmany H, Fink J, Mehring M, Roth S, editors. *Molecular Nanostructures*. 2 Huntington Quadrangle, Ste 1no1, Melville, Ny 11747-4501 Usa: Amer Inst Physics; 2003. p. 241–5. (aip Conference Proceedings; vol. 685).

11.

Strano Ms, Haroz Eh, Kittrell C, Hauge Rh, Smalley Re. Assignment of (n,m) Raman and absorption spectral features of metallic single-walled carbon nanotubes. In: Kuzmany H, Fink J, Mehring M, Roth S, editors. *Molecular Nanostructures*. 2 Huntington Quadrangle, Ste 1no1, Melville, Ny 11747-4501 Usa: Amer Inst Physics; 2003. p. 246–50. (aip Conference Proceedings; vol. 685).

12.

Strano Ms, Agarwal H, Pedrick J, Redman D, Foley Hc. Templated pyrolytic carbon: the effect of poly(ethylene glycol) molecular weight on the pore size distribution of poly(furfuryl alcohol)-derived carbon. *Carbon*. 2003;41(13):2501–8.

13.

Hennrich F, Kappes Mm, Strano Ms, Hauge Rh, Smalley Re. Infrared analysis of amine treated single-walled carbon nanotubes produced by decomposition of Co. In: Kuzmany H, Fink J, Mehring M, Roth S, editors. *Molecular Nanostructures*. 2 Huntington Quadrangle, Ste 1no1, Melville, Ny 11747-4501 Usa: Amer Inst Physics; 2003. p. 197–201. (aip Conference Proceedings; vol. 685).

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Strano Ms, Moore Vc, Miller Mk, Allen Mj, Haroz Eh, Kittrell C, et al. The role of surfactant adsorption during ultrasonication in the dispersion of single-walled carbon nanotubes. *Journal of Nanoscience And Nanotechnology*. 2003 Feb;3(1–2):81–6.

15.

Strano Ms, Foley Hc. Modeling ideal selectivity variation in nanoporous membranes. *Chemical Engineering Science*. 2003 Jun;58(12):2745–58.

16.

Doorn Sk, Strano Ms, O’Connell Mj, Haroz Eh, Rialon Kl and Hauge Rh, Smalley Re. Capillary electrophoresis separations of bundled and individual carbon nanotubes. *Journal of Physical Chemistry B*. 2003 Jun;107(25):6063–9.

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Strano Ms, Huffman Cb, Moore Vc, O’Connell Mj, Haroz Eh and Hubbard J, Miller M, et al. Reversible, band-gap-selective protonation of single-walled carbon nanotubes in solution. *Journal of Physical Chemistry B*. 2003 Jul;107(29):6979–85.

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- Strano Ms, Doorn Sk, Haroz Eh, Kittrell C, Hauge Rh, Smalley Re. Assignment of (n, m) Raman and optical features of metallic single-walled carbon nanotubes. *Nano Letters*. 2003 Aug;3(8):1091–6.
- 19.
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- 20.
- Strano Ms, Dyke Ca, Usrey Ml, Barone Pw, Allen Mj, Shan Hw, et al. Electronic structure control of single-walled carbon nanotube functionalization. *Science*. 2003 Sep;301(5639):1519–22.
- 21.
- Moore Vc, Strano Ms, Haroz Eh, Hauge Rh, Smalley Re, Schmidt J, et al. Individually suspended single-walled carbon nanotubes in various surfactants. *Nano Letters*. 2003 Oct;3(10):1379–82.
- 22.
- Huxtable St, Cahill Dg, Shenogin S, Xue Lp, Ozisik R and Barone P, Usrey M, et al. Interfacial heat flow in carbon nanotube suspensions. *Nature Materials*. 2003 Nov;2(11):731–4.
- 23.
- Zheng M, Jagota A, Strano Ms, Santos Ap, Barone P, Chou Sg, et al. Structure-based carbon nanotube sorting by sequence-dependent Dna assembly. *Science*. 2003 Nov;302(5650):1545–8.
- 24.
- Strano Ms. Probing chiral selective reactions using a revised Kataura plot for the interpretation of single-walled carbon nanotube spectroscopy. *Journal of The American Chemical Society*. 2003 Dec;125(51):16148–53.
- 25.
- Ostojic Gn, Zaric S, Kono J, Strano Ms, Moore Vc, Hauge Rh, et al. Interband recombination dynamics in resonantly excited single-walled carbon nanotubes. *Physical Review Letters*. 2004 Mar;92(11).
- 26.
- Strano Ms. Selective functionalization of single walled carbon nanotubes: Progress towards separation by electronic type. *Abstracts of Papers of The American Chemical Society*. 2004 Mar;227(1):U1277.
- 27.
- Doorn Sk, O’Connell Mj, Sivaram S, Strano Ms. Near infrared Raman characterization of individualized, aggregated, and separated carbon nanotubes. *Abstracts of Papers of The American Chemical Society*. 2004 Mar;227(1):U1265.
- 28.
- Strano Ms, Zheng M, Jagota A, Onoa Gb, Heller Da, Barone Pw, et al. Understanding the nature of the DNA-assisted separation of single-walled carbon nanotubes using fluorescence and Raman spectroscopy. *Nano Letters*. 2004 Apr;4(4):543–50.
- 29.
- Kono J, Ostojic Gn, Zaric S, Strano Ms, Moore Vc, Shaver J, et al. Ultra-fast optical spectroscopy of micelle-suspended single-walled carbon nanotubes. *Applied Physics A-materials Science & Processing*. 2004 May;78(8):1093–8.
- 30.
- Doorn Sk, Heller Da, Barone Pw, Usrey Ml, Strano Ms. Resonant Raman excitation profiles of individually dispersed single walled carbon nanotubes in solution. *Applied Physics A-materials Science & Processing*. 2004 May;78(8):1147–55.
- 31.
- Zaric S, Ostojic Gn, Kono J, Shaver J, Moore Vc, Strano Ms, et al. Optical signatures of the Aharonov-Bohm phase in single-walled carbon nanotubes. *Science*. 2004 May;304(5674):1129–31.
- 32.
- Heller Da, Barone Pw, Swanson Jp, Mayrhofer Rm, Strano M. Using Raman spectroscopy to elucidate the aggregation state of single-walled carbon nanotubes. *Journal of Physical Chemistry B*. 2004 Jun;108(22):6905–9.
- 33.

Fantini C, Jorio A, Souza M, Strano Ms, Dresselhaus Ms and Pimenta Ma. Optical transition energies for carbon nanotubes from resonant Raman spectroscopy: Environment and temperature effects. *Physical Review Letters*. 2004 Oct;93(14).

34.

Meitl Ma, Zhou Yx, Gaur A, Jeon S, Usrey Ml, Strano M, et al. Solution casting and transfer printing single-walled carbon nanotube films. *Nano Letters*. 2004 Sep;4(9):1643–7.

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Heller Da, Mayrhofer Rm, Baik S, Grinkova Y v, Usrey Ml and Strano Ms. Concomitant length and diameter separation of single-walled carbon nanotubes. *Journal of The American Chemical Society*. 2004 Nov;126(44):14567–73.

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Baik S, Usrey M, Rotkina L, Strano Ms. Using the selective functionalization of metallic single-walled carbon nanotubes to control dielectrophoretic mobility. *Journal of Physical Chemistry B*. 2004 Oct;108(40):15560–4.

37.

Reich S, Dworzak M, Hoffmann A, Thomsen C, Strano Ms. Excited-state carrier lifetime in single-walled carbon nanotubes. *Physical Review B*. 2005 Jan;71(3).

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Heller Da, Barone Pw, Strano Ms. Sonication-induced changes in chiral distribution: A complication in the use of single-walled carbon nanotube fluorescence for determining species distribution. *Carbon*. 2005;43(3):651–3.

39.

Barone Pw, Baik S, Heller Da, Strano Ms. Near-infrared optical sensors based on single-walled carbon nanotubes. *Nature Materials*. 2005 Jan;4(1):86-U16.

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Barone Pw, Baik S, Heller Da, Strano Ms. Modulating single walled carbon nanotube fluorescence in response to specific molecular adsorption. In: Kuzmany H, Fink J, Mehring M, Roth S, editors. *Electronic Properties of Novel Nanostructures*. 2 Huntington Quadrangle, Ste 1no1, Melville, Ny 11747-4501 Usa: Amer Inst Physics; 2005. p. 193–7. (aip Conference Proceedings; vol. 786).

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Strano Ms. Solving the matrix dispersion problem for single walled carbon nanotube composites. *Abstracts of Papers of The American Chemical Society*. 2005 Mar;229(2):U1146.

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Blanchet Gb, Bo Xz, Strano Ms, Nuckolls C. Carbon nanotubes: Semiconductor networks for organic electronics. *Abstracts of Papers of The American Chemical Society*. 2005 Mar;229(1):U250.

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Barone Pw, Baik S, Heller Da, Strano Ms. Solution phase, near infrared optical sensors based on single walled carbon nanotubes. *Abstracts of Papers of The American Chemical Society*. 2005 Mar;229(2):U919.

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Barone Pw, Baik S, Strano Ms. Probing the activity of single walled carbon nanotube - Enzyme complexes. *Abstracts of Papers of The American Chemical Society*. 2005 Mar;229(2):U942.

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Bo Xz, Lee Cy, Strano Ms, Goldfinger M, Nuckolls C, Blanchet Gb. Carbon nanotubes-semiconductor networks for organic electronics: The pickup stick transistor. *Applied Physics Letters*. 2005 May;86(18).

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Graff Ra, Swanson Jp, Barone Pw, Baik S, Heller Da, Strano Ms. Achieving individual-nanotube dispersion at high loading in single-walled carbon nanotube composites. *Advanced Materials*. 2005 Apr;17(8):980+.

47.

Lee Cy, Strano Ms. Understanding the dynamics of signal transduction for adsorption of gases and vapors on carbon nanotube sensors. *Langmuir*. 2005 May;21(11):5192–6.

48.

Strano Ms, Wyre J, Foley Hc. Novel heteropolyacid nanoporous carbon reactive barriers for supra-equilibrium conversion and in situ component separation. *Industrial & Engineering Chemistry Research*. 2005 Aug;44(16):6414–22.

49.

Lee Cy, Strano Ms. Understanding the dynamics of signal transduction for adsorption of gases and vapors on carbon nanotube sensors. *Abstracts of Papers of The American Chemical Society*. 2005 Aug;230:U353.

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Lee Cy, Zhang Lq, Baik S, Strano Ms. Solving the regeneration problem for carbon nanotube based chemical weapons detectors. *Abstracts of Papers of The American Chemical Society*. 2005 Aug;230:U179.

51.

Heller Da, Moll Ae, Strano Ms. Single-cell chemical sensors using Raman scattering and fluorescence of single-walled carbon nanotubes. *Abstracts of Papers of The American Chemical Society*. 2005 Aug;230:U318–9.

52.

Heller Da, Baik S, Eurell Te, Strano Ms. Single-walled carbon nanotubes as near-infrared fluorescence and Raman cell labels. *Abstracts of Papers of The American Chemical Society*. 2005 Aug;230:U239.

53.

Blanchet Gb, Bo Xz, Lee Cy, Strano Ms, Nuckolls C. The pick-up stick transistor. *Solid State Communications*. 2005 Sep;135(9–10):638–44.

54.

Nair N, Strano Ms. Reply to ``Comment on `Using the selective functionalization of metallic single-walled carbon nanotubes to control dielectrophoretic mobility`''. *Journal of Physical Chemistry B*. 2005 Sep;109(35):17016–8.

55.

Sun Yg, Graff Ra, Strano Ms, Rogers Ja. Top-down fabrication of semiconductor nanowires with alternating structures along their longitudinal and transverse axes. *Small*. 2005 Nov;1(11):1052–7.

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Bo Xz, Tassi Ng, Lee Cy, Strano Ms, Nuckolls C, Blanchet Gb. Pentacene-carbon nanotubes: Semiconducting assemblies for thin-film transistor applications. *Applied Physics Letters*. 2005 Nov;87(20).

57.

Usrey Ml, Lippmann Es, Strano Ms. Evidence for a two-step mechanism in electronically selective single-walled carbon nanotube reactions. *Journal of The American Chemical Society*. 2005 Nov;127(46):16129–35.

58.

Maultzsch J, Pomraenke R, Reich S, Chang E, Prezzi D and Ruini A, Molinari E, et al. Exciton binding energies in carbon nanotubes from two-photon photoluminescence. *Physical Review B*. 2005 Dec;72(24).

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Barone Pw, Parker Rs, Strano Ms. In vivo fluorescence detection of glucose using a single-walled carbon nanotube optical sensor: Design, fluorophore properties, advantages, and disadvantages. *Analytical Chemistry*. 2005 Dec;77(23):7556–62.

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Heller Da, Baik S, Eurell Te, Strano Ms. Single-walled carbon nanotube spectroscopy in live cells: Towards long-term labels and optical sensors. *Advanced Materials*. 2005 Dec;17(23):2793+.

61.

Plentz F, Ribeiro Hb, Jorio A, Strano Ms, Pimenta Ma. Direct experimental evidence of exciton-phonon bound states in carbon nanotubes. *Physical Review Letters*. 2005 Dec;95(24).

62.

Park Ju, Meitl Ma, Hur Sh, Usrey Ml, Strano Ms, Kenis Pja, et al. In situ deposition and patterning of single-walled carbon nanotubes by Laminar flow and controlled flocculation in microfluidic channels. *Angewandte Chemie-international Edition*. 2006;45(4):581–5.

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Maultzsch J, Pomraenke R, Reich S, Chang E, Prezzi D and Ruini A, Molinari E, et al. Exciton binding energies in carbon nanotubes from two-photon photoluminescence (vol 72, pg 241402, 2005). *Physical Review B*. 2006 Jan;73(4).

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Barone Pw, Strano Ms. Reversible control of carbon nanotube aggregation for a glucose affinity sensor. *Angewandte Chemie-international Edition*. 2006;45(48):8138–41.

65.

Jorio A, Fantini C, Pimenta Ma, Heller Da, Strano Ms and Dresselhaus Ms, Oyama Y, et al. Carbon nanotube population analysis from Raman and photoluminescence intensities. *Applied Physics Letters*. 2006 Jan;88(2).

66.

Heller Da, Jeng Es, Yeung Tk, Martinez Bm, Moll Ae, Gastala Jb, et al. Optical detection of Dna conformational polymorphism on single-walled carbon nanotubes. *Science*. 2006 Jan;311(5760):508–11.

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Kim Y, Hong S, Jung S, Strano Ms, Choi J, Baik S. Dielectrophoresis of surface conductance modulated single-walled carbon nanotubes using catanionic surfactants. *Journal of Physical Chemistry B*. 2006 Feb;110(4):1541–5.

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Jeng Es, Moll Ae, Roy Ac, Gastala Jb, Strano Ms. Detection of Dna hybridization using the near-infrared band-gap fluorescence of single-walled carbon nanotubes. *Nano Letters*. 2006 Mar;6(3):371–5.

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Heller Da, Yeung Tk, Martinez Bm, Patel D, Jin H, Strano Ms. Single-walled carbon nanotube molecular beacons: Near-infrared chemical sensing in vitro and in vivo. *Abstracts of Papers of The American Chemical Society*. 2006 Mar;231.

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Strano Ms. Nanocomposites: Polymer-wrapped nanotubes. *Nature Materials*. 2006 Jun;5(6):433–4.

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Lee Cy, Baik S, Zhang J, Masel Ri, Strano Ms. Charge transfer from metallic single-walled carbon nanotube sensor arrays. *Journal of Physical Chemistry B*. 2006 Jun;110(23):11055–61.

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Pomraenke R, Maultzsch J, Reich S, Chang E, Prezzi D, Ruini A, et al. Two-photon photoluminescence and exciton binding energies in single-walled carbon nanotubes. *Physica Status Solidi B-basic Solid State Physics*. 2006 Aug;243(10):2428–35.

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Usrey Ml, Kim Wj, Strano Ms. Anyl 309-Separation of single-walled carbon nanotubes via electrophoresis. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

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Usrey Ml, Kim Wj, Nair N, Strano Ms. Anyl 143-Separation of single-walled carbon nanotubes via electrophoretic methods. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

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Usrey Ml, Kim Wj, Strano Ms. Pres 55-Separation of single-walled carbon nanotubes via electrophoresis. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

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Lee Cy, Strano Ms. Pres 31-Understanding the reversibility of carbon nanotube gas sensors. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

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Lee Cy, Baik S, Mase Ri, Strano Ms. Inor 948-Charge transfer from metallic single walled carbon nanotube arrays. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

78.

Kim Wj, Nair N, Usrey Ml, Strano Ms. Pres 33-Analysis of kinetics and selectivity for the reaction of single-walled carbon nanotubes with 4-hydroxybenzene diazonium salts. *Abstracts of Papers of The American Chemical Society*. 2006 Sep;232.

79.

Kim Wj, Lee Cy, Usrey Ml, Strano Ms. Inor 597-Separation of functionalized single-walled carbon nanotubes from non-functionalized using a novel electro-diffusion mechanism. Abstracts of Papers of The American Chemical Society. 2006 Sep;232.

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Jeng Es, Strano Ms. Pres 32-Viability of near-infrared fluorescence of single-walled carbon nanotubes for detection of Dna sequences. Abstracts of Papers of The American Chemical Society. 2006 Sep;232.

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Heller Da, Choi Jh, Hoebartner C, Yeung Tk, Patel D, Martinez Bm, et al. Pres 58-Single-walled carbon nanotubes as near-infrared optical biosensors of Dna structure. Abstracts of Papers of The American Chemical Society. 2006 Sep;232.

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Heller Da, Choi Jh, Yeung Tk, Martinez Bm, Patel D, Strano Ms. Inor 117-Single-walled carbon nanotube optical biosensors of Dna structure. Abstracts of Papers of The American Chemical Society. 2006 Sep;232.

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86.

Nair N, Usrey Ml, Kim Wj, Braatz Rd, Strano Ms. Estimation of the (n,m) concentration distribution of single-walled carbon nanotubes from photoabsorption spectra. Analytical Chemistry. 2006 Nov;78(22):7689–96.

87.

Choi Jh, Chen Kh, Strano Ms. Aptamer-capped nanocrystal quantum dots: A new method for label-free protein detection. Journal of The American Chemical Society. 2006 Dec;128(49):15584–5.

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Karaiskaj D, Mascarenhas A, Choi Jh, Graff Rachel and Strano Ms. Temperature behavior of the photoluminescence decay of semiconducting carbon nanotubes: The effective lifetime. Physical Review B. 2007 Mar;75(11).

89.

Strano Ms. Chemistry of single walled carbon nanotubes: Applications to biomolecule detection, nanotube separation, and electronic networks. Abstracts of Papers of The American Chemical Society. 2007 Mar;233.

90.

Nair N, Kim Wj, Usrey Ml, Strano Ms. A structure-reactivity relationship for single walled carbon nanotubes reacting with 4-hydroxybenzene diazonium salt. Abstracts of Papers of The American Chemical Society. 2007 Mar;233:307.

91.

Lee Cy, Sharma R, Strano Ms. Reversible carbon nanotube gas sensor and its application. Abstracts of Papers of The American Chemical Society. 2007 Mar;233:398.

92.

Kim Wj, Usrey Ml, Strano Ms. Inor 943-Selective functionalization of metallic single-walled carbon nanotubes with triazene. Abstracts of Papers of The American Chemical Society. 2007 Mar;233:304.

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Jeng Es, Strano Ms. The use of single walled carbon nanotubes for detection of Dna hybridization: Kinetics, thermodynamics, and applications. Abstracts of Papers of The American Chemical Society. 2007 Mar;233:313.

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Choi Jh, Nguyen Ft, Barone Pw, Heller Da, Moll Ae, Patel D, et al. Multimodal biomedical imaging with asymmetric single-walled carbon nanotube/iron oxide nanoparticle heterostructures. Abstracts of Papers of The American Chemical Society. 2007 Mar;233:325.
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Choi Jh, Nguyen Ft, Barone Pw, Heller Da, Moll Ae, Patel D, et al. Multimodal biomedical imaging with asymmetric single-walled carbon nanotube/iron oxide nanoparticle complexes. Nano Letters. 2007 Apr;7(4):861–7.
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100.
Choi Jh, Strano Ms. Solvatochromism in single-walled carbon nanotubes. Applied Physics Letters. 2007 May;90(22).
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Industrial Consulting (with Confidentiality Agreement)

Institute for Defense Analysis, (2014-present)
Kaleria (now Growy) (2020-present)
Sime Darby (2017-2020)
Malvern (2014-2017)
Graphene Technologies (2012-2013)
DCM (2009-2010)
Nanterra (2009-2010)
Ross (2008-2010)
Nanoasis (2008-2012)
Luna Innovation (2006-2008)
Intel, Portland OR (2005-2007)
Dupont, Wilmington DE (2003-2004)

Selected Professional Activities

2024-pres.	Affiliate Faculty Member, Koch Institute for Integrative Cancer Biology
2024	NT24 Conference Organizing Committee
2024	NT Conference Series, appointed to International Board

2018-pres.	Scientific Director, Center for Enhanced Nanofluidic Transport (CENT), Department of Energy EFRC
2018	IWEPNM Conference Board, Kirchberg, Austria
2017-pres.	Founder and Lead Principal Investigator, Disruptive and Sustainable Technology for Agricultural Precision (DiSTAP), MIT-SMART Program
2017	Scientific Advisory Board, Sime Darby (ending 2020)
2014	Defense Science Board, Task Force (ending 2016)
2014	Defense Science Study Group (DSSG) (through 2015)
2012	American Institute of Chemical Engineers Awards Committee
2012	NT13 Conference, organizer, speaker selection
2012	National Institutes of Health, Ad Hoc Reviewer, Nanoscale Science and Technology
2012	MIT Lemelson Award Committee, Panelist
2012	National Science Foundation, Panel Reviewer
2011	American Institute of Chemical Engineers Awards Committee
2011	National Institutes of Health, Ad Hoc Reviewer, Nanoscale Science and Technology
2011	MIT Lemelson Award Committee, Panelist
2011	National Science Foundation, Panel Reviewer 2010 Nanoscale Science and Engineering Forum, Executive Committee, and Blue Ribbon Awards Panel, American Institute of Chemical Engineers
2010	Session organizer/chairman for American Institute of Chemical Engineers Annual Meeting
2010	Session organizer/chairman for Materials Research Society Annual Meeting
2009	NIH Panel Reviewer, several study sections, Nanomedicine, NCI and Grand Challenges
2008	Editorial board, Journal Carbon
2007	Advisory board, Journal of Physical Chemistry, American Chemical Society
2006	Editorial board member: Journal of Experimental Biology and Medicine
2006	NSF Panel Reviewer, Nanotechnology Interdisciplinary Research Grants (NIRT)
2006	American Chemical Society, Presidential Symposium Organizer
2005	Panel Reviewer, NCI-NIH Nanotechnology Platforms
2005-06	Treasurer, NSEF, AIChE
2004	NSF Panel Reviewer, Sensors and Sensor Networks
2004	NSF Panel Reviewer, Nanotechnology Interdisciplinary Research Grants (NIRT)
2004	Reviewer, Department of Energy, Basic Energy Sciences
2004	Organizer and Co-Chair, Nanoscale Science and Technology Plenary Sessions, AIChE
2004	Organizer and Chair, Issues in Carbon Nanotubes Sessions, AIChE Annual Meeting
2003	NSF Panel Reviewer, Sensors and Sensor Networks
2003	Organizer and Chair, Issues in Carbon Nanotubes Sessions, AIChE Annual Meeting

Active reviewer for Journals: Science, PNAS, Nature Materials, Journal of the American Chemical Society, Advanced Materials, Nanoletters, Carbon, Journal of Physical Chemistry B, Langmuir,

Physical Review Letters, Applied Physics Letters, Science, Nature Nanotechnology, Nature Materials, Nature Photonics, Nature Biotechnology

Professional Associations

American Chemical Society

American Physical Society

Materials Research Society

American Institute of Chemical Engineers

Federation of Analytical Chemistry and Spectroscopy Society

Tau Beta Pi, Engineering Honor Society

Omega Chi Epsilon, Chemical Engineering Honor Society