Kenneth S. Suslick

School of Chemical Sciences
University of Illinois at Urbana-Champaign
Chemical & Life Sciences Laboratory
600 S. Mathews Av.
Urbana, Illinois 61801

Office: (217) 333-2794
Lab: (217) 333-1532
Fax: (217) 244-3186
Email: ksuslick@uiuc.edu
Web: www.scs.uiuc.edu/suslick

Education:

1978	Ph. D.	Stanford University, *Synthetic Analogs of Myoglobin and Hemoglobin*.
1974	B. S.	California Institute of Technology (with Honors).

Academic Research and Professional Positions:

2018 – 19	George Eastman Visiting Professor, University of Oxford, and Fellow of Balliol College.
2014 –	*Marvin T. Schmidt* Research Professor, University of Illinois at Urbana-Champaign.
2004 – 14	*Marvin T. Schmidt* Professor of Chemistry, University of Illinois at Urbana-Champaign.
1988 – 14	Professor of Chemistry, University of Illinois at Urbana-Champaign.
1993 – 14	Professor of Materials Science and Engineering, University of Illinois at Urbana-Champaign.
2010 – 14	Professor, Beckman Institute for Advanced Science and Technology, UIUC.
1997 – 04	*William H. & Janet Lycan* Professor of Chemistry, University of Illinois at Urbana-Champaign.
1995 – 97	*Alumni Research Scholar* Professor of Chemistry, University of Illinois at Urbana-Champaign.
1989 – 92	Professor, Beckman Institute for Advanced Science and Technology, UIUC.
1986	Visiting Fellow, Balliol College and Inorganic Chemistry Laboratory, Oxford University.
1984 – 88	Associate Professor, University of Illinois at Urbana-Champaign.
1978 – 84	Assistant Professor, University of Illinois at Urbana-Champaign.
1974 – 78	Research and Teaching Assistant, Stanford University.
1974 – 75	Chemist, Lawrence Livermore Laboratory, O-Group, Physics Division; Laser Isotope Separation.
1971 – 74	Research and Teaching Assistant, California Institute of Technology.
1972	AEC Research Trainee, University of California, Berkeley.

Executive and Administrative Positions:

2009	Acting Director, School of Chemical Sciences, University of Illinois at Urbana-Champaign.
2008	Founding CEO, iSense Systems LLC, Champaign, IL.
2007	President, ChemSensing Inc., Champaign, IL.
2001 – 05	Board of Directors, ChemSensing Inc., Champaign, IL.
1996 –	Board of Directors, European Society of Sonochemistry.
1993 – 98	Board of Directors, Ney Ultrasonics Inc., Bloomfield, CT.
1994 – 98	Scientific Advisory Board, VivoRx Inc., Santa Monica, CA.
2012 – 14	Executive Advisory Committee, UIUC Department of Chemistry; also 1994-95, 2002-04.
2012 – 14	Budget & Operations, UIUC Department of Chemistry, Inorganic Chem. Division; also 1989-92, 1996-97.
2007 – 09	Executive Committee, UIUC College of Liberal Arts and Sciences.
2007 – 10	Executive Committee, UIUC College of Engineering Materials Research Laboratory.
2006 – 08	Advisory Board of Directors, University of Illinois Office of Technology Management.
2005 – 09	Budget & Operations, UIUC Department of Chemistry, Materials Chemistry Division.
1984 – 88	Budget & Operations, UIUC Department of Chemistry, Core Laboratories.

Entrepreneurial Experiences:

2008 –	Co-Founder; iSense Systems LLC, and its subsidiaries, Specific Technologies Inc. & Metabolomx Inc., Mountain View. Successor to ChemSensing; biomedical applications of the optoelectronic nose.
2001 – 07	Co-Founder; ChemSensing Inc., Champaign. Commercialization of colorimetric sensor arrays for applications to artificial olfaction and chemical sensing of toxic gases. $12 million in funding.
1991 – 99	Founding Consultant, VivoRx Pharmaceuticals, Santa Monica. Part of the team that invented and commercialized Abraxane™, albumin microspheres with a paclitaxel core, which is the predominant delivery system for taxol chemotherapy for breast cancer. VivoRx became Abraxis Bioscience, which was acquired by Celgene for $2.9 billion.
1987 – 90	Founding Consultant, Molecular Biosystems Inc., San Diego. Part of the team that commercialized the first echo contrast agent for medical sonography, Albunex™, which became Optison™ by GE Healthcare.

Honors and Awards:

2018– 19	76th George Eastman Visiting Professorship, University of Oxford, and Fellow, Balliol College.
2017	Schulich Visiting Professor Lectureship, Technion-Israel Institute of Technology.
2017	Crano Memorial Lectureship, Akron ACS Section.
2016	Fellow, National Academy of Inventors.
2016	Centenary Prize, Royal Society of Chemistry.
2015	Dreyfus Foundation Senior Mentor Award.
2015	Fellow, American Physical Society.
2015	Innovation Transfer Award, Economic Development Corporation.
2014	Invited Fellow, Royal Society of Chemistry.
2013	Wilsmore Fellow, University of Melbourne.
2011 – 12	Fellow, Guggenheim Memorial Foundation.
2011 – 12	Associate, Center for Advanced Study, UIUC.
2010	Fellow, American Chemical Society.
2010	3ème Cycle Lectureship, Switzerland.
2009 –	Fellow, Materials Research Society (limited to 0.2% of MRS membership).
2009	Acoustical Society of America Mentorship Award.
2008	Sir George Stokes Medal, Royal Society of Chemistry.
2008	Charles William Murtiashaw III Lectureship, University of South Carolina, Columbia.
2006	Harold S. Johnston Lectureship in Physical Chemistry, University of California, Berkeley.
2004	American Chemical Society Senior Cope Scholar Award.
2003	J.T. Donald Lectureship, McGill University, Montreal.
2002 – 03	Associate, Center for Advanced Study, UIUC.
2001	Wolfgang Göpel Award, International Society for Olfaction & Chemical Sensing.
2000	1st Place, Illinois Technology Center Inventorship Competition.
1997	University of Melbourne Special Public Lectureship.
1997	W. Heinlen Hall Lectureship, Bowling Green State University.
1994	American Chemical Society Nobel Laureate Signature Award for Graduate Education.
1994	Materials Research Society Medal for Exceptional Recent Achievements in Materials Research.
1992 –	Fellow, American Association for the Advancement of Science.
1994 –	Fellow, Acoustical Society of America.
1994	Robert A. Welch Foundation Lecturer.
1994	Senior University Scholar, University of Illinois.
1992 – 94	NSF Special Creativity Extension Award.
1993, 1985	Excellence in Teaching Award, UIUC School of Chemical Sciences.
1991 – 92	Beckman Associate, UIUC Center for Advanced Study.
1985 – 87	Alfred P. Sloan Foundation Research Fellow.
1985 – 90	NIH Research Career Development Award.
1979 – 80	DuPont Young Faculty Fellow.
1974 – 78	Silver Medal and Fellow, Royal Society for the Arts, Manufactures, and Commerce (London).
1974 – 78	Hertz Foundation Predoctoral Fellowship.
1973	American Chemical Society Undergraduate Award in Analytical Chemistry.

Publication Summary with Selected Papers: *(see p. 17 for complete list of publications)*

H-Index and Citations: >370 scientific papers, 4 books edited, and 47 patents and patents pending.
h-index = 106 (i.e., 106 publications each with 106 or more citations); 119 citations/journal paper.
Total citations: >44,030. i10-index = 306 (# papers with ≥10 citations). Google Scholar, 15 July 2017.

Sonoluminescence, Cavitation, and the Origins of Sonochemistry

- Suslick, K. S.; Flint, E. B. "Sonoluminescence of Non-Aqueous Liquids" *Nature* **1987**, *330*, 553-555.
- Suslick, K. S. "Sonochemistry" *Science* **1990**, *247*, 1439-1445.
- Suslick, K.S.; Doktycz, S.J. "Inter-Particle Collisions Driven by Ultrasound" *Science* **1990**, *247*, 1067-1069.
- Flint, E. B.; Suslick, K. S. "The Temperature of Cavitation" *Science* **1991**, *253*, 1397-1399.
- McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "Sonoluminescence Temperatures during Multibubble Cavitation" *Nature* **1999**, *401*, 772-775.
- Didenko, Y.; McNamara III, W. B.; Suslick, K. S. "Molecular Emission from Single Bubble Sonoluminescence" *Nature* **2000**, *407*, 877-879.
- Didenko, Y.; Suslick, K. S. "Photons, Radicals, & Ions from a Single Bubble: Energy Inventory during Cavitation" *Nature* **2002**, *418*, 394-397.
- Prozorov, T.; Prozorov, R.; Suslick, K. S. "High Velocity Inter-Particle Collisions Driven by Ultrasound" *J. Am. Chem. Soc.* **2004**, *126*, 13890-13891.
- Flannigan, D. J.; Suslick, K. S. "Plasma Formation & Temperature during Single-Bubble Cavitation" *Nature* **2005**, *434*, 52-55.
- Eddingsaas, N. C.; Suslick, K. S. "Mechanoluminescence: Light from Sonication of Crystal Slurries" *Nature* **2006**, *444*, 163.
- Suslick, K. S.; Flannigan, D. J. "Sonoluminescence" *Annu. Rev. Phys. Chem.* **2008**, *59*, 659-683.
- Flannigan, D. J.; Suslick, K. S. "Inertially-Confined Plasma in an Imploding Bubble" *Nature Physics* **2010**, *6*, 598-601.
- You, S.; Chen, M.-W.; Dlott, D. D.; Suslick, K. S. "Ultrasonic hammer produces hot spots in solids" *Nature Commun.* **2015**, *6*, 6581.

Synthetic, Organometallic, and Materials Applications of Sonochemistry

- Suslick, K.S.; Schubert, P.F.; Goodale, J. "Sonochemistry & Sonocatalysis of Iron Carbonyls" *J. Am. Chem. Soc.* **1981**, *103*, 7342-4.
- Suslick, K. S.; Choe, S.B.; Cichowlas, A.; Grinstaff, M.W. "Sonochemical Synthesis of Amorphous Iron" *Nature* **1991**, *353*, 414-6.
- Skrabalak, S. E.; Suslick, K. S. "Porous MoS_2 Synthesized by Ultrasonic Spray Pyrolysis" *J. Am. Chem. Soc.* **2005**, *127*, 9990-9991.
- Didenko, Y.T.; Suslick, K.S. "Chemical Aerosol Flow Synthesis of Semiconductor Nanoparticles" *J. Am. Chem. Soc.* **2005**, *127*, 12196-7.
- Xu, H. X.; Suslick, K. S. "Sonochemical Synthesis of Highly Fluorescent Ag Nanoclusters" *ACS Nano* **2010**, *4*, 3209-14.
- Xu, H. X.; Suslick, K.S. "Sonochemical Preparation of Functionalized Graphenes" *J. Am. Chem. Soc.* **2011**, *133*, 9148-51.
- Xu, H.; Zeiger, B. W.; Suslick, K. S. "Sonochemical synthesis of nanomaterials" *Chem. Soc. Rev.* **2013**, *42*, *2555-2567*.
- Hinman, J. J.; Suslick, K. S. "Nanostructured Materials Synthesis Using Ultrasound" *Top. Curr. Chem.*, **2017**, *375*, 1-36.

(continued)

Mechanochemistry and Shockwave Energy Dissipation

- Zeiger, B. W.; Suslick, K. S. "Sonofragmentation of Molecular Crystals" *J. Am. Chem. Soc.* **2011**, *133*, 14530-14533.
- Suslick, K. S. "Mechanochemistry and Sonochemistry: Concluding Remarks" *Faraday Discuss.* **2014**, *170*, 411-422.
- Su, Z.; Miao, Y.-R.; Mao, S.-M.; Zhang, G.-H.; Dillon, S.; Miller, J. T.; Suslick, K. S. "Compression-Induced Deformation of Individual MOF Micro-crystals" *J. Am. Chem. Soc.* **2015**, *137*, 1750-1753.
- Su, Z.; Shaw, W. L.; Miao, Y.-R.; You, S.; Dlott, D. D.; Suslick, K. S. "Shock Wave Chemistry in a Metal–Organic Framework" *J. Am. Chem. Soc.*, **2017**, *139*, 4619–4622.
- Ren, Y.; Banishev, A. A.; Suslick, K. S.; Moore, J. S.; Dlott, D. D. "Ultrafast Proton Transfer in Polymer Blends Triggered by Shock Waves" *J. Am. Chem. Soc.*, **2017**, *139*, 3974–3977.
- Miao, Y.-R.; Su, Z.; Suslick, K. S. "Energy Storage during Compression of Metal–Organic Frameworks" *J. Am. Chem. Soc.*, **2017**, *139*, 4667–4670.
- Kim, H. N.; Suslick, K. S. "Sonofragmentation of Ionic Crystals" *Chem. Eur. J.*, **2017**, *23*, 2778-2782.

Protein Microspheres as Medical Imaging Contrast Agents and Theranostics

- Suslick, K. S.; Grinstaff, M. W. "Protein Microencapsulation of Nonaqueous Liquids" *J. Am. Chem. Soc.* **1990**, *112*, 7807-09.
- Grinstaff, M. W.; Suslick, K. S. "Proteinaceous Microbubbles: Synthesis of an Echo Contrast Agent" *PNAS* **1991**, *88*, 7708-7710.
- Desai, N. P.; Soon-Shiong, P.; Sandford, P. A.; Grinstaff, M. W.; Suslick, K. S.; "Methods for *In Vivo* Delivery of Substantially Water Insoluble Pharmacologically Active Agents" *U. S. Patent 5,439,686*; Aug. 8, 1995.
- Toublan, F. J.-J.; Boppart, S.; Suslick, K. S. "Tumor Targeting by Surface Modified Protein Microspheres" *J. Am. Chem. Soc.* **2006**, *128*, 3472-3473.
- Mahmoudi, M.; Lohse, S. E.; Murphy, C. J.; Fathizadeh, A.; Montazeri, A.; Suslick, K. S. "Variation of Protein Corona Composition of Gold Nanoparticles Following Plasmonic Heating." *Nano Lett.* **2014,** *14*, 6-12.
- Rankin, J. M.; Neelakantan, N. K.; Lundberg, K. E.; Grzincic, E. M.; Murphy, C. J.; Suslick, K. S. "Magnetic, Fluorescent and Copolymeric Silicone Microspheres" *Advanced Science*, **2015**, *2*, 1500114-1-5.

Chemical Sensing, Sensor Arrays, Olfaction, and Molecular Recognition

- Cook, B. R.; Reinert, T. J.; Suslick, K. S. "Shape Selective Alkane Hydroxylation by Metalloporphyrin Catalysts" *J. Am. Chem. Soc.* **1986**, *108*, 7281-7286.
- Bhyrappa, P.; Vaijayanthimala, G.; Suslick, K. S. "Shape-Selective Ligation to Dendrimer-Metalloporphyrins" *J. Am. Chem. Soc.* **1999**, *121*, 262-263.
- Rakow, N. A.; Suslick, K. S. "A Colorimetric Sensor Array for Odor Visualization" *Nature* **2000**, *406*, 710-714.
- Zimmerman, S. C.; Wendland, M. S.; Rakow, N. A.; Zharov, I.; Suslick, K. S. "Synthetic Hosts by Monomolecular Imprinting Inside Dendrimers" *Nature* **2002**, *418*, 399-403.
- Wang, J.; Luthey-Schulten, Z.A.; Suslick, K.S. "Is the Olfactory Receptor a Metalloprotein?" *Proc. Natl. Acad. Sci. USA*, **2003**, *100*, 3035-9.
- Suslick, K. S.; Bhyrappa, P.; Chou, J. H.; Kosal, M. E.; Nakagaki, S.; Smithenry, D. W.; Wilson, S. R. "Microporous Porphyrin Solids" *Acc. Chem. Res.* **2005**, *38*, 283-291.
- Lim, S. H.; Feng, L.; Kemling, J. W.; Musto, C. J.; Suslick, K. S. "An Optoelectronic Nose for Detection of Toxic Gases" *Nature Chemistry*, **2009**, *1*, 562-567.
- Lin, H.; Suslick, K. S. "A Colorimetric Sensor Array for Triacetone Triperoxide" *J. Am. Chem. Soc.*, **2010**, *132*, 15519-21.
- Feng, L.; Musto, C. J.; Kemling, J. W.; Lim, S.H.; Suslick, K. S. "A Colorimetric Sensor Array for Identification of Toxic Gases below Permissible Exposure Limits" *Chem. Commun.*, **2010**, *46*, 2037-2039.
- Askim, J. R.; Mahmoudi, M.; Suslick, K. S. "Optical sensor arrays for chemical sensing: the optoelectronic nose" *Chem. Soc. Rev.* **2013**, *42*, 8649-82.
- Askim, J. R.; Suslick, K. S. "Hand-Held Reader for Colorimetric Sensor Arrays" *Anal. Chem.* **2015**, *87*, 7810–7816.
- Askim, J. R.; Li, Z.; LaGasse, M. K.; Rankin, J. M.; Suslick, K. S. "An optoelectronic nose for identification of explosives" *Chem. Sci.*, **2016**, *7*, 199-206.
- Mahmoudi, M.; Lohse, S. E.; Murphy, C. J.; Suslick, K. S. "Identification of Nanoparticles with a Colorimetric Sensor Array" *ACS Sensors*, **2016**, *1(1)*, 17-21.

Major Research Funding (past 10 years):

2015 – 18	AFOSR, Basic Research Challenge Program; PIs: D. D. Dlott; K. S. Suslick; R. Kalia; P. Vashinshta. "Real-time dynamics of hot spots in microstructured energetic materials" $892,786 / 3 yr.
2012 – 18	ONR, MURI "Shock Wave Energy Dissipation (SWED) by Mechanochemically-Active Materials" co-PIs with D. D. Dlott, K. S. Suslick, J. S. Moore, N. Sottos, T. J. Martínez, and A. Strachan, $7,500,000 / 5 yr.
2017	Procter & Gamble Corp, "Colorimetric Sensor Applications", $157,106 / 1 yr.
2012 – 16	NSF-DMR; "New Synthetic Methodologies for Nanostructured Materials Using Ultrasound" $508,903 / 4 yr.
2012 – 15	NSF-CHE; "An Optoelectronic Nose for Artwork Monitoring" Co-PI w/ M. Schilling, Getty Conserv. Inst., $467,293 / 3 yr.
2011 – 15	DOD, ONR, Basic Research Challenge Program; co-PI with D. D. Dlott; "Spontaneous energy concentration in energetic molecules, interfaces and composites: response to ultrasound and THz radiation" $1,200,000 / 4 yr.
2012 – 14	DOD, TSWG/JIEDDO; "N41756-12-R-4767 "Optoelectronic Nose for Detection of Improvised Explosives" $1,450,000 / 2 yrs.
2010 – 14	NSF; "Chemical Effects of High Intensity Ultrasound: Sonoluminescence" $521,845 / 3 yr.
2010 – 12	Energy Biosciences Institute; "Ultrasound for Lignocellulosic Biofuel Production" $241,861 / 2 yr.
2010 – 12	NSF; "New Synthetic Methodologies for Nanostructured Materials Using Ultrasound" $340,000 / 2 yr.
2007 – 12	NIH; "A VOC Dosimeter Based On A Colorimetric Sensor Array" $2,460,000 / 5 yrs.
2006 – 11	DOE; UIUC Materials Res. Lab, "Nanoparticle Oxides for Photochemical Water Splitting," $120,000 / yr.
2010 – 11	DOD, DARPA/Army; "Probing the Limits of Cavitation, Sonoluminescence & Mechanoluminescence" $213,000/yr.
1999 – 08	NSF-CHE; "Chemical Effects of High Intensity Ultrasound" $562,500 / 7 yrs.
2006 – 08	DOD, TSWG; "Colorimetric Sensor Array for Detection of Toxic Industrial Chemicals" $535,388 / 2 yrs.
2004 – 07	HSARPA; "Ultra-Portable Chemical Sensors based on Chemoresponsive Dye Arrays" $327,120 / yr.
2005 – 07	NSF-BES; "SENSORS: Colorimetric MicroArrays" $168,000 / 2 yrs.
2000 – 05	DOD, DARPA; "Chemical Control of Single Bubble Cavitation" $737,121 / 5 yrs.
2000 – 05	NIH 5R01-HL25934 "Heme Proteins, Microspheres, and Their Synthetic Analogs" $1,365,000 / 4 yrs.
1990 – 06	DOE; UIUC Materials Res. Lab, "Field Responsive Materials," $120,000 / yr.

Recent Special and Invited Lectures (past 10 years):

2017

Schulich Lecturer, Faculty of Chemistry, Technion, Haifa, Israel.
Keynote Lecturer, 5th International Symposium on Sensor Science, Barcelona.
Presenter, Board on Chemical Sci. & Tech., Natl. Academies of Sciences, Engineering, and Medicine, Airlie House, VA.
Distinguished Speaker, Student Council, Dept. of Chemistry, Northwestern University.
Akron ACS Crano Memorial Lecturer.

2016

Plenary Lecturer, International Conference on Nanostructures, Kish Island, Iran.
Plenary Lecturer, 15th European Sonochemistry Society Meeting, Istanbul.
Invited Speaker, Res. &Tech. Symp., American Institute of Conservation AIC/CAC Joint Meeting, Montreal.
Invited Speaker, Symp. on Res. at Chemistry and Art/Archeology Interface, ACS National Meeting, San Diego.
Institute Colloquium Speaker, Institute of Science & Technology Austria, Klosterneuburg (Vienna).
Centenary Prize Lecturer: University of Edinburgh; Trinity University, Dublin; Bangor University; Cambridge University.

2015

Invited Speaker, ISOEN Conference, Dijon, France.
Invited Speaker, Baekeland Award Symposium, Rutgers University, New Jersey.
Invited Speaker, Symp. on Application of Ultrasound to Nanoscience, Pacifichem 2015, Honolulu.
Invited Speaker, Symp. on Chemical Reactions by Innovative Technologies, Pacifichem 2015, Honolulu.
Invited Speaker, Frontiers in Ultra-Sensitive Detection Meeting, ECE, UIUC, 2015.

2014

Plenary Lecturer, Ultrasonics 2014, Lisbon.
Plenary Lecturer, 14th European Sonochemistry Society Meeting, Avignon.
Summary Lecturer, Faraday Discussion Symposium on Mechanochemistry, Montreal.
Invited Speaker, DoD Workshop on Colorimetric Sensors, Edgewood, MD.
Invited Speaker, Intl. Workshop on Superhydrophobicity, Bubble Stability & Heterogeneous Nucleation", Rome.
Invited Speaker, Advanced Technology for National Security Symposium, DOD MIT Lincoln Laboratory, Lexington.
Invited Speaker, Pure Chemistry Award Symposium, ACS National Meeting, Dallas.

2013

Plenary Lecturer, 1st Asia-Oceania Sonochemical Society Meeting, Melbourne.
Invited Speaker, 2013 Trace Explosives Detection Workshop, Philadelphia.
Invited Speaker, 21st Intl. Congress on Acoustics, Montreal.
Invited Speaker, Symp. on Synth. Solid State Materials: Beyond Heat & Beat, 246th ACS National Meeting, Indianapolis.
Plenary Lecturer, 19th International Conference on Advanced Oxidation Technologies, San Diego.

2012

Keynote Speaker, 8th Intl. Symposium on Cavitation, Singapore.
Plenary Lecturer, 19th International Symposium on Nonlinear Acoustics, Tokyo.
Invited Speaker, Acoustics 2012, Hong Kong.
Invited Speaker, Europtrode IX, Barcelona.

2011

Invited Speaker and symposium organizer, Intl. Symp. on Olfaction & Electronic Noses (ISOEN-2011), NYC.
Invited Speaker, Nonlinear Acoustics Symposium, Acoustical Society of America National Meeting, Seattle.
Invited Speaker, Gordon Research Conference on Detecting Illicit Substances, Lucca, Italy.
Invited Speaker, Materials & Molecular Design & Discovery Initiative, Argonne National Laboratory.
Provost's Visiting Scholars and Artists Program, Western Michigan University.

2010

Invited Speaker, Sonochemistry Symposium, Pacifichem 2010, Honolulu.
Invited Speaker, Targeting Chem. & Biol. Warfare Agents Symposium, Pacifichem 2010, Honolulu.
3ème Cycle Lectures: Universities of Fribourg, Neuchatel, Geneva, and Bern.
Schwinger Foundation Symposium on Spontaneous Energy Focusing Phenomena, NTU, Singapore.
Invited Speaker, 2010 Association for Crystallization Technology Meeting, New Brunswick, NJ.
Plenary Lecturer, 12th Meeting of the European Sonochemistry Society, Chania, Crete.
Invited Speaker, 6th Intl. Conference on Porphyrins & Phthalocyanines, Albuquerque.

2009

Invited Speaker, Symposium on New Sensors for Environmental Monitoring, Pittsburgh Conference (PittCon), Chicago.
Invited Speaker, Workshop on New Sensor Technology, Solvay Corp., Brussels, Belgium.

Plenary Lecturer, Beijing Conference & Exhibition on Instrumental Analysis (BCEIA '09), Beijing.
Invited Speaker, Department of Chemistry, Peking University, Beijing.
Invited Speaker, Department of Chemistry, Tsinghua University, Beijing.

2008

Invited Speaker, Acoustics '08 (Acoust. Soc. Am./Euro. Acoust. Assoc.), Paris.
Keynote Lecturer, Ultrasonics Industry Association Meeting, Washington, D.C.
Murthiashaw Lecture, University of South Carolina, Columbia.
Colloquium Speaker, Department of Chemistry, University of Arkansas, Fayetteville.
Invited Speaker, Pittsburgh Conference (PittCon), New Orleans.
Awards Speaker, Royal Society of Chemistry Meeting, Dublin.
Invited Speaker, Acoustics '08 (155th ASA Mtg., 2nd Jt. ASA-EAA Joint Conf., 60th SFA Mtg.), Paris.
Invited Speaker, 12th Intl. Meeting on Chemical Sensors, Columbus.

2007

Keynote Lecturer, International Workshop on Applied Sonochemistry, Melbourne.
Plenary Lecturer, Japanese Sonochemistry Society Meeting, Kyoto.
Invited Speaker, Symposium on Sensors and Sensor Networks, 234th ACS National Meeting, Boston.
Invited Speaker, Symposium on Photocatalysis and Solar Energy Conversion, 234th ACS National Meeting, Boston.
Invited Speaker, Annual Conference of the International Association of Culinary Professionals, Chicago.
Invited Speaker, Joint US-Japan Symposium on the Chemistry of Coordination Space, Northwestern University.

2006

Invited Speaker, Pittsburgh Conference (PittCon), Orlando.
Invited Speaker, Eastern Analytical Symposium, Somerset, NJ.
Invited Speaker, Symposium on Chemistry under Extreme Conditions, 232nd ACS National Meeting, San Francisco.
Invited Speaker, Symp. on Bioinorganic and Organometallic Catalysis, 232nd ACS National Mtg., San Francisco.
Invited Speaker, MRS National Meeting, Sensor Symposium, San Francisco.
Harold S. Johnston Lectureship in Physical Chemistry, University of California, Berkeley.
Invited Speaker, 4th International Conference on Porphyrins and Phthalocyanines, Rome.
Invited Speaker, Gordon Research Conference on Tribology, Colby, ME.
Plenary Lecturer, Sociedade Brasileira de Química, 29th National Meeting, Águas de Lindóia, Brazil.
Invited Speaker, Symp. on Chemical & Biological Countermeasure Technologies, Dept of Homeland Security, Boulder.
Invited Speaker, Biennial Symposium, Combating Terrorism Technology Support Office (CTTSO), Washington, DC.

Expert Witness and Other Legal Consulting:

2016 – 2017. Sienna Biopharmaceuticals v. William Marsh Rice University, case IPR2017-0045/46; Irell & Manella LLP (L.A., Newport Beach). Plaintiff Expert Witness; patent infringement; biomedical nanoparticles.

2015. Arisdyne Systems v. Cavitation Technologies, case IPR2015-00977; Pearne & Gordon LLP (Cleveland). Plaintiff Expert Witness; patent infringement; hydrodynamic cavitators.

2010 – 2011. Regenersys, Inc. v. Klamath Falls et al.; CAM, Santiago, Chile; case 1077-09; King & Spalding, LLP (Atlanta & DC). Plaintiff Expert Witness; patent infringement; ultrasonic oil well extraction.

2004 – 2005. Hunton & Williams, LLP (Richmond) representing Crow's Nest Synfuel, L.P. Plaintiff Expert Witness; IRS regulation interpretation, Sect. 29; ultrasonic coal beneficiation and synfuel production.

1999. Mentor v. MDA et al. U.S. District Court, case 99-1532. Quinn, Emmanuel, Urquhart & Sullivan, LLP (L.A., N.Y.); Plaintiff Expert Witness; patent infringement; ultrasonic liposuction.

1998 – 1999. Mentor v. MDA et al. U.S. District Court (Central District of California), case 99-1532; Federal Court Appointed (Rule 706) Expert Witness; patent infringement; ultrasonic liposuction.

1996 – 1997. Alcon Laboratories v. Storz Instruments Co. U.S. District Court, case 4:96-cv-00254. Finnegan, Henderson, Farabow, Garrett (DC); Defense Expert Witness; patent infringement; phacoemulsification; cataract surgery.

1990 – 1991. Keller v. Feinstein; Virginia State Courts. Thompson & McMullan (Richmond); Plaintiff Expert Witness; patent ownership; sonographic echo contrast imaging agents.

Industrial Consulting Positions with Confidentiality Agreements:

2016 and Ongoing
Arisdyne Systems, Cleveland, OH.
WavePharma, LLC, Austin, TX.
iSense LLC, Mountain View, CA.
Phoenix Lake, Inc.

2015
iSense LLC, Mountain View, CA.
Kellogg Co, Battle Creek, MI.
Exxon-Mobil Research & Engineering, Clinton, NJ.
RASP Technologies, Asheville, NC.

2014
iSense LLC, Mountain View, CA
Kellogg Co, Battle Creek, MI.
Exxon-Mobil Research & Engineering, Clinton, NJ.
iP2Biz, Atlanta, GA.

2013
ORC Guideline (Teltech), Princeton; 1985 – 2013
iSense LLC, Mountain View.

2012
Exxon-Mobile Research & Engineering, Clinton, NJ.
3M, Minneapolis, MN.
Eastman Chemicals, Clinton, NJ.

2010-2011
iSense LLC, Mountain View.
RegEnersys, London.
John Deere & Co., Peoria.

2009
iSense LLC, Mountain View.
Lumigen, Beckman Coulter, Southfield, MI.

2008
iSense LLC, Mountain View.
Traditional Industries Intellectual Property Ltd., Israel.

2007
Merck Pharmaceuticals, Rahway, NJ.

2006
ChemSensing Inc., Champaign.

2005
Procter & Gamble, U.K.
ChemSensing Inc., Champaign.

2004
Colgate Palmolive.
ChemSensing Inc., Champaign.

2003
ChemSensing Inc., Champaign.
Dispersed Systems, Oceanside, CA.

2002
ChemSensing Inc., Champaign.
Dispersed Systems, Oceanside, CA.
Aramco Inc., Houston.
PDVSA, Caracas, Venezuela.

2001
ChemSensing Inc., Champaign.
PG Research Foundation.
UOP Corp. Research, Chicago.
Aramco (Saudi Arabian Oil Co.), Dharan.
Eveready Corp., Cincinnati.

2000
PG Research Foundation.
Exxon ERDL, Baton Rouge.
Vitroseal, Inc., Evanston, IL.
Sonus Pharmaceuticals, Seattle.

1999
PG Research Foundation.
VivoRx Pharmaceuticals, Santa Monica.; 1991 – 99.
Exxon ERDL, Baton Rouge.
CQ Inc., Homer City, PA.

1998
Exxon ERDL, Baton Rouge.
Abbot Pharmaceuticals, North Chicago.
MacroSonix Corp., Richmond, VA.

1976 – 1997
3M Corporate Research, Minneapolis; 1992, 1995.
AMOCO Chemicals, Naperville, Illinois; 1987-88.
BP Chemicals, London; 1991.
Catalytica Associates, Mountain View; 1978, 1991-93.
Chem Systems, Houston; 1991.
Ciba-Geigy Ltd., Basel, Switzerland; 1986.
Dean Technology, Hanover, Connecticut; 1990-92.
Digital Engineering, Thunder Bay, Canada; 1982.
Dow Chemicals, Midland and Freeport; 1989.
Dow-Elanco, Indianpolis; 1994.
duPont Chemicals Corporation, Wilmington, DE; 1990.
duPont Imaging, Glasgow; 1993.
duPont-Merck Pharmaceuticals, Bellirica, NY; 1991.
Eli Lilly Co., Indianapolis, 1987.
Exxon Corp. Res., Annandale; 1984-86, 1990-91, 1994-96.
Exxon ERDL, Baton Rouge; 1988, 1992-93.
Foster-Wheeler Corporation, Livingston, NJ; 1993.
Gas Research Institute / Alfred Univ.; 1992-93.
Harper and Row, Hugheey's *Inorg. Chem.*; 1981-82.
Hoechst-Celanese, Providence; 1990-1991.
Imperial Chemicals Industry, Runcorn, UK; 1986.
Institute for Gas Technology, Chicago; 1987-89.
Kimberly-Clark Corp., Neenah, WI; 1995.
M & T Chemicals, New Jersey; 1986-87.
Mobil Research & Development, Paulsboro, 1987.
Molecular Biosystems, Inc., San Diego; 1987-90.
National Starch and Chemical Corp., Plainfield, NJ; 1996.
Ney Ultrasonics, Bloomfield, CT, 1994-1997.
Orentreich Institute, Cold Spring, NY; 1993.
Shell Chemicals, Amsterdam; 1986.
Storz Instrument Co., St. Louis; 1997.
Sun Oil Research & Dev. Lab., Marcus Hook, NJ; 1988.
U.S. Army Construction Eng. Res. Lab; 1996-97.
Union Carbide Corporation, Bound Brook, NJ; 1990.
Vulcan Chemicals, Witchita, KS; 1988.

Committee and Administrative Duties:

University of Illinois, Advisory Board, Office of Technology Management, 2006–08.
University of Illinois, Intellectual Property Policy Committee, 2003–08.
University of Illinois at Urbana-Champaign, Center for Microscopy and Imaging Advisory Committee, 1997–2000.
University of Illinois at Urbana-Champaign, Chair, Evaluation Committee of Director of Environmental Council, 1998–99.
University of Illinois at Urbana-Champaign, Search Committee for MacArthur Chaired Professorships, 2003.
University of Illinois at Urbana-Champaign, Search Committee for Director of Materials Research Laboratory, 1999.
University of Illinois at Urbana-Champaign, Senator (elected post), 1986–87.
University of Illinois at Urbana-Champaign, Task Force on the Environment, 1993.

College of Liberal Arts and Sciences, Executive Committee, 2007–09.
College of Liberal Arts and Science, Ad Hoc B.A./B.S. Curriculum Committee, 1985–86.
College of Liberal Arts and Sciences, Chair, Administrative Evaluation of Head of Microbiology, 2010.
College of Liberal Arts and Sciences, Chair, Administrative Evaluation of Director of School of Life Sciences, 1993–94.
College of Liberal Arts and Sciences, Council on General Education (elected post), 1982–84.
College of Liberal Arts and Sciences, School of Chemical Sciences Director Search, 2012.
College of Liberal Arts and Sciences, Search Committee for Director of the School of Chemical Sciences, 1999.

College of Engineering, Materials Research Laboratory Executive Committee, 2007–10.
College of Engineering, Materials Research Laboratory Director Search Committee, 1998–99

Beckman Institute for Advanced Science and Technology, Program Advisory Committee, 1989–91.
Beckman Institute for Advanced Science and Technology, Molecular Recognition Group Leader, 1988–91.

School of Chemical Sciences, Acting Director, 2009.
School of Chemical Sciences, Executive Committee, 2006–09.
School of Chemical Sciences, New Building Committee, 1993–95.
School of Chemical Sciences, Safety Committee, 1979–80.
School of Chemical Sciences, Service Facilities, 1988–89; 2001–05; 2012 –14.
School of Chemical Sciences, Supplies and Stockrooms, 1983–86; chair, 1986–92.
School of Chemical Sciences, Teaching Evaluation and Awards, 1982–87.

Dept. of Chemistry, Awards Committee, 2004–16.
Dept. of Chemistry, Budget & Operations, Inorg. or Materials Chem., 1989-92, 1996-97, 2005–07, 2008–09, 2012–17.
Dept. of Chemistry, Budget and Operations, Core Laboratories, 1984–88.
Dept. of Chemistry, Building and Space Allocation, 1981–82, 1993.
Dept. of Chemistry, Courses and Curriculum, 1987–90.
Dept. of Chemistry, Dept. Colloquium Chair, 1987–89.
Dept. of Chemistry, Dept. Reorganization Committee, 1997.
Dept. of Chemistry, Executive Advisory Committee, 1994–95, 2002–04, 2012–14, 2014-2016.
Dept. of Chemistry, General Chemistry, 1981–82; 2006–07.
Dept. of Chemistry, Graduate Student Advising, 1980–85, 2003–05.
Dept. of Chemistry, Graduate Student Fellowships, 1986–87.
Dept. of Chemistry, Graduate Student Recruitment & Appointments, 1978–81, 1996–99, 2004–12; chair, 2000–01, 2005–09.
Dept. of Chemistry, Inorganic/Materials Seminar Chairman, 1978–81, 1996–99, 2004–08.
Dept. of Chemistry, Staff Committee, 1996–2005.

Editorships and Editorial Boards:

1991 –2014	*Ultrasonics Sonochemistry*, Elsevier Science Publishers.
	Founding Editor, 1991 – 1994; Editorial Board, 1991 – 2014
2006 – 09	Editorial Board, *Journal of the American Chemical Society*.
2005 – 08	Editorial Board, *Accounts of Chemical Research*, American Chemical Society.
1996 – 2011	Founding Editorial Board, *Journal of Porphyrins and Phthalocyanines*, Wiley Publishers.
1997 – 98	Co-editor, *Sonochemistry and Sonoluminescence*, Kluwer Academic Publishers.
1993 – 96	Founding Editorial Board, *Intl. J. of Mechanochemistry & Mech. Alloying*, Cambridge Interscience.
1993 – 96	Founding Editorial Board, *Advanced Oxidation Technologies*, AOT Press.
1993 – 96	Volume Editor, *Comprehensive Supramolecular Chemistry*, Elsevier/Pergamon Press.
1992 – 96	Editorial Board, *Ultrasonics*, Elsevier Science Publishers.
1991 – 93	Editorial Board, *Research on Chemical Intermediates*, Elsevier Science Publishers.
1990	Guest Editor, Special Issue on Sonochemistry, *Ultrasonics*, Butterworth Publishing.
1985 – 87	Editor, *Ultrasound: Its Chemical, Physical, and Biological Effects*, 1st ed.; VCH Publishers.
1986 – 87	Editor, *High Energy Processes in Organometallic Chemistry*, ACS Books

Professional Society Memberships:

National Academy of Inventors *(Fellow)*
Acoustical Society of America *(Fellow)*
American Association for the Advancement of Science *(Fellow)*
American Chemical Society (*Fellow*)
American Physical Society (*Fellow*)
Materials Research Society (*Fellow*)
Royal Society for the Arts, Manufactures, and Commerce, 1974–82 *(Fellow)*
Royal Society of Chemistry *(Fellow)*
Alpha Chi Sigma (Professional Chemistry Fraternity)
European Sonochemistry Society (Charter Member)
International Mechanochemical Association (IUPAC chartered)

Teaching Responsibilities:

Chem 101	General Chemistry; 1980.
Chem 109	Advanced Placement General Chemistry Laboratory; 1999.
Chem 115	Chemistry of Everyday Phenomena; 1990, 1991, 1992, 1993, 1997. 1998.
Chem 202	Advanced Placement General Chemistry; 2004.
Chem 312	Inorganic Chemistry; 1982, 1991, 1994, 1995, 1999, 2000, 2001, 2009, 2010, 2011, 2012, 2013.
Chem 319	Instrumental Characterization of Chemical Systems Laboratory; 2000.
Chem 383	Dynamics, Structure and Physical Methods Laboratory; 1982, 1983, 1984, 1994.
Chem 405	Inorganic Graduate Seminar; 1978, 1979, 1980, 1985, 1996, 1997, 1998, 1999.
Chem 406/516	Physical Methods in Inorganic Chemistry; 1978, 1980, 1982, 1984, 2013, 2014.
Chem 407	Special Topics in Inorganic Chemistry: Bioinorganic Chem.; 1979, 1982, 1984, 1987, 1989, 1993, 2003.
Chem 407	Special Topics in Inorganic Chemistry: Materials Synthesis; 1996.
Chem 584	Materials Chemistry; 2006, 2007, 2008.
Chem 588	Physical Methods in Materials Chemistry; 2004, 2005, 2006, 2007, 2008, 2009.

Student and Postdoctoral Associates, Past and Present:

4 Ph.D. Graduate Students presently in group.
2 Postdoctoral Research Associates presently in group.
2 Undergraduate Research Assistants presently in group.

69 Ph.D. Graduate Students supervised and theses completed.
33 Past Postdoctoral Research Associates.
8 M.S. Graduate Students supervised and theses completed.
21 Undergraduate Research Assistants supervised.

Personal Data:

b., Chicago, September 1952. Son: Benjamin, b. 1992. Spouse: Patricia Plaut.

Other Invited Lectures and Presentations (>500 in total)

2017
Calvin College, Grand Rapids
University of Akron

2016
University of Edinburgh
Trinity University, Dublin
Bangor University, U.K.
Cambridge University
EPRI, Palo Alto
Shiraz University

2015
Museum of Fine Arts, Boston
Arizona State University, Tempe
Bradley University, Peoria
DTRA CBD Conference, St. Louis
Trace Explosives Detection Conf., Pittsburg

2014
Univ. of Science & Technology of China
Nanjing University
Zhejiang University, Hangzhou
Monell Chemical Senses Institute, Philadelphia
Texas Tech University, Lubbock
University of Wisconsin, Madison

2013
University of California, Berkeley
Boston University
Getty Museum, Getty Conservation Institute
California Institute of Technology
Wilsmore Lectures, Univ. of Melbourne
University of Sydney
Portland State University
ACS Natl. Mtg, Indianapolis
DoD TSWG End-Users' Meeting, Arlington, VA

2012
Swarthmore College, Swarthmore, PA
Michigan State University, East Lansing
Exxon Corporate Research, Clinton, NJ
243rd ACS National Meeting, San Diego

2011
Iowa State University (Dept. of Physics), Ames
3M R & D Center, Minneapolis
University of Western Michigan, Kalamazoo
241st ACS National Meeting, Anaheim

2010
University of North Texas, Denton
University of California, Davis
University of Geneva
University of Lausanne
University of Berne
University of Fribourg
University of Neuchâtel

2009
California Institute of Technology
University of California, Riverside
Acoustical Society of America Mtg., San Antonio
MRS National Meeting, San Francisco
NIH ChemSensors Steering Committee
238th ACS National Meeting, Washington, DC

2008
University of Arkansas
University of Missouri, Columbia
University of Utah
12th Intl. Mtg. Chem. Sensors, Columbus
Wright-Patterson AFB (July, 2008)
Bench to Boardroom Symposium, UIUC Center for Entrepreneurship (Oct., 2008)
235th ACS National Meeting, New Orleans
Colloquium Speaker, Dept. of Chemistry, Univ. of Utah.
Colloqu. Speaker, Dept. of Chem., U. Missouri, Columbia.

2007
Dept. of Physics, Univ. New Brunswick, Fredericton, NB
Truman State University, Kirksville, MO
Bowling Green State University
234th ACS National Meeting, Boston
233rd ACS National Meeting, Chicago
Invited Speaker, DOE User Symposium, Argonne National Laboratory.

2006
Universidade Federal do Parana, Curitiba, Brazil
Abilit Corp., Osaka, Japan
Hamano Life Sciences Research Foundation, Tokyo
University of Nebraska, Lincoln
Materials Science and Engineering, UIUC
Northern Illinois University, DeKalb, IL
HSARPA Contractors Meeting, Boulder, CO
TSWG DoD Contractors Meeting, Washington DC
232nd ACS Natl. Mtg., San Francisco
Chemical Biological Incident Response Force (CBIRF) Naval Surface Warfare Center, Indian Head, Md
231st ACS National Meeting, Atlanta

2005
Invited Speaker, Bioeffects of Ultrasound Symposium, Acoustic Soc. Amer. National Meeting, Vancouver, BC.
Invited Speaker, Symp. on Sensor Integration, Materials Research Society National Meeting, San Francisco.
Invited Speaker, Symp. on Nanotechnology for Bioanalysis and Biomedical Applications, Pacifichem 2005, Honolulu.
Invited Speaker, Symp. on Chemical Sensors, Biosensors and Sensing Technologies, Pacifichem 2005, Honolulu.
Invited Speaker, Symp. on Chemical Effects of Ultrasound, Pacifichem 2005, Honolulu.
Invited Speaker, Symp. on Advances In Power Ultrasound, Intl. Food Safety & Quality Conference, New Orleans
230th ACS National Meeting, Washington DC
MRS National Meeting, San Francisco
Texas A&M University
Boston College
ACS Regional Meeting, Peoria
229th ACS Natl. Meeting, San Diego

2004

Plenary Lecturer, Euro. Sonochem. Soc., Badajoz, Spain.
Plenary Lecturer, ISOME-04 (Intl. Symp. Organic Molecular Electronics), Kyoto, Japan.
Invited Speaker, Gordon Research Conference on Water and Aqueous Systems, Holderness, NH.
Cope Scholar Symp., ACS National Meeting, Philadelphia.
Invited Speaker, Delwart Foundation Symposium on Chemical Sensing, Communication, and Ecology.
Plenary Lecturer, Intl. Symposium on Molecular Sensing, National Taiwan University, Taipei, Taiwan.
Visiting Lecturer, Taiwan National Science Council.
Cherry Emerson Lecturer, Georgia Institute of Technology.
3rd Intl. Conf. Porphyrins & Phthalocyanines, Dijon.
Univ. of Texas Southwestern Medical Center at Dallas.
Academia Sinica, Taipei, Taiwan.
National Chiayi University, Taiwan.
Georgia Institute of Technology.
228th ACS Natl. Meeting, Philadelphia.
Tech Exchange Presentation, Piscataway, NJ.
Colgate Palmolive Corporate Research, NJ.

2003

J.T. Donald Lecturer, McGill University, Montreal.
Invited Speaker, World Congress on Ultrasonics, Paris.
Five College Lecturer (Amherst, Mount Holyoke, Smith, Hampshire and U. Mass. Amherst).
Invited Speaker, Gordon Res. Conf. on Chemical Sensors.
Invited Speaker, Acoustic Soc. Amer. Mtg., Nashville.
Frontiers of Chemistry Lecturer, Wayne State University.
225th ACS Meeting, New Orleans
UIUC Dept. of Food Science and Human Nutrition
Ultrasonics Industry Association Technical Symp.
Northwestern University
Colgate Palmolive Corporate Research, NJ
DARPA
University of California, Irvine

2002

Invited Lecturer, 16th Intl. Sym. Nonlinear Acoustics (ISNA-16), Moscow.
Invited Speaker, 9th Intl. Symp. on Olfaction & Electronic Noses (ISOEN-2002), Rome.
Plenary Lecturer, Catalyst Club of Chicago.
Invited Speaker, Symposium Honoring J. I. Brauman' 65th Stanford University
Invited Speaker, Symposium Honoring R. G. Bergman, University of California, Berkeley.
Invited Speaker, Chicago Technology Forum 2002
University of Notre Dame
University of Akron
University of Delaware
Pfizer Pharmaceuticals, Groton, CT
223rd ACS Natl. Mtg., Boston
3M Technology Center, Minneapolis
Abbot Pharmaceuticals, North Chicago
Colgate Corporate Research, Piscataway, NJ
Avery-Dennison, Cincinnati
Argonne National Laboratory, Argonne, IL
International Flavors and Fragrances, NY, NY

2001

Plenary Lecturer, EURODEUR Conference, Paris.
Invited Speaker, 8th ISOEN, Washington, D.C.
Plenary Lecturer, 17th Intl. Congress on Acoustics, Rome.
Plenary Lecturer, World Congress on Ultrasonics/ IEEE Intl. Ultrasonics Symposium, Atlanta, GA
University of Michigan
Massachusetts Institute of Technology
Motorola Adv. Tech. Center, Schaumburg, IL
Federal Bureau of Investigation, Washington, D.C.
Colgate-Palmolive Co., Piscataway, NJ
Procter & Gamble Corp., Cincinnati, OH
University of Illinois at Urbana-Champaign, MATSE
Mayo Clinic, Biomed. Eng., Rochester, MN
221st ACS Natl. Mtg., San Diego

2000

University of California, Santa Barbara
Pacifichem 2000, Honolulu
Illinois Technology Center, Savoy
220th ACS Natl. Mtg., Washington, D.C.
219th ACS Natl. Mtg., San Francisco
University of Wisconsin, Madison
DARPA Symposium on Meta-Materials

1999

Pittsburgh Conference Lectureship, Duquesne University.
Invited Speaker, 82nd Canadian Soc. Chem. Conf., Toronto.
Invited Speaker, 15th Intl Symp Nonline. Acoust, Göttingen.
218th ACS Natl. Mtg., New Orleans
217th ACS Natl. Mtg., Anaheim
University of New Orleans, Adv. Matl. Res. Inst
University of Missouri, St. Louis
MURI Conference, Aberdeen Proving Grounds, MD
University of Colorado
Colorado State University
University of Wyoming

1998

Invited Speaker, DARPA Sonolum Workshop, Arlington.
Invited Lecturer, 6th Mtg. European Sonochem. Soc., Rostock.
Invited Speaker, Acoustic Soc. Amer. Mtg., Seattle.
Director's Colloquium Speaker, Los Alamos Natl. Lab.
Invited Speaker, Gordon Research Conference, Chemistry and Biology of Tetrapyrroles.
Invited Speaker, Acoustic Soc. Amer. Mtg., Seattle
9th Midwest Organic Solid State Chemistry Symposium
216th ACS Natl. Mtg., Boston
Ball State University
DOE EMSP Symposium, Chicago
DOA Dendrimer MURI Symposium, Natick

1997

Plenary Lecturer, COST Intl. Meeting on Chemistry Under Extreme Conditions, Santorini, Greece.
Instructor, NATO Adv. Study Institute on Sonochemistry and Sonoluminescence, Leavenworth, WA.
Plenary Lecturer, IEEE Intl. Ultrasonics Symp., Toronto.
University Special Public Lecturer, U. of Melbourne.
Invited Speaker, 8th Intl. Conf. Bioinorg. Chem, Yokohama.
Invited Speaker, 213rd ACS Natl. Mtg, Las Vegas.

Invited Speaker, Symp. on Sonoluminescence, James Franck Institute, University of Chicago.
Chemical & Life Sciences Laboratory Dedication Speaker, University of Illinois.
Invited Speaker, Science Innovation Symposium, AAAS National Meeting, Seattle.
Indiana University, Bloomington
Indiana University-Purdue University at Indianapolis
ACS Chicago Section Meeting, Plenary Lecturer
Saturday Outreach, Dept. Physics, UIUC
213th ACS Natl. Mtg., Las Vegas
University of Minnesota
Great Lakes Regional ACS Meeting, Chicago

1996

3rd NSF Workshop on Materials Chem., Philadelphia.
Colloquium Lecturer, Franck Institute, U. Chicago.
Acoustical Society of America Meeting, Honolulu.
Plenary Lecturer, 5th Meeting of the European Sonochemistry Society, Cambridge.
4th Intl. Conf. Molecular Reaction Dynamics in Condensed Matter, Newport Beach.
Am. Phys. Soc. Mtg., St. Louis.
University of Northern Iowa
Lawrence Livermore Natl. Labs
Stanford University
Inorg Awards Symp., 212th ACS Natl. Mtg,, S.F.
TAM, UIUC
Regional ACS Mtg., ISU
Invited Speaker, Symposium on Hybrid Materials, 211th ACS National Meeting, New Orleans.

1995

Pacifichem '95, Honolulu.
210th ACS Natl. Mtg., Chicago.
Materials Research Society Meeting, Boston.
Keynote Speaker, Ultrasonics Industry Association Technical Meeting, Columbus.
Ultrasonics in Biophy. Bioeng. Symp., Allerton Park.
ISMANAM–95, Quebec.
209th ACS Natl. Mtg., Anaheim.
University of Pennsylvania
Iowa State University, Ames
Grinnell College, Grinnell, Iowa
Kimberley-Clark Corporate Research
Central States Microscopy Soc. Meeting
Ohio State University, Columbus

1994

Naval Research Laboratory, Washington, DC
Society for Biomaterials, Boston
North Carolina State University, Raleigh
Free University of Brussels, Belgium
University of California, Berkeley
Concordia University, Montreal
University of Texas at Austin
IEEE Eng. Med. Biol. Mtg., San Diego
Stanford Colloid Symposium, Stanford
Moderator, Ultrasonics in Biophysics and Bioengineering Symp., Allerton Park
Soc. Magn. Reson. Medicine, San Francisco
Materials Research Soc. Spring Mtg., S.F.
207th ACS National Meeting, San Diego
Dow-Elanco, Indianapolis

1993

Invited Speaker, 1st NSF Workshop on Materials Chemistry, Albuquerque.
IEEE Ultrasonics '93 Symposium, Baltimore.
Invited Speaker, 6th ICBIC, San Diego.
Keynote Speaker, Ultrasonics Industry Association Technical Meeting, Columbus.
Plenary Lecturer, 1st International Conference on Mechanochemistry, Kosice, Slovakia.
Invited Speaker, 3rd Eur. Sonochem. Soc, Portugal.
Invited Speaker, NSF/EPRI Symposium on Advanced Oxidation Technologies, San Francisco.
Michigan State University, East Lansing
Washington University, St. Louis
DOE Program Review, Washington, D.C.
IUTAM Symposium, Birmingham, U.K.
Duke University
DuPont Imaging and Medical, Glasgow
Orentreich Institute, New York
205th ACS National Meeting, Denver

1992

Invited Speaker, Gordon Res. Conf., Organomet. Chem.
Invited Speaker, Symp. on Cluster, Surfaces, & Solids, 204th ACS National Mtg., Washington, D.C.
Invited Speaker, Adv. Catal. Tech. Symp., Catalytica.
Colloquium Speaker, Center for Adv. Study, UIUC.
Invited Speaker, Symp. Reactions in Organized Media, 203rd ACS Natl. Mtg., San Francisco.
Northwestern University.
University of California, Santa Barbara
Princeton University
AAAS National Meeting, Chicago
DOE UIUC Corrosion Center Symposium
3rd Rocky Mountain Conf. Analytical Chem.
American Society of Mechanical Engineers, Winter Natl. Meeting, Boulder

1991

Invited Speaker, Frontiers of Science Workshop on Catalysis, Exxon Corporate Research Lab
Plenary Lecturer, 1st Meeting of the European Sonochemistry Society, Lago Gardo, Italy.
Colloquium Speaker, Department of Chemistry, University of Chicago
Invited Speaker, Ultrasonics Industry Association Mtg.
Invited Speaker, Symp. on Macromolecular Assemblies, 202nd ACS National Meeting, Atlanta.
Colloquium Speaker, Department of Chemistry, University of Illinois at Urbana-Champaign.
Invited Speaker, Acoustical Soc. Am. Mtg., Baltimore.
Materials Research Society, Fall Meeting
Eastern Illinois University
Materials Research Society National Meeting
Colloquium Lecturer, Dept. Chem., UIUC
American Physical Society National Meeting
DePauw University

BP Chemicals, London
Hoechst Celanese, Providence
Stanford University
University of California, Berkeley
University of Oregon
Lexington ACS Section

1990

Materials Research Society, Boston
NCPA, U. Miss., Oxford, MS.
199th ACS National Meeting, Boston
Union Carbide, Bound Brook
University of Delaware
University of New Mexico
Central New Mexico ACS Section
University of Illinois, Biophysics
Argonne National Laboratory
Nazerene-Olivetti University, Kankakee
duPont & Co., Wilmington
Hoechst-Celanese, Corpus Christi
Carleton University, Ottawa

1989

Plenary Lecturer, New York Catalysis Society, N.Y. Academy of Sciences, New York
Pacific Basin Societies Mtg., Honolulu
Beckman Institute for Advanced Science and Technology, University of Illinois
Invited Speaker and Convener, 4th International Conf. on Bioinorganic Chemistry, Oxford
Plenary Lecturer, International Symposium on Photochemistry, Ferrarra, Italy
Gas Research Institute, Chicago
University of Maryland, College Park
NSF, Washington, D.C.
External Site Visit, Mat. Res. Lab., UIUC
Storz Instrument Co., St. Louis
University of Maryland
Dow Chemicals, Midland
Los Alamos National Laboratory
Sandia Laboratory, Albuquerque
Dow Chemicals, Freeport
Illinois State University
Case Western Reserve University
North Carolina State University

1988

Plenary Lecturer, 5th Intl. Symp. on Inclusion & Molecular Recognition, Orange Beach
Porphyrin Symposium, 196th ACS Natl Meeting, L.A.
Plenary Lecturer, Philadelphia Catalysis Club
Tribology Symp., 3rd Chemical Congress of North America, Toronto
University of New Orleans
Exxon Engineering R. & D., Baton Rouge
Wichita State University
Vulcan Chemicals, Wichita
11th Intl. Symp. on the Reactivity of Solids, Princeton, New Jersey
Beckman Institute External Review Committee Meeting
Sun Oil R. & D., Marcus Hook, PA
AMOCO Chemicals, Naperville, IL
Purdue University

1987

Plenary Lecturer, EUCHEM Symposium on Unusual Methodologies in Organic Synth., France
Invited Speaker, NATO Workshop on Selective Activation of C-H & C-C Bonds, France
Invited Speaker, NSF Workshop on Organometallic Chemistry, Asilomar
Molecular Biosystems, San Diego
Mobil R. & D., Paulsboro, NJ
Rensselaer Polytechnic University
State University of New York at Albany
General Electric Corp. Research, Schenectady
194th ACS National Meeting, New Orleans
Eli Lilly Co., Indianapolis
M & T Chemicals, New Jersey
University of Paris V (Rene Descartes)
Biennial Inorganic Chem. Symp., Harvard University
3rd Intl Conf Bioinorganic Chemistry, Netherlands
Institute for Gas Technology, Chicago
University of Pittsburgh
University of Ill., Dept. of Matl. Sciences
Johns Hopkins University
Ultrasonics in Biophysics and Bioeng. Symp., Allerton

1986

Sonochemistry Symposium, Royal Society of Chemistry Annual Congress, Warwick
Plenary Lecturer, 4th International Seminar on Modern Synthetic Methods, Assoc. of Swiss Chemists
Symp. on New Synthetic Approaches, Oxford Univ.
Symposium on High Energy Processes in Organometallic Chem., 192nd Natl. ACS
Carnegie-Mellon University
M & T Chemicals, New Jersey
Imperial Chemicals, Runcorn, England
University of Edinburgh
University of Stirling, Scotland
Technical University of Darmstadt
Ciba-Geigy, Basel, Switzerland
Shell Chemicals, Amsterdam
Procter & Gamble, Cincinnati
University of Southampton
University of Liverpool
Cambridge University
University of Bristol
University of Nottingham
191st ACS National Meeting, New York
University of Illinois

1985

190th National ACS Meeting, Chicago
Biennial Inorganic Chemical Symp., Toronto
State-of-the-Art Symposium on Bioinorganic Chemistry, 189th National ACS Meeting
Excited States of Porphyrins Symp., Little Rock
IEEE National Meeting, San Francisco
Exxon Corporate Research, Annandale

Ultrasonics Intl. 85 Conference, London

1984

University of North Carolina, Chapel Hill
University of South Carolina, Charleston
Exxon Corporate Research, Annandale
Amoco Chemicals, Naperville
Intl. Congress of Pacific Basin Chem. Soc.
N.Y. Catalysis Society, N.Y. Acad. Sciences
23rd ICCC, Vancouver
Southeast Regional ACS Meeting
Henkel Corporation, Minneapolis
University of Minnesota, Minneapolis
Midwest Regional ACS Meeting, Kalamazoo
Chemplex Corporation, Rolling Meadows
187th ACS National Meeting, St. Louis
University of Iowa, Iowa City
Engelhard Chemicals, Summit

1983

University of Illinois at Urbana-Champaign
Northwestern University, Evanston
University of California, Riverside
University of California, Santa Barbara
University of California, Irvine
University of California, Los Angeles
University of Southern California, L. A.
California Institute of Technology, Pasadena
University of California, Davis
Lawrence Livermore National Laboratory
Stanford University, Stanford
University of California, Berkeley
University of Oregon, Eugene
University of Wisconsin, Madison
186th ACS Natl. Meeting, Washington, D.C.
Eastman Kodak, Kingsport, Tenn.
Intl. Conference Bioinorg. Chem., Florence
University of Chicago
Celanese Corporate Research, Summit, NJ.
Ohio State University
Princeton University
DuPont Central Research, Wilmington, DE
Massachusetts Institute of Technology
Harvard University
Marquette University
185th ACS National Meeting, Seattle

1982

Shell Development, Westhallow
3rd Intl. Symp. on Homogen. Catal., Milan
Gordon Research Conf., Inorganic Chemistry
Gordon Research Conf., Organometallics
DIC Biennial Symposium, Indiana University
184th ACS National Meeting, Kansas City
University of Illinois, Chicago Circle

1981

Standard Oil of Ohio, Cleveland
28th IUPAC Congress, Vancouver
Ball State University
IEEE Ultrasonics Symposium, Chicago
17th Midwest Regional ACS Meeting
181st ACS National Meeting, Atlanta

1980 - 1977

Gordon Research Conf., Inorganic Chemistry, 1980.
California Institute of Technology, 1979.
Harvard University, 1978.
Bell Laboratories, Murray Hill, 1978.
IBM, Yorktown and San Jose, 1978.
University of California, Berkeley, 1978.
University of California, Los Angeles, 1978.
Stanford University, 1978.
Exxon Corporate Research, Linden, NJ, 1977.
University of Illinois at Urbana-Champaign, 1977.
Pacific Conf. on Chemistry and Spectroscopy, 1977.

Symposium Organization, Society Directorships, and Other Recent Professional Activities:

2013 – 15	Co-organizer, Sonochemistry Symposium, Pacifichem 2015 International Congress, Honolulu.
2013 –	Board of Directors, Asia Oceania Sonochemistry Society.
2006 –	Scientific Advisory Board, Japanese Sonochemical Society.
1996 –	Board of Directors, European Society of Sonochemistry.
1990 – 2010	Hertz Foundation Graduate Fellowship Interviewer.
2009 – 10	Co-organizer, Sonochemistry Symposium, Pacifichem 2010 International Congress, Honolulu.
2005	Symposium Organizer, Spring National Meeting, Materials Research Society.
2004 – 05	Technical Committee, 2005 Intl. Symp. On Olfaction and Electronic Noses (ISOEN2005), Barcelona.
2004 – 05	Co-organizer, Sonochemistry Symposium, Pacifichem 2005 International Congress, Honolulu.
2003	NASA proposal evaluation panel, Scientific Projects in Microgravity.
2003	Symposium Organizer, Ultrasonics Industry Association Annual Technical Symposium.
2000	Organizer, Sonochemistry Symposium, Pacifichem 2000 International Congress, Honolulu.
1997 – 00	Chairman, MRS Medal Awards Subcommittee, Materials Research Society.
1996 – 00	Awards Committee, Materials Research Society.
1998	Sonochemistry & Sonoluminescence Symposium Co-organizer, Joint ASA/EAA Intl. Meeting, Berlin.
1998	Sonochemistry Symposium Co-organizer, Acoustic Society of America Meeting, Seattle.
1997	NSF Career Award Selection Committee.
1996 – 97	Co-Organizer, NATO Advanced Study Institute on Sonochemistry and Sonoluminescence.
1993 – 98	North American Board Member, International Mechanochemistry Association, IUPAC.
1993 – 95	Organizer, Chemical Effects of Ultrasound Symp., Pacifichem '95 Intl. Congress, Honolulu.
1989 – 93	Organizer, Eli Lilly Lectureship on Molecular Recognition; Beckman Institute.
1991	Co-Organizer, Cavitation Symposium, Natl. Meeting, Acoustical Society of America, Baltimore.
1989	Organizer, Molecular Recognition Symposium, 4th Intl. Conf. on Bioinorganic Chemistry.
1989	Co-Organizer, Dow Molecular Recognition Symposium, Beckman Institute.
1988 – 89	Organizer, Sonochemistry Symposium, Pacifichem '89 International Congress, Honolulu.
1987 – 89	Chairman, ACS Local Section, Champaign-Urbana.

Complete Publications List: *(chronological by publication type)*

Books:

1. Suslick, K. S., ed. *High Energy Processes in Organometallic Chemistry*; Am. Chem. Soc.: Washington, DC, 1987; Symposium Series #333.

2. Suslick, K. S., ed. *Ultrasound: Its Chemical, Physical, and Biological Effects*; VCH Publishers: New York, 1988.

3. Suslick, K. S., ed. *Comprehensive Supramolecular Chemistry, vol. 5, Bioinorganic Systems*; Elsevier Publishers: Oxford, 1996.

4. Crum, L. A.; Mason, T. J.; Reisse, J.; Suslick, K. S., eds. *Sonochemistry and Sonoluminescence*, Kluwer Publishers: Dordrecht, Netherlands, 1999; NATO ASI Series C, v. 524.

Major Invited Reviews:

5. Collman, J. P.; Halbert, T. R.; Suslick, K. S. "O_2 Binding by Metalloporphyrins" in *Metal Ion Activation of Dioxygen*; Spiro, T. G., ed.; Prentice-Hall: New York, 1980; pp. 1-72.

6. Suslick, K. S. "Organometallic Sonochemistry" *Adv. Organomet. Chem.* **1986**, *25*, 73-119.

7. Suslick, K. S. "Synthetic Applications of Ultrasound" *Modern Synthetic Methods* **1986**, *4*, 1-60.

8. Suslick, K. S. "Homogeneous Sonochemistry" in *Ultrasound: Its Chemical, Physical and Biological Effects*; Suslick, K. S., ed.; VCH Publishers: New York, 1988; pp. 123-164.

9. Suslick, K. S. "Shape Selective Hydrocarbon Oxidation" in *Activation and Functionalization of Alkanes*; Hill, C. L., ed.; Wiley & Sons: New York, 1989; pp. 219-241.

10. Suslick, K. S.; Doktycz, S. J. "The Effects of Ultrasound on Solids" in *Advances in Sonochemistry*; Mason, T. J., Ed.; JAI Press: New York, 1990; vol.1, pp 197-230.

11. Suslick, K. S. "Sonochemistry" *Science* **1990**, *247*, 1439-1445 (with cover).

12. Suslick, K. S. "Ultrasound: Applications to Materials Chemistry" in *Encyclopedia of Materials Science and Engineering*; Cahn, R. W., ed.; Pergamon Press: Oxford, 1993; 3rd Suppl., pp. 2093-2098.

13. Chen, C.-T.; Suslick, K. S. "One-Dimensional Coordination Polymers" *Coord. Chem. Rev.*, **1993**, *128*, 293-322.

14. Suslick, K. S. "Sonochemistry of Transition Metal Compounds" in *Encyclopedia of Inorganic Chemistry*; King, R. B., ed.; J. Wiley & Sons: New York, 1994; vol. 7, pp. 3890-3905.

15. Suslick, K. S. "Applications of Ultrasound to Heterogeneous Catalysis" *Adv. in Catalyst Preparation*; Catalytica: S.F., 1995.

16. Suslick, K. S. "Applications of Ultrasound to Materials Chemistry" *MRS Bulletin* **1995**, *20*, 29-34.

17. Suslick, K. S.; Van Deusen-Jeffries, S. "Shape Selective Biomimetic Oxidation Catalysis" *Comprehensive Supramolecular Chemistry*, vol. 5; Lehn, J. M., ed. Elsevier Publishers: Oxford, 1996; pp. 141-170.

Major Invited Reviews (continued):

18. Suslick, K. S. "Sonocatalysis" in *Handbook of Heterogeneous Catalysis*; Ertl, G.; Knozinger, H.; Weitkamp, J.; eds.; Wiley-VCH: Weinheim, 1997; vol. 3, ch. 8.6, pp. 1350-1357.

19. Suslick, K. S.; Matula, T. J. "Acoustic Cavitation, Sonochemistry, and Sonoluminescence" in *Wiley Encyclopedia of Electrical & Electronics Engineering*; Webster, J.G., ed.; Wiley-Interscience: New York, 1999, vol. 22, pp. 646-657.

20. Suslick, K. S.; Crum, L. A. "Sonochemistry and Sonoluminescence" in *Handbook of Acoustics*; Crocker, M. J., ed.; Wiley-Interscience: New York, 1998; pp. 243-253.

21. Suslick, K. S.; Didenko, Y.; Fang, M. M.; Hyeon, T.; Kolbeck, K. J.; McNamara III, W. B.; Mdleleni, M. M.; Wong, M. "Acoustic Cavitation and Its Chemical Consequences" *Phil. Trans. Roy. Soc. London A* **1999**, *357*, 335-353.

22. Suslick, K. S.; Price, G. "Applications of Ultrasound to Materials Chemistry" *Annu. Rev. Matl. Sci.*, **1999**, *29*, 295-326.

23. Chou, J.-H.; Kosal, M. E.; Nalwa, H.S.; Rakow, N.A.; Suslick, K. S. "Applications of Porphyrins and Metalloporphyrins to Materials Chemistry" in *The Porphyrin Handbook*, Kadish, K.; Smith, K.; Guilard, R., eds.; Academic Press: New York, 2000; vol. 6, ch. 41, pp. 43-131.

24. Suslick, K. S. "Shape Selective Oxidation by Metalloporphyrins" in *The Porphyrin Handbook*, Kadish, K.; Smith, K.; Guilard, R., ed.; Academic Press: New York, 2000; vol. 4, ch. 28, pp. 41-63.

25. Suslick, K. S. "Sonochemistry" in *Comprehensive Coordination Chemistry 2*; Elsevier Science: N.Y., 2003, 731-739.

26. Suslick, K.S.; Rakow, N.A.; Sen, A. "Colorimetric sensor arrays for molecular recognition" *Tetrahedron*, **2004**, *60*, 11133-38.

27. Suslick, K. S.; Bhyrappa, P.; Chou, J. H.; Kosal, M. E.; Nakagaki, S.; Smithenry, D. W.; Wilson, S. R. "Microporous Porphyrin Solids" *Acc. Chem. Res.* **2005**, *38*, 283 - 291.

28. Suh, W. H.; Suslick, K. S.; Suh, Y. H. "Therapeutic Agents for Alzheimer's Disease," *Curr. Med. Chem. - Cent. Nerv. Sys. Agents* **2005**, *5*, 259-270.

29. Boppart, S. A.; Suslick, K. S. "Microsphere Contrast Agents for OCT" *Optical Coherence Tomography in Cardiovascular Research*, Regar, E.; van Leeuwen, T. G.; Serruys, P., eds.; CRC Press: Boca Ratan, 2007, ch. 29, 267-281.

30. Suslick, K. S.; Bailey, D. P.; Ingison, C. K.; Janzen, M.; Kosal, M. A.; McNamara III, W. B.; Rakow, N. A.; Sen, A.; Weaver, J. J.; Wilson, J. B.; Zhang, C.; Nakagaki, S. "Seeing Smells: Development Of An Optoelectronic Nose" *Quimica Nova* **2007**, *30*, 677-681.

31. Suslick, K. S.; Skrabalak, S. E. "Sonocatalysis" in *Handbook of Heterogeneous Catalysis, vol. 4;* Ertl, G.; Knözinger, H.; Schüth, F.; Weitkamp, J., Eds.; Wiley-VCH: Weinheim, 2008, pp. 2006-2017.

32. Suslick, K. S.; Flannigan, D. J. "Inside a Collapsing Bubble: Sonoluminescence and the Conditions during Cavitation" *Annu. Rev. Phys. Chem.* **2008**, *59*, 659-683.

33. Suh, W. H.; Suslick, K. S.; Stucky, G. D.; Suh, Y.-H. "Nanotechnology, Nanotoxicology, and Neuroscience" *Prog. Neurobiol.* **2009**, *87*, 133-170 (with cover).

34. Musto, C. J.; Suslick, K. S. "Differential Sensing of Sugars by Colorimetric Arrays" *Curr. Opin. Chem. Biol.* **2010**, *14*, 758-766.

35. Bang, J. H.; Suslick, K. S. "Applications of Ultrasound to the Synthesis of Nanostructured Materials" *Advanced Materials* **2010**, *22*, 1039–1059.

Major Invited Reviews (continued):

36. Kemling, J. W.; Qavi, A. J.; Bailey, R. C.; Suslick, K. S. "Nanostructured Substrates for Optical Sensing" *J. Phys. Chem. Lett.* **2011**, *2*, 2934–2944. Invited review with cover. DOI: 10.1021/jz201147g

37. Bang, J. H.; Didenko, Y. T.; Helmich, R. J.; Suslick, K. S. "Nanostructured Materials through Ultrasonic Spray Pyrolysis" *Aldrich Materials Matter*, **2012**, *7(2)*, 15-20. Invited review.

38. Xu, H.; Zeiger, B. W.; Suslick, K. S. "Sonochemical synthesis of nanomaterials" *Chem. Soc. Rev.* **2013**, *42*, 2555-2567. DOI: 10.1039/c2cs35282f Invited review.

39. Askim, J. R.; Mahmoudi, M.; Suslick, K. S. "Optical sensor arrays for chemical sensing: the optoelectronic nose" *Chem. Soc. Rev.* **2013**, *42*, 8649 - 8682. DOI: 10.1039/c3cs60179j Invited review with cover.

40. Sander, J.R.G.; Zeiger, B.W.; Suslick, K.S. "Sonocrystallization & Sonofragmentation" *Ultrason. Sonochem.* **2014**, *21*, 1908-15. DOI: 10.1016/j.ultsonch.2014.02.005

41. Xu, H.; Suslick, K.S. "Synthesis & Applications of Water Soluble Fluorescent Ag Nanoclusters" *Functional Nanometer-Sized Clusters of Transition Metals* Chen, W.; Chen S.; eds. Roy. Soc. Chem.: London, 2014; chapter 4, pp. 80-99.

42. Suslick, K. S. "Mechanochemistry and Sonochemistry: Concluding Remarks" *Faraday Discuss.* **2014**, *170*, 411-422. DOI: 10.1039/C4FD00148F

43. Friscic, T.; James, S. L.; Boldyreva, E. V.; Bolm, C.; Jones, W.; Mack, J.; Steed, J. W.; Suslick, K. S. "Challenges and opportunities of modern mechanochemistry" *Chem. Commun.* **2015**, *51*, 6248-6256. DOI: 10.1039/c5cc90113h

44. Hinman, J. J.; Suslick, K. S. "Nanostructured Materials Synthesis Using Ultrasound" *Top. Curr. Chem.*, **2017**, *375*, 1-36. DOI: 10.1007/s41061-016-0100-9

45. Askim, J. R.; Suslick, K. S. "Colorimetric and Fluorometric Sensor Arrays for Molecular Recognition" *Comprehensive Supramolecular Chemistry II*; Elsevier Publishers: Oxford, 2017; vol. 8, pp. 37-88. DOI: 10.1016/B978-0-12-409547-2.12616-2

Popularizations:

46. Suslick, K. S.; Reinert, T. J. "Synthetic Analogs of O_2 Binding Heme Proteins" *J. Chem. Ed.* "State of the Art: Bioinorganic Chemistry" issue, **1985**, *62*, 974-982.

47. Suslick, K. S. "Sonochemistry and Sonocatalysis" in *1988 McGraw-Hill Yearbook of Science and Technology*; McGraw-Hill: New York, 1987, pp 430-433.

48. Suslick, K. S. "The Chemical Effects of Ultrasound" *Scientific American* **1989 (2)** *260*, 80-86.

49. Suslick, K. S. "Sounding Out New Chemistry" *New Scientist* **1990**, *1702*, 50-53.

50. Suslick, K. S. "Cavitation" and "Sonochemistry" in *McGraw-Hill Encyclopedia of Science and Technology*; McGraw-Hill: New York; 7th Ed., 1992, pp. 320, pp. 683-685; 8th Ed., 1997, pp. 744-747.

51. Suslick, K. S. "Sonochemistry" in *McGraw-Hill Encyclopedia of Chemistry*; 2nd Ed. McGraw-Hill: New York, 1992, pp. 1021-1023.

52. Suslick, K. S. "The Chemistry of Ultrasound" in *Yearbook of Science & the Future 1994*; Encyclopaedia Britannica: Chicago, 1994; pp 138-155.

53. Crum, L. A.; Suslick, K. S. "Bubbles Hotter than the Sun" *New Scientist* **1995**, *146 (#1975)*, 36-40.

54. Suslick, K. S. "Set for a 'Chain Reaction'" *Inside Illinois* **1997**, *16 (#17)*, 5.

55. Suslick, K. S. "Sonoluminescence, Camera, Action!" *Engineering & Science* (California Institute of Technology) **1997** 40 (#2), 4-5.

56. Suslick, K. S.; Crum, L. A. "Sonochemistry and Sonoluminescence" in *Encyclopedia of Acoustics*; Crocker, M. J., ed.; Wiley-Interscience: New York, 1997; vol. 1, ch. 26, pp. 271-282.

57. Suslick, K. S. "Sonochemistry" in *Kirk-Othmer Encyclopedia of Chemical Technology*; 4th Ed. J. Wiley & Sons: New York, 1998, vol. 26, 517-541.

58. Suslick, K. S. "Sonochemistry" in *1999 McGraw-Hill Yearbook of Science and Technology*; McGraw-Hill: New York, 1998, pp. 342-344.

59. Suslick, K. S. "Sonochemistry" in *Kirk-Othmer Concise Encyclopedia of Chemical Technology*; 4th Ed. J. Wiley & Sons: New York, 1999, pp. 1867-1868.

60. Suslick, K. S. "Sonochemistry" in *McGraw-Hill Concise Encyclopedia of Science and Technology*; 9th Ed. McGraw-Hill: New York; 1999, 342-344.

61. Suslick, K. S. "UI Chemist Meets the Federal District Court" *Inside Illinois* **1999**, *18 (#19)*, 7.

62. Suslick, K. S. "Sonochemistry and Sonoluminescence" in *Encyclopedia of Physical Science and Technology*, 3rd ed. Academic Press: San Diego, 2001, vol. 17, pp. 363-376.

63. Suslick, K. S. "An Optoelectronic Nose: 'Seeing' Smells by Means of Colorimetric Sensor Arrays" *MRS Bulletin* **2004**, *29*, 720-725.

64. Suslick, K. S. "Sonochemistry" in *McGraw-Hill Encyclopedia of Science and Technology*; 11th ed. McGraw-Hill: New York, 2012. http://www.accessscience.com/content/sonochemistry/637005

65. Suslick, K. S. "Synesthesia in Science and Technology: More than Making the Unseen Visible" *Curr. Opin. Chem. Biol.* **2012**, *16*, 557-563. DOI: 10.1016/j.cbpa.2012.10.03

Patents and Patent Applications:

66. Suslick, K. S. "Isotope Separation by Photochromatography" *U.S. Patent 4,010,100*; March 1, 1977.

67. Desai, N. P.; Soon-Shiong, P.; Sandford, P. A.; Grinstaff, M. W.; Suslick, K. S. "Magnetic Resonance Imaging with Fluorocarbons Encapsulated in a Cross-linked Polymeric Shell" *U. S. Patent 5,362,478*; Nov. 8, 1994.

68. Desai, N. P.; Soon-Shiong, P.; Sandford, P. A.; Grinstaff, M. W.; Suslick, K. S.; "Methods for *In Vivo* Delivery of Substantially Water Insoluble Pharmacologically Active Agents and Compositions Useful Therefor" *U. S. Patent 5,439,686*; Aug. 8, 1995.

69. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Composition Useful for *In Vivo* Delivery of Biologics and Methods Employing Same" *U. S. Patent 5,498,421*; Mar. 12, 1996.

70. Grinstaff, M. W.; Desai, N. P.; Suslick, K. S.; Soon-Shiong, P.; Sandford, P. A.; Merideth, N. R. "Method for the Preparation of Fluorocarbon-Containing Polymeric Shells for Medical Imaging" *U. S. Patent 5,505,932*; Apr. 9, 1996.

71. Grinstaff, M. W.; Desai, N. P.; Suslick, K. S.; Soon-Shiong, P.; Sandford, P. A.; Merideth, N. R. "Non-Fluorinated Polymeric Shells for Medical Imaging" *U. S. Patent 5,508,021*; Apr. 16, 1996.

72. Grinstaff, M. W.; Desai, N. P.; Suslick, K. S.; Soon-Shiong, P.; Sandford, P. A.; Merideth, N. R. "Polymeric Shells for Medical Imaging Prepared from Synthetic Polymers, and Methods for the Use Thereof" *U. S. Patent 5,512,268*; Apr. 30, 1996.

73. Desai, N. P.; Soon-Shiong, P.; Sandford, P. A.; Grinstaff, M. W.; Suslick, K. S.; "Methods for *In Vivo* Delivery of Substantially Water Insoluble Pharmacologically Active Agents and Compositions for the Use Thereof" *U. S. Patent 5,560,933*; Oct. 1, 1996.

74. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Composition Useful for *In Vivo* Delivery of Biologics and Methods Employing Same" *European Patent EP0693924;* Aug 6, 1997.

75. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Methods for the Preparation of Blood Substitutes for *In Vivo* Delivery" *U. S. Patent 5,635,207*; June 3, 1997.

76. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Methods for the Preparation of Nucleic Acids for *In Vivo* Delivery" *U. S. Patent 5,639,473;* June 17, 1997.

77. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Methods for *In Vivo* Delivery of Nutriceuticals and Compositions Useful Therefor" *U. S. Patent 5,650,156;* July 22, 1997.

78. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Methods for the Preparation of Pharmaceutically Active Agents for *In Vivo* Delivery" *U. S. Patent 5,665,382*; Sept. 9, 1997.

79. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Methods for the Preparation of Immunostimulating Agents for *In Vivo* Delivery" *U. S. Patent 5,665,383*; Sept. 9, 1997.

80. Suslick, K. S.; Rakow, N. A. "Colorimetric Artificial Nose Having an Array of Dyes and Method for Artificial Olfaction" *U.S. Patent 6,368,558*; April 9, 2002.

81. Suslick, K. S.; Rakow, N. A.; Sen, A. "Colorimetric Artificial Nose Having an Array of Dyes and Method for Artificial Olfaction: Shape Selective Sensors" *U.S. Patent 6,495,102*; Dec. 17, 2002.

82. Suslick, K. S.; Rakow, N. A.; Sen, A. "Siloxy porphyrins and metal complexes thereof" *U.S. Patent Appl.* 2003/0129085; Jul. 10, 2003.

83. Suslick, K. S.; Rakow, N. A.; Sen, A.; McNamara, W. B. III; Kosal, Margaret E. "Colorimetric artificial nose having an array of dyes and method for artificial olfaction" *U.S. Patent Appl. 2003/0143112*; July 21, 2003.

84. Suslick, K. S. "Colorimetric artificial nose having an array of dyes and method for artificial olfaction: Partial Oxidation" *U.S. Patent Appl. 2003/0166298;* Sept. 4, 2003.

Patents and Patent Applications (continued):

85. Suslick, K. S.; Rakow, N. A.; Sen, A. "Colorimetric Artificial Nose Having an Array of Dyes and Method for Artificial Olfaction" *European Patent EP1274983*; Dec. 22, 2004.

86. Boppart, S. A.; Marks, D. L.; Suslick, K. S.; Toublan, F. J.-J. "Optical contrast agents for optically modifying incident radiation" *U.S. Patent Appl. 2004/0258762*; June 17, 2003.

87. Suslick, K. S.; Toublan, F. J.-J.; Boppart, S. A.; Marks, D. L.; "Surface modified protein microparticles" *U.S. Patent Appl. 2004/0258759*; June 17, 2003.

88. Suslick, K. S.; Hulkower, K. I.; Avijit, S.; Sroka, M. A.; McNamara, W. B. "Method and apparatus for detecting ammonia from exhaled breath" *U.S. Patent Appl. 2005/0171449*; Aug. 4, 2005.

89. Didenko, Y. T.; Suslick, K. S. "Controlled chemical aerosol flow synthesis of nanometer-sized particles and other nanometer-sized products" *U.S. Patent Appl. 2006/0244164;* October 10, 2003.

90. Boppart, S. A.; Marks, D. L.; Suslick, K. S.; Toublan, F. J.-J. "Optical contrast agents for optically modifying incident radiation" *U.S. Patent Appl. 2006/0121123*; June 17, 2003

91. Suslick, K. S.; Toublan, F. J.-J.; Boppart, S. A.; Marks, D. L.; "Surface modified protein microparticles" *U.S. Patent Appl.* 2007/0184119; April 10, 2007

92. Didenko, Y.; Suslick, K. S. "Controlled Chemical Aerosol Flow Synthesis of Nanometer-Sized Particles and Other Nanometer-Sized Products" *U.S. Patent 7,160,489*; Jan. 9, 2007.

93. Boppart, S. A.; Marks, D. L.; Suslick, K. S.; Toublan, F. J.-J. "Optical Contrast Agents For Optically Modifying Incident Radiation" *U.S. Patent 7,198,777;* April 3, 2007

94. Suslick, K. S.; Toublan, F. J.-J.; Boppart, S. A.; Marks, D. L. "Surface Modified Protein Microparticles" *U.S. Patent 7,217,410;* May 15, 2007.

95. Suslick, K. S.; Rakow, N.A.; Sen, A. "Colorimetric Artificial Nose having an Array of Dyes and Method for Artificial Olfaction" *Indian Patent 209296*; August 23, 2007.

96. Suslick, K. S.; Rakow, N. A.; Sen, A.; McNamara, W. B. III; Kosal, M. E. "Colorimetric Artificial Nose having an Array of Dyes and Method for Artificial Olfaction" *U. S. Patent 7,261,857*; August 28, 2007.

97. Suslick, K. S.; McNamara, W. B. "Apparatus and Method for Detecting Lung Cancer Using Exhaled Breath" *U.S. Patent Appl. 2008/050839*; Feb. 28, 2008.

98. Suslick, K. S.; Placek, M. J.; McNamara, W. B.; Sen, A.; Carey, J. R.; Wilson, J. B.; Keso, C. K. "Apparatus and Method for Detecting and Identifying Microorganisms" *U.S. Patent Appl. 2008/0199904*; Aug. 21, 2008.

99. Lim, S. H.; Musto, C. J.; Feng, L.; Kemling, J. W.; Suslick, K. S. "Colorimetric Sensor Arrays Based on Nanoporous Pigments" *U.S. Patent Appl. 2010/0166604*; July 1, 2010.

100. Grinstaff, M. W.; Soon-Shiong, P.; Wong, M.; Sandford, P. A.; Suslick, K. S.; Desai, N. P. "Composition Useful for *In Vivo* Delivery of Biologics and Methods Employing Same" *Chinese Patent CN 1839806 B;* Apr. 13, 2011.

101. Suslick, K. S.; Rakow, N. A.; Sen, A. "Colorimetric Artificial Nose" *European. Patent 1274983 (01920627.5)*; February 1, 2012.

102. Dastgheib, S.; Rostam-Abadi, M.; Schimp, C.; Suslick; K. S. "Carbon-Hydrocarbon Gas Composite Fuels" *U.S. Patent Appl. 2014/0165455*; June 19, 2014.

103. Suslick, K. S.; Placek, M. J.; McNamara, W. B.; Sen, A.; Carey, J. R.; Wilson, J. B.; Keso, C. K. "Apparatus and Method for Detecting and Identifying Microorganisms" *U.S. Patent Appl. 2014/0370542*; Aug. 28, 2014.

Patents and Patent Applications (continued):

104. Suslick, K. S.; Zeiger, B. W.; Kim, H. N. "Ultrasonic Method and Apparatus for Producing Particles having a Controlled Size Distribution" *U.S. Patent Appl. 2016/0008782*, Jan 14, 2016. *PCT/US2014/020136, WO2014137982*, Sept. 12, 2014.

105. Suslick, K. S.; Placek, M. J.; McNamara, W. B.; Sen, A.; Carey, J. R.; Wilson, J. B.; Keso, C. K. "Apparatus and Method for Detecting and Identifying Microorganisms" *U.S. Patent 8,852,504*; Oct. 7, 2014.

106. Suslick, K. S.; Askim, J. B. "Portable Device for Colorimetric or Fluorometric Analysis, and Method of Conducting Colorimetric or Fluorometric Analysis" *U.S. Patent Appl. PCT/US15/34801*; June 9, 2015.

107. Suslick, K. S.; Rankin, J. M. "Microcolumn for Use in Gas Chromatography" *U.S. Patent Appl. 2015/0300998*; Oct. 22, 2015.

108. Suslick, K. S.; Placek, M. J.; McNamara, W. B.; Sen, A.; Carey, J. R.; Wilson, J. B.; Keso, C. K. "Apparatus and Method for Detecting and Identifying Microorganisms" *U.S. Patent 9,249,446;* Feb. 2, 2016.

109. Suslick, K. S.; Neelakantan, N. K.; Rankin, J. M. "Methods of Producing Silicone Microspheres." *U. S. Patent Appl. 2016/0214075*, Jan. 22, 2016.

110. Suslick, K. S.; Placek, M. J.; McNamara, W. B.; Sen, A.; Carey, J. R.; Wilson, J. B.; Keso, C. K. "Apparatus and Method for Detecting and Identifying Microorganisms" *U.S. Patent Appl. 2016/0122698;* May 5, 2016.

111. Lim, S. H.; Musto, C. J.; Feng, L.; Kemling, J. W.; Suslick, K. S. "Colorimetric Sensor Arrays Based on Nanoporous Pigments" *European Patent EP2331952*; June 15, 2016.

112. Askim, J. R.; Suslick, K. S. "Portable Device for Colorimetric or Fluorometric Analysis, and Method of Conducting Colorimetric or Fluorometric Analysis" *U.S. Patent Appl. 2017/0102335*; Apr. 13, 2017.

Journal Publications:

113. Collman, J. P.; Brauman, J. I.; Suslick, K. S. "Oxygen Binding to Iron Porphyrins" *J. Am. Chem. Soc.* **1975**, *97*, 7185-7186.

114. Collman, J. P.; Brauman, J. I.; Halbert, T. R.; Suslick, K. S. "Nature of Oxygen and Carbon Monoxide Binding to Metalloporphyrins and Heme Proteins" *Proc. Natl. Acad. Sci., U.S.A.* **1976**, *73*, 3333-3337.

115. Collman, J. P.; Suslick, K. S. "Models for Cooperative Oxygen Binding in Hemoglobin" *Pure and Applied Chemistry* **1978**, *50*, 951-961.

116. Collman, J. P.; Brauman, J. I.; Doxsee, K. M.; Halbert, T. R.; Hayes, S. E.; Suslick, K. S. "Oxygen Binding to Cobalt Porphyrins" *J. Am. Chem. Soc.* **1978**, *100*, 2761-2766.

117. Collman, J. P.; Brauman, J. I.; Doxsee, K. M.; Halbert, T. R.; Suslick, K. S. "Model Compounds for the 'T' State of Hemoglobin" *Proc. Natl. Acad. Sci., U.S.A.* **1978**, *75*, 564-568.

118. Collman, J. P.; Brauman, J. I.; Rose, E.; Suslick, K. S. "Cooperativity in Oxygen Binding to Iron Porphyrins" *Proc. Natl. Acad. Sci., U.S.A.* **1978**, *75*, 1052-1055.

119. Jameson, G. B.; Molinaro, F. S.; Ibers, J. A.; Collman, J. P.; Brauman, J. I.; Rose, E.; Suslick, K. S. "Structural Changes Upon Oxygenation of an Fe(II)(porphyrinato)(imidazole) Complex" *J. Am. Chem. Soc.* **1978**, *100*, 6769-6770.

120. Jameson, G. B.; Molinaro, F. S.; Ibers, J. A.; Collman, J. P.; Brauman, J. I.; Rose, E.; Suslick, K. S. "Models for the Active Site of Oxygen Binding Hemoproteins. Dioxygen Binding Properties and the Structures of (2-Methylimidazole)-meso-tetra(α,α,α,α-o-pivalamidophenylporphyrinatoiron(II)—Ethanol and Its Dioxygen Adduct." *J. Am. Chem. Soc.* **1980**, *102*, 3224-3237.

121. Walters, M. A.; Spiro, T. G.; Collman, J. P.; Suslick, K. S. "Resonance Raman of O_2 Bound to Fe(II)(porphyrinato)(hindered-imidazole) Complexes" *J. Am. Chem. Soc.* **1980**, *102*, 6857-6858.

122. Suslick, K. S.; Schubert, P. F.; Goodale, J. W. "Sonochemistry and Sonocatalysis of Iron Carbonyls" *J. Am. Chem. Soc.* **1981**, *103*, 7342-7344.

123. Suslick, K. S.; Schubert, P. F.; Goodale, J. W. "Chemical Dosimetry of Ultrasonic Cavitation" *IEEE Ultrason. Symp. Proc.* **1981**, *2*, 612-616.

124. Suslick, K. S.; Fox, M. M. "A Bis-Pocket Porphyrin" *J. Am. Chem. Soc.* **1983**, *105*, 3507-3510.

125. Suslick, K. S.; Goodale, J. W.; Wang, H. H.; Schubert, P. F. "Sonochemistry and Sonocatalysis of Metal Carbonyls" *J. Am. Chem. Soc.* **1983**, *105*, 5781-5785.

126. Suslick, K. S.; Schubert, P. F. "Sonochemistry of $Mn_2(CO)_{10}$ and $Re_2(CO)_{10}$" *J. Am. Chem. Soc.* **1983**, *105*, 6042-6044.

127. Suslick, K. S.; Schubert, P. F.; Wang, H. H.; Goodale, J. W. "Organometallic Sonochemistry and Sonocatalysis" in *Inorganic Chemistry: Toward the 21st Century*; Chisholm, M.A., ed.; Am. Chem. Soc.: Washington, D.C., 1983; p.550.

128. English, D. R.; Hendrickson, D. N.; Suslick, K. S. "High Oxidation State Iron Porphyrin Dimers" *Inorg. Chem.* **1983**, *22*, 367-368.

129. Suslick, K. S.; Gawienowski, J. W.; Schubert, P. F.; Wang, H. H. "Alkane Sonochemistry" *J. Phys. Chem.* **1983**, *87*, 2299-2301.

130. Suslick, K. S.; Fox, M. M.; Cook, B. R.; English, D. R. "New Synthetic Analogs of Heme Proteins" *Inorg. Chem. Acta* **1983**, *79(B7)*, 109-110.

131. Suslick, K. S.; Gawienowski, J. W.; Schubert, P. F.; Wang, H. H. "Sonochemistry in Non-aqueous Liquids" *Ultrasonics* **1984**, *22*, 33-36.

132. Bocian, D. F.; Findsen, E. W.; Hoffman, J. A.; Schick, G. A.; English, D. R.; Hendrickson, D. N.; Suslick, K. S. "Interaction of Dioxygen and Binuclear Nitride-Bridged Iron Porphyrins" *Inorg. Chem.* **1984**, *23*, 800-807.

133. Suslick, K. S.; English, D. R.; Hendrickson, D. N.; Spiro, T. G.; Crisanti, M. "Resonance Raman Spectra of High Oxidation State Iron Porphyrin Dimers" *Inorg. Chem.* **1984**, *23*, 3897-3901.

134. Suslick, K. S.; Fox, M. M.; Reinert, T. J. "Influence on CO and O_2 Binding by Fe(II) Porphyrinates" *J. Am. Chem. Soc.* **1984**, *106*, 4522-4525.

135. Finke, R. G.; Droege, M. W.; Cook, J.C.; Suslick, K.S. "Fast Atom Bombardment Mass Spectroscopy of Polyoxoanions" *J. Am. Chem. Soc.* **1984**, *106*, 5750-5751.

136. Suslick, K. S.; Johnson, R. E. "Sonochemical Activation of Transition Metals" *J. Am. Chem. Soc.* **1984**, *106*, 6856-6858.

137. English, D. R.; Hendrickson, D. N.; Suslick, K. S.; Eigenbrot, Jr., C. W.; Scheidt, W. R. "A Low-Spin Five-Coordinate Ferric Porphyrin Complex: [5,10,15,20-tetra(4-methoxyphenyl)porphyrinato](hydrosulfido)iron(III)" *J. Am. Chem. Soc.* **1984**, *106*, 7528-7259.

138. Suslick, K. S.; Cook, B. R.; Fox, M. M. "Shape Selective Hydroxylation of Hydrocarbons" *J. Chem. Soc. Chem. Commun.* **1985**, 580-582.

139. Woolery, G.; Walter, M. A.; Suslick, K. S.; Powers, J.; Spiro, T. G. "EXAFS Evidence for Elongated Fe-O_2 Bond Lengths in O_2 Adducts of "Picket-Fence" Hemes: Implications of Hb Cooperativity" *J. Am. Chem. Soc.* **1985**, *107*, 2370-2372.

140. Suslick, K. S.; Cline, Jr., R. E.; Hammerton, D. A. "Determination of Local Temperatures Caused by Acoustic Cavitation" *IEEE Ultrasonics Symp. Proc.* **1985**, *4*, 1116-1121

141. Suslick, K. S.; Hammerton, D. A. "The Site and Nature of Sonochemical Reactions" *Ultrasonics Intl.* **1985**, 231-236.

142. Suslick, K. S. "A Non-Coercive, Menu-Driven Grading System" *J. Chem. Ed.* **1985**, *61*, 408-409.

143. English, D. R.; Hendrickson, D. N.; Suslick, K. S. "$(FeTPP)_2N^{2+}$: an Fe(IV)-Porphyrin π-Radical Cation" *Inorg. Chem.* **1985**, *24*, 121-122.

144. Suslick, K. S.; Hammerton, D. A. "The Site of Sonochemical Reactions" *IEEE Trans. Ultrasonics, Ferroelec., Freq. Contr.* **1986**, *33*, 143-147.

145. Finke, R. G.; Droege, M. W.; Cook, J. C.; Suslick, K. S. "Fast Atom Bombardment Mass Spectrometry (FABMS) of Large Clusters" *Inorg. Chem.* **1986**, *25*, 241-243.

146. Suslick, K. S.; Cline, Jr., R. E.; Hammerton, D. A. "The Sonochemical Hot Spot" *J. Am. Chem. Soc.* **1986**, *108*, 5641-5642.

147. Cook, B. R.; Reinert, T. J.; Suslick, K. S. "Shape Selective Alkane Hydroxylation by Metalloporphyrin Catalysts" *J. Am. Chem. Soc.* **1986**, *108*, 7281-7286.

148. Suslick, K. S.; Casadonte, D. J.; Green, M. L. H.; Thompson, M. E. "Effects of High Intensity Ultrasound on Inorganic Solids" *Ultrasonics* **1987**, *25*, 56-59.

149. Suslick, K. S.; Cook, B. R. "Regioselective Epoxidations of Dienes with Manganese(III) Porphyrin Catalysts" *J. Chem. Soc. Chem. Comm.* **1987**, 200-202.

150. Hendrickson, D. N.; Kinnaird, M. G.; Suslick, K. S. "Photochemistry of (5,10,15,20-Tetraphenyl-porphyrinato)iron(III) Halide Complexes, Fe(TPP)(X)" *J. Am. Chem. Soc.* **1987**, *109*, 1243-1244.

151. Suslick, K. S.; Acholla, F. V.; Cook, B. R. "Photocatalytic Oxidation of Hydrocarbons by (5,10,15,20-Tetraphenylporphyrinato)manganese(III) Perchlorate and Periodate" *J. Am. Chem. Soc.* **1987**, *109*, 2818-2819.

152. Suslick, K. S.; Casadonte, D. J. "Heterogeneous Sonocatalysis with Nickel Powder" *J. Am. Chem. Soc.* **1987**, *109*, 3459-3461.

153. Girolami, G. S.; Milam, S. N.; Suslick, K. S. "Synthesis and Characterization of Actinide Mono- and Bis(porphyrin) Complexes" *Inorg. Chem.* **1987**, *26*, 343-344.

154. Suslick, K. S.; Flint, E. B.; Jensen, J. A. "A Kinetics FT-IR Experiment for the Undergraduate Laboratory" *J. Chem. Ed.* **1987**, *64*, 547-549.

155. Chatakondu, K.; Green, M. L. H.; Thompson, M. E.; Suslick, K. S. "The Enhancement of Intercalation Reactions by Ultrasound" *J. Chem. Soc. Chem. Comm.* **1987**, 900-901.

156. Suslick, K. S. "The Sonochemistry of Organometallic Compounds" in *High Energy Processes in Organometallic Chemistry*; Suslick, K. S., ed.; ACS Symp. Series #333: Washington, D.C., 1987; pp. 191-208.

157. Suslick, K. S.; Acholla, F. V.; Cook, B. R.; Kinnaird, M. G. "Photochemistry of Fe(III) and Mn(III) Porphyrins" *Recl. Trav. Chim.* **1987**, *106*, 329.

158. Suslick, K. S. "`Porphyrins: Excited States and Dynamics,' bk. rev." *J. Med. Chem.* **1987**, *30*, 1702.

159. Suslick, K. S.; Flint, E. B. "A Versatile Sonochemical Reaction Vessel" in *Experimental Organometallic Chemistry: A Practicum in Synthesis and Characterization*; Wayda, A. and Darensbourg, M.Y., eds.; ACS Symposium Series: Washington, D.C.; 1987, p. 195.

160. Suslick, K. S.; Flint, E. B. "Sonoluminescence of Non-Aqueous Liquids" *Nature* **1987**, *330*, 553-555.

161. Girolami, G. S.; Milam, S. N.; Suslick, K. S. "Actinide Bis(porphyrinate) π-Radical Cations and Dications, including X-ray Crystal Structure of $[(TPP)_2Th][SbCl_6]$" *J. Am. Chem. Soc.* **1988**, *110*, 2011-2012.

162. Suslick, K. S. "The Production of High Energy Species by Turbulent Flow" *Nature* **1988**, *334*, 375.

163. Suslick, K. S.; Casadonte, D. J.; Doktycz, S. J. "The Effects of Ultrasound on Nickel and Copper Powders" *Solid State Ionics* **1989**, *32/33*, 444-452.

164. Suslick, K. S. "`Chemistry and Biochemistry of N-substituted Porphyrins' bk. rev." *Med. Chem.* **1989**, *32*, 1410.

165. Suslick, K. S.; Doktycz, S. J. "Ultrasonic Irradiation of Copper Powder" *Chem. Materials* **1989**, *1(1)*, 6-8.

166. Suslick, K. S.; Doktycz, S. J. "The Sonochemistry of Zinc" *J. Am. Chem. Soc.* **1989**, *111*, 2342-2344.

167. Flint, E. B. ; Suslick, K. S. "Sonoluminescence from Nonaqueous Liquids: Emissions from Small Molecules" *J. Am. Chem. Soc.* **1989**, *111*, 6987-6992.

168. Kaplan, W. A.; Scott, R. A.; Suslick, K. S. "Probing Macrocyclic Flexibility: Ligand Binding to Zn and Ni Tetraphenylhydroporphyrins" *J. Am. Chem. Soc.* **1990**, *112*, 1283-1285.

169. Suslick, K.S.; Doktycz, S.J. "Inter-Particle Collisions Driven by Ultrasound" *Science* **1990**, *247*, 1067-1069.

170. Suslick, K. S. "Editorial" *Ultrasonics*, **1990**, *28*, 279.

171. Suslick, K. S.; Dokytcz, S. J.; Flint, E. B. "On the Origins of Sonochemistry and Sonoluminescence" *Ultrasonics* **1990**, *28*, 280-290.

172. Suslick, K. S.; Cook, B. R. "Shape Selective Oxidation as a Mechanistic Probe" in *Inclusion Phenomena and Molecular Recognition*; Atwood, J. L., ed.; Plenum Press: London, 1990; pp. 209-215.

173. Davies, M. D.; Qin, L.; Beck, J. L.; Suslick, K. S.; Koga, H.; Horiuchi, T.; Sligar, S. G. "Putidaredoxin Reduction of Cytochrome P-450$_{cam}$: Dependence of Electron Transfer on the Identity of Putidaredoxin's C-terminal Amino Acid" *J. Am. Chem. Soc.* **1990**, *112*, 7396-7398.

174. Suslick, K. S.; Grinstaff, M. W. "Protein Microencapsulation of Nonaqueous Liquids" *J. Am. Chem. Soc.* **1990**, *112*, 7807-7809.

175. Bilsel, O.; Rodriguez, J.; Holten, D.; Girolami, G. S.; Milam, S. N.; Suslick, K. S. "A New Low-Energy Fluorescent Excited State in Strongly-Coupled Porphyrin Dimers" *J. Am. Chem. Soc.* **1990**, *112*, 4075-4077.

176. Suslick, K. S.; Chen, C.-T. "Polymeric Metalloporphyrins for Field Responsive Materials" *Polym. Mater. Sci. Eng.* **1990**, *63*, 272-278.

177. Suslick, K. S.; Casadonte, D. J.; Choe, S. B.; Cichowlas, A. A.; Dokytcz, S. J.; Ghosh, C. K.; Grinstaff, M.W. "Heterogeneous Sonochemistry and Sonocatalysis" *Materials Research Society Proceedings: Synthesis and Properties of New Catalysts* **1990**, EA-24, 209-212.

178. Suslick, K. S.; Flint, E. B. "Sonoluminescence of Alkali Metal Salts" *J. Phys. Chem.* **1991**, *95*, 1484-1488.

179. Kaplan, W. A.; Suslick, K. S.; Scott, R. A. "Core Size and Flexibility of Metallohydroporphyrin Macrocycles. Implications for F_{430} Coordination Chemistry" *J. Am. Chem. Soc.* **1991**, *113*, 9824-9827.

180. Suslick, K. S.; Watson, R. A.; Wilson, S. R. "The Structures and Photochemistry of Metalloporphyrin Sulfate Complexes" *Inorg. Chem.* **1991**, *30*, 2311-2317.

181. Kim, K; Lee, W. S.; Kim, H.-J.; Cho, S. I.; Girolami, G. S.; Gorlin, P.; Suslick, K. S. "Synthesis and Structure of Transition Metal Bis(porphyrinato) Complexes. Characterization of Zr(TPP)$_2$ and Zr(OEP)$_2$" *Inorg. Chem.* **1991**, *30*, 2652-2656.

182. Grinstaff, M.W; Suslick, K.S. "Nonaqueous Liquid Filled Microcapsules" *Polym. Prepr.* **1991**, *32*, 255-256.

183. Suslick, K. S.; Watson, R. A. "Photochemical Nitrate and Nitrite Reduction by Mn and Fe Porphyrins" *Inorg. Chem.* **1991**, *30*, 912-919.

184. Suslick, K. S.; Bautista, J. F.; Watson, R. A. "Metalloporphyrin Photochemistry with Matrix Isolation" *J. Am. Chem. Soc.* **1991**, *113*, 6111-6114.

185. Grinstaff, M. W.; Suslick, K. S. "Proteinaceous Microbubbles: Synthesis of an Echo Contrast Agent" *Proc. Natl. Acad. Sci. USA* **1991**, *88*, 7708-7710.

186. Flint, E. B.; Suslick, K. S. "The Temperature of Cavitation" *Science* **1991**, *253*, 1397-1399.

187. Suslick, K. S.; Choe, S. B.; Cichowlas, A. A.; Grinstaff, M. W. "Sonochemical Synthesis of Amorphous Iron" *Nature* **1991**, *353*, 414-416.

188. Suslick, K. S.; Watson, R. A. "The Photochemistry of Chromium, Manganese, and Iron Porphyrin Complexes" *New J. Chem.* **1992**, *16*, 633-642.

189. Jeffries, J. B.; Copeland, R. A.; Flint, E. B.; Suslick, K. S. "Thermal Equilibration during Cavitation" *Science* **1992**, *256*, 248.

190. Grinstaff, M. W.; Cichowlas, A. A.; Choe, S. B.; Suslick, K. S. "Effect of Cavitation Conditions on Amorphous Metal Synthesis" *Ultrasonics* **1992**, *30*, 168-172.

191. Suslick, K. S.; Chen, C.-T.; Meredith, G. R.; Cheng, L.-T. "Push-Pull Porphyrins as Non-Linear Optical Materials" *J. Am. Chem. Soc.* **1992**, *114*, 6928-6930.

192. Bilsel, O.; Rodriguez, J.; Milam, S. N.; Gorlin, P. A.; Girolami, G. S.; Suslick, K. S.; Holten, D. "Electronic States and Optical Properties of Porphyrin in van der Waals Contact: Th(IV) Sandwich Complexes" *J. Am. Chem. Soc.* **1992**, *114*, 6528-6538.

193. Becker, L.; Bada, J. L.; Kemper, K.; Suslick, K. S. "Sonoluminescence Spectrum of Seawater" *Marine Chem.* **1992**, *40*, 315-320.

194. Girolami, G. S.; Riehl, M. E.; Suslick, K. S.; Wilson, S. R. "A Rare Example of a Monomeric Aryllithium Complex. X-ray Structure of (2,4,6-Triphenylphenyl)lithium Bis(diethyl ether)" *Organomet.* **1992**, *11*, 3907-3910.

195. Tuncay, A.; Dustman, J. A.; Fisher, G.; Tuncay, C. I.; Suslick, K. S. "Ultrasound Promoted Hypervalent Iodine Reactions: α-Tosyloxylation of Ketones" *Tetrahedron Lett.* **1992**, *33*, 7647-7650.

196. Suslick, K. S.; Grinstaff, M. W. "Proteinaceous Microspheres" *Macromolecular Assemblies*; Stroeve, P.; Balazs, A. C., eds.; Am. Chem. Soc.: Washington, D.C., 1992; pp. 218-226.

197. Suslick, K. S.; Flint, E. B.; Grinstaff, M. W.; Kemper, K. A. "Sonoluminescence from Metal Carbonyls" *J. Phys. Chem.* **1993**, *97*, 3098-3099.

198. Bilsel, O.; Milam, S. N.; Girolami, G. S.; Suslick, K. S.; Holten, D. "Ultrafast Electronic Deactivation and Vibrational Dynamics of Photoexcited Uranium(IV) Porphyrin Sandwich Complexes" *J. Phys. Chem.* **1993**, *97*, 7216-7221.

199. Grinstaff, M. W.; Salamon, M. B.; Suslick, K. S. "Magnetic Properties of Amorphous Iron" *Phys. Rev. B* **1993**, *48*, 269-273.

200. Bellissent, R.; Galli, G.; Grinstaff, M. W.; Migliardo, P.; Suslick, K. S. "Neutron Diffraction by Amorphous Iron Powder" *Phys. Rev. B* **1993**, *48*, 15797-15800.

201. Suslick, K. S.; Kemper, K. A. "The Effect of Fluorocarbon Gases on Sonoluminescence: A Failure of the Electrical Hypothesis" *Ultrasonics* **1993**, *31*, 463-465.

202. Suslick, K. S. "The Chemical Effects of Ultrasound" *Proc. 1st Intl. EPRI/NSF Symp. Advanced Oxidation*; EPRI: Palo Alto, 1993, vol. 2, pp 6-27.

203. Webb, A. G.; Wong, M.; Wilmes, L. J.; Kolbeck, K. J.; Magin, R. L.; Suslick, K. S. "^{59}Co Functional Agents for Localized In-Vivo Temperature Measurements" *Proc. 12th Annual Mtg. Soc. Magnetic Resonance in Medicine*; New York, 1993; p. 245.

204. Wilmes, L. J.; Webb, A. G.; Kolbeck, K. J.; Wong, M.; Magin, R. L.; Suslick, K. S. "Microencapsulation of Perfluorocarbons as a Magnetic Resonance Imaging Agent" *Proc. 12th Annual Mtg. Soc. Magnetic Resonance in Medicine*; New York, 1993, pp 756-757.

205. Suslick, K. S.; Kemper, K. A.; Flint, E. B. "Spectrally Resolved Sonoluminescence as a Probe of Cavitation" *IEEE Ultrasonics Symp. Proc.* **1993**, 777-784.

206. Chou, H.; Chen, C.-T; Stork, K. F.; Bohn, P. W.; Suslick, K. S. "Langmuir-Blodgett Films of Amphiphilic Push-Pull Porphyrins" *J. Phys. Chem.* **1994**, *98*, 383-385.

207. Desai, N. P.; Soon-Shiong, P.; Grinstaff, M. W.; Yao, Z.; Sandford, P. A.; Suslick, K. S. "Controlled and Targeted Drug Delivery with Biocompatible Protein Shell Microspheres" *Proc. Soc. Biomaterial*, **1994**, *20*, 112.

208. Ando, T.; Mason, T. J.; Suslick, K. S. "Editorial" *Ultrasonics Sonochemistry* **1994**, *1(1)*, S3.

209. Suslick, K. S.; Grinstaff, M. W.; Kolbeck, K. J.; Wong, M. "Characterization of Sonochemically Prepared Proteinaceous Microcapsules" *Ultrasonics Sonochemistry* **1994**, *1(1)*, S65-S68.

210. Girolami, G. S.; Gorlin, P. A.; Suslick, K. S. "Electronically Asymmetric Bis(porphyrin) Sandwich Complexes" *Inorg. Chem.* **1994**, *33*, 626-627.

211. Grinstaff, M. W.; Kolbeck, K. A.; Magin, R. L.; Suslick, K. S.; Webb, A.; Wilmes, L J.; Wong, M.; Desai, N. P.; Sandford, P. A.; Soon-Shiong, P. "Fluorocarbon Filled Protein Microspheres as Contrast Agents for MRI" *Proc. Soc. Biomaterial* **1994**, *20*, 113.

212. Suslick, K. S.; Kemper, K.A. "Pressure Measurements during Acoustic Cavitation by Sonoluminescence" *Bubble Dynamics and Interface Phenomena*; Blake J.R.; Thomas, N.; eds. Kluwer Publ,: Dordrecht, 1994; pp 311-320.

213. Suslick, K. S.; Hyeon, T.; Fang, M.; Cichowlas, A. A. "Sonochemical Synthesis and Catalytic Properties of Nanostructured Molybdenum Carbide" *Molecularly Designed Nanostructured Materials*, MRS Symp. Proc., v. 351. Gonsalves, K.E.; Chow, G.M.; Xiao, T.O.; Cammarata, R.C., eds. Materials Res. Soc.: Pittsburgh, 1994; pp 201-206.

214. Suslick, K. S.; Fang, M.; Hyeon, T.; Cichowlas, A. A. "Nanostructured Fe-Co Catalysts Generated by Ultrasound" *Molecularly Designed Nanostructured Materials*, MRS Symp. Proc., vol. 351. Gonsalves, K. E.; Chow, G. M.; Xiao, T. O.; Cammarata, R. C., Eds. Materials Res. Soc.: Pittsburgh, 1994; pp 443-448.

215. Suslick, K.S. "The Mechanochemical Effects of Ultrasound" *Proc. First Intl. Conf. Mechanochemistry: InCoMe '93*, Košice, Slovakia; Cambridge Interscience: Cambridge, 1994; vol.1, pp 43-49.

216. Liu, K. J.; Grinstaff, M. W.; Jiang, J.; Suslick, K. S.; Swartz, H. M.; Wang, W. "*In Vivo* Measurement of Oxygen Concentration Using Sonochemically Synthesized Microspheres" *Biophys. J.* **1994**, *67*, 896-901.

217. Milam, S. N.; Gorlin, P. A.; Girolami, G. S.; Suslick, K. S.; Wilson, S. R. "Bis(porphyrin)actinide Complexes and their Radical Cations and Dications" *J. Coord. Chem.* **1994**, *32*, 173-212. (T. L. Brown Retirement Issue)

218. Hill, J. R.; Dlott, D. D.; Fayer, M. D.; Peterson, K. A.; Rella, C. W.; Rosenblatt, M. M.; Suslick, K. S.; Ziegler, C. J. "Vibrational Relaxation of CO in Model Heme Compounds: 6-Coordinate Metalloporphyrins (M=Fe, Ru, Os)" *Chem. Phys. Lett.*, **1995**, *244*, 218-223.

219. Matula, T. J.; Roy, R. A.; Mourad, P. D.; McNamara III, W. B.; Suslick, K. S. "Comparison of Multi-Bubble and Single-Bubble Sonoluminescence Spectra" *Phys. Rev. Lett.*, **1995**, *75*, 2602-2605.

220. Webb, A. G.; Wong, M.; Niesman, M.; Kolbeck, K. J.; Wilmes, L. J.; Magin, R. L.; Suslick, K. S. "*In-Vivo* NMR Thermometry with Liposomes Containing ^{59}Co Complexes" *Int. J. Hyperthermia* **1995**, *11*, 821-827.

221. Bellissent, R.; Galli, G.; Hyeon, T.; Magazu, S.; Majolino, D.; Migliardo, P.; Suslick, K. S. "Structural Properties of Amorphous Bulk Fe, Co, and Fe-Co Binary Alloys" *Phys. Scripta* **1995**, *T57*, 79-83.

222. Fang, M.; Hyeon, T.; Cichowlas, A. A.; Suslick, K. S. "Sonochemical Preparation of Nanostructured Catalysts" *Am. Chem. Soc. Div. Petrol. Chem. Preprints* **1995**, 67-71.

223. Hyeon, T.; Fang, M.; Cichowlas, A. A.; Suslick, K. S. "Catalytic Activity of Nanophase Metals Prepared Sonochemically" *Am. Chem. Soc. Div. Fuel Chem. Preprints* **1995**, *40*, 365-9.

224. Wong, M.; Suslick, K. S. "Sonochemically Produced Hemoglobin Microbubbles"
Hollow and Solid Spheres and Microspheres; MRS Symp. Proc. v. 372; Wilcox, D. L; Berg, M.; Bernat, T.; Kellerman, D.; Corchran, J. K., eds. Matl. Res. Soc.: Pittsburgh, 1995; pp 89-94.

225. Hyeon, T.; Fang, M.; Cichowlas, A. A.; Suslick, K. S. "Sonochemical Synthesis of Nanostructured Catalysts"
Matl. Sci. Eng. A, **1995**, *204*, 186-192.

226. Suslick, K. S.; Hyeon, T.; Fang, M.; Ries, J. T.; Cichowlas, A. A. "Sonochemical Synthesis of Nanophase Metals, Alloys, and Carbides" *Materials Science Forum* (Transtec Publ., N.Y.), **1996**, *225-227*, 903-912 (1996).

227. Girolami, G. S.; Hein, C. L.; Suslick, K. S. "Bis(porphyrin) Sandwich Complex with an Appended Quinone"
Angew. Chem. Intl. Ed. **1996**, *35*, 1223-1225.

228. Bhyrappa, P.; Young, J. K.; Moore, J. S.; Suslick, K. S. "Shape-Selective Epoxidation of Alkenes by Metalloporphyrin-Dendrimers" *J. Molec. Catalysis* **1996**, *A113*, 109-116. (special issue on biomimetic oxidation)

229. Ziegler, C. J.; Suslick, K. S. "The Photochemistry of Metalloporphyrin Carbene Complexes"
J. Am. Chem. Soc. **1996**, *118*, 5306-5307.

230. Hyeon, T.; Fang, M.; Suslick, K. S. "Nanostructured Molybdenum Carbide: Sonochemical Synthesis and Catalytic Properties" *J. Am. Chem. Soc.* **1996**, *118*, 5492-5493.

231. Eckburg, J. J.; Chato, J. C.; Liu, K. J.; Grinstaff, M. W.; Swartz, H. M.; Suslick, K. S.; Auteri, F. P. "Biological Temperature Measurements using Electron Paramagnetic Resonance Spectroscopy" *J. Biomech. Eng.* **1996**, *118*, 193-200.

232. Webb, A. G.; Wong, M.; Kolbeck, K. J.; Magin, R. L.; Wilmes, L. J.; Suslick, K. S. "Sonochemically Produced Fluorocarbon Microspheres: A New Class of MRI Contrast Agents" *J. Mag. Res. Imaging*, **1996**, *6*, 675-683.

233. Suslick, K. S.; Hyeon, T.; Fang, M; Cichowlas, A. A. "Sonochemical Preparation of Nanostructured Catalysts" *Advanced Catalysts and Nanostructured Materials;* Moser, W. R., ed. Academic Press: New York, 1996, pp. 197-211.

234. Suslick, K. S.; Hyeon, T.; Fang, M. "Nanostructured Materials Generated by High Intensity Ultrasound"
Chem. Materials **1996**, *8*, 2172-2179 (special issue on nanostructured materials).

235. Bernstein, L. S.; Zakin, M. R.; Flint, E. B.; Suslick, K. S. "Cavitational Thermometry using Molecular and Continuum Sonoluminescence" *J. Phys. Chem.* **1996**, *100*, 6612-6619.

236. Bellissent, R.; Galli, G.; Hyeon, T.; Migliardo, P.; Parette, P.; Suslick, K. S. "Magnetic And Structural Properties Of Amorphous Transition Metals And Alloys" *J. Noncryst. Solids* **1996**, *205-207*, 656-659.

237. Bhyrappa, P.; Young, J.K.; Moore, J.S.; Suslick, K.S. "Dendrimer-Metalloporphyrins: Synthesis and Catalysis"
J. Am. Chem. Soc. **1996**, *118*, 5708-5711.

238. Dlott, D. D.; Fayer, M. D.; Hill, J. R.; Rella, C. W.; Suslick, K. S.; Ziegler, C. J. "Vibrational Relaxation in Metalloporphyrin CO Complexes" *J. Am. Chem. Soc.* **1996**, *118*, 7853-7854.

239. Ziegler, C. J.; Suslick, K. S. "Photochemical Activation of Metalloporphyrin Carbene Complexes"
J. Organomet. Chem. **1996**, *528*, 83-90.

240. Hill, J. R.; Ziegler, C. J.; Suslick, K. S.; Dlott, D. D.; Rella, C. W.; Fayer, M. D.
"Tuning the Vibrational Relaxation of CO Bound to Heme and Metalloporphyrin Complexes"
J. Phys. Chem. **1996**, *100*, 18023-18032.

241. Suslick, K. S.; Fang, M.; Hyeon, T. "Sonochemical Synthesis of Iron Colloids"
J. Am. Chem. Soc. **1996**, *118*, 11960-11961.

242. Benson, D. E.; Suslick, K. S.; Sligar, S. G. "Reduced Oxy Intermediate Observed in D251N Cytochrome $P450_{cam}$"
Biochem. **1997**, *36*, 5104-5107.

243. Peterson, K. A.; Boxer, S. G.; Decatur, S.; Dlott, D. D.; Fayer, M. D.; Hill, J. R.; Rella, C. W.; Rosenblatt, M. M.; Suslick, K. S.; Ziegler, C. J. "Vibrational Relaxation of CO in Myoglobin Mutants and Model Heme Compounds" *Proc. 7th Intl. Conf. Time Resolved Vibr. Spectrosc.*, 1997, 173-177.

244. Suslick, K. S. "Sonoluminescence and Sonochemistry" *IEEE Ultrasonics Symp. Proc.* **1997**, vol. 1, pp. 523-534.

245. Bhyrappa, P.; Wilson, S. R.; Suslick, K. S. "Hydrogen Bonded Porphyrinic Solids: Supramolecular Networks of Octahydroxy Porphyrins" *J. Am. Chem. Soc.* **1997**, *119*, 8492-8502.

246. Suslick, K. S.; Mdleleni, M. M.; Ries, J. T. "Chemistry Induced by Hydrodynamic Cavitation" *J. Am. Chem. Soc.* **1997**, *119*, 9303-9304.

247. Bhyrappa, P.; Suslick, K. S. "Surpramolecular Networks of Octahydroxy Porphyrins" *Supramolec. Chem.* **1998**, *9*, 169-174.

248. Suslick, K. S. "Sonochemical Preparation of Protein Microspheres" *Proc. 16th Intl. Conf. Acoustics* Acoust. Soc. Am.: Seattle, 1998, pp. 1533-35.

249. Suslick, K. S.; Didenko, Y. T.; McNamara III, W. B. "Conditions during Multi-Bubble Sonoluminescence" *Proc. 16th Intl. Conf. Acoustics* Acoust. Soc. Am.: Seattle, 1998, pp. 2577-79.

250. Bhyrappa, P.; Suslick, K. S. "Synthesis and Crystal Structure of 5,10,15,20-Tetrakis(3,5-dinitrophenyl)porphyrin" *J. Porph. Phthalocyn.* **1998**, *2*, 391-396. (V. Krishnan retirement issue)

251. Long, G. J.; Hautot, D.; Pankhurst, Q. A.; Vandormael, D.; Grandjean, F.; Gaspard, J. P.; Briois V.; Hyeon. T.; Suslick, K. S. "Mössbauer-effect and X-Ray Absorption Spectral Study of Sonochemically Prepared Amorphous Iron" *Phys. Rev. B* **1998**, *57*, 10716-10722.

252. Huffman, D. L.; Rosenblatt, M. M.; Suslick, K. S. "Synthetic Heme-Peptide Complexes" *J. Am. Chem. Soc.* **1998**, *120*, 6183-6184.

253. Mdleleni, M. M.; Hyeon, T.; Suslick, K. S. "Sonochemical Synthesis of Nanostructured Molybdenum Sulfide" *J. Am. Chem. Soc.* **1998**, *120*, 6189-6190.

254. Salzmann, R.; Ziegler, C. J.; Godhout, N.; McMahon, M.; Suslick, K. S.; Oldfield, E. "CO Complexes of Fe(II), Ru(II), and Os(II) 5,10,15,20-Tetraphenylporphyrinates: Investigation by X-ray, Solid-State NMR and Density Functional Theory" *J. Am. Chem. Soc.* **1998**, *120*, 11323-11334.

255. Patel, B. R.; Suslick, K. S. "Discotic Liquid Crystals from a Bis-Pocketed Porphyrin" *J. Am. Chem. Soc.* **1998**, *120*, 11802-11803.

256. Suslick, K. S.; McNamara III, W. B.; Didenko, Y. "Hot Spot Conditions during Multi-Bubble Cavitation" in *Sonochemistry and Sonoluminescence*, Crum, L. A.; Mason, T. J.; Reisse, J.; Suslick, K. S., eds. Kluwer Publishers: Dordrecht, Netherlands, 1999, pp. 191-204.

257. Suslick, K. S.; Fang, M. M.; Hyeon, T.; Mdleleni, M. M. "Applications of Sonochemistry to Materials Synthesis" in *Sonochemistry and Sonoluminescence*, Crum, L. A.; Mason, T. J.; Reisse, J.; Suslick, K. S., eds. Kluwer Publishers: Dordrecht, Netherlands, 1999, pp. 291-320.

258. Bhyrappa, P.; Vaijayanthimala, G.; Suslick, K. S. "Shape-Selective Ligation to Dendrimer-Metalloporphyrins" *J. Am. Chem. Soc.* **1999**, *121*, 262-263.

259. Tuncay, A.; Anaclerio, B. M.; Zolodz, M.; Suslick, K. S. "New One-Pot Method for the Synthesis of Alkynyl Sulfonate Esters Using Ultrasound" *Tetrahedron Lett.* **1999**, *40*, 599-602.

260. McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "Hot Spot Conditions during Cavitation in Water" *J. Am. Chem. Soc.* **1999**, *121*, 5817-5818.

261. Li, S.; Lee, J.S.; Hyeon, T.; Suslick, K. S. "Catalytic Hydrodenitrogenation of Indole over Molybdenum Nitride and Carbides with Different Structures" *Applied Catal. A* **1999**, *184*, 1-9.

262. Didenko, Y.; McNamara III, W. B.; Suslick, K. S. "The Temperature of Multi-Bubble Sonoluminescence in Water" *J. Phys. Chem. A* **1999**, 103, 10783-10788.

263. McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "Sonoluminescence Temperatures during Multibubble Cavitation" *Nature* **1999**, *401*, 772-775.

264. Suslick, K. S. "Sonochemistry: A Physical Perspective" in *Nonlinear Acoustics at the Turn of the Millennium*, Lauterborn, W.; Kurz, T., eds. Amer. Inst. Physics: Melville, NY, 2000, pp. 95-104.

265. Suslick, K. S.; McNamara III, W. B.; Didenko, Y. "Conditions during Multibubble Cavitation" " in *Nonlinear Acoustics at the Turn of the Millennium*, Lauterborn, W.; Kurz, T., eds. Amer. Inst. Physics: Melville, NY, 2000, pp. 463-466.

266. Suslick, K. S.; Rakow, N. A.; Kosal, M. E.; Chou, J.-H. "The Materials Chemistry of Porphyrins and Metalloporphyrins" *J. Porph. Phthal.* **2000**, *4*, 407-413. (invited review).

267. Kosal, M. E.; Suslick, K. S. "Microporous Porphyrin and Metalloporphyrin Materials" *J. Sol. St. Chem.* **2000**, *152*, 87-98 (invited review).

268. Petrier C.; Suslick, K. S. "Ultrasound-Enhanced Reactivity Of Calcium in The Reduction Of Aromatic Hydrocarbons" *Ultrasonics Sonochemistry* **2000**, *7*, 53-61.

269. McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "Effect of Noble Gases on Sonoluminescence Temperatures during Multibubble Cavitation" *Phys. Rev. Lett.* **2000**, *84*, 777-780.

270. Huffman, D. L.; Suslick, K. S. "Hydrophobic Interactions in Metalloporphyrin-Peptide Complexes" *Inorg. Chem.* **2000**, *39*, 5418-5419.

271. R. Brunner, R.; Kosal, M. E. Suslick, K. S.; Lamche, R.; Marti, O.; White, J. O. "Near-field Scanning Optical Microscopy of Zinc-Porphyrin Crystals" *Ultramicroscopy* **2000**, *84*, 149-157.

272. Dantsin, G.; Suslick, K. S. "Sonochemical Preparation of a Nanostructured Bifunctional Catalyst" *J. Am. Chem. Soc.* **2000**, *122*, 5214-5215.

273. McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "The Nature of the Continuum in Multi-Bubble Sonoluminescence" *J. Am. Chem. Soc.* **2000**, *122*, 8563-8564.

274. Ashokkumar, M.; Crum, L. A.; Frensley, C. A.; Grieser, F.; Matula, T. J.; McNamara III, W. B.; Suslick, K. S. "Effect of Solutes on Single-Bubble Sonoluminescence in Water" *J. Phys. Chem. A* **2000**, *104*, 8462-8465.

275. Sen, A; Suslick, K. S. "Shape-Selective Discrimination of Small Organic Molecules" *J. Am. Chem. Soc.* **2000**, *122*, 11565-11566.

276. Rakow, N. A.; Suslick, K. S. "A Colorimetric Sensor Array for Odor Visualization" *Nature* **2000**, *406*, 710-714.

277. Didenko, Y.; McNamara III, W. B.; Suslick, K. S. "Molecular Emission from Single Bubble Sonoluminescence" *Nature* **2000**, *407*, 877-879.

278. Suslick, K. S.; Rakow, N. A. "A Colorimetric Nose: 'Smell-Seeing'" *Artificial Chemical Sensing: Olfaction and the Electronic Nose*, Stetter, J.R.; Pensrose, W.R., eds. Electrochem. Soc.: Pennington, NJ, 2001; pp. 8-14.

279. Suslick, K. S. "The Chemical Consequences of Cavitation" *Proc. 17th Intl. Congr. Acoustics* ICA: Rome, 2001; pp. PA2SL 2-5.

280. Suslick, K. S.; Didenko, Y.; McNamara III, W. B.; "Single Bubble Sonoluminescence from Non-Aqueous Liquids" *Proc. 17th Intl. Congr. Acoustics* ICA: Rome, 2001; pp. PA2SL 14-15.

281. Suslick, K. S.; Kosal, M. E.; Rakow, N. A.; Sen, A. "'Smell-Seeing:' A New Approach to Artificial Olfaction" *Proc. 8th EURODEUR-AIRODEUR*, Harbour Publishers: Dinard, France, 2001; pp. 1-4.

282. Dhas, N.A.; Ekhtiarzadeh, A.; Suslick, K.S. "Sonochemical Preparation of Supported Hydrodesulfurization Catalysts" *J. Am. Chem. Soc.*, **2001**, *123*, 8310-8316.

283. Drain, C. M.; Hupp, J. T.; Suslick, K. S.; Wasielewski, M. R.; Chen, X. "A Perspective on New Porphyrin-Based Functional Materials and Devices" *J. Porph. Phthal.*, **2002**, *6*, 243-259.

284. Rosenblatt, M.M.; Huffman, D.L.; Wang, X. Remmer, H.A.; Suslick, K. S. "Cyclic and Hairpin Peptide Complexes of Heme" *J. Am. Chem. Soc.*, **2002**, *124*, 12394-12395.

285. Kosal, M. E.; Chou, J. H.; Suslick, K. S.; "A Calcium-Bridged Porphyrin Coordination Network" *J. Porph. Phthal.*, **2002**, *6*, 377-381.

286. Suslick, K. S.; Didenko, Y. T. "The Chemical Consequences of Single-Bubble Cavitation" *Nonlinear Acoustics at the Beginning of the 21st Century*, Rudenko, O.V.; Sapozhnikov, O.A., ed. Moscow State Univ. Press: Moscow, 2002; vol. 2, pp. 1063-1069.

287. Kosal, M. E.; Chou, J.-H.; Wilson, S. R.; Suslick, K. S. "A Functional Zeolite Analogue Assembled From Metalloporphyrins" *Nature Materials*, **2002**, *1*, 118-121.

288. Didenko, Y.; Suslick, K. S. "The Energy Efficiency of Formation of Photons, Radicals, and Ions during Single-Bubble Cavitation" *Nature* **2002**, *418*, 394-397.

289. Zimmerman, S. C.; Wendland, M. S.; Rakow, N. A.; Zharov, I.; Suslick, K. S. "Synthetic Hosts by Monomolecular Imprinting Inside Dendrimers" *Nature* **2002**, *418*, 399-403.

290. Wang, J.; Luthey-Schulten, Z. A.; Suslick, K. S. "Is the Olfactory Receptor a Metalloprotein?" *Proc. Natl. Acad. Sci. U.S.A.*, **2003**, *100*, 3035-3039.

291. Suslick, K.S.; Rakow, N.A.; Kosal, M.E.; McNamara III, W.B.; Sen, A. "Chemsensing: A Colorimetric Array Detector" *Proc. ISOEN 02* (ed. A. D'Amico and C. DiNatale; IEEE: Baltimore, 2003), pp. 46-52.

292. Rosenblatt, M.M.; Wang, J.; Suslick, K. S. "De Novo Designed Cyclic-Peptide Heme Complexes" *Proc. Natl. Acad. Sci. U.S.A.*, **2003**, *100*, 13140-13145.

293. McNamara III, W. B.; Didenko, Y.; Suslick, K. S. "Pressure during Sonoluminescence" *J. Phys. Chem. B* **2003**, *107*, 7303-7306 (Henglein Festschrift).

294. Lee, T. M.; Oldenburg, A. L.; Sitafalwalla, S.; Marks, D. L.; Luo, W.; Toublan, F. J.-J.; Suslick, K. S.; Boppart, S. A. "Engineered Microsphere Contrast Agents for Optical Coherence Tomography" *Optics Lett.* **2003**, *28*, 1546-1548.

295. Oxley, J. D.; Prozorov, T.; Suslick, K. S. "Sonochemistry and Sonoluminescence of Room-Temperature Ionic Liquids" *J. Am. Chem. Soc.*, **2003**, *125*, 11138-11139.

296. Prozorov, T.; Prozorov, R.; Snezhko, A.; Suslick, K. S. "Sonochemical Modification of the Superconducting Properties of MgB_2" *Appl. Phys. Lett.* **2003**, *83*, 2019-2021.

297. Zimmerman, S. C.; Zharov, I.; Wendland, M. S.; Rakow, N. A.; Suslick, K. S. "Molecular Imprinting Inside Dendrimers" *J. Am. Chem. Soc.* **2003**, *125*, 13504 - 13518.

298. Oldenburg, A. L.; Gunther, J. R.; Marks, D. L.; Toublan, F. J.-J.; Suslick, K. S.; Boppart, S. A. "Selective OCT Imaging of Cells Using Magnetically-Modulated Optical Contrast Agents" *Trends Optics Photonics* **2003**, *88*, CMBB2/1-2/2.

299. Jean-Jacques Toublan, F.; Suslick, K. S.; Boppart, S. A.; Lee, T. M.; Oldenburg, A.; "Modification of Protein Microspheres for Biomedical Application" *Polymer Preprints* **2003**, 44(1), 185-186.

300. Smithenry, D. W.; Wilson, S. R.; Suslick, K. S. "A Robust Microporous Zinc Porphyrin Framework Solid" *Inorg. Chem.* **2003**, *42*, 7719-7721.

301. Oxley, J. D.; Mdleleni, M. M.; Suslick, K. S. "Hydrodehalogenation with Sonochemically Prepared Mo_2C and W_2C" *Catalysis Today*, **2004**, 88, 139-151.

302. Shen, G.; Rivers, M.L.; Sutton, S.R.; Sata, N.; Prakapenka, V.B.; Oxley, J.; Suslick, K. S. "The Structure of Amorphous Iron at High Pressures to 67 Gpa Measured in a Diamond Anvil Cell" *Phys. Earth Planetary Interiors* **2004**, *143–144*, 481–495.

303. Dennis W. Smithenry, Kenneth S. Suslick "Recent Developments in Robust Microporous Porphyrin Solids" *J. Porph. Phthal*. **2004**, *8*, 182-190. (Special issue dedicated to H. Ogoshi)

304. Prozorov, T.; McCarty, B; Cai, Z.; Prozorov, R.; Suslick, K. S. "Effects of High Intensity Ultrasound on the $Bi_2Sr_2CaCu_2O_{8+x}$ Superconductor" *Appl. Phys. Lett.* **2004**, *85*, 3513-3515.

305. Prozorov, T.; Prozorov, R.; Suslick, K. S. "High Velocity Inter-Particle Collisions Driven by Ultrasound" *J. Am. Chem. Soc.* **2004**, *126*, 13890-13891.

306. Jean-Jacques Toublan, F.; Dibbern, E.; Argadine, M. H.; Greenleaf, J. F.; Simari, R. D.; Suslick, K. S.; **"**Electrostatic Adhesion Of Polyelectrolytes And Colloids On Protein Microspheres**"** *Polymer Preprints* **2004,** *45*, 295-296.

307. Dibbern, E.; Jean-Jacques Toublan, F.; Suslick, K. S. "Poly (Glutamic Acid) Nanospheres For Biomedical Applications" *Polymer Preprints* **2004,** *45*, 776-777.

308. Flannigan, D. J.; Suslick, K. S. "Plasma Formation and Temperature Measurement during Single-Bubble Cavitation" *Nature* **2005**, *434*, 52-55.

309. Dhas, N. Arul; Suslick, K. S. "Sonochemical Preparation of Hollow Nanospheres and Hollow Nanocrystals" *J. Am. Chem. Soc.* **2005**, *127*, 2368-2369.

310. Flannigan, D. J.; Suslick, K. S. "Molecular And Atomic Emission during Single-Bubble Cavitation in Concentrated Sulfuric Acid" *Acoust. Res. Lett. Online* **2005**, *5*, 157-161.

311. Zhang, C.; Suslick, K. S. "Syntheses Of Boronic-Acid-Appended Metalloporphyrins As Potential Colorimetric Sensors For Sugars And Carbohydrates." *J. Porph. Phthal.* **2005**, *9*, 659-666.

312. Flannigan, D. J.; Hopkins, S. D.; Suslick, K. S. "Sonochemistry And Sonoluminescence in Ionic Liquids, Molten Salts, And Concentrated Electrolyte Solutions" *J. Organomet. Chem.* **2005**, *690*, 3513-3517.

313. Rakow, N. A.; Sen, A., Janzen, M.C.; Ponder, J. B.; Suslick, K. S. "Molecular Recognition and Discrimination of Amines with a Colorimetric Array" *Angew. Chem. Int. Ed.* **2005**, *44*, 4528-4532. (also *Angew. Chem.* **2005**, *117*, 4604-4608.)

314. Zhang, C.; Suslick, K. S. "A Colorimetric Sensor Array for Organics in Water", *J. Am. Chem. Soc.* **2005**, *127*, 11548-11549.

315. Skrabalak, S. E.; Suslick, K. S. "Porous MoS_2 Synthesized by Ultrasonic Spray Pyrolysis" *J. Am. Chem. Soc.* **2005**, *127*, 9990-9991.

316. Suh, W. H.; Suslick, K. S. "Magnetic and Porous Nanospheres from Ultrasonic Spray Pyrolysis" *J. Am. Chem. Soc.* **2005**, *127*, 12007-12010.

317. Didenko, Y.T.; Suslick, K.S. "Chemical Aerosol Flow Synthesis of Semiconductor Nanoparticles" *J. Am. Chem. Soc.* **2005**, *127*, 12196-12197.

318. Oldenburg, A. L.; Toublan, F. J.-J.; Suslick, K. S.; Wei, A.; Boppart, S. A. "Magnetomotive Contrast For *In Vivo* Optical Coherence Tomography" *Optics Express* **2005**, *13*, 6597-6614.

319. Flannigan, D. J.; Suslick, K. S. "Plasma Line Emission during Single-Bubble Cavitation" *Phys. Rev. Lett.* **2005,** *95*, 044301-1 - 044301-4.

320. Hopkins, S. D.; Putterman, S. J.; Kappus, B. A.; Suslick, K. S.; Camara, C. G. "Dynamics of a Sonoluminescing Bubble in Sulfuric Acid" *Phys. Rev. Lett.* **2005,** *95***,** 254301-1 - 254301-4.

321. Toublan, F. J.-J.; Boppart, S.; Suslick, K. S. "Tumor Targeting by Surface Modified Protein Microspheres" *J. Am. Chem. Soc.* **2006**, *128*, 3472-3473.

322. Janzen, M. C.; Ponder, J. B.; Bailey, D. P.; Ingison, C. K.; Suslick, K. S. "Colorimetric Sensor Arrays for Volatile Organic Compounds" *Anal. Chem.* **2006,** *78*, 3591-3600.

323. Flannigan, D. J.; Hopkins, S. D.; Camara, C. G.; Putterman, S. J.; Suslick, K. S. "Measurement of Pressure and Density Inside a Single Sonoluminescing Bubble" *Phys. Rev. Lett.* **2006**, *96*, 204301-1 - 204301-4.

324. Zhang, C.; Bailey, D. P.; Suslick, K. S. "Colorimetric Sensor Arrays for the Analysis of Beers: A Feasibility Study" *J. Agric. Food Chem.*, **2006**, *54*, 4925-4931.

325. Skrabalak, S. E.; Suslick, K. S. "On the Possibility of Metal Borides for Hydrodesulfurization" *Chem. Mater.* **2006,** *18,* 3103-3107.

326. Suh, W. H.; Jang, A. R.; Lee, C. S.; Suh, Y.-H.; Suslick, K. S. "Endocytosis of Magnetic Microspheres Into Cells" *Microscopy and Microanalysis* **2006**, *12-S02*, 620-621.

327. Dibbern, E. M.; Toublan, F. J.-J.; Suslick, K. S. "Formation and Characterization of Polyglutamate Core-Shell Microspheres" *J. Am. Chem. Soc.* **2006**, *128*, 6540-6541.

328. Suh, W. H.; Jang, A. R.; Suh, Y.-H.; Suslick, K. S. "Porous, Hollow, and Ball-in-Ball Metal Oxide Microspheres: Preparation, Endocytosis, and Cytotoxicity" *Advanced Materials* **2006**, *18*, 1832-1837.

329. Flannigan, D. J.; Suslick, K. S. "Plasma Quenching by Air during Single-Bubble Sonoluminescence" *J. Phys. Chem. A*, **2006** *110*, 9315-9318.

330. Skrabalak, S. E.; Suslick, K. S. "Porous Carbon Powders Prepared by Ultrasonic Spray Pyrolysis" *J. Am. Chem. Soc.* **2006**, *128*, 12642-12643.

331. Eddingsaas, N. C.; Suslick, K. S. "Mechanoluminescence: Light from sonication of crystal slurries" *Nature*, **2006**, *444*, 163.

332. Suh, W. H.; Jang, A. R.; Suh, Y. H.; Suslick, K. S. "Metal Oxide Microspheres and Nanoparticles: Preparation and Toxicity Evaluation" *Chemical Research In Toxicology* **2006**, *19*, 1696-1697.

333. Zhang, C.; Suslick, K. S. "Colorimetric Sensor Arrays for Soft Drink Analysis" *J. Agric. Food Chem.*, **2007**, *55*, 237-242.

334. Bang, J. H.; Suslick, K. S. "Sonochemical Synthesis of Nanosized Hollow Hematite" *J. Am. Chem. Soc.* **2007**, *129*, 2242-2243.

335. Camara, C. G.; Hopkins, S. D.; Suslick, K. S.; Putterman, S. J. "Upper Bound for Neutron Emission from Sonoluminescing Bubbles in Deuterated Acetone" *Phys. Rev. Lett.* **2007**, *98*, 064301-1-4.

336. Eddingsaas, N. C.; Suslick, K. S. "Evidence For A Plasma Core during Multibubble Sonoluminescence In Sulfuric Acid" *J. Am. Chem. Soc.* **2007**, *129*, 3838-3829.

337. Bang, J. H.; Han, K.; Skrabalak, S. E.; Kim, H.; Suslick, K. S. "Porous Carbon Supports Prepared by Ultrasonic Spray Pyrolysis for Direct Methanol Fuel Cell Electrodes" *J. Phys. Chem. C.* **2007**, *111*, 10959-10964.

338. Eddingsaas, N. C.; Suslick, K. S. "Intense Mechanoluminescence and Gas Phase Reactions from the Sonication of an Organic Slurry" *J. Am. Chem. Soc.* **2007,** *129*, 6718-6719.

339. Wang, J.; Rosenblatt, M. M.; Suslick, K. S. "NMR Structures of Peptide–Ru^{II}(Porphyrin) Complexes" *J. Am. Chem. Soc.* **2007**, *129*, 14124-14125. DOI: 10.1021/ja075532v

340. Flannigan, D. J.; Suslick, K. S. "Emission from Electronically Excited Metal Atoms during Single-Bubble Sonoluminescence" *Phys. Rev. Lett.* **2007**, *99*, 134301-1-4. DOI: 10.1103/PhysRevLett.99.134301

341. Skrabalak, S. E.; Suslick, K. S. "Carbon Powders Prepared by Ultrasonic Spray Pyrolysis of Substituted Alkali Benzoates" *J. Phys. Chem. C.* **2007,** *111*, 17807-17811. DOI: 10.1021/jp071241x

342. Eddingsaas, N. C.; Suslick, K. S. "Plasma Characteristics of the Discharge Produced during Mechanoluminescence" *Phys. Rev. Lett.* **2007**, *99*, 234301-1-4. DOI: 10.1103/PhysRevLett.99.234301

343. Fang, M.; Wilson, S. R.; Suslick, K. S. "A Four-Coordinate Fe(III) Porphyrin Cation" *J. Am. Chem. Soc.* **2008**, *130*, 1134-1135. DOI: 10.1021/ja078061l

344. Law, A. R.; Suslick, K. S. "Sonochemically Prepared Molybdenum Sulfide" *Materials Syntheses*, Schubert, U., ed.; Springer: Wien, 2008; vol. 1, pp. 83-88.

345. Skrabalak, S. E.; Suslick, K. S. "Aerosol Spray Synthesis of Porous Molybdenum Sulfide" *Materials Syntheses*, Schubert, U., ed.; Springer: Wien, 2008; vol. 1, pp. 89-94.

346. Eddingsaas, N. C.; Flannigan, D. J.; Suslick, K. S. "Measuring the Extreme Conditions Created during Cavitation" *Proc. Acoustics '08* (Eur. Acoust. Assoc./Acoust. Soc. Amer.: Paris, 2008), 3565-3570.

347. Bang, J. H.; Helmich, R. J.; Suslick, K. S. "Nanostructured ZnS:Ni^{2+} Photocatalysts Prepared by Ultrasonic Spray Pyrolysis" *Advanced Materials* **2008**, *20*, 2599-2603. DOI: 10.1002/adma.200703188

348. Bang, J. H.; Suh, W. H.; Suslick, K. S. "Quantum Dots from Chemical Aerosol Flow Synthesis: Preparation, Characterization, and Cellular Imaging" *Chem. Mater.* **2008**, *20*, 4033-4038. DOI: 10.1021/cm800453t

349. Bang, J. H.; Lim, S. H.; Park, E.; Suslick, K. S. "Chemically Responsive Nanoporous Pigments: Colorimetric Sensor Arrays and the Identification of Aliphatic Amines" *Langmuir* **2008**, *24*, 13168-13172. DOI: 10.1021/la802029m

350. Lim, S. H.; Musto, C. J.; Park, E.; Zhong, W.; Suslick, K. S. "Colorimetric Sensor Array for Detection and Identification of Sugars" *Org. Lett.* **2008**, *10*, 4405-4408. DOI: 10.1021/ol801459k

351. Bang, J. H.; Lim, S. H.; Park, E.; Suslick, K. S. "Dual Templating Synthesis of Mesoporous Titanium Nitride Microspheres" *Advanced Materials* **2009**, *21*, 3186-3190. DOI: 10.1002/adma.200802309

352. Xu, H.; Eddingsaas, N. C.; Suslick, K. S. "Spatial Separation of Cavitating Bubble Populations: The Nanodroplet Injection Model" *J. Am. Chem. Soc.* **2009**, *131*, 6060–6061. DOI: 10.1021/ja900457v

353. Dunkle, S. S.; Suslick, K. S. "Photodegradation of $BiNbO_4$ Powder during Photocatalytic Reactions" *J. Phys. Chem.*, C, **2009**, *113*, 10341-10345. DOI: 10.1021/jp903163u

354. Dunkle, S. S.; Helmich, R. J.; Suslick, K. S. "$BiVO_4$ as a Visible-Light Photocatalyst Prepared by Ultrasonic Spray Pyrolysis" *J. Phys. Chem.*, C, **2009**, *113*, 11980-11983. DOI: 10.1021/jp903757x

355. Musto, C. J.; Lim, S. H.; Suslick, K. S. "Colorimetric Detection and Identification of Natural and Artificial Sweeteners" *Anal. Chem.* **2009**, *81*, 6526-6533. DOI: 10.1021/ac901019g

356. Lim, S. H.; Feng, L.; Kemling, J. W.; Musto, C. J.; Suslick, K. S. "An Optoelectronic Nose for Detection of Toxic Gases" *Nature Chemistry*, **2009**, *1*, 562-567. DOI: 10.1038/nchem.360

357. Lim, S. H.; Kemling, J. W.; Feng, L.; Suslick, K. S. "A colorimetric sensor array of porous pigments" *Analyst*, **2009**, *134*, 2453-2457. DOI: 10.1039/b916571a

358. Suslick, B. A.; Feng, L.; Suslick, K. S. "Discrimination of Complex Mixtures by a Colorimetric Sensor Array: Coffee Aromas" *Anal. Chem.*, **2010**, *82*, 2067–2073. DOI: 10.1021/ac902823w

359. Fortunato, M. E.; Rostam-Abadi, M.; Suslick, K. S. "Nanostructured Carbons Prepared by Ultrasonic Spray Pyrolysis" *Chem. Matl.* **2010**, *22*, 1610–1612. DOI: 10.1021/cm100075j

360. Xu, H. X.; Suslick, K. S. "Water-Soluble Fluorescent Silver Nanoclusters" *Advanced Materials* **2010**, *22*, 1078-1082. DOI: 10.1002/adma.200904199

361. Xu, H. X.; Glumac, N. G.; Suslick, K. S. "Temperature Inhomogeneity during Multibubble Sonoluminescence" *Angew. Chem. Intl. Ed.* **2010**, *48*, 1079-1082. DOI: 10.1002/anie.200905754

362. Feng, L.; Musto, C. J.; Kemling, J. W.; Lim, S.H.; Suslick, K. S. "A Colorimetric Sensor Array for Identification of Toxic Gases below Permissible Exposure Limits" *Chem. Commun.*, **2010**, *46*, 2037-2039. DOI: 10.1039/b926848k

363. Feng, L.; Musto, C. J.; Suslick, K. S. "A Simple & Highly Sensitive Colorimetric Detection Method for Gaseous Formaldehyde" *J. Am. Chem. Soc.*, **2010**, *132*, 4046-4047. DOI: 10.1021/ja910366p

364. Xu, H. X.; Suslick, K. S. "Molecular Emission and Temperature Measurements from Single-Bubble Sonoluminescence" *Phys. Rev. Lett.* **2010**, *104*, 244301-1-4. DOI: 10.1103/PhysRevLett.99.134301

365. Xu, H. X.; Suslick, K. S. "Sonochemical Synthesis of Highly Fluorescent Ag Nanoclusters" *ACS Nano* **2010**, *4*, 3209-3214. DOI: 10.1021/nn100987k

366. Helmich, R. J.; Suslick, K. S. "Chemical Aerosol Flow Synthesis of Hollow Metallic Aluminum Particles" *Chem. Mat.* **2010**, *22*, 4835-4837. DOI: 10.1021/cm101342r

367. Lin, H.; Suslick, K. S. "A Colorimetric Sensor Array for Determination of Triacetone Triperoxide Vapor" *J. Am. Chem. Soc.*, **2010**, *132*, 15519-15521. DOI: 10.1021/ja107419t

368. Feng, L.; Musto, C. J.; Kemling, J. W.; Lim, S.H.; Zhong, W.; Suslick, K. S. "A Colorimetric Sensor Array for Determination and Identification of Toxic Industrial Chemicals" *Anal. Chem.* **2010**, *82*, 9433-9440. DOI: 10.1021/ac1020886

369. Flannigan, D. J.; Suslick, K. S. "Inertially-Confined Plasma in an Imploding Bubble" *Nature Physics* **2010**, *6*, 598-601. DOI: 10.1038/nphys1701

370. Atkinson, J. D.; Fortunato, M. E.; Dastgheib, S. A.; Rostam-Abadi, M.; Rood, M. J.; Suslick, K. S. "Synthesis and Characterization of Iron-Impregnated Porous Carbon Spheres Prepared by Ultrasonic Spray Pyrolysis" *Carbon*, **2011**, *49*, 587-598. DOI: 10.1016/j.carbon.2010.10.001

371. Cabanas-Polo, S.; Suslick, K. S.; Sanchez-Herencia, A. J. "Effect of reaction conditions on size and morphology of ultrasonically prepared $Ni(OH)_2$ powders," *Ultrasonics Sonochem.*, **2011**, *18*, 901-906. DOI: 10.1016/j.ultsonch.2010.11.017

372. Suslick, K. S.; Eddingsaas, N. C.; Flannigan, D. J.; Hopkins, S. D.; Xu, H. "Extreme conditions during multibubble cavitation: Sonoluminescence as a spectroscopic probe" *Ultrasonics Sonochem.* **2011**, *18*, 842–846. DOI: 10.1016/j.ultsonch.2010.12.012

373. Kemling, J. W.; Suslick, K. S. "Nanoscale Porosity in Pigments for Chemical Sensing" *Nanoscale* **2011**, *3*, 1971-1973. DOI: 10.1039/c0nr00963f

374. Suh, W. H.; Kang, J. K.; Suh, Y.-H.; Tirrell, M.; Suslick, K. S.; Stucky, G. D. "Porous Carbon Produced in Air: Physicochemical: Properties and Stem Cell Engineering" *Adv. Mater.* **2011**, *23*, 2332-2338. DOI: 10.1002/adma.201003606

375. Xu, H. X.; Suslick, K. S. "Sonochemical Preparation of Functionalized Graphenes" *J. Am. Chem. Soc.* **2011**, *133*, 9148-9151. DOI: 10.1021/ja200883z

376. Carey, J. R.; Suslick, K. S.; Hulkower, K. I.; Imlay, J. A.; Imlay, K. R. C.; Ingison, C. K.; Ponder, J. B.; Sen, A.; Wittrig, A. E. "Rapid Identification of Bacteria with a Disposable Colorimetric Sensor Array" *J. Am. Chem. Soc.* **2011**, *133*, 7571-7576. DOI: 10.1021/ja201634d

377. Zeiger, B. W.; Suslick, K. S. "Sonofragmentation of Molecular Crystals" *J. Am. Chem. Soc.* **2011**, *133*, 14530-14533. DOI: 10.1021/ja205867f

378. Lin, H.; Jang, M.; Suslick, K. S. "Preoxidation for Colorimetric Sensor Array Detection of VOCs" *J. Am. Chem. Soc.* **2011**, *133*, 16786–16789. DOI: 10.1021/ja207718t

379. Kim, H.; Fortunato, M. E.; Xu, H.; Bang, J. H.; Suslick, K. S. "Carbon Microspheres as Supercapacitors" *J. Phys. Chem. C*, **2011**, *115*, 20481-20486. DOI: 10.1021/jp207135g

380. John, R.; Nguyen, F. T.; Kolbeck, K. J.; Chaney, E. J.; Marjanovic, M.; Suslick, K. S.; Boppart, S. A. "Targeted Multifunctional Multimodal Protein-Shell Microspheres as Cancer Imaging Contrast Agents." *Mol. Imaging Biol.* **2012**, *14*, 17-24. DOI: 10.1007/s11307-011-0473-7

381. Mazzone, P. J.; Wang, X.-F.; Xu, Y.; Mekhail, T.; Beukemann, M. C.; Na, J.; Kemling, J. W.; Suslick, K. S.; Sasidhar, M. "Exhaled Breath Analysis with a Colorimetric Sensor Array for the Identification and Characterization of Lung Cancer" *J. Thoracic Oncology*, **2012**, *7*, 137-142. DOI: 10.1097/JTO.0b013e318233d80f

382. Flannigan, D. J.; Suslick, K. S. "Temperature Nonequilibration during Single-Bubble Sonoluminescence" *J. Phys. Chem. Lett.*, **2012**, *3*, 2401-2404. DOI: 10.1021/jz301100j

383. Guo, J.; Suslick, K. S. "Gold Nanoparticles Encapsulated in Porous Carbon" *Chem. Commun.* **2012**, *48*, 11094-11096. DOI: 10.1039/c2cc34616h

384. Xu, H.; Guo, J.; Suslick, K. S. "Porous Carbon Spheres from Energetic Carbon Precursors using Ultrasonic Spray Pyrolysis" *Adv. Mater.* **2012**, *24*, 6028-6033 (with cover). DOI: 10.1002/adma.201201915

385. Mahmoudi, M.; Suslick, K. S. "Protein Fibrillation and the Olfactory System: Speculations on Their Linkage" *Trends in Biotech.* **2012**, *30*, 609-610. DOI: 10.1016/j.tibtech.2012.08.007

386. Sayyah, M.; Lu, Y.; Masel, R. I.; Suslick, K. S. "Mechanical Activation of Calcium Oxide-Based Adsorbents for CO_2 Capture" *ChemSusChem* **2013**, *6*, 193-198. DOI: 10.1002/cssc.201200454

387. Naldoni, A.; Bianci, C. L.; Pirola, C.; Suslick, K. S. "Porous TiO_2 Microspheres with Tunable Properties for Photocatalytic Air Purification" *Ultrasonics Sonochemistry*, **2013**, *20*, 445-451. DOI: 10.1016/j.ultsonch.2012.07.003

388. Sayyah, M.; Ito, B. R.; Rostam-Abadi, M.; Lu, Y.; Suslick, K. S. "CaO-based Sorbents for CO_2 Capture prepared by Ultrasonic Spray Pyrolysis" *RSC Advances* **2013**, *3*, 19872-19875. DOI: 10.1039/c3ra44566f

389. Flannigan, D. J.; Suslick, K. S., "Non-Boltzmann Population Distributions during Single-Bubble Sonoluminescence." *J. Phys. Chem. B* **2013,** *117*, 15886-15893. DOI: 10.1021/jp409222x

390. Kim, J.; Ahmad, A.; Marjanovic, M.; Chaney, E. J.; Li, J.; Rasio, J.; Hubler, Z.; Suslick, K. S.; Boppart, S. A. "Magnetomotive Optical Coherence Tomography for the Assessment of Atherosclerotic Lesions using $\alpha_v\beta_3$ Integrin Targeted Microspheres" *Molecular Imaging & Biology*, **2014**, *16*, 36-43. DOI: 10.1007/s11307-013-0671-6

391. Radziuk, D.; Moehwald, H.; Suslick, K. "Single Bubble Perturbation in Cavitation Proximity of Solid Glass: Hot Spot versus Distance" *Phys. Chem. Chem. Phys.*, **2014**, *16*, 3534-3541. DOI: 10.1039/C3CP52850B

392. Mahmoudi, M.; Lohse, S. E.; Murphy, C. J.; Fathizadeh, A.; Montazeri, A.; Suslick, K. S. "Variation of Protein Corona Composition of Gold Nanoparticles Following Plasmonic Heating." *Nano Lett.* **2014,** *14*, 6-12. DOI: 10.1021/nl403419e

393. Chen, M.-W.; You, S.; Suslick, K. S.; Dlott, D. D. "Hot Spot Generation In Energetic Materials Created by Long-Wavelength Infrared Radiation" *Appl. Phys. Lett.* **2014**, *104*, 061907-1-4. DOI: 10.1063/1.4865258

394. LaGasse, M. K.; Rankin, J. M.; Askim, J. R.; Suslick, K. S. "Colorimetric sensor arrays: Interplay of geometry, substrate and immobilization" *Sensors & Actuators B-Chem.* **2014,** *197*, 116-122. DOI: 10.1016/j.snb.2014.01.102

395. Chen, M.-W.; You, S.; Suslick, K. S.; Dlott, D. D. "Hot Spots in Energetic Materials Generated by Infrared and Ultrasound, Detected by Thermal Imaging Microscopy" *Rev. Scient. Instr.* **2014**, *85*, 023705; DOI: 10.1063/1.4864197

396. Zhang, Y.; Askim, J. R.; Zhong, W.; Orlean, P.; Suslick, K. S. "Identification of pathogenic fungi with an optoelectronic nose" *Analyst*, **2014**, 139, 1922-1928. DOI: 10.1039/C3AN02112B

397. Li, J.; Dobrucki, L. W.; Marjanovic, M.; Chaney, E. J.; Suslick, K. S.; Boppart, S. A. "Enhancement and wavelength-shifted emission of Cerenkov luminescence using multifunctional microspheres" *Phys. Med. Biol.* **2015,** *60*, 727–739. DOI:10.1088/0031-9155/60/2/727

398. Rankin, J. M.; Zhang, Q.; LaGasse, M. K.; Zhang, Y.; Askim, J. R.; Suslick, K. S. "Solvatochromic sensor array for the identification of common organic solvents" *Analyst*, **2015**, *140*, 2613-2617. DOI: 10.1039/c4an02253j

399. Kim, H. N.; Sander, J. R. G.; Zeiger, B. W.; Suslick, K. S. "Spray Sonocrystallization" *Cryst. Growth Des.* **2015,** *15*, 1564-1567. DOI: 10.1021/acs.cgd.5b00072

400. Rankin, J. M.; Suslick, K. S. "The development of a disposable gas chromatography microcolumn" *Chem. Commun.* **2015**, *51*, 8920-8923. DOI: 10.1039/c4cc09915j

401. Zhong, W.; Suslick, K. S. "Matrix Discriminant Analysis with Application to Colorimetric Sensor Array Data" *Technometrics*, **2015**, *57*, 524-534. DOI:10.1080/00401706.2014.965347

402. Zhong, X.; Suslick, K. S.; Zhong, W. "Tensor Sufficient Dimension Reduction" *WIREs Comput. Stat.* **2015**, *7*, 178–184. DOI: 10.1002/wics.1350.

403. Overcash, J. W.; Suslick, K. S. "High Surface Area Iron Oxide Microspheres via Ultrasonic Spray Pyrolysis of Ferritin Core Analogues" *Chem. Mater.* **2015**, *27*, 3564–3567. DOI: 10.1021/acs.chemmater.5b00766

404. Weisensee, P. B.; Neelakantan, N. K.; Suslick, K. S.; Jacobi, A. M.; King, W. P. "Impact of Air and Water Vapor Environments on the Hydrophobicity of Surfaces" *J. Coll. Interf. Sci.* **2015**, *453*, 177-185. DOI:10.1016/j.jcis.2015.04.060

405. Su, Z.; Miao, Y.-R.; Mao, S.-M.; Zhang, G.-H.; Dillon, S.; Miller, J. T.; Suslick, K. S. "Compression-Induced Deformation of Individual MOF Micro-crystals" *J. Am. Chem. Soc.* **2015**, *137*, 1750-1753. DOI: 10.1021/ja5113436

406. You, S.; Chen, M.-W.; Dlott, D. D.; Suslick, K. S. "Ultrasonic hammer produces hot spots in solids" *Nature Commun.* **2015**, 6, 6581-1-7. DOI: 10.1038/ncomms7581

407. Rankin, J. M.; Neelakantan, N. K.; Lundberg, K. E.; Grzincic, E. M.; Murphy, C. J.; Suslick, K. S. "Magnetic, Fluorescent and Copolymeric Silicone Microspheres" *Advanced Science*, **2015**, *2*, 1500114-1-5. DOI: 10.1002/advs.201500114

408. Zhang, Y.; Huff, L. A.; Gewirth, A. A.; Suslick, K. S. "Synthesis of Manganese Oxide Microspheres by Ultrasonic Spray Pyrolysis and their Application as Supercapacitors" *Particles Part. Syst. Charact.* **2015**, *32*, 899-906. DOI: 10.1002/ppsc.201500061

409. Li, Z.; Jang, M.; Askim, J. R.; Suslick, K. S. "Identification of accelerants, fuels and post-combustion residues using a colorimetric sensor array" *Analyst* **2015**, *140*, 5929–5935. DOI: 10.1039/c5an00806a

410. Sayyah, M.; Abbasi, E.; Lu, Y.; Abbasian, J.; Suslick, K. S. "Composite CaO-Based CO_2 Sorbents Synthesized by Ultrasonic Spray Pyrolysis: Experimental Results and Modeling" *Energy & Fuels* **2015**, *29*, 4447-4452. DOI: 10.1021/acs.energyfuels.5b00397

411. Neelakantan, N. K.; Weisensee, P. B.; Overcash, J. W.; Torrealba, E. J.; King, W. P.; Suslick, K. S. "Spray-on Omniphobic Coatings" *RSC Advances* **2015**, *5*, 69243-69250. DOI: 10:1039/c5ra11178a

412. Askim, J. R.; Suslick, K. S. "Hand-Held Reader for Colorimetric Sensor Arrays" *Anal. Chem.* **2015**, *87*, 7810–7816. DOI: 10.1021/acs.analchem.5b01499

413. Li, Z.; Bassett, W. P.; Askim, J. R.; Suslick, K. S. "Differentiation among peroxide explosives with an optoelectronic nose" *Chem. Commun.* **2015**, *51*, 15312-15315. DOI: 10.1039/C5CC06221G

414. Zhang, Y.; Suslick, K. S. "Synthesis of Poly(3,4-ethylenedioxythiophene) Microspheres by Ultrasonic Spray Polymerization (USPo)" *Chem. Mater.* **2015**, *27*, 7559-7563. DOI: 10.1021/acs.chemmater.5b03423

415. Kim, J.; Ahmad, A.; Li, J.; Marjanovic, M.; Chaney, E. J.; Suslick, K. S.; Boppart, S. A. "Intravascular magnetomotive optical coherence tomography of targeted early-stage atherosclerotic changes in ex vivo hyperlipidemic rabbit aortas" *J. Biophotonics* **2016**, *9*, 109-116. DOI 10.1002/jbio.201400128

416. Askim, J. R.; Li, Z.; LaGasse, M. K.; Rankin, J. M.; Suslick, K. S. "An optoelectronic nose for identification of explosives" *Chem. Sci.*, **2016**, *7*, 199-206. DOI: 10.1039/c5sc02632f

417. Mahmoudi, M.; Lohse, S. E.; Murphy, C. J.; Suslick, K. S. "Identification of Nanoparticles with a Colorimetric Sensor Array" *ACS Sensors*, **2016**, *1(1)*, 17-21. DOI: 10.1021/acssensors.5b00014

418. Li, Z.; Li, H.; LaGasse, M. K.; Suslick, K. S. "Rapid Quantification of Trimethylamine" *Anal. Chem.*, **2016**, *88*, 5615-5620. DOI: 10.1021/acs.analchem.6b01170

419. Li, Z.; Suslick, K. S. "Portable Optoelectronic nose for Monitoring Meat Freshness" *ACS Sensors*, **2016**, *1*, 1330-1335. DOI: 10.1021/acssensors.6b00492

420. Comazzi, A.; Pirola, C.; Longhi, M.; Bianchi, C. L. M.; Suslick, K. S. "Fe-based Heterogeneous Catalysts for the Fischer-Tropsch Reaction" *Ultrason. Sonochem.*, **2017**, *34*, 774-780. DOI: 10.1016/j.ultsonch.2016.07.012

421. Kim, H. N.; Suslick, K. S. "Sonofragmentation of Ionic Crystals" *Chem. Eur. J.*, **2017**, *23*, 2778-2782. DOI: 10.1002/chem.201605857

422. Su, Z.; Shaw, W. L.; Miao, Y.-R.; You, S.; Dlott, D. D.*; Suslick, K. S.* "Shock Wave Chemistry in a Metal–Organic Framework" *J. Am. Chem. Soc.*, **2017**, *139*, 4619–4622. DOI: 10.1021/jacs.6b12956

423. Ren, Y.; Banishev, A. A.; Suslick, K. S.; Moore, J. S.; Dlott, D. D. "Ultrafast Proton Transfer in Polymer Blends Triggered by Shock Waves" *J. Am. Chem. Soc.*, **2017**, *139*, 3974–3977. DOI: 10.1021/jacs.7b00876

424. Miao, Y.-R.; Su, Z.; Suslick, K. S. "Energy Storage during Compression of Metal–Organic Frameworks" *J. Am. Chem. Soc.*, **2017**, *139*, 4667–4670. DOI: 10.1021/jacs.7b01593

425. Li, Z.; Fang, M.; LaGasse, M. K.; Askim, J. R.; Suslick, K. S. "Colorimetric Recognition of Aldehydes and Ketones" *Angew. Chem. Int. Ed.*, **2017**, in press. DOI: 10.1002/anie.201705264

426. Bassett, W. P.; Pacheco, B.; Neelakantan, N. K.; Suslick, K. S.*; Dlott, D. D.* "Shock Initiation of Explosives: High Temperature Hot Spots Explained" *Appl. Phys. Lett.*, **2017**, in press. DOI: 10.1063/1.4985593