CURRICULUM VITAE

RICHARD M. CROOKS

Robert A. Welch Chair in Materials Chemistry
The University of Texas at Austin

November, 2022

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The University of Texas at Austin
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FORMAL HIGHER EDUCATION

Graduate: The University of Texas at Austin, Ph.D., 1987
Research Advisor: Dr. Allen J. Bard
Dissertation Title: Electrochemistry in Near-Critical and Supercritical Nonaqueous Solvents
Specialization: Electrochemistry

Undergraduate: The University of Illinois at Urbana-Champaign, B.S., 1981
Research Advisor: Dr. Larry R. Faulkner
Specialization: Electrochemistry

PROFESSIONAL APPOINTMENTS

The University of Texas at Austin
- Robert A. Welch Chair in Materials Chemistry: 2009 - present
- William H. Wade Professor of Chemistry: 2008-2009
- Professor of Chemistry: 2005 – 2008

Texas A&M University
- Professor of Chemistry: 1997 – 2005
- Professor of Chemical Engineering: 2003 – 2005
- Founding Director, Materials Characterization Facility: 2000 - 2005
- Associate Professor of Chemistry: 1993 – 1997

University of New Mexico
- Assistant Professor of Chemistry: 1989 – 1993

Massachusetts Institute of Technology
- Postdoctoral Associate: 1987 – 1989

OTHER NOTEWORTHY PROFESSIONAL ACTIVITIES

Co-founder, Galvanyx, LLC (2020)
Completed National NSF I-Corps program (2016)
Chairman, Department of Chemistry and Biochemistry (2008 – 2010)
Co-founder, UT-Austin Center for Electrochemistry (2006)
Co-founder, UT-Austin Freshman Research Initiative (2005)
Founder, Gordon Research Seminars for students and postdocs (2005)
Co-founder and member of the board of directors: Eclipse Sciences, Inc. (2003)
Founder, Texas A&M University Materials Characterization Facility (2000)
Sabbatical appointment: ACLARA Biosciences, Mountain View, CA (2000)

RESEARCH INTERESTS

Chemical and biological sensors

Integrated microfluidic systems
Nanomaterials
Physical electrochemistry
Catalysis and electrocatalysis

CONSULTING/SABS

Polaris Lithium
Blink Science
Stoicea
Quinn Emanuel
Panitch Schwarze Belisario & Nadel
Wilmer-Hale
BakerHostetler
Foley & Lardner

HONORS

Significant Awards

- Eastern Analytical Symposium Award for Outstanding Achievements in the Fields of Analytical Chemistry (2022)
- Faraday Medal of the Royal Society of Chemistry (2015)
- Pittsburgh Analytical Chemistry Award (2014)
- World Technology Award (Environment Category), Finalist (2013)
- C. N. Reilley Award of the Society of Electroanalytical Chemistry (2010)
- ACS Division of Analytical Chemistry Award in Electrochemistry (2008)
- Carl Wagner Memorial Award of the Electrochemical Society (2003)
- National Science Foundation Young Investigator Award (1993)
- Office of Naval Research Young Investigator Award (1991)
- Society for Analytical Chemists of Pittsburgh Starter Grant Award (1990)
- Gilbert H. Ayres Award, The University of Texas at Austin (1984)

Offices Held in Professional Societies

- Vice Chairman, Sensor Division, Electrochemical Society (2000-2002)
- Secretary/Treasurer, Sensor Division, Electrochemical Society (1998-2000)
- Executive Committee, Sensor Division, Electrochemical Society (1996-1998)
- Board Member, Society for Electroanalytical Chemistry (1996-2001)
- Awards Committee Chair, Society for Electroanalytical Chemistry (1998 - 2002)

Editorial Activities

- Co-Guest Editor, *Langmuir*, special issue on "Fundamental Interfacial Science for Energy Applications", 2016-2017 (with Debra Rolison and Keith Stevenson)
- Executive Editor, *Langmuir* 2015 – 2019
- Senior Editor, *Langmuir* 2004 - 2014
- Editorial Advisory Board Member, *Analytical Chemistry*, 2011-2013
- Editorial Advisory Board Member, *Catalysis Science and Technology*, RSC, 2010 - present
- Editorial Committee Member, *Annual Review of Analytical Chemistry*, 2006-2012
- Co-Guest Editor, *Langmuir*, special issue on Electrochemistry, December, 2006 (with Allen J. Bard)

- News and Features Advisory Panel, *Analytical Chemistry*, January, 2004 – December, 2006)
- Editorial Board, *Langmuir*, January, 2000- December, 2003
- Editorial Board, *Advanced Functional Materials*, January, 2001- December, 2003
- Editorial Board, *Sensor Update*, 1998-2008
- Co-Guest Editor, *Acc. Chem. Res.*, special issue on "Chemical Sensors", May, 1998 (with Antonio J. Ricco)
- Co-Guest Editor, *J. Phys. Chem.*, special Festscrift issue honoring Prof. Allen J. Bard, December, 1998 (with Henry S. White)
- Co-Section Editor, *Encyclopedia of Analytical Chemistry* (with Henry S. White)

Significant Administrative Positions

- Chair, UT-Austin Department of Chemistry promotion and tenure committee (2013- 2016 and 2018-present)
- Chair, UT-Austin Department of Chemistry and Biochemistry (2008 – 2010)
- Founding Director, TAMU Center for Integrated Microchemical Systems (2001-2005)
- Director of Graduate Studies, TAMU Chemistry Department (1996-1999)

Significant Academic Advisory Positions

- University of Toronto, Department of Chemistry, committee of visitors (2018)
- DOE Basic Research Needs for Future Nuclear Energy Workshop, participant (2017)
- DOE Workshop on Nitrogen Activation, co-organizer (2016)
- NSF Workshop on Papertronics, participant (2016)
- Pacific Northwest National Laboratory, Bright Ion Source Workshop, participant (2015).
- University of Texas-El Paso NSF PREM external advisory board (2012-2016)
- Arizona State University, Department of Chemistry, committee of visitors (2013)
- NSF Division of Chemical, Bioengineering, Environmental, & Transport Systems (CBET) committee of visitors (2012)
- DOE Council for Chemical and Biochemical Sciences (2011-2017)
- NIH NIBIB Nanotechnology Review Panel (January, 2010)
- Molecular Stamping, SAB (2008 – present)
- University of Illinois Science & Technology Center, External Advisory Board (2006-2011)
- ACS Board-Presidential Task Force on the Multidisciplinarity of Chemistry (2004-2005)

PUBLICATIONS *(WoS h*-index = 97)

Peer-Reviewed Research Publications: Submitted and In-Press

- J. W. Strasser; R. M. Crooks "Ethanol Electrooxidation at 1-2 nm AuPd Nanoparticle" *Nanomaterials* (submitted).

Peer-Reviewed Research Publications: Published

341. J. R. Thompson; R. M. Crooks "Electrokinetic separation techniques for studying nano- and microplastics" *Chem. Sci.* **2022** (DOI: 10.1039/D2SC04019K).

340. K. Huang; R. M. Crooks "Enhanced electrocatalytic activity of Cu-modified, high-index single Pt NPs for formic acid oxidation" *Chem. Sci.* **2022** (DOI: 10.1039/D2SC03433F).

339. Y. Peng; N. Raj; J. W. Strasser; R. M. Crooks "Paper Sensor for the Detection of NT-proBNP Using Silver Nanodisks as Electrochemical Labels" *Nanomaterials* **2022**,*12*, 2254-2266 (DOI: 10.3390/nano12132254).

338. J. W. Strasser; R. M. Crooks "Single Atoms and Small Clusters of Atoms May Accompany Au and Pd Dendrimer-Encapsulated Nanoparticles" *Soft Matter* **2022**, *18*, 5067-5073 (DOI: 10.1039/D2SM00518B).

337. N. Raj; R. M. Crooks "Plastic-based lateral flow immunoassay device for electrochemical detection of NT-proBNP" *Analyst* **2022**, *147*, 2460-2469 (DOI: 10.1039/d2an00685e).

336. J. R. Thompson; R. M. Crooks "Enriching Cations Using Electric Field Gradients Generated by Bipolar Electrodes in the Absence of Buffer" *ChemElectroChem* **2022**, *9*, Art. No. e202200251 (DOI: 10.1002/celc.202200251).

335. N. Raj; R. M. Crooks "Detection efficiency of Ag nanoparticle labels for a heart failure marker using linear and square-wave anodic stripping voltammetry" *Biosensors* **2022**, *12*, 203 (DOI: 10.3390/bios12040203).

334. A. Galyamova; R. M. Crooks "Effect of Intermediate Semiconducting TiOx Thin Films on Nanoparticle-Mediated Electron Transfer: Electrooxidation of CO" *Nanomaterials* **2022**, *12*, 855-868 (DOI: 10.3390/nano12050855).

333. L. M. Wilder; J. R. Thompson; R. M. Crooks "Electrochemical pH Regulation in Droplet Microfluidics" *Lab. Chip* **2022**, *22*, 632 - 640 (DOI: 10.1039/D1LC00952D).

332. K. Huang; K. Shin; G. Henkelman; R. M. Crooks "Correlating Surface Structures and Electrochemical Activity Using Shape-Controlled Single Pt Nanoparticles" *ACS Nano* **2021**, *15*, 17926-17937 (DOI: 10.1021/acsnano.1c06281).

331. N. E. Pollok; Y. Peng; N. Raj; C. Walgama; R. M. Crooks "Dual-Shaped Silver Nanoparticle Labels for Electrochemical Detection of Bioassays" *ACS Appl. Nano. Mater.* **2021**, *4*, 10764-10770 (DOI: 10.1021/acsanm.1c02207).

330. J. R. Thompson; L. M. Wilder; R. M. Crooks "Filtering and continuously separating microplastics from water using electric field gradients formed electrochemically in the absence of buffer" *Chem. Sci.* **2021,** *12***,** 13744 - 13755 (DOI: 10.1039/D1SC03192A).

329. J. W. Strasser; T. J. P. Hersbach; J. Liu; A. S. Lapp; A.I. Frenkel; R. M. Crooks "Electrochemical Cleaning Stability and Oxygen Reduction Reaction Activity of 1-2 nm Dendrimer-Encapsulated Au Nanoparticles" *ChemElectroChem* **2021**,*8* 2545-2555 (DOI:10.1002/celc.202100549).

328. N. E. Pollok; Y. Peng; C. Rabin; I. Richards; R. M. Crooks "Effect of Serum on Electrochemical Detection of Bioassays Having Ag Nanoparticle Labels" *ACS Sensors* **2021**, *6*, 1956-1962 (DOI: 10.1021/acssensors.1c00446).

327. Y. Peng; C. Rabin; C. T. Walgama; N. E. Pollok; L. Smith; I. Richards; R. M. Crooks "Silver Nanocubes as Electrochemical Labels for Bioassays" *ACS Sensors* **2021**, *6*, 1111-1119 (DOI: 10.1021/acssensors.0c02377).

326. J. R. Thompson; C. D. Davies; J. Clausmeyer; R. M. Crooks "Cation-specific Electrokinetic Separations using Prussian Blue Intercalation Reactions" *ChemElectroChem* **2020**, *7*, 4108-4117 (DOI: 10.1002/celc.202001095R2).

325. J. A. Trindell; Z. Duan; G. Henkelman; R. M. Crooks "$Au_xPd_{(300-x)}$ Alloy Nanoparticles for the Oxygen Reduction Reaction in Alkaline Media" *ChemElectroChem* **2020**, *7*, 3824-3831 (DOI: 10.1002/celc.202000971.)

324. L. M. Wilder; P. R. Handali; L. J. Webb; R. M. Crooks "Interactions between Oligoethylene Glycol-Capped AuNPs and Attached Peptides Control Peptide Structure" *Bioconj. Chem.* **2020**, *31*, 2383-2391 (DOI: 10.1021/acs.bioconjchem.0c00447).

323. C. D. Davies; R. M. Crooks "Focusing, sorting, and separating microplastics by serial faradaic ion concentration polarization" *Chem. Sci.* **2020**, *11*, 5547-5558 (DOI: 10.1039/D0SC01931c).

322. A. S. Lapp; R. M. Crooks "Multilayer Electrodeposition of Pt onto 1-2 nm Au Nanoparticles using a Hydride-termination Approach" *Nanoscale* **2020**, *12*, 11026-11039 (DOI: 10.1039/d0nr02929g).

321. A. Galyamova; K. Shin; G. Henkelman; R. M. Crooks "Electrocatalytic Study of the Oxygen Reduction Reaction on Gold Nanoparticles in the Absence and Presence of Interactions with TiO_x Supports" *J. Phys. Chem. C* **2020**, *124*, 10045-10056 (DOI: 10.1021/acs.jpcc.0c02754).

320. H. Guo; J. A. Trindell; H. Li; D. Fernandez; S. M. Humphrey; G. Henkelman; R. M. Crooks "Testing the Predictive Power of Theory for $Pd_xIr_{(100-x)}$ Alloy Nanoparticles for the Oxygen Reduction Reaction" *J. Mater. Chem. A* **2020**, *8*, 8421-8429 (DOI: 10.1039/C9TA13711D).

319. C. Walgama; M. P. Nguyen; L. M. Boatner; I. Richards; R. M. Crooks "Hybrid Paper and 3D-Printed Microfluidic Device for Electrochemical Detection of Ag Nanoparticle Labels" *Lab Chip* **2020**, *20*, 1648-1657 (DOI: 10.1039/D0LC00276C).

318. N. E. Pollok; C. Rabin; C. T. Walgama; L. Smith; I. Richards; R. M. Crooks "Electrochemical Detection of NT-proBNP using a Metalloimmunoassay on a Paper Electrode Platform" *ACS Sensors* **2020**, *5*, 853-860 (DOI: 10.1021/acssensors.0c0016).

317. A. S. Lapp; Z. Duan; G. Henkelman; R. M. Crooks " Combined Experimental and Theoretical Study of the Structure of AuPt Nanoparticles Prepared by Galvanic Exchange" *Langmuir* **2019**, *35*, 16496-16507 (DOI: 10.1021/acs.langmuir.9b03192).

316. N. E. Pollok; C. Rabin; L. Smith; R. M. Crooks "Orientation-Controlled Bioconjugation of Antibodies to Silver Nanoparticles" *Bioconj. Chem.* **2019**, *30*, 3078-3086 (DOI: 10.1021/acs.bioconjchem.9b00737).

315. J. A. Trindell; Z. Duan; G. Henkelman; R. M. Crooks "Well-Defined Nanoparticle Electrocatalysts for the Refinement of Theory" *Chem. Rev.* **2020,** *120*, 814-850 (DOI: 10.1021/acs.chemrev.9b00246).

314. C. D. Davies; S. E. Johnson; R. M. Crooks "Effect of Chloride Oxidation on Local Electric fields in Microelectrochemical Systems" *ChemElectroChem* **2019**, *6*, 4867-4876 (DOI: 10.1002/celc.201901402).

313. L. M. Wilder; W. A. Fies; C. Rabin; L. J. Webb; R. M. Crooks "Conjugation of an α-Helical Peptide to the Surface of Gold Nanoparticles" *Langmuir* **2019**, *35*, 3363-3371 (DOI: 10.1021/acs.langmuir.9b00075).

312. J. Timoshenko; Z. Duan; G. Henkelman; R. M. Crooks; A. I. Frenkel "Solving the Structure and Dynamics of Metal Nanoparticles by Combining X-Ray Absorption Fine Structure Spectroscopy and Atomistic Structure Simulations" *Ann. Rev. Anal. Chem.* **2019** (published on the AR website, DOI: https://doi.org/10.1146/annurev-anchem-061318-114929).

311. M. R. Kogan; N. E. Pollok; R. M. Crooks "Detection of Silver Nanoparticles by Electrochemically-Activated Galvanic Exchange" *Langmuir* **2018**, *34*, 15719-15726 (DOI: 10.1021/acs.langmuir.8b03325).

310. Z. Duan; J. Timoshenko; P. Kunal; S. House; H. Wan; K. Jarvis; C. Bonifacio; J. C. Yang; R. M. Crooks; A. I. Frenkel; S. M. Humphrey; G. Henkelman "Structural Characterization of Heterogeneous Ru-Au Nanoparticles from a Microwave-Assisted Synthesis" *Nanoscale* **2018**, *10*, 22520-22532 (DOI: 10.1039/C8NR04866E).

309. N. Ostojic; Z. Duan; A. Galyamova; G. Henkelman; R. M. Crooks "Electrocatalytic Study of the Oxygen Reduction Reaction at Gold Nanoparticles in the Absence and Presence of Interactions with SnO_x Supports" *J. Am. Chem. Soc.* **2018**, *140*, 13775-13785 (DOI: 10.1021/jacs.8b08036).

308. J. G. Chen; R. M. Crooks; L. C. Seefeldt; K. L. Bren; R. M. Bullock; M. Y. Darensbourg; P. L. Holland; B. Hoffman; M. J. Janik; A. K. Jones; M. G. Kanatzidis; P. King; K. M. Lancaster; S. Lymar; P. Pfromm; W. F. Schneider; R. R. Schrock "Beyond Fossil-Fuel-Driven Nitrogen Transformations" *Science* **2018**, *360*, 873 (DOI: 10.1126/science.aar6611).

307. A. S. Lapp; Z. Duan; N. Marcella; L. Luo; A. Genc: J. Ringnalda; A. I. Frenkel; G. Henkelman; R. M. Crooks "Experimental and Theoretical Structural Investigation of AuPt Nanoparticles Synthesized using a Direct Electrochemical Method" *J. Am. Chem. Soc.* **2018**, *140*, 6249-6259 (DOI: 10.1021/jacs.7b12306).

306. K. Huang; J. Clausmeyer: L. Luo; K. Jarvis; R. M. Crooks "Shape-controlled Electrodeposition of Single Pt Nanocrystals onto Carbon Nanoelectrodes" *Faraday Discuss.* **2018**, *210*, 267-280 (DOI: 10.1039/C8FD00018B).

305. H. Li; L. Luo; P. Kunal; C. S. Bonifacio; Z. Duan; J. C. Yang; S. M. Humphrey; R. M. Crooks; G. Henkelman "Oxygen Reduction Reaction on Classically Immiscible Bimetallics: A Case Study of RhAu" *J. Phys. Chem. C.* **2018**, *122*, 2712-2716 (DOI: 10.1021/acs.jpcc.7b10974).

304. J. A. Trindell; J. Clausmeyer; R. M. Crooks "Size Stability and H_2/CO Selectivity for Au Nanoparticles during Electrocatalytic CO_2 Reduction" *J. Am. Chem. Soc.* **2017**, *139*, 16161-16167 (DOI: 10.1021/jacs.7b06775).

303. L. Luo; J. Timoshenko; A. S. Lapp; A. I. Frenkel; R. M. Crooks "Structural Characterization of Rh and RhAu Dendrimer-Encapsulated Nanoparticles" *Langmuir* **2017**, *33*, 12434-12442 (DOI: 10.1021/acs.langmuir.7b02857).

302. M. J. Anderson; N. Ostojic; R. M. Crooks "Microelectrochemical Flow Cell for Studying Electrocatalytic Reactions on Oxide-Coated Electrodes" *Anal. Chem.* **2017**, *89*, 11027-11035 (DOI: 10.1021/acs.analchem.7b03016).

301. P. R. DeGregory; J. Tapia; T. Wong; J. Villa; I. Richards; R. M. Crooks "Managing Heart Failure at Home with Point-of-Care Diagnostics" *IEEE J. Trans. Eng. Health Med.* **2017**, *5*, 1-6. (DOI: 10.1109/JTEHM.2017.2740920).

300. M. J. Anderson; R. M. Crooks "Microfluidic Surface Titrations of Electroactive Thin Films" *Langmuir* **2017**, *33*, 7053-7061 (DOI: 10.1021/acs.langmuir.7b01542).

299. C. D. Davies; E. Yoon; R. M. Crooks "Continuous Redirection and Separation of Microbeads via Faradaic Ion Concentration Polarization" *ChemElectroChem* **2018**, *5*, 877-884 (DOI: 10.1002/celc.201700450).

298. E. Yoon; C. D. Davies; T. A. Hooper; R. M. Crooks "Photoelectrochemical Ion Concentration Polarization: Membraneless Ion Filtration Based on Light-Driven Electrochemical Reactions" *Lab Chip*, **2017**, *17*, 2491-2499 (DOI: 10.1039/C7LC00455A).

297. A. D. Castañeda; N. J. Brenes; A. Kondajji; R. M. Crooks "Detection of microRNA by Electrocatalytic Amplification: a General Approach for Single-Particle Biosensing" *J. Am. Chem. Soc.* **2017**, *139*, 7657-7664 (DOI: 10.1021/jacs.7b03648).

296. L. Luo; Z. Duan; H. Li; J. Kim; G. Henkelman; R. M. Crooks "Tunability of Adsorbate Binding on Bimetallic Alloy Nanoparticles for Optimization of Catalytic Hydrogenation" *J. Am. Chem. Soc.* **2017**, *139*, 5538-5546 (DOI: 10.1021/jacs.7b01653).

295. X. Li; L. Luo; R. M. Crooks "Faradaic Ion Concentration Polarization on a Paper Fluidic Platform" *Anal. Chem.* **2017**, 89, 4294-4300 (DOI: 10.1021/acs.analchem.7b00365).

294. R. M. Crooks "Concluding Remarks: Single Entity Electrochemistry One Step at a Time" *Faraday Discuss.* **2016**, *193*, 533 - 547 (DOI: 10.1039/c6fd00203j).

293. B. Wang; C.-H. Lee; E. Johnson; C. Kluwe; J. Cunningham; H. Tanno; R. M. Crooks; G. Georgiou; A. Ellington "Discovery of High Affinity anti-Ricin Antibodies by B Cell Receptor Sequencing and by Yeast Display of Combinatorial VH:VL Libraries from Immunized Animals" *MAbs* **2016**, *8*, 1035-1044 (DOI: 10.1080/19420862.2016.1190059).

292. N. Ostojic; R. M. Crooks "Electrocatalytic Reduction of Oxygen on Platinum Nanoparticles in the Presence and Absence of Interactions with the Electrode Surface" *Langmuir* **2016**, *32*, 9727-9735 (DOI: 10.1021/acs.langmuir.6b02578), ACS Editor's Choice selection.

291. A. B. Clubb; M. J. Eller; S. V. Verkhoturov; E. A. Schweikert; R. M. Anderson; R. M. Crooks "Characterization of Nanometric Inclusions via Nanoprojectile Impacts" *J. Vac. Sci. Technol. B* **2016**, *34*, Art. No. 03H104 (DOI: 10.1116/1.4940152).

290. L. Luo; L. Zhang; Z. Duan; A. S. Lapp; G. Henkelman; R. M. Crooks "Efficient CO Oxidation using Dendrimer-Encapsulated Pt Nanoparticles Activated with <2% Cu Surface Atoms" *ACS Nano* **2016**, *10*, 8760-8769 (DOI: 10.1021/acsnano.6b04448).

289. A. D. Castañeda; D. A. Robinson; K. J. Stevenson; R. M. Crooks "Electrocatalytic amplification of DNA-modified nanoparticle collisions via enzymatic digestion" *Chem. Sci.* **2016**, *7*, 6450-6457 (DOI: 10.1039/c6sc02165d).

288. D. Robinson; A. Kondajji; A. Castañeda; R. Dasari; R. M. Crooks; K. J. Stevenson "Addressing Colloidal Stability for the Unambiguous Electroanalysis of Single Nanoparticle Impacts" *J. Phys. Chem. Lett.* **2016**, *7*, 2512-2517 (DOI: 10.1021/acs.jpclett.6b01131).

287. Y. Li; R. M. Anderson; Z. Duan; S. Chill; R. M. Crooks; G. Henkelman; A. I. Frenkel "Thermal Properties of Size-Selective Nanoparticles: Effect of the Particle Size on Einstein Temperature" *J. Phys.: Conf. Ser.* **2016**, *712*, Art. No. 012063 (DOI: 10.1088/1742-6596/712/1/012063).

286. D. Hlushkou; K. N. Knust; R. M. Crooks; U. Tallarek "Numerical Simulation of Electrochemical Desalination" *J. Phys.: Condens. Matter* **2016**, *28*, Art. No. 194001 (DOI: 10.1088/0953-8984/28/19/194001).

285. Z. Duan; Y. Li; J. Timoshenko; S. T. Chill; R. M. Anderson; D. F. Yancey; A. I. Frenkel; R. M. Crooks; G. Henkelman "A Combined Theoretical and Experimental EXAFS Study of the Structure and Dynamics of Au_{147} Nanoparticles" *Catal. Sci. Technol.* **2016**, 6, 6879-6885 (DOI: 10.1039/C6CY00559D).

284. N. Ostojic; J. H. Thorpe: R. M. Crooks "Electron Transfer Facilitated by Dendrimer-Encapsulated Pt Nanoparticles Across Ultrathin, Insulating Oxide Films" *J. Am. Chem. Soc.* **2016**, *138*, 6829-6837. DOI: 10.1021/jacs.6b03149).

283. J. C. Cunningham; P. R. DeGregory; R. M. Crooks "New Functionalities for Paper-Based Sensors Lead to Simplified User Operation, Lower Limits of Detection, and New Applications" *Ann. Rev. Anal. Chem.* **2016**, *9*, 183-202 (DOI: 10.1146/annurev-anchem-071015-041605).

282. P. R. DeGregory; Y.-J. Tsai; K. Scida, I. Richards; R. M. Crooks "Quantitative Electrochemical Metalloimmunoassay for TFF3 in Urine using a Paper Analytical Device" *Analyst*, **2016**, *141*, 1734-1744 (DOI: 10.1039/c5an02386f).

281. R. M. Crooks "Principles of Bipolar Electrochemistry" *ChemElectroChem* **2016**, *3*, 357-359 (DOI: 10.1002/celc.201500549).

280. R. M. Anderson; L. Zhang; D. Wu; S. R. Brankovic; G. Henkelman; R. M. Crooks "A Theoretical and Experimental In-Situ Electrochemical Infrared Spectroscopy Study of Adsorbed CO on Pt Dendrimer-Encapsulated Nanoparticles" *J. Electrochem. Soc.* **2016**, *163*, H3061-H3065. (DOI: 10.1149/2.0061604jes).

279. J. C. Cunningham; M. R. Kogan; Y.-J. Tsai; L. Luo; I. Richards: R. M. Crooks "Paper-based Sensor for Electrochemical Detection of Silver Nanoparticle Labels by Galvanic Exchange" *ACS Sensors* **2016**, *1*, 40-47. (DOI: 10.1021/acssensors.5b00051).

278. T. M. Alligrant; R. Dasari; K. J. Stevenson; R. M. Crooks "Electrocatalytic Amplification of Single Nanoparticle Collisions using DNA-modified Surfaces" *Langmuir* **2015**, *31*, 11724-11733 (DOI: 10.1021/acs.langmuir.5b02620).

277. H. Liu; W. An; Y. Li; A. I. Frenkel; K. Sasaki; C. Koenigsmann; D. Su; R. M. Anderson, R. M. Crooks; R. R. Adzic; P. Liu; S. S. Wong "In situ Probing of the Active Site Geometry of Ultrathin Nanowires for the Oxygen Reduction Reaction" *J. Am. Chem. Soc.* **2015**, *137*, 12597-12609 (DOI: 10.1021/jacs.5b07093).

276. X. Li; L. Luo; R. M. Crooks "Low-Voltage Paper Isotachophoresis Device for DNA Focusing" *Lab Chip* **2015**, *15*, 4090-4098 (DOI: 10.1039/c5lc00875a).

275. X. Li; K. Scida; R. M. Crooks "Detection of Hepatitis B Virus DNA with a Paper Electrochemical Sensor" *Anal. Chem.* **2015**, *87*, 9009-9015 (DOI: 10.1021/acs.analchem.5b02210).

274. J. C. Cunningham; K. Scida; M. R. Kogan; B. Wang; A. D. Ellington; R. M. Crooks "Paper Diagnostic Device for Quantitative Electrochemical Detection of Ricin at Picomolar Levels" *Lab Chip* **2015**, *15*, 3707-3715 (DOI 10.1039/c5lc00731c).

273. J. J. Yoo; J. Kim; R. M. Crooks "Direct Electrochemical Detection of Individual Collisions between Magnetic Microbead/Silver Nanoparticle Conjugates and a Magnetized Ultramicroelectrode" *Chem. Sci.* **2015**, *6*, 6665-6671 (DOI: 10.1039/c5sc02259b).

272. D. A. Robinson; J. J. Yoo; A. D. Castañeda; B. Gu; R. Dasari; R. M. Crooks; K. J. Stevenson "Increasing the Collision Rate of Particle Impact Electroanalysis with Magnetically Guided Pt-decorated Iron Oxide Nanoparticles" *ACS Nano* **2015**, *9*, 7583–7595 (DOI: 10.1021/acsnano.5b02892).

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8. L. Sun; R. M. Crooks "Method and Apparatus for Nanoparticle Transport and Detection" U.S. Patent No. US 7,077,939 issued 18 July, 2006.

7. R. M. Crooks; T. Ito; L. Sun; J. Dai; R. R. Dhopeshwarkar "System and Method for Electrokinetic Trapping and Concentration Enrichment of Analytes in a Microfluidic Channel" U.S. Patent Application 10/916,320, Pub. No. US 2005/0034990 A1 published 17 February, 2005.

6. R. M. Crooks; L. Sun; D. Albagli "Photonic Signal Reporting of Electrochemical Events" U.S. Patent Application 10/625,791, Pub. No. US 2004/0129579 A1 published 8 July, 2004.

5. R. M. Crooks; W. Zhan; J. Alvarez "Photonic Signal Reporting of Electrochemical Events" Patent Application PCT/US2003/022932, Int. Pub. No. WO 2004/010105 published 29 January, 2004.

4. M. Zhao; H. S. Lackritz; R. M. Crooks "Integrated Microdevices for Conducting Chemical Operations" U.S. Patent Application 09/957,579, Pub. No. US 2002/0122747 A1 published 5 September, 2002.

3. M. Zhao; A. Ricco; H. S. Lackritz; T. O. Bjornson; R. M. Crooks; U. Nguyen; G. Zhu; P. Vanysek "Microfluidic Chip having Integrated Electrodes" Patent Application PCT/US01/29307, Int. Pub. No. WO 2002/024322 A2 published 28 March, 2002.

2. R. M. Crooks; A. J. Ricco; M. Wells "Dendrimer Monolayer Films" U.S. Patent No. 6,312,809 issued 6 November, 2001.

1. R. M. Crooks; T. Kim; K. C. Chan; J. K. Schoer "Polymeric Self-Assembled Mono- and Multilayers and Their Use in Photolithography" U.S. Patent No. 5,885,753 issued 23 March, 1999.

INVITED PRESENTATIONS

General Lectures

4. Society for Analytical Chemists of Pittsburgh (Pittsburgh, PA, April, 2015). "Desalination: Needs, Current State of the Art, and a New Electrochemical Approach"
3. Faulkner Nano Science and Technology Building dedication (The University of Texas at Austin, Austin, TX, October, 2011). "Inspiring Nanoscience"
2. Fall Banquet, Texas A&M University section of the ACS (Texas A&M University, College Station, TX, November, 2010). "What Exactly Happened with that Dang Kite Experiment on June 15, 1752?"
1. Fall Commencement Address, College of Natural Sciences (The University of Texas at Austin, Austin, TX, December, 2008) "Two Parables"

Lectureships

9. Pittsburg State University (Pittsburg, KS, May, 2017) Distinguished Polymer Lecturer Series, "Using Dendrimers to Tune the Catalytic Reactivity of Nanoparticles" and "Development of Electrocatalytic Models for Testing Theory"
8. Iowa State University (Ames, IA, March, 2017) "Development of Electrocatalytic Models for Testing Theory" 27th Annual Fassel Lecture
7. University of Wisconsin (Madison, WI, October, 2013) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis" Meloche Lectureship
6. Texas A&M University, Frontiers in Chemical Research (College Station, TX, October, 2011). Three lectures collectively titled "Electrocatalysis and Microanalysis"
5. Society for Analytical Chemists of Pittsburgh (Pittsburgh, PA, September, 2005). "Synthesis, Characterization, and Electrocatalysis using Dendrimer-Encapsulated Catalysts"

4. University of Utah (Salt Lake City, UT, November, 2002). Departmental colloquium. "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Applications to Catalysis"
3. University of Wyoming (Laramie, WY, July, 2000). Summer Seminar: five lectures collectively titled "Adventures in Nanotechnology".
2. Electrochemical Society, Chicago Section (Lisle, IL, December, 1997). "Interfacial Materials for Array-Based Chemical Sensors"
1. Senior Technical Meeting: ACS Puerto Rico Section (Lajas, Puerto Rico, November, 1995). "Chemical Sensors and Interfacial Design"

Plenary/Keynote Lectures

13. 44th Annual Naff Symposium (Lexington, KY, March, 2018) "Quantitative electrochemical detection of analytes at sub-picomolar levels using a simple paper sensor"
12. 6th Annual ECS Montreal Student Symposium (Montreal, Canada, June, 2016) "Quantitative electrochemical detection of biological analytes at sub-picomolar levels using a simple paper sensor"
11. Chinese Biomedical Engineering Meeting (Nanjing, China, October, 2015) "Separations on Paper Analytical Devices: Electrophoresis and Isotachophoresis"
10. ElectroChem 2015 (Durham, UK, September, 2015) "Quantitative Electrochemical Detection of Analytes at Sub-picomolar Levels using a Simple Paper Sensor"
9. MicroTAS (San Antonio, TX, October, 2014) "Electrochemically Mediated Desalination"
8. The Korean Federation of Analytical Science (Ilsan, So. Korea, June, 2014) "Microelectrochemical Paper Diagnostic Devices"
7. Dasan Conference on Bio & Eco Sensing Technology for U-health and Environment (Jeju, So. Korea, November, 2013) "Microelectrochemical Paper Diagnostic Devices"
6. Advances in Microfluidics & Nanofluidics 2013 (South Bend, IN, May, 2013) "Microelectrochemical Paper Diagnostic Devices"
5. Smart Surfaces 2012: Solar and BioSensor Applications (Dublin, Ireland, March, 2012) "Self-Powered Biosensor Platforms Fabricated by Origami"
4. 13th Instrumental Analysis Conference (Barcelona, Spain, November, 2011) "Bipolar Electrodes: Fundamentals, Sensing, and Concentration Enrichment in Microelectrochemical Systems″
3. Third Meeting on Dendrimers (EDEN3) (Ciudad Real, Spain, Februrary, 2011) "Synthesis of Core-Shell Dendrimer-Encapsulated Nanoparticles and Their Electrocatalytic Properties"
2. Simpósio Brasileiro de Eletroquímica e Eletroanalítca (SIBEE XVII) (Fortaleza, Brazil, April, 2009) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
1. Fifth International Society of Electrochemistry Spring Meeting (Dublin, Ireland, May, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticle"

Invited International Presentations

49. University of Paris (Paris, France, March, 2020) "Why Electrochemistry Matters"
48. University of Paris (Paris, France, March, 2020) "Development of an Electrochemical Paper Sensor for Heart Failure"
47. University of Paris (Paris, France, March, 2020) "Membrane-Free Separations using Electric Fields "
46. University of Paris (Paris, France, March, 2020) "Development of Electrocatalytic Models for Testing Theory"
45. Leiden University (Leiden, The Netherlands, December, 2018) "Development of Electrocatalytic Models for Testing Theory"
44. Faraday Discussion on Electrochemistry at Nano-Interfaces (Bath, England, June, 2018) "Shape-controlled electrodeposition of single Pt nanocrystals onto carbon nanoelectrodes"
43. NIH-IEEE Special Topics Conference on Healthcare Innovations and Point of Care Technologies (Cancun, Mexico, November, 2016) "Quantitative electrochemical detection of the heart failure marker NT-proBNP using a simple paper-based sensor"
42. Faraday Discussion on Single Entity Electrochemistry (York, UK, August, 2016) "State of the art electrochemical single entity detection"
41. University of Liverpool (Liverpool, UK, August, 2016) "Quantitative electrochemical detection of analytes at picomolar levels using a simple paper sensor"
40. 2016 International Symposium on Analytical Chemistry Frontiers & China-US Analytical Chemistry Workshop (Xiamen, China, June, 2016) "Paper Fluidic Biosensors for Point-of-Care Health Monitoring"
39. Nanjing University (Nanjing, China, October, 2015) "Quantitative electrochemical detection of analytes at picomolar levels using a simple paper sensor"
38. Tsinghua University (Beijing, China, October, 2015) "Quantitative electrochemical detection of analytes at picomolar levels using a simple paper sensor"
37. University of Calgary (Calgary, Canada, September, 2015) "Well-defined Model Electrocatalysts for Direct Comparison of Theory and Experiment"
36. Korea Research Institute of Chemical Technology (Seoul, So. Korea, November, 2013) "Bipolar electrodes: Chemical sensing and catalyst screening"
35. Kyung Hee University (Seoul, So. Korea, November, 2013) "Microelectrochemical Paper Diagnostic Devices"
34. Korean Electrochemical Society (Daejon, So. Korea, November, 2013) "Bipolar Electrodes: Fundamentals and Applications"
33. University of Bordeaux (Bordeaux, France, September, 2012) "Bipolar electrodes: concentration, separation and detection in microelectrochemical systems"
32. University of Geneva (Geneva, Switzerland, June, 2011) "Sensing and Concentration Enrichment using Bipolar Electrodes"
31. Mátrafüred 2011 International Conference on Electrochemical Sensors (Dobogókö, Hungary, June, 2011) "Electrochemical Sensing Using Bipolar Electrodes"

30. Joint Meeting ElecNano[4] - 7th ECHEMS (Paris, France, May, 2011) "Core-Shell Dendrimer-Encapsulated Nanoparticles: Theory, Synthesis, Characterization, and Electrocatalysis"
29. The Hong Kong Polytechnic University (Hong Kong, December, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
28. Fifth International Dendrimer Symposium (Toulouse, France, August, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
27. MESA+ Institute for Nanotechnology & University of Twente (Twente, The Netherlands, June, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
26. University of Warwick (Warwick, UK, June, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
25. Second reunión de la División de Nanociencia y Nanotecnología (DINANO) de la Sociedad Mexicana de Fisica (SMF) (Vera Cruz, Mexico, May, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticle"
24. Workshop on Surface Reactivity and Nanocatalysis (Ebeltoft, Denmark, June, 2006) "Solution routes to nanoparticle synthesis"
23. Simon Fraser University (Victoria, BC, Canada, March, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
22. University of British Columbia (Vancouver, BC, Canada, March, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
21. University of Victoria (Victoria, BC, Canada, March, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
20. Université de Montréal (Montreal, December, 2005) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
19. McGill University (Montreal, December, 2005) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
18. Université du Québec à Montréal (Montreal, December, 2005) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
17. The 8th SPSJ International Polymer Conference (Fukuoka, Japan, July, 2005) "Dendrimer-Encapsulated Nanoparticles: Application to the Oxygen Reduction Reaction"
16. NATO Advanced Research Workshop on Nanocomposites for a Secure Society (Ouranoupolis, Greece, May, 2005) "Analytical Applications of Single-Pore Membranes Based on Carbon Nanotubes"
15. Leopoldina Meeting (Heidelberg, Germany, March, 2005) "Dendrimer-Encapsulated Bimetallic Nanoparticles: Synthesis, Characterization, and Applications to Catalysis"

14. Kyoto University (Kyoto, Japan, February, 2004) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
13. The Second International Workshop on Microchemical Plants (Hyogo, Japan, February, 2004) "Electrochemical Detection and Photonic Reporting in a Microchemical System"
12. University of Alberta (Edmonton, Alberta, Canada, June, 2001) "Dendrimer-Encapsulated Nanoparticles: Applications to Catalysis"
11. First International Symposium on Integrated Molecular Systems (Pohang, Korea, February, 2001) "Dendrimer Encapsulated Nanoparticles: Synthesis, Properties, Catalysis, and Luminescence"
10. National Institute for Advanced Interdisciplinary Research (Tsukuba, Japan, February, 2001) "Dendrimer Encapsulated Nanoparticles: Synthesis, Properties, Catalysis, and Luminescence"
9. Second International Conference on Supramolecular Chemistry and Technology (Leuven, Belgium, September, 2000) "Dendrimer-Encapsulated Nanoparticles: Catalysis and Luminescence"
8. German-American Frontiers of Chemistry Symposium (Kloster Seeon, Germany).
7. Joint International Meeting of The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics (Honolulu, HI, October, 1999) "Electrochemistry using Single Carbon Nanotubes and Applications to Scanning Electrochemical Microscopy"
6. Joint International Meeting of The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics (Honolulu, HI, October, 1999) "Catalysis Using Dendrimer-Encapsulated Metal Nanoparticles"
5. International Society of Electrochemistry (Pavia, Italy, September, 1999) "Electrocatalysts Based on Dendrimer-Encapsulated, Nanoscopic Transition Metal Particles"
4. NATO Advanced Research Workshop on Supramolecular Science (La Spezia, Italy, September, 1998) "Dendrimer-Encapsulated Metal Nanoclusters for Heterogeneous and Homogeneous Catalysis"
3. First NIMC International Symposium on Photoreaction Control and Photofunctional Materials (Tsukuba, Japan, March, 1998) "Synthesis, Characterization, and Applications of Photopolymerizable Self-Assembled Monolayers"
2. University of Sheffield (Sheffield, UK, September, 1997) "Interfacial Design for Chemical Sensor Arrays"
1. Faraday Discussion No. 107 (Leicester, UK, September, 1997) "Interactions between Self-Assembled Monolayers and an Organophosphonate"

U. S. Colleges and Universities

114. Rice University (Houston, TX, October, 2019) "Development of Electrocatalytic Models for Testing Theory"
113. Johns Hopkins University (Baltimore, MD, May, 2019) "Development of Electrocatalytic Models for Testing Theory"

112. University of Illinois (Urbana, IL, April, 2018) "Development of Electrocatalytic Models for Testing Theory"
111. University of California (Santa Barbara, CA, March, 2018) "Quantitative electrochemical detection of biological analytes at sub-picomolar levels using a simple paper sensor"
110. Clarkson University (Potsdam, NY, April, 2017) "Development of Electrocatalytic Models for Testing Theory"
109. Clemson University (Clemson, SC, March, 2017) "Development of Electrocatalytic Models for Testing Theory"
108. Purdue University (West Lafayette, IN, April, 2016) "Quantitative electrochemical detection of biological analytes at sub-picomolar levels using a simple paper sensor"
107. Northwestern University (Evanston, IL, March, 2016) "Development of Electrocatalytic Models for Testing Theory"
106. Georgia Tech (Atlanta, GA, May, 2015) "Well-defined Model Electrocatalysts for Direct Comparison of Theory and Experiment"
105. University of Arizona (Tucson, AZ, April, 2015) "Disposable Sensors for Defense and Health"
104. University of California, Berkeley (Berkeley, CA, November, 2014) "Paper Diagnostic Devices for Electrochemical Detection of Biological Weapons"
103. North Carolina State University (Raleigh, NC, November, 2014) "Paper Diagnostic Devices for Electrochemical Detection of Biological Weapons"
102. Penn St. University, Department of Chemistry (State College, PA, September, 2014) "Teaching an Old Dog a Few New Tricks: Hollow Channels, Sliding Paper, and Non-Enzymatic Amplification for Disposable Electrochemical Sensors"
101. St. Louis University, Department of Chemistry (St. Louis, MO, September, 2014) "Teaching an Old Dog a Few New Tricks: Hollow Channels, Sliding Paper, and Non-Enzymatic Amplification for Disposable Electrochemical Sensors"
100. Texas A&M University, Department of Chemistry (College Station, TX, June, 2014) "Well-Defined Model Electrocatalysts for Direct Comparison of Theory and Experiment"
99. Valparaiso University, Department of Chemistry (Valparaiso, IN, April, 2014) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"
98. Ohio State University, Department of Chemistry and Biochemistry (Columbus, OH, March, 2014) "Bipolar Electrochemistry: Fundamentals and Applications to Materials Screening and Seawater Desalination"
97. The University of Texas at Austin, Department of Physics (Austin, TX, January, 2014) "Bipolar electrodes: principles and applications to ion separation and desalination"
96. University of Maryland, Baltimore County (Baltimore, MD, April, 2013) "New Concepts for Paper-Based Analytical Devices"
95. Georgia State University (Atlanta, GA, November, 2012) "Bipolar electrodes: concentration, separation and detection in microelectrochemical systems"
94. University of Georgia (Athens, GA, November, 2012) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"

93. Notre Dame University (South Bend, IN, February, 2012) "Bipolar electrodes: concentration, separation and detection in microelectrochemical systems"
92. The University of Texas at San Antonio (San Antonio, TX, January, 2012) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
91. University of Houston (Houston, TX, December, 2011) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"
90. Arizona State University (Tempe, AZ, November, 2011) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
89. Indiana University (Bloomington, IN, April, 2011) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
88. University of Nebraska (Lincoln, NB, March, 2011) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
87. University of North Texas (Denton, TX, March, 2011) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
86. Rutgers University (New Brunswick, NJ, October, 2010) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"
85. University of Illinois (Urbana, IL, April, 2010) "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels"
84. University of Pennsylvania (Philadelphia, PA, April, 2010) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"
83. The University of Texas at Austin ACS Student Chapter (Austin, TX, February, 2010) "Catalytic Properties of Nanoparticles"
82. Texas State University (San Marcos, TX, November, 2009) "Bipolar electrodes: a simple means for concentration, separation and detection of analytes in microfluidic channels"
81. Cornell University (Ithaca, NY, October, 2009) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
80. University of Washington (Seattle, WA, April, 2009) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
79. Virginia Commonwealth University (Richmond, VA, April, 2009) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
78. University of Kansas (Lawrence, KS, October, 2008) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
77. Kansas State University (Manhattan, KS, October, 2008) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
76. Brown University (Providence, RI April, 2008) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"

75. Penn State University (State College, PA, April, 2008) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
74. Gustavus Adolphus College (St. Peter, MN, October, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
73. University of Minnesota (Minneapolis, MN, October, 2007) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
72. Princeton University (Princeton, NJ, April, 2007) "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Electrocatalysis"
71. Trinity University (San Antonio, TX, November, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
70. Southern Illinois University (Carbondale, IL, April, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
69. University of Wyoming (Laramie, WY, April, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
68. Colorado State University (Ft. Collins, CO, April, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
67. University of Southern Mississippi (Hattiesburg, MS, March, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
66. Georgetown University (Washington, DC, March, 2006) "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
65. University of California, Davis (Davis, CA, February, 2006) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
64. University of California, Riverside (Riverside, CA, January, 2006) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
63. University of California, Irvine (Irvine, CA, January, 2006) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
62. University of Louisville (Louisville, KY, April, 2005) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
61. University of Florida (Gainesville, FL, December, 2004) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
60. University of Maryland (College Park, MD, March, 2004) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
59. Vanderbilt University (Nashville, TN, March, 2004) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
58 University of Texas-Austin (Austin, TX, January, 2004) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
57. University of Delaware (Newark, DE, December, 2003) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"

56. Purdue University (West Lafayette, IN, December, 2003) "Electrochemical Detection and Photonic Reporting in Microfluidic-Based Chemical Sensors"
55. University of North Carolina (Chapel Hill, NC, April, 2003) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
54. Texas A&M University (Dept. of Chemical Engineering, College Station, TX, April, 2003)" Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
53. Michigan State University (East Lansing, MI, January, 2003) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
52. Northwestern University (Evanston, IL, October, 2002) "Dendrimer-Encapsulated Catalysts"
51. University of Northern Iowa (Cedar Falls, IA, October, 2002) "Dendrimer-Encapsulated Catalysts"
50. University of Miami (Coral Gables, FL, February, 2002) "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"
49. Oklahoma State University (Stillwater, OK, November, 2001) "Dendrimer-Encapsulated Catalysts"
48. Auburn University (Auburn, AL, October, 2001) "Dendrimer-Encapsulated Catalysts"
47. University of Washington (Seattle, WA, May, 2001) "Dendrimer-Encapsulated Catalysts"
46. Duquesne University (Pittsburgh, PA, October, 2000) "Dendrimer-Encapsulated Nanoparticles: Catalysis and Luminescence"
45. Washington University (St. Louis, MO, September, 2000) "Dendrimer-Encapsulated Nanoparticles: Catalysis and Luminescence"
44. University of California, Irvine (Irvine, CA, April, 2000) "Dendrimer-Encapsulated Metal and Semiconductor Nanoparticles"
43. University of South Carolina (Columbia, SC, November, 1999) "Catalysis Using Dendrimer-Encapsulated Metal Nanoparticles"
42. Furman University (Greenville, SC, November, 1999) "Catalysis Using Dendrimer-Encapsulated Metal Nanoparticles"
41. Indiana University (Bloomington, IN, April, 1999) "Catalysis Using Dendrimer-Encapsulated Metal Nanoparticles"
40. University of Kentucky (Lexington, KY, February, 1999) "Chemical Sensors and Interfacial Design"
39. University of Alabama (Tuscaloosa, AL, January, 1999) "Hyperbranched Polymers: New Materials for Chemical Sensing and Biological Chemistry"
38. Truman State University (Kirksville, MO, October, 1998) "Interfacial Design for Chemical Sensor Arrays"
37. Grinnell College (Grinnell, IA, October, 1998) "Interfacial Design for Chemical Sensor Arrays"
36. Northwestern University (Evanston, IL, October, 1998) "Electrocatalysis using Dendrimer-Encapsulated Metal Nanoclusters"

35. Colorado State University (Ft. Collins, CO, August, 1998). "Electrocatalysis using Dendrimer-Encapsulated Metal Nanoclusters"
34. Washington State University (Pullman, WA, April, 1998). "Interfacial Design for Chemical Sensor Arrays"
33. University of Florida (Gainesville, FL, March, 1998). "Interfacial Design for Chemical Sensor Arrays"
32. University of Iowa (Iowa City, IA, February, 1998). "Interfacial Design for Chemical Sensor Arrays"
31. University of Wisconsin (Madison, WI, February, 1998). "Interfacial Design for Chemical Sensor Arrays"
30. University of Houston (Houston, TX, November, 1997). "Interfacial Design for Chemical Sensor Arrays"
29. University of Delaware (Newark, DE, March, 1997). "Chemical Sensors and Interfacial Design"
28. University of Michigan (Ann Arbor, MI, January, 1997). "Chemical Sensors and Interfacial Design"
27. Louisiana State University, CAMD (Baton Rouge, LA, August, 1996). "Chemical Sensors and Interfacial Design"
26. University of Illinois, Department of Chemistry (Urbana, IL, April, 1996). "Chemical Sensors and Interfacial Design" (Invitation by students).
25. University of Minnesota, Department of Chemical Engineering and Materials Science (Minneapolis, MN, February, 1996). "The Molecular Basis of Adhesion"
24. Auburn University (Auburn, AL, February, 1995). "Fabrication of Electrodes and Electrode Arrays using Self-Assembled Monolayer Resists"
23. Georgia Institute of Technology (Atlanta, GA, February, 1995). "Fabrication of Electrodes and Electrode Arrays using Self-Assembled Monolayer Resists"
22. University of Georgia (Athens, GA, February, 1995). "Fabrication of Electrodes and Electrode Arrays using Self-Assembled Monolayer Resists"
21. University of Texas (Dallas, TX, April, 1994). "Interactions Between Monolayers and Molecules"
20. University of North Texas (Denton, TX, April, 1994). "STM of Thin Organic Films"
19. University of Utah (Salt Lake City, UT, February, 1994). "Interactions Between Monolayers and Molecules"
18. University of Mississippi (University, MS, January, 1994). "Interactions Between Monolayers and Molecules"
17. University of Wisconsin (Madison, WI, December, 1993). "Interactions Between Monolayers and Molecules"
16. University of Illinois (Urbana, IL, December, 1992). "Nanometer-resolved interactions between scanning probes, organic monolayers, and gold substrates"
15. Texas A&M University (College Station, TX, October, 1992). "Nanometer-resolved interactions between scanning probes, organic monolayers, and gold substrates"

14. University of Wyoming (Laramie, WY, September, 1992). "Interactions Between Probe Molecules and Organized Monolayers: A New Paradigm for Molecular Recognition"
13. Colorado State University (Ft. Collins, CO, September, 1992). "Interactions Between Probe Molecules and Organized Monolayers: A New Paradigm for Molecular Recognition"
12. University of Texas at Austin (Austin, TX, April, 1992). "Organized Monolayers on Surfaces: New Functions and Structural Insights"
11. San Diego State University (San Diego, CA, November, 1991). "Organized Monolayers on Surfaces: New Functions and Structural Insights"
10. Northern Arizona University (Flagstaff, AZ, November, 1991) "Organized Monolayers on Surfaces: New Functions and Structural Insights"
9. University of Texas at El Paso (El Paso, TX, November, 1991). "Materials Chemistry Aspects of Electrochemistry"
8. University of New Mexico, Center for High Technology Materials (Albuquerque, NM, April, 1990). "Microelectrochemical Devices: Transistors, Diodes, and Sensors"
7. New Mexico State University (Las Cruces, NM, February, 1990). "Solid State Electrochemical Devices Employing a Solid Polymer Electrolyte"
6. University of Pittsburgh (Pittsburgh, PA, April, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"
5. Michigan State University (East Lansing, MI, March, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"
4. Indiana University (Bloomington, IN, February, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"
3. Colorado State University (Ft. Collins, CO, January, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"
2. Pennsylvania State University (University Park, PA, January, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"
1. University of Wisconsin (Madison, WI, January, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of High Conductivity"

Government Laboratories & Agencies, and Businesses

21. DOE (Annapolis, MD, July, 2015) "Testing the Predictive Power of Theory for Determining the Structure and Activity of Nanoparticle Electrocatalysts: Design of Pt-shell Nanoparticles with Alloy Cores for the Oxygen Reduction Reaction".
20. Eli Lilly and Company (Indianapolis, IN, July, 2015) "Quantitative electrochemical detection of analytes at picomolar levels using a simple paper sensor".
19. Naval Research Laboratory (Washington, DC, April, 2013) "New Concepts for Paper-Based Analytical Devices"
18. Intel Corporation (Santa Clara, CA, March, 2010) "Bipolar Electrodes: a Simple Means for Concentration, Separation, and Detection of Analytes in Microfluidic Channels"
17. 3M Innovation Center (Austin, TX, September, 2006) "Electrochemical Detection and Photonic Reporting in Microfluidic-Based Chemical Sensors"

16. DuPont (Wilmington, DE, April, 2005) "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
15. GlaxoSmithKline (RTP, NC, April, 2003) "Microfluidic Biosensors: Reactions, Mixing, and Detection"
14. WTEC Biosensing Study (NIH, Bethesda, MD, December, 2002) "Bio/Chemical Sensing using Thin Film Recognition Elements"
13. Michigan Molecular Institute (Midland, MI, May, 2002). "Dendrimer-Encapsulated Metal Nanoparticles"
12. Shell Chemical Co. (Houston, TX, February, 2001). "Dendrimer Encapsulated Catalysts"
11. ACLARA Biosciences (Mountain View, CA, July, 1999). "Hyperbranched Polymers: New Materials for Chemical Sensing and Biological Chemistry"
10. Sandia National Laboratories (Albuquerque, NM, March, 1999). "Hyperbranched Polymers: New Materials for Chemical Sensing and Biological Chemistry"
9. ATP Workshop on Chemical Sensors and Biosensors (NIST, Gaithersburg, MD, July, 1998). "An Integrated, Consortium-based Approach for Chemical Sensor R&D"
8. Workshop on Properties and Applications of Dendritic Polymers (NIST, Gaithersburg, MD, July, 1998). "Chemical Sensors Based on Surface-Confined Dendrimers and Surface Acoustic Wave (SAW) Devices"
7. NIST (Gaithersburg, MD, July, 1998). "Electrocatalysis using Dendrimer-Encapsulated Metal Nanoclusters"
6. Amoco Chemical (Naperville, IL, December, 1997). "Hyperbranched Polymers on Surfaces: Synthesis, Characterization, and Applications to Corrosion Passivation and Permselective Membranes"
5. Michigan Molecular Institute (Midland, MI, January, 1997). "Chemical Sensors and Interfacial Design"
4. NIST (Gaithersburg, MD, July, 1996). "Chemical Sensors and Interfacial Design"
3. Naval Research Laboratory (Washington, DC, August, 1991) "Surface-Confined Monolayers that Perform Specific Tasks"
2. Dow Chemical Company (Midland, MI, June, 1991). "Electrochemical Routes to Ceramics and Ceramic Precursors"
1. Sandia National Laboratories (Albuquerque, NM, January, 1991). "Self-Assembling Monolayers"

U. S. Scientific Conferences

151. Gordon Research Conference: Atomically Precise Nanochemistry (Galveston, TX, February, 2020). "Electrocatalysis on Oxide-Supported Nanoparticles"
150. Gordon Research Conference: Chemical Separations (Galveston, TX, January, 2020). "Membrane-Free Separations using Electric Fields"
149. Gordon Research Conference: Electrochemistry (Ventura, CA, January, 2020). "Electrocatalysis on Oxide-Supported Nanoparticles"

148. Pittsburgh Conference (Orlando, FL, March, 2018). "A microelectrochemical flow cell for studying electrocatalytic reactions on oxide-coated electrodes"
147. Tenth Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2013). "Ion concentration polarization in microfluidic systems"
146. American Chemical Society National Meeting (Washington, DC, August, 2017) "Electron transfer across ultra-thin, insulating oxide films facilitated by dendrimer-encapsulated Pt nanoparticles"
145. Eastern Analytical Symposium (Somerset, NJ, November, 2016) "Quantitative electrochemical detection of analytes at sub-picomolar levels using a simple paper sensor"
144. NSF Workshop on Papertronics (Arlington, VA, September, 2016). "Quantitative electrochemical detection of analytes at sub-picomolar levels using a simple paper sensor"
143. Pittsburgh Conference (Atlanta, GA, March, 2016). "Detection of hepatitis B virus DNA with a paper electrochemical sensor"
142. Pittsburgh Conference (Atlanta, GA, March, 2016). "Electrocatalytic amplification of single nanoparticle collisions using DNA-modified surfaces"
141. Pacifichem (Honolulu, HI, December, 2015). "Unusual electrocatalytic activity trend for Pd_xAu_{140-x}@Pt (x = 0 to 140) core@shell nanoparticles for adsorbed CO oxidation"
140. Pacifichem (Honolulu, HI, December, 2015). "Quantitative electrochemical detection of analytes at sub-picomolar levels using a simple paper sensor"
139. Ninth Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2013). "Evolution of a point-of-care diagnostic tool"
138. Pittsburgh Conference (New Orleans, LA, March, 2015). "High-efficiency generation-collection microelectrochemical platform for interrogating electroactive thin films"
137. Pittsburgh Conference (New Orleans, LA, March, 2015). "Paper diagnostic devices for electrochemical detection of biological weapons"
136. American Chemical Society National Meeting (Dallas, TX, March, 2014). "Microelectrochemical paper diagnostic devices" Nobel Laureate Signature Award for Graduate Education in Chemistry: Symposium in Honor of Livia S. Eberlin and R. Graham Cooks
135. Gordon Research Conference on Electrochemistry (Ventura, CA, January, 2014). "Teaching an Old Dog a Few New Tricks: Hollow Channels, Sliding Paper, and Non-Enzymatic Amplification"
134. Outside the Box and Across the Interfaces: A Symposium Honoring Professor Charles R. Martin on his 60th Birthday (Gainesville, FL, November, 2013). "Well-defined nanoparticles inspired by the martin template method: synthesis, characterization, and electrocatalysis"
133. Eighth Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2013). "Bipolar Electrodes: Fundamentals and Applications".
132. Pittsburgh Conference (Philadelphia, PA, March, 2013). "Paper-Based Microelectrochemical Devices"
131. Pittsburgh Conference (Philadelphia, PA, March, 2013). "Detection of Individual DNA Hybridization Events Using a Microelectrochemical Device"

130. Second Annual Workshop on Capillary-Based Microfluidics for Bioanalysis (aka Microfluidics 2.0) (Boston, MA, November, 2012) "Amplification and Electrochemical Detection Strategies Implemented in Origami-based Paper Fluidic Devices"
129. Bioanalytical Sensors Gordon Research Conference (Newport, RI, June, 2012) "Paper-based Microelectrochemical Systems"
128. 34th Solar Photochemistry Program Research Meeting (Annapolis, MD, June, 2012). "Correlation of Theory and Function in Well-Defined Bimetallic Electrocatalysts" (guest speaker)
127. Pittsburgh Conference (Orlando, FL, March, 2012). "Self-powered microelectrochemical devices"
126. Southwest Regional Meeting of the ACS (Austin, TX, November, 2011). "Bipolar Electrodes: a Simple Modality for Concentration, Separation and Detection of Analytes in Microfluidic Channels".
125. Seventh Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2011). "Self-Powered Electrochemical Devices".
124. Pittsburgh Conference (Atlanta, GA, March, 2011). "Electrocatalytic Properties of Core/Shell Nanoparticles".
123. PacifiChem (Honolulu, Hawaii, December, 2010). "Electrochemical Synthesis of Core/Shell Dendrimer-Encapsulated Nanoparticles"
122. PacifiChem (Honolulu, Hawaii, December, 2010). "Bipolar Electrode Focusing"
121. First Student Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2010). "Bipolar Electrodes: A Simple Means for Concentration, Separation, and Detection of Analytes in Microfluidic Channels"
120. DOE Separations and Analysis Contractors' Meeting (Baltimore, MD, April, 2010) "Bipolar Electrode Focusing for Concentration Enrichment and Analyte Separations"
119. Materials Research Society (San Francisco, CA, April, 2010). "Electrochemical Synthesis of Core/Shell Dendrimer-Encapsulated Nanoparticles"
118. Pittsburgh Conference (Orlando, FL, March, 2010). "Bipolar Electrode Arrays" Charles N. Reilley Award Address.
117. 2010 Center for Electrochemistry Annual Workshop on Electrochemistry (Austin, TX, February, 2010). "Bipolar Electrodes: A Simple Means for Concentration, Separation, and Detection of Analytes in Microfluidic Channels".
116. Chemical and Biological Defense Science and Technology Conference (Dallas, TX, November, 2009). "Understanding and Implementing Large-Scale Bipolar Electrode Arrays".
115. Sixth Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2009). "Bipolar Electrodes: A Simple Means for Concentration, Separation, and Detection of Analytes in Microfluidic Channels".
114. Extreme Biosensing (Makena, Maui, Hawaii, December, 2008). "Extreme Bipolar Electrodes".
113. ACS National Meeting (Philadelphia, PA, August, 2008). "Electrochemical Array Sensors Based on Bipolar Electrodes" and "Synthesis, Characterization, and Electrocatalytic

Properties of Well-defined PdCu Dendrimer-encapsulated Nanoparticles"

112. Gordon Research Conference on Bioanalytical Chemistry (Smithfield, RI, July, 2008). "Wireless Electrochemical DNA Microarrays"
111. Pittsburgh Conference (New Orleans, LA, March, 2008). "Electrocatalysis Using Nanoscale Bimetallic Nanoparticles"
110. 2008 Mesilla Chemistry Workshop on New Frontiers of Electrocatalysis (Mesilla, NM, February, 2008). "Electrocatalysis Using Nanoscale Bimetallic Nanoparticles"
109. Fifth Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, Sept., 2007). "Synthesis, Characterization, and Electrocatalytic Applications of Dendrimer-Encapsulated Nanoparticles"
108. 2007 Meeting of the DOE/BES Catalysis and Chemical Transformations Program (Wintergreen, VA, May, 2007) "Understanding Multimetallic Catalysts using Dendrimer-Encapsulated Nanoparticles" (poster)
107. CNM Nanomaterials Conference (The University of Texas at Austin, Austin, TX, November, 2006) "Electrocatalytic Oxygen Reduction using Well-defined PtPd Bimetallic Nanoparticles"
106. Texas Section of the Electrochemical Society (Austin, TX, October, 2006). "Electrocatalytic Oxygen Reduction using Well-defined PtPd Bimetallic Nanoparticles"
105. American Chemical Society National Meeting (San Francisco, CA, September, 2006). "Electrocatalytic O_2 Reduction at Glassy Carbon Electrodes Modified with Well-defined dendrimer-encapsulated PtPd Alloy Nanoparticles"
104. DOE-BES Analysis Research Meeting (Warrenton, VA, April, 2006). "A Fundamental Study of Transport within a Single Nanoscopic Channel"
103. Pittsburgh Conference (Orlando, FL, March, 2006). "Analytical Applications of Single-Pore Membranes Based on Carbon Nanotubes"
102. Fourth Potter's Lodge Meeting on Electrochemistry (Blue Mountain Lake, NY, September, 2005). "A Highly Sensitive Electrochemical Array Detector for DNA and Proteins"
101. Materials Research Society (San Francisco, CA, March, 2005). "Synthesis, Characterization, and Catalytic Applications of 1-3 nm-Diameter Dendrimer-Encapsulated Nanoparticles"
100. Pittsburgh Conference (Orlando, FL, March, 2005). "Preconcentration of DNA using a Hydrogel-Based Transport Modulator"
99. Eastern Analytical Symposium (Somerset, NJ, November, 2004). "Characterization of Polymeric Particles using a Nanotube-Based Coulter Counter"
89. American Chemical Society ProSpectives Conference on Emerging Opportunities in Chemical and Biosensing (Santa Fe, NM, May, 2004). "ECL-Based Diagnostics: Commercial Success and Prospects for the Future"
88. William H. Nichols Distinguished Symposium (White Plains, NY, April, 2004). "Electrochemical Detection and Photonic Reporting in Microfluidic Systems"
87. Gordon Research Conference on Facilitated Chemical Synthesis (Ventura, CA, March, 2004). "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Catalysis"

86. Second International Symposium on Nanobiotech 2004 (Big Island, HI, January, 2004). "Coulter Counters Based on Carbon Nanotube Membranes"
85. 204th Electrochemical Society Meeting (Orlando, FL, October, 2003). "Analytical Applications of Single-Pore Membranes Based on Carbon Nanotubes" (Carl Wagner Memorial Award Address)
84. Third Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, Sept., 2003). "Electrochemistry on a Chip"
83. Gordon Research Conference on the Physics and Chemistry of Microfluidics (Big Sky, MT, August, 2003). "Electrokinetic Trapping on a Chip"
82. SmallTalk 2003 (San Jose, CA, July, 2003). "Electrogenerated Chemiluminescence as a Sensitive Detection Strategy in Microfluidic Systems"
81. Gordon Research Conference on Analytical Chemistry (New London, CT, June, 2003). "An Electrochemical-Based Nanoparticle Counter with Applications to Bioanalysis"
80. LabAutomation (Palm Springs, CA, February, 2003). "Electrochemical Detection and Photonic Reporting in Microfluidic Systems"
79. Materials Research Society (Boston, MA, December, 2002). "Composite Thin Films of Dendrimer-Encapsulated Metal Nanoparticles and Conducting Polymers"
78. SmallTalk 2002 (San Diego, CA, July, 2002). "Electrochemical Sensing in Microfluidic Systems Using Electrogenerated Chemiluminescence (ECL) as a Photonic Reporter of Redox Reactions"
77. Golden Gate Polymer Forum (San Jose, CA, May, 2002). "Selective Transport through Well-Defined Dendrimeric Polymers"
76. The Pittsburgh Conference (New Orleans, LA, March, 2002). "Molecular Filtration Using Single Porous Molecules"
75. Second Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, Sept., 2001) "Single Molecule Filtration"
74. Gordon Research Conference on Analytical Chemistry (New London, CT, June, 2001). "Dendrimer-Encapsulated Catalysts"
73. Materials Research Society (San Francisco, CA, April, 2001). "Dendrimer-Encapsulated Catalysts"
72. 199th Electrochemical Society Meeting (Washington, DC, March, 2001). "Single Carbon-Nanotube Membranes: A Well-Defined Model for Studying Mass Transport through Nanoporous Matrixes"
71. The Pittsburgh Conference (New Orleans, LA, March, 2001). "Mass Transfer through Carbon Nanotubes"
70. Gordon Research Conference on Electrochemistry (Ventura, CA, January, 2001). "Single File in a Single Pore"
69. Army Research Office Agent Water Monitors Workshop (Aberdeen Proving Grounds, MD, August, 2000) "A General Approach for High Throughput Screening of Mutant Enzymes for Remediation of Chemical an d Biological Agents Using Arrays of Living Cells"

68. American Chemical Society National Meeting (Washington, DC, August, 2000). "Patterned Arrays of Cells"
67. American Chemical Society National Meeting (Washington, DC, August, 2000). "Dendrimer-Encapsulated Nanoparticles: Applications to Catalysis"
66. Department of Energy Council on Chemical Sciences Workshop on Emergent Properties and Functions in Nanoscale Chemistry (Santa Fe, NM, April, 2000). "Template Approaches for Preparing Nanostructures"
65. American Chemical Society National Meeting (San Francisco, CA, March, 2000). "A Simple Approach for Preparing Patterned, Micron Scale Corrals for Controlling Cell Growth"
64. The Pittsburgh Conference (New Orleans, LA, March, 2000). "Electrochemical Studies at Geometrically Well-Characterized Nanoelectrode Arrays"
63. The Pittsburgh Conference (New Orleans, LA, March, 2000). "Carbon Nanotube Electrodes"
62. Materials Research Society (Boston, MA, November, 1999). "A Simple Approach for Preparing Patterned, Micron-Scale Corrals for Controlling Cell Growth: Applications to Biosensing"
61. Materials in the Heartland (Carbondale, IL, October, 1999). "Dendrimer-Encapsulated Metal and Semiconductor Nanoparticles"
60. Joint International Meeting of The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics (Honolulu, HI, October, 1999). "Catalysis Using Dendrimer-Encapsulated Metal Nanoparticles"
59. Joint International Meeting of The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics (Honolulu, HI, October, 1999). "Electrochemistry Using Single Carbon Nanotubes and Applications to Scanning Electrochemical Microscopy"
58. American Chemical Society National Meeting (New Orleans, LA, August, 1999). "Dendrimer-Encapsulated Nanoparticles: Synthesis, Characterization, and Applications"
57. South Texas Local Section of The Electrochemical Society (Austin, TX, June, 1999). "Dendrimer-Encapsulated Metal Particles for Homogeneous and Heterogeneous Catalysis"
56. 195th Electrochemical Society Meeting (Seattle, WA, May, 1999). "Heterogeneous and Homogeneous Catalysis Using Monodisperse, Dendrimer-Encapsulated Metallic Nanoparticles"
55. 195th Electrochemical Society Meeting (Seattle, WA, May, 1999). "Electrochemistry Using Single Carbon Nanotubes"
54. Materials Research Society National Meeting (Boston, MA, November, 1998). "Deposition of Metallic Nanoclusters within Dendrimer Templates"
53. 194th Electrochemical Society National Meeting (Boston, MA, November, 1998). "Design of Chemically Sensitive Interfaces Based on Hydrophilic and Hydrophobic Dendrimers"
52. 194th Electrochemical Society National Meeting (Boston, MA, November, 1998). "Deposition of Metallic Nanoclusters within Dendrimer Templates"

51. 194th Electrochemical Society National Meeting (Boston, MA, November, 1998). "Single-Molecule Electrodes Based on Composite Dendrimer Films"
50. Federation of Analytical Chemisty and Spectroscopy Societies (Austin, TX, October, 1998). "Dendrimer Thin Films for Chemical Sensing"
49. American Vacuum Society, Rocky Mountain Regional Meeting (Arvada, CO, August, 1998) "Chemical Sensors and Interfacial Design"
48. Gordon Research Conference on Chemical Sensors and Interfacial Design (Henniker, NH, July, 1998). "Electrocatalysis using Dendrimer-Encapsulated Metal Nanoclusters"
47. 72nd American Chemical Society Colloid & Surface Science Symposium (University Park, PA, June, 1998). "Dendrimer-Confined, Nanoscopic Metal Clusters"
46. American Chemical Society National Meeting (Dallas, TX, March, 1998). "Electrocatalysts Based on Dendrimer-Confined, Nanoscopic Metal Clusters"
45. Florida Advanced Materials Chemistry Conference (Palm Coast, FL, March, 1998). "Design, Synthesis, Characterization, and Applications of Hyperbranched Polymer Films"
44. Gordon Research Conference on Electrochemistry (Ventura, CA, January, 1998). "Electrocatalysts Based on Dendrimer-Encapsulated Metal Clusters"
43. Federation of Analytical Chemists and Chemical Spectroscopists (Providence, RI, October, 1997). "Chemical Sensors Based on Surface-Confined Dendrimers"
42. 192nd Meeting of The Electrochemical Society, Inc. and the 48th Annual Meeting of the International Society of Electrochemistry (Paris, France, August/September, 1997). "Chemical Sensors Based on Surface-Confined Dendrimers"
41. American Society of Photobiology (St. Louis, MO, July, 1997). "Interfacial Design for Chemical Sensor Arrays"
40. First NSF Workshop on Chemical Sensors (Blue Mountain Lake, NY, May, 1997). "Organic Monolayers for Chemical Sensing"
39. NSF-GOALI Workshop (Keystone, CO, August, 1996). "New Materials for Chemically Sensitive Interfaces"
38. Sixth International Meeting on Chemical Sensors (Gaithersburg, MD, July, 1996). "Chemically Receptive Surfaces Based on Surface-Confined Dendrimers and Hyperbranched Polymers"
37. 190th Electrochemical Society Meeting (San Antonio, TX, October, 1996). "Surface-Confined Dendrimers as Chemically Sensitive Interfaces in SAW-based Sensor Arrays"
36. 190th Electrochemical Society Meeting (San Antonio, TX, October, 1996). "Hyperbranched Polymer Films Containing Fluorescent, Hydrophobic, Metal-ion Binding, and Electroactive Functionalities"
35. 190th Electrochemical Society Meeting (San Antonio, TX, October, 1996). "Synthesis, Characterization, and Chemical Sensitivity of Self-Assembled Polydiacetylene/Calix[n]arene Bilayers"
34. 190th Electrochemical Society Meeting (San Antonio, TX, October, 1996). "An In-situ Electrochemical STM Study of Au(111) Passivated by Self-Assembled Monolayers in Corrosive Environments"

33. Pittsburg Conference (Chicago, IL, March, 1996). "Synthesis, Structural Characterization, and Lithographic Applications of Mono- and Multilayer Diacetylenic Self-Assembled Films on Electrodes"
32. The Adhesion Society National Meeting (Myrtle Beach, SC, February, 1996). "Probing Adhesion Forces at the Molecular Scale" (Plenary talk).
31. Pacifichem '95 (Honolulu, HI, December, 1995). "Electrochemical STM Analysis of Au Corrosion and Corrosion Passivation"
30. American Chemical Society Southeast/Southwest Regional Meeting (Memphis, TN, November, 1995). "Synthesis, Structural Characterization, Photonic Properties, and Lithographic Applications of Mono- and Multilayer Diacetylenic Self-Assembled Films"
29. American Chemical Society Southeast/Southwest Regional Meeting (Memphis, TN, November, 1995). "Molecular Interactions Between Organized, Surface-Confined Monolayers and Vapor-Phase Probe Molecules. Reactions Between Acid-Terminated Self-Assembled Monolayers and Vapor-Phases Bases"
28. Materials Research Society (Boston, MA, November, 1995). "Synthesis, Structural Characterization, Photonic Properties, and Lithographic Applications of Mono- and Multilayer Diacetylenic Self-Assembled Films"
27. 188th Electrochemical Society Meeting (Chicago, IL, October, 1995). "An Electrochemical STM Study of the Corrosion Inhibition of Au by Self-Assembled Monolayers"
26. 188th Electrochemical Society Meeting (Chicago, IL, October, 1995). "A General Approach for the Electrosynthesis of Metal-Nitride Powders and Thin Films"
25. 188th Electrochemical Society Meeting (Chicago, IL, October, 1995). "STM Lithography of Self-Assembled Monolayer Resists: Experimental Parameters Affecting Pattern Quality and Resolution"
24. American Chemical Society National Meeting (Chicago, IL, August, 1995). "A Combined Electrochemical/STM Approach for Patterning Organic Thin Films"
23. American Chemical Society National Meeting (Chicago, IL, August, 1995). "An Electrochemical Method Suitable for Preparing Nine Metal Nitride Powders"
22. American Chemical Society Colloid & Surface Science Symposium (Salt Lake City, UT, June, 1995). "Fabrication of Electrodes and Electrode Arrays Using Self-Assembled Monolayer Resists"
21. American Chemical Society National Meeting (Anaheim, CA, April, 1995). "Selective Molecular Adsorption at the Self-Assembled Monolayer/Vapor-Phase Interface"
20. American Chemical Society Southwest Regional Meeting (Ft. Worth, TX, November, 1994). "STM Lithography: Nanostructures and Nanochemistry"
19. Pittsburgh Conference on Analytical Chemistry and Applied Microscopy (Chicago, IL, March, 1994). "Characterization of Electrode-Confined Nanoporous Membranes by Scanning Tunneling Microscopy and Molecular Probes"
18. Gordon Research Conference, Organic Thin Films (Ventura, CA, February, 1994). "Synthesis and Characterization of Chemically Sensitive Organic Monolayer Surfaces"
17. 184th Electrochemical Society Meeting (New Orleans, LA, October, 1993). "Synthesis and Characterization of Arrays of Zero-Dimensional Ultramicroelectrodes"

16. 184th Electrochemical Society Meeting (New Orleans, LA, October, 1993). "Electrosynthesis and Characterization of NbN Ceramic Materials"
15. American Chemical Society Regional Meeting (Austin, TX, October, 1993). "Synthesis and Characterization of Simple Self-Assembling Nanoporous Monolayer Assemblies: A New Strategy for Molecular Recognition"
14. The First NSF Materials Chemistry Workshop (Albuquerque, NM, October, 1993). "Interfacial Force Microscopy of Metal Surfaces"
13. American Chemical Society National Meeting (Chicago, IL, August, 1993). "Synthesis and Characterization of Simple Self-Assembling Nanoporous Assemblies: Electrochemical, Scanning Probe Microscopic, and Theoretical Analyses of Two-Dimensional Molecular Recognition Membranes"
12. Gordon Research Conference, Electrochemistry (Ventura, CA, January, 1993). "Molecules and Organized Monolayers: A Basis for Molecular Recognition"
11. American Chemical Society National Meeting (Washington, D. C., 1992). "Interactions Between Ions in Solution and Monolayers of Mercaptan Derivatives Adsorbed to Au Substrates"
10. American Chemical Society National Meeting (Washington, D. C., 1992). "Electrochemical Measurement of the Acid Dissociation Constants of Surface-Confined *n*-Alkanethiol Monolayers Terminated with pH-Sensitive Pendant Groups"
9. 82nd Electrochemical Society Meeting (Toronto, Canada, October, 1992). "Hydrogen Bonding Interactions Between Vapor-Phase Probe Molecules and Functionalized Self-Assembled Monolayers: A Combined Study Using Surface Acoustic Wave Devices, FTIR Spectroscopy, and Ellipsometry"
8. 182nd Electrochemical Society Meeting (Toronto, Canada, October, 1992). "STM-Induced Lithography: A New Method for Fabricating Ultramicroelectrodes"
7. American Chemical Society National Meeting (San Francisco, CA, April, 1992). "Molecular Recognition: a New Function for Organized Monolayers on Metal Surfaces"
6. Materials Research Society (San Francisco, CA, April, 1992). "Electrochemical Routes to Ceramics and Ceramic Precursors"
5. Rocky Mountain Conference on Analytical Chemistry (Denver, CO, July, 1991). "Scanning Tunneling Microscopy of Defects Contained Within Self-Assembling Monolayers: Kinetics of Formation"
4. Federation of Analytical Chemistry and Spectroscopy Societies (Anaheim, CA, October, 1991). "Controlled Perforation of Self-Assembling *n*-Alkylthiol Monolayers"
3. Pittsburgh Conference on Analytical Chemistry and Applied Microscopy (Chicago, IL, March, 1991). "Molecular Recognition-Based Microelectrochemical Sensors"
2. Federation of Analytical Chemistry and Spectroscopies Societies, 16th Annual Meeting (Chicago, IL, February, 1989). "Electrochemical Studies in Supercritical Fluids"
1. 176th Electrochemical Society National Meeting (Los Angeles, CA, October, 1989). "Electrochemical Studies in Supercritical Fluids: CH_3CN and SO_2"

CONTRIBUTED PRESENTATIONS

36. Chemical and Biological Defense Science and Technology Conference (Orlando, FL, November, 2010). "Bipolar Electrode Arrays for Chemical and Biological Sensing"
35. Gordon Research Conference: The Physics and Chemistry of Microfluidics (Lucca, Italy, June, 2009). "Chemical Sensing using Large-scale Electrode Arrays" (poster)
34. MicroTAS 2003 (Squaw Valley, CA, October, 2003). "Electrochemical Detection and Photonic Reporting in a Dual-Channel, Microfluidic-Based Chemical Sensors" (poster)
33. 203rd Electrochemical Society Meeting (Paris, France, April, 2003). "Electrochemical Detection and Photonic Reporting in Microfluidic-Based Chemical Sensors"
32. American Chemical Society National Meeting (San Francisco, CA, March, 2000). "Interfacial Reactivity of Hydroxyl-Terminated Monolayers in the Absence of Solvents"
31. Joint International Meeting of The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics (Honolulu, HI, October, 1999). "A Simple Lithographic Approach for Preparing Patterned, Micron-Scale Corrals for Controlling Cell Growth: Applications to Biosensing"
30. Materials Research Society National Meeting (Boston, MA, November, 1998). "Aqueous Solvation and Functionalization of Hyperbranched Polyelectrolyte Thin Films"
29. 72nd American Chemical Society Colloid & Surface Science Symposium (University Park, PA, June, 1998). "Self-Assembling Dendrimer Monolayers"
28. 1996 Solid State Sensor and Actuator Workshop (Hilton Head Island, SC, June 1996). "Versatile Materials for use as Chemically Sensitive Interfaces in SAW-Based Sensor Arrays"
27. Materials Research Society (Boston, MA, November, 1995). "A Simple Electrochemical Method for the Preparation of Nine Metal-Nitride Powders"
26. American Vacuum Society National Meeting (Minneapolis, MN, October, 1995). "STM-induced Patterning of Organomercaptan SAMs: Characterization and Control of Patterning"
25. American Vacuum Society National Meeting (Minneapolis, MN, October, 1995). "Photolithographic and STM-Induced Patterning of an Ultrathin, Self-Assembled Diacetylenic Resist"
24. American Vacuum Society National Meeting (Denver, CO, October, 1994). "STM-Induced Etching of Ultra-thin Organic Resists: Structure, Mechanism, and Post-etching Elaboration"
23. American Chemical Society National Meeting (Washington, DC, August, 1994). "Synthesis and Characterization of Self-Assembled Monolayers of □-Functionalized Organomercaptans Containing Diacetylene Functional Groups"
22. American Chemical Society National Meeting (Washington, DC, August, 1994). "Layer-by-Layer Growth of One-Dimensional Nylon Fibers by Chemical Vapor Deposition"
21. 1994 Meeting of the Southwestern Analytical Professors (Fresno, CA, January, 1994). "Analysis of Metal Surfaces by Interfacial Force Microscopy"
20. American Chemical Society/Northwest Regional Meeting (Laramie, WY, June, 1993). "Synthesis and Characterization of Simple Self-Assembling Nanoporous Monolayer Assemblies: A New Strategy for Molecular Recognition"

19. American Chemical Society/Northwest Regional Meeting (Laramie, WY, June, 1993). "Electrochemical Synthesis of a Niobium Nitride Precursor and Characterization of Niobium Nitride Powder"
18. American Vacuum Society/New Mexico Chapter (Santa Fe, NM, April, 1993). "Contact Potential Difference Measurement of Thin, Well-Ordered Monolayer Films"
17. American Vacuum Society/New Mexico Chapter (Santa Fe, NM, April, 1993). "Scanning Tunneling Microscope-Induced Lithography of Self-Assembled n-Alkanethiol Monolayer Resists"
16. American Vacuum Society/New Mexico Chapter (Santa Fe, NM, April, 1993). "The Nano-Mechanics of Gold Films"
15. 182nd Electrochemical Society Meeting (Toronto, Canada, October, 1992). "Selective Organophosphonate Detection Using Self-Assembled Monolayers on SAW Devices"
14. Materials Research Society (San Francisco, CA, April, 1992). "Electrophoretic Deposition of Sol-Gel-Derived Ceramic Coatings"
13. 180th Electrochemical Society Meeting (Phoenix, AZ, October, 1991). "Imaging of Defect Structures Within *n*-Alkylthiol Monolayers by a Combination of Underpotential Deposition and Scanning Tunneling Microscopy"
12. 180th Electrochemical Society Meeting (Phoenix, AZ, October, 1991). "Formation, Structural Characteristics, and Reactivity of Vapor-Deposited Polyfunctional Organic Mono- and Multilayers on Au"
11. 180th Electrochemical Society Meeting (Phoenix, AZ, October, 1991). "Selective Electrostatic Binding of Ions by Monolayers of Mercaptan Derivatives Adsorbed to Au Substrates"
10. 180th Electrochemical Society Meeting (Phoenix, AZ, October, 1991). "Electrochemical Synthesis and Characterization of Metal Nitride Ceramics and Ceramic Precursors"
9. Nanoscope Scanning Tunneling Microscope Users Conference (Santa Barbara, CA, June, 1991). "STM Imaging of the Defect Structures within Self-Assembled Monolayers"
8. American Ceramics Society (Cincinnati, OH, April, 1991). "Properties of Bulk and Surface-Confined Electrolytically Generated AlN Ceramics"
7. 178th Electrochemical Society Meeting (Seattle, Washington, October, 1990). "Mechanical Properties and Formation Kinetics of Self-Assembled Monolayers"
6. Materials Research Society (San Francisco, CA, April, 1990). "Solid State Microelectrochemical Devices Employing a Solid Polymer Electrolyte"
5. Electrochemical Society, 175th National Meeting (Los Angeles, CA, October, 1989). "Highly Oxidized and Reduced Electronically Conducting Polymers: Finite Windows of Conductivity"
4. Electrochemical Society, 175th National Meeting (Los Angeles, CA, October, 1989). "Measurements of Neutron and Gamma Ray Emission Rates and Calorimetry in Electrochemical Cells Having Pd Cathodes"
3. Gordon Research Conference on Electrochemistry (Oxnard, CA, 1988). "Electrochemistry in Supercritical Organic Fluids"

2. Electrochemical Society -regional meeting (Winedale, TX, 1986). "Reaction Kinetics in Nonaqueous Near-Critical and Supercritical Fluids"
1. Gordon Research Conference on Electrochemistry (Santa Barbara, CA, 1986). "Electrochemistry in Supercritical Fluids"

SIGNIFICANT SYMPOSIA AND MEETINGS FOUNDED, ORGANIZED, AND CHAIRED

33. Co-organizer (with Henry S. White), Tenth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2017).
32. Session chair, Gordon Research Conference on the Physics and Chemistry of Microfluidics (Barga, Italy, June, 2017).
31. Organizer, Pittcon (Atlanta, GA, March, 2016) Symposium Title: "SEAC Award Symposium".
30. Co-organizer (with Henry S. White), Ninth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2015).
29. Co-organizer (with Francoise Winnik), ACS National Meeting (Boston, MA, August, 2015) Symposium Title: "30 Years of *Langmuir*: Looking Back… and Forward".
28. Co-organizer (with Henry S. White), Eigth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2013).
27. Co-organizer (with Paul Bohn), Pittcon (Orlando, FL, March, 2012) Symposium Title: "Extreme Electrochemistry - Electrochemistry in Microstructures and Nanostructures".
26. Senior Mentor, Gordon Research Seminar on Electrochemistry (Ventura, CA, January, 2012).
25. Co-organizer (with Keith Stevenson), 67th Southwest Regional ACS Meeting (Austin, TX, November, 2011), Symposium Title: "Electrochemical Methods: Fundamentals and Applications, a Symposium in Honor of Bard and Faulkner".
24. Co-organizer (with Henry S. White), Seventh Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2011).
23. Founder and organizer: First Student Potter's Lodge Meeting on Electrochemistry (Blue Mtn. Lake, NY, September, 2010).
22. Co-organizer, DOE Workshop on the Oxygen Reduction Reaction (Brookhaven, NY, November, 2009).
21. Co-organizer (with Henry S. White), Sixth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2009).
20. Organizer, Fifth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2007).
19. The Academy of Medicine, Engineering, and Science of Texas (TAMEST) Conference Program Committee Member (2006-2007)
18. Co-organizer, Fourth Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2005; with Henry S. White).
17. Founder and Chair, Gordon-Kenan Graduate Research Seminar on Analytical Chemistry (Roscoff, France, June, 2005).

16. Chair, Gordon Research Conference on Analytical Chemistry (Roscoff, France, June, 2005).
15. Co-organizer, Third Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2003; with Henry S. White).
14. Vice Chair, Gordon Research Conference on Analytical Chemistry (New London, CT, June, 2003).
13. Co-organizer, Materials Research Society (San Francisco, CA, April, 2002), Symposium Title: "Chemical and Biological Sensors: Materials and Devices".
12. Co-organizer, Second Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 2001; with Debra Rolison and Henry S. White).
11. Co-organizer, Department of Energy Council on Chemical Sciences "Workshop on Emergent Properties and Functions in Nanoscale Chemistry" (Santa Fe, NM, April, 2000).
10. Co-organizer, Federation of Analytical Chemistry and Chemical Spectroscopy (Austin, TX, October, 1998; with David E. Bergbreiter), Symposium Title: "Thin Organic Films for Chemical Sensors".
9. Co-organizer, Second NSF Workshop on Chemical Sensors (Henniker, NH, July, 1998; with Antonio J. Ricco and Jiri (Art) Janata)
8. Co-founder and co-organizer, First NSF Workshop on Chemical Sensors (Blue Mountain Lake, NY, May, 1997; with Antonio J. Ricco and Jiri (Art) Janata)
7. Co-founder and co-chairman, Gordon Research Conference on *Chemical Sensors & Interfacial Design*, July, 1996; with Antonio J. Ricco)
6. Co-founder and co-organizer, First Potter's Lodge Workshop on Electrochemistry (Blue Mountain Lake, NY, September, 1996; with Henry S. White).
5. Co-organizer, American Chemical Society SE/SW Regional Meeting (Memphis, TN, November, 1995; with Charles H. Hussey), Symposium Title: "Spectroscopy and Electrochemistry of Surface-Bound Molecules"
4. Co-organizer, American Chemical Society Colloid & Surface Science Symposium (Salt Lake City, UT, June, 1995; with Henry S. White), Symposium Title: "Electrochemistry of Organized Molecular Interfaces"
3. Co-organizer, Electrochemical Society National Meeting (New Orleans, LA, October, 1993; with Adrian Michael), Symposium Title: "Electrochemistry in Unconventional Media and Under Extreme Conditions"
2. Co-organizer, American Chemical Society National Meeting (Washington, DC, August, 1992; with Marcin Majda), Symposium Title: "Electroanalysis and Surfaces"
1. Organizer, Electrochemical Society National Meeting (Toronto, Canada, October, 1992), Symposium Title: "Scanning Probe Microscopy and Fabrication"

RESEARCH COLLABORATORS

Research Scientists

4. Ms. Yi-Ju (Melody) Tsai, 2014 - 2015 (Michigan)

3. Mr. John Crooks, 2008 – 2009 (Graduate Student, U. Wisconsin)
2. Dr. Li Sun, 1997 – 2005 (Pine Research Instr., RTP, NC)
1. Ms. Claudia Ross, 1990 – 1993 (Albuquerque, NM)

Visiting Scholars

4. Dr. Frank Dalton, 2004 (Pine Instruments Research, RTP, NC)
3. Dr. Jyh-Myng Zen, 2003 (Natl. Chung Hsing Univ., Taiwan)
2. Mr. Michael Lennartz, 1999 (Univ. Bonn, Bonn, Germany)
1. Dr. Atsushi Aoki, 1999-2000 (Nagoya Inst. Tech., Nagoya, Japan)

Postdoctoral

72. Dr. Nikhil Raj, 2021-present UT
71. Dr. Yi Peng, 2019-present (Postdoc, Wayne State Univ.)
70. Dr. Thom Hersbach, 2019 (SSRL)
69. Dr. Michael P. Nguyen, 2018 (unknown)
68. Dr. Charlie Rabin, 2017- 2019 (Leads to Development, Paris)
67. Dr. Charu Walgama, 2017- 2020 (Asst. Prof., Univ. of Houston, Clear Lake)
66. Dr. Jan Clausmeyer, 2016-2017 (Germany)
65. Dr. Long Luo, 2014-2017 (Asst. Prof., Wayne St. Univ.)
64. Dr. Rohit Bhandari, 2013-2014 (Research Fellow, Univ. of Kentucky)
63. Dr. Hong Liu, 2013 (Professor, Southeast Univ., China)
62. Dr. Christophe Renault, 2011-2014 (Professor, Institut Polytechnique de Paris)
61. Dr. Emily V. Carino, 2010 (Staff Scientist, Argonne Nat'l Lab)
60. Dr. Ravikumar Iyyamperumal, 2011 - 2012 (Reliance Industries, Ltd., India)
59. Dr. Tae-Yeol Jeon, 2011 - 2012 (Pohang Accelerator Lab, Korea)
58. Dr. Timothy Alligrant, 2011 – 2015 (Abbott Laboratories, Dallas, TX)
57. Dr. Abdou Diallo, 2011 - 2012 (Scientist, Total, France)
56. Dr. Rachel Behrens, 2010 - 2011 (UC-Santa Barbara)
55. Dr. Ioana Dumitrescu (Edgeworth), 2010 - 2011 (QXV Communications, UK)
54. Dr. Eoin Sheridan, 2009 - 2011 (Res. Sci., Base4, Cambridge, UK)
53. Dr. Arther Gates, 2008 – 2010 (Syngenta Crop Protection)
52. Dr. Surojit Pande, 2009 - 2012 (Birla Inst. of Techn. & Sci., India)
51. Dr. Byoung-Yong Chang, 2008 – 2010 (Prof., Pukyong National U., Korea)
50. Dr. Derek R. Laws, 2008 – 2009 (Tidewater Comm. Coll., Norfolk, VA)

49. Dr. François Mavré, 2007 - 2009 (University of Paris Diderot-Paris 7)
48. Dr. Rahul Dhopeshwarkar, 2007 – 2008 (Res. Scientist, Illumina, San Diego)
47. Dr. Iksoo Shin, 2007 - 2008 (Soongsil Univ., So. Korea)
46. Dr. Fco. Javier Guerra Navarro, 2006 - 2008 (Albany Molecular Research, Inc.)
45. Dr. Arnaud Chovin, 2005 - 2006 (University Paris Diderot-Paris 7)
44. Dr. Young Jin Jeon, 2004 - 2006 (Konkuk Univ., So. Korea)
43. Dr. Nokyoung Park, 2004 (unknown)
42. Dr. Marc R. Knecht, 2004 - 2007 (Professor, Univ. of Miami-Florida)
41. Dr. Sungwon Lee, 2004 – 2005 (unknown)
40. Dr. Marcos Malta dos Santos, 2004 – 2005 (Brazil)
39. Dr. Haohao Lin, 2004 – 2005 (3M, Austin, TX)
38. Dr. Young-Min Bae, 2004 – 2005 (Korea)
37. Dr. Daojun Liu, 2003 – 2004 (Medical Dept., Shantou Univ., China)
36. Dr. Joaquin C. Garcia-Martinez, 2003 – 2005 (Universidad de Castilla-La Mancha)
35. Dr. Jinhua Dai, 2002 - 2004 (Michigan State University)
34. Dr. Robert W. J. Scott, 2002 – 2004 (U. Saskatchewan, Canada)
33. Dr. Stephen Bell, 2001 - 2003 (Halliburton, Houston, TX)
32. Dr. Takashi Ito, 2001 - 2004 (Professor, Kansas State Univ.)
31. Dr. Gi Hun Seong, 2001 - 2003 (Professor, Hanyang U., So. Korea)
30. Dr. Sang Keun Oh, 2000-2004 (Professor, Ajou U., Ajou, So. Korea)
29. Dr. Julio Alvarez, 2000-2004 (Professor, Virg. Commonwealth U.)
28. Dr. K. Joseph Thomas, 2000-2002 (Becton-Dickinson Tech., RTP, NC)
27. Dr. Lee K. Yeung, 1999-2000 (Dow Chemical Co., Freeport, Texas)
26. Dr. Buford Lemon, 1999-2001 (Unknown)
25. Dr. Mi-Kyung Oh, 1998-1999 (Unknown)
24. Dr. Pradyut Ghosh, 1998-2000 (Prof., Indian Assoc. Cultivation of Science, Kolkata, India)
23. Dr. Sheela Berchmans, 1998-1999 (Cent. Electrochemical Res. Inst.,India)
22. Dr. Victor Chechik, 1998-1999 (University of York, York, UK)
21. Dr. Charles R. Sabapathy, 1998-2000 (Dallas Independent School System)
20. Dr. William Lackowski, 1997-2000 (Clean Energy Labs, Inc., Austin, TX)
19. Dr. Maurie Garcia, 1997-1998 (Indiana)
18. Dr. Robert Peez, 1997-1998 (Maxit Holding, Freiburg, Germany)
17. Dr. Andreas Hierlemann, 1997-1998 (ETH, Zürich, Switzerland)
16. Dr. Hideo Tokuhisa, 1996-1998 (Natl. Inst. Adv. Res., Tsukuba, Japan)
15. Dr. Bizuneh Workie, 1996-1997 (Assoc. Prof., Delaware State Univ.)

14. Dr. Merlin Bruening, 1995-1997 (Michigan State Univ., E. Lansing, MI)
13. Dr. Vimala Mariagnanam, 1995-1996 (Cibavision, GA)
12. Dr. Lenny Tender, 1995 (Naval Research Lab, Washington,DC)
11. Dr. Kwok-Chu Chan, 1994-1996 (unknown)
10. Dr. Laurel Knott, 1994-1996 (U. North Carolina, Chapel Hill, NC)
9. Dr. Huey Yang, 1993-1996 (unknown)
8. Dr. Taisun Kim, 1993-1995 (Hallym University, S. Korea)
7. Dr. Yinquan Li, 1993-1995 (unknown)
6. Dr. Chuanjing Xu, 1993-1994 (Nanomater. Res. Corp., Tucson, AZ)
5. Dr. Mark Bryant, 1991-1993 (Manchester Coll., N. Manchester, IN)
4. Dr. Yining Zhang, 1991-1993 (unknown)
3. Dr. Larry Kepley, 1991-1992 (TPL, Inc., Albquerque, NM)
2. Dr. Jongman Park, 1991-1992 (unknown)
1. Dr. Li Sun, 1991-1993 (Pine Research Instrum., RTP, NC)

Graduate Students

Ms. Juliette Strasser (2017 – present)

Ms. Aigerim Galyamova (2017 – present)

50. Dr. Ke Huang (2016 – 2022)
    - Dissertation title: The Electrodeposition and the Electrochemistry of Single Nanoparticles Supported on Carbon Nanoelectrodes
    - Significant awards and honors: Chemistry Department Graduate Student Excellence Award
    - Current employment: Form Energy, Boston, MA.

49. Dr. Jonathan Thompson (2017-2022)
    - Dissertation title: Electrochemically Generating Electric Field Gradients in the Absence of Buffer for Membrane-Free Separations
    - Significant awards and honors: Provost's Graduate Excellence Fellowship.
    - Current employment: Wolf Greenfield, LLC., NYC.

48. Dr. Logan M. Wilder (2016-2021)
    - Dissertation title: Synthesis of Model Nanoparticle-Peptide Conjugates and Development of an Electrochemical Strategy to Regulate Microdroplet pH in Microfluidics
    - Significant awards and honors: Chemistry Department Graduate Student Excellence Award.
    - Current employment: National Renewable Energy Laboratory, Golden, CO.

47. Dr. Nicole Pollok (2016 – 2021)

- Dissertation title: The Development of a Metalloimmunoassay for the Detection of NT-proBNP
- Significant awards and honors: Chemistry Department Graduate Student Excellence Award, Dorothy A. Banks Fellowship in Chemistry, Faraday Teaching Award.
- Current employment: Fuji Film

46. Mr. Kevin Baar; M.S., December, 2020
    - Thesis title: Phosphine-Capped Nanoparticles for Electrocatalysis
    - Current employment:

45 Dr. Jamie A. Trindell; Ph.D., May, 2020
    - Dissertation title: Well-defined Nanoparticle Electrocatalysts for the Carbon Dioxide and Oxygen Reduction Reactions
    - Significant awards and honors: Dissertation Writing Fellowship, Department Research Excellence Award, Office of Graduate Studies Recruiting Fellowship.
    - Current employment: Sandia National Lab

44. Dr. Collin Davies; Ph.D., May, 2020
    - Dissertation title: Electrochemically Generated Ion Depletion Zones for Continuous Separations in Microelectrochemical Devices
    - Significant awards and honors: Gilbert H. Ayres Fellowship in Chemistry, Paul DeGregory Memorial Fellowship.
    - Current employment:

43. Dr. Aliya Lapp; Ph.D., May, 2020
    - Dissertation title: Experimental and theoretical investigation of electrochemically synthesized AuPt dendrimer-encapsulated nanoparticles (DENs)
    - Significant awards and honors: UT Austin Graduate School Summer Fellowship, UT Austin Professional Development Award.
    - Current employment: Sandia National Lab

42. Dr. Nevena Ostojic; Ph.D., August, 2018
    - Dissertation title: Electrocatalytic Reduction of Oxygen on Metal Nanoparticles in the Absence and Presence of Interactions with Metal-Oxide Supports
    - Significant awards and honors: University Graduate Continuing Fellowship, F. A. Matsen Endowed Presidential Fellowship in Theoretical Chemistry, Walker Fellowship
    - Current employment: Intel

41. Dr. Morgan J. Anderson; Ph.D., August, 2017
    - Dissertation title: Microelectrochemical Devices and Methods for Investigation of Complex Surface Modifications and Electroactive Thin-Films
    - Current employment: Postdoc, NASA Ames Research Center

40. Ms. Eunsoo Yoon; M.S., May, 2017

- Thesis title: Photoelectrochemical Ion Concentration Polarization: a microfluidic ion filtration system using light-driven electrochemical reactions
- Current employment: Research Support Associate, MIT

39. Dr. Alma D. Castañeda; Ph.D., May, 2017
    - Dissertation title: Detection of microRNA by Electrocatalytically Amplified Nanoparticle Collisions
    - Significant awards and honors: Competitive Dissertation Writing Fellowship, Graduate School Summer Fellowship, Carl Storm Underrepresented Minority Fellowship, and Alfred P. Sloan Graduate Fellowship.
    - Current employment: Technical specialist, Ballard Spahr, LLC

38. Dr. Xiang Li; Ph.D., May, 2017
    - Dissertation title: Paper-Based Electrochemical Platforms for Separation, Enrichment, and Detection
    - Significant awards and honors:
    - Current employment: Sherlock Biosciences Inc

37. Mr. Nicholas Brenes; M.S., December, 2016
    - Thesis title: Paper Analytical Devices for Rapid, Quantitative Electrochemical Detection of DNA and Bacteria
    - Significant awards and honors: NASA Harriett G. Jenkins PhD Graduate Fellow
    - Current employment: Buffalo Trace Distillery

36. Dr. Josephine Cunningham; Ph.D., May, 2016
    - Dissertation title: Development of the "NoSlip": A Simple Yet Sophisticated Paper Analytical Device for Detection of Proteins
    - Significant awards and honors: NASA Harriett G. Jenkins PhD Graduate Fellowship, UT Henze Teaching Award
    - Current employment: Access Sensor Technologies (Ft. Collins, CO)

35. Dr. Rachel Anderson; Ph.D., December, 2015
    - Dissertation title: Dendrimer-Encapsulated Nanoparticles as Model Electrocatalysts
    - Current employment: Naval Research Laboratory (Washington, DC)

34. Dr. Kyle Knust; Ph.D., August, 2015
    - Dissertation title: Bipolar Electrochemistry for Enrichment, Separations, and Membraneless Electrochemically Mediated Desalination
    - Significant awards and honors: UT Chemistry Department 2015 Dorothy B. Banks Fellowship
    - Current employment: Associate Professor, Millikin University (Decatur, Illinois)

33. Dr. Karen Scida; Ph.D., December, 2014
    - Dissertation title: Microfluidics for Bioanalytical Research: Transitioning into Point-of-Care Diagnostics

- Significant awards and honors: UT Graduate School Summer 2014 Fellowship
- Current employment: Postdoc, Diagnostic Biochips (Baltimore, MD)

32. Dr. Stephen Fosdick; Ph.D., May, 2014
    - Dissertation title: Bipolar Electrodes for the Screening of Electrocatalyst Candidates
    - Significant awards and honors: William Powers, Jr. Graduate Fellowship
    - Current employment: Dow Chemical Co. (Freeport, TX)

31. Dr. David Yancey; Ph.D., December, 2013
    - Dissertation title: "Structural and Electrocatalytic Properties of Dendrimer-Encapsulated Nanoparticles"
    - Significant awards and honors: Graduate Student Silver Award, 2013 MRS fall meeting
    - Current employment: Dow Chemical Co. (Midland, MI).

30. Dr. Hong Liu; Ph.D., December, 2012
    - Dissertation title: "Simple and Inexpensive Biosensors for Point-of-Care Diagnostics"
    - Significant awards and honors: Maddin Fellowship in Chemistry
    - Current employment: Professor, State Key Lab of Bioelectronics, Southeast University (China).

29. Ms. Elizabeth Nettleton; M.S., December, 2012
    - Thesis title: "Detecting Single-Particle Insulating Collisions in Microfluidics as a Function of Flow Rate"
    - Significant awards and honors: National Science Foundation Graduate Research Fellowship Program (GRFP) and National Defense Science and Engineering Graduate (NDSEG) Fellowship
    - Current employment: Trinity Consultants (Austin, TX).

28. Ms. Daphne Sung; M.S., December, 2011
    - Thesis title: "Synthesis and Characterization of PtNi Dendrimer-Encapsulated Nanoparticles"
    - Current employment: UT-Austin (Austin, TX).

27. Dr. V. Sue Myers; Ph.D., December, 2011
    - Dissertation title: "Characterization of Dendrimer Encapsulated Nanoparticles by Extended X-ray Absorption Fine Structure and Electrochemical Methods"
    - Significant awards and honors: Graduate Student Award to Attend the 60th Meeting of Nobel Laureates in Lindau, Germany
    - Current employment: Intel Corporation (Portland, OR).

26. Dr. Emily V. Carino; Ph.D., August, 2011
    - Dissertation title: "Underpotential Deposition as a Synthetic and Characterization Tool for Core@Shell Dendrimer-Encapsulated Nanoparticles "
    - Current employment: Staff scientist, Argonne National Lab (Argonne, IL).

25. Dr. Brian A. Zaccheo; Ph.D., August, 2011
    - Dissertation title: "Application of Enzymatic Catalysis and Galvanic Processes for Biosensor Development"
    - Current employment: Intel Corporation (Portland, OR).

24. Dr. Robbyn K. Perdue (Anand); Ph.D., December, 2010
    - Dissertation title: "Electrokinetic Focusing of Charged Species at a Bipolar Electrode in a Microfluidic Device"
    - Significant awards and honors: NSF Graduate Fellowship Awardee
    - Current employment: Assistant Professor, Iowa State University (Ames, IA).

23. Dr. Michael G. Weir; Ph.D., December, 2010
    - Dissertation title "Dendrimer-Encapsulated Nanoparticles: Synthetic Methods and Characterization Including Extended X-ray Absorption Fine Structure"
    - Current employment: Assistant Professor, Texas Wesleyan University (Ft. Worth, TX)

22. Dr. Kwok-Fan Chow; Ph.D., August, 2010
    - Dissertation title: "Development of Wireless DNA Microarray Sensors"
    - Significant awards and honors: UT Chemistry Department Dorothy B. Banks Fellowship.
    - Current employment: Assistant Professor, The University of Massachusetts-Lowell (Lowell, MA).

21. Ms. Christina Wales; M.S., May, 2010
    - Thesis title: Hydrodynamic Radii of Pt Dendrimer-Encapsulated Nanoparticles and Precursors
    - Current employment: U.S. Patent and Trademark Office.

20. Mr. Tim Balasavage; M.S., August, 2009
    - Thesis title: "Quantitative Measurements of the Transfer Efficiency of DNA Microarray Replication"
    - Current employment: unknown.

19. Dr. Joohoon Kim; Ph. D., August, 2007
    - Dissertation title: "Development of Microdevices for Applications to Bioanalysis"
    - Significant awards and honors: ACS Division of Analytical Chemistry Summer Fellowship.
    - Current employment: Associate Professor, Kyung Hee University (Seoul, South Korea).

18. Dr. Rahul Dhopeshwarkar; Ph. D., August, 2007
    - Dissertation title: "Electrokinetic Concentration Enrichment within a Microfluidic Device Integrated with a Hydrogel Microplug"
    - Current employment: Care Fusion/BD (San Diego, CA).

17. Dr. Heechang Ye; Ph. D., December, 2006.
    - Dissertation title: "Dendrimer-Encapsulated Metal Nanoparticle Thin Films on Solid Surfaces: Preparation, Characterization, and Applications to Electrocatalysis"
    - Current employment: OCI Corporation (So. Korea).

16. Mr. Raphael Lezutekong; M.S., August, 2006
    - Thesis title: "Application of Dendrimer-Encapsulated Pd Nanoparticles in Homogeneous Catalysis: Carbon-Carbon Coupling Reaction (The Stille Reaction)"

15. Dr. Orla M. Wilson; Ph. D., December, 2005
    - Dissertation title: "Structure-Function Relationships in Dendrimer-Encapsulated Metal Nanoparticles"
    - Significant awards and honors: ACS Division of Analytical Chemistry Summer Fellowship.
    - Current employment: Lecturer, The Johns Hopkins University (Baltimore, MD).

14. Dr. Jinseok Heo; Ph. D., December, 2005
    - Dissertation title: "Characterization and Applications of Microfluidic Devices Based on Immobilized Biomaterials"
    - Current employment: Associate Professor, Buffalo State College (Buffalo, NY)

13. Dr. Yong-Gu Kim; Ph. D., December, 2005
    - Dissertation title: "Synthesis and Electrochemical Characterization of Highly Monodisperse Dendrimer-Templated Monolayer-Protected Clusters"
    - Current employment: Hyundai Motors, Korea

12. Dr. Wei Zhan; Ph. D., May, 2004
    - Dissertation title: "Integration of Functional Components into Microfluidic Chemical Systems: Bioimmobilization and Electrochemiluminescent Detection on Chip"
    - Significant awards and honors: 2004 Celanese Outstanding Graduate Student Award; ACS Division of Analytical Chemistry Summer Fellowship.
    - Current employment: Associate Professor, Auburn Univesity (Auburn, AL)

11. Dr. Gregory P. Perez; Ph. D., May, 2004
    - Dissertation title: "Chemically-Sensitive, Polymer-Mediated Nanoporous Alumina SAW Sensors for the Detection of Vapor-Phase Analytes"
    - Current employment: Halliburton (Houston, TX)

10. Dr. Yanhui Niu; Ph. D., May, 2003
    - Dissertation title: "Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Applications to Catalysis"
    - Significant awards and honors: Best Poster Presentation Award, Gordon Research Conference on Catalysis; Outstanding Research Presentation Award, PacifiChem 2000 International Meeting.

- Current employment: Research Scientist, DuPont Central Research (Wilmington, DE)

9. Dr. Wendy S. Baker; Ph. D., May, 2002
    - Dissertation title: "Electrochemical and Spectroscopic Studies of Novel Electroactive Nanostructures"
    - Significant awards and honors: The Colin Garfield Fink Fellowship of The Electrochemical Society.
    - Current employment: Postdoctoral Fellow, University of Texas Medical Branch (Galveston, TX)

8. Dr. Lane A. Baker; Ph. D., December, 2001
    - Dissertation title: "Endgroup Interactions in Poly(amidoamine) and Modified Poly(propylene imine) Dendrimers"
    - Current Employment: Professor, Indiana University (Bloomington, IN)

7. Dr. Mingqi Zhao; Ph. D., December, 1999
    - Dissertation title: "Hyperbranched Polymer Films and Dendrimers: Their Chemistry and Applications"
    - Significant awards and honors: Electrochemical Society Summer Fellowship, Eastman Chemical Company Fellowship, Phillips Petroleum Fellowship, Materials Research Society Graduate Student Award (Gold Medal), Celanese Award for best dissertation.
    - Current employment: NDC (a J&J company in Fremont, CA).

6. Dr. Daniel L. Dermody; Ph. D., December, 1998
    - Dissertation title: "Synthesis and Characterization of Organic Thin Films Incorporating Macrocycles"
    - Current employment: Research Scientist, Dow Chemical Company (Midland, MI)

5. Dr. Francis P. Zamborini; Ph. D., December, 1998
    - Dissertation title: "Scanning Tunneling Microscopy Studies of Corrosion Passivation and Nanometer-Scale Lithography with Self-Assembled Monolayers"
    - Current employment: Professor, University of Louisville (Louisville, KY)

4. Dr. Jonathan Schoer; Ph. D., May, 1997
    - Dissertation title: "Fabrication, Characterization, and Applications of Nanometer-Scale Features within Organomercaptan Self-Assembled Monolayers"
    - Significant awards and honors: Electrochemical Society Summer Fellowship, IBM Graduate Fellowship
    - Current employment: Associate Professor, Valparaiso University (Valparaiso, IN).

3. Dr. Travis Wade; Ph. D., December, 1995.
    - Dissertation title: “Electrochemical Synthesis of Metal-Nitride Ceramic Powders and Metal-Nitride Ceramic Coatings”
    - Current employment: Institut De Physique Experimentale (Lausanne, Switzerland)

2. Dr. Orawon Chailapakul; Ph. D., December, 1994
    - Dissertation title: "Synthesis and Characterization of Nanoporous Organomercaptan Self-Assembling Monolayers"
    - Current employment: Professor, Chulalongkorn University (Bangkok, Thailand).

1. Dr. Ross C. Thomas; Ph. D., December, 1994
    - Dissertation title: "Chemical Reactivity and Mechanical Properties of Well-Ordered Organic Films Confined to Conducting Substrates"
    - Current employment: President and founder, Syntrotek Corp. (Boulder, CO).

Undergraduate Students

33. Mr. Robert Wilson, 2021-present
32. Ms. Leilani Smith, 2017- 2020 (Grad. Student at NYU)
31. Ms. Sarah Johnson, 2017 - 2019 (Grad. Student at UCLA)
30. Mr. Jansen Tapia, 2016 - 2017 (Process Engineer, Intel, Austin, TX)
29. Ms. Jo Villa, 2015 - 2016
28. Ms. Lisa Boatner, 2016 - 2019 (Grad. Student at UCLA)
27. Ms. Tammy Wong, 2015 - 2017
26. Mr. Francisco Carrillo, 2014 - 2015 (Grad. Student, Princeton U.)
25. Mr. Michael Stanley, 2014 - 2015 (UT undergrad)
24. Mr. James Thorpe, 2014 - 2015 (UT graduate student)
23. Ms. Kajari Bhattacharya, 2012 - 2014
22. Mr. Jason Yoo, 2012 - 2015 (graduate student at MIT)
21. Dr. Allen Chen, 2007 (Ph.D., 2015, Rice U.; currently U.S. FDA)
20. Mr. Michael Gabay, 2006 – 2007 (Crockett High School, Austin, TX)
19. Mr. John Crooks, 2006 (Ph.D., U. Wisconsin, now at Abbott Labs)
18. Ms. Maria de Lourdes Cabezas, 2006 - 2011 (Graduate student at Northwestern U.)
17. Mr. Mark Nguyen, 2006-2007 (Resident, UCSF)
16. Ms. Marquita D. Bradshaw, 2005 (pharmacy resident at Oklahoma University)
15. Mr. Tom Fennewald, 2004 (graduate student at Indiana University)
14. Ms. Robbyn Perdue, 2003 (associate professor at Iowa State University)
13. Mr. Nathan Gaubert, 2003 (graduate student at Ohio State U.)
12. Ms. Meghan Campbell, 2002 (undergraduat at Northwestern U.)
11. Ms. Erin Docking, 2001 (Dow Chemical Company, Freeport, TX)
10. Mr. Stephen Hansen, 2000 - 2001 (location unknown)
9. Ms. Melissa Wheeler, 2000 (Forensic chemist, DEA, San Francisco)
8. Ms. Janell Neulinger, 1999 (Chemistry graduate student at UC-Berkeley)

7. Mr. Garrett Slaton, 1999 (Chemistry graduate student at TAMU)
6. Mr. Grant Edwards, 1998, 1999 (Chemistry graduate student at Iowa State University)
5. Mr. Vy Phan, 1997 (location unknown)
4. Mr. Stephen Willis, 1996 (location unknown)
3. Ms. Robin Dahlgren, 1995 (Ph.D., U. Illinois 2002, current location unknown)
2. Mr. Greg Perez, 1993-1994 (Halliburton, Houston, TX)
1. Mr. Bryan Johnson, 1990 (Currently employed at 3M Corporation)