

CURRICULUM VITAE

ANDREW R. BARRON

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PRESENT POSITIONS:

- 1) Charles W. Duncan, Jr. - Welch Chair of Chemistry and Professor of Materials Science, Department of Chemistry and Department of Mechanical Engineering and Materials Science, Rice University.
- 2) Associate Dean for Industry and Technology Transfer, Weiss School of Natural Sciences, Rice University.
- 3) Co-Director, Rice Alliance for Technology and Entrepreneurship, Rice University.

RESEARCH INTERESTS:

- 1) The development of soft chemical approaches to nanomaterial fabrication.
- 2) The integration of inorganic nanomaterials with biological systems.

PREVIOUS POSITIONS:

- 1) Associate Professor of Chemistry, Harvard University, July 1991-July 1995.
- 2) Assistant Professor, Harvard University, July 1987 - July 1991.

EDUCATION:

- 1) 1986-1987: Post-doctoral Research Associate at the University of Texas, Austin.
- 2) 1983-1986: Ph.D. and D.I.C. at Imperial College of Science and Technology, University of London. Thesis title "Transition Metal Aluminohydrides." Research under the supervision of Professor Sir Geoffrey Wilkinson F.R.S.
- 3) 1980-1983: B.Sc. (1st Class, Hons) and A.R.C.S., Imperial College of Science and Technology, University of London.

AWARDS:

- 1) Welch Foundation Norman Hackerman Award in Chemical Research – 2002
- 2) Fellow, Royal Society of Chemistry
- 3) Humboldt Senior Scientist Research Award - 1997
- 4) Corday Morgan Medal and Prize (Royal Society of Chemistry) - 1995
- 5) Meldola Medal and Prize (Royal Society of Chemistry) - 1991
- 6) Alcoa Directors Fellowship 1992 - 1993
- 7) Alcoa Directors Fellowship 1993 - 1994
- 8) Du Pont Young Faculty Fellow, 1987 - 1988
- 9) HVA Briscoe Prize – 1983

ORGANIZATIONS:

- 1) Royal Society of Chemistry
- 2) American Chemical Society

- 3) Material Research Society
- 4) American Ceramics Society
- 5) Rice University Quantum Institute
- 6) Rice Center for Nano-Science and Technology
- 7) Center for Biological and Environmental Nanotechnology

JOURNALS:

- 1) North American Regional Editor: Advanced Materials for Optics and Electronics, Wiley (1992- 2000)
- 2) Editorial Board: Advanced Materials, VCH. (1998-present)
- 3) Editorial Board: Chemistry of Materials, ACS. (1998-2002)
- 4) Editorial Board: Polyhedron, Pergamon (1998 - 2002)
- 5) Editor/Symposium Organizer: Covalent Ceramics II, Materials Research Society Symposium Proceedings, Boston Meeting 1993.
- 6) Editor: Polyhedron Symposium-in-print number 10, Aluminium, Gallium and Indium, 1990, 9, (2,3), 149-453.
- 7) Editorial Board: Main Group Metal Chemistry. (1995-1999)
- 8) Editorial Board, Dalton (2000 - present)
- 9) Editorial Board, Recent Patents in Nanotechnology, (2006)

COLLABORATIONS:

- 1) Dr. Nancy Monteiro-Riviere, North Carolina State University
- 2) Prof. Mark Wiesner, Rice University
- 3) Prof. Richard Smalley, Rice University
- 4) Prof. James M. Tour, Rice University
- 5) Prof. Antonios G. Mikos, Rice University
- 6) Prof. Michael Heeley, Rice University
- 7) Prof. Simon R. Bott, University of Houston
- 8) Prof. Herbert W. Roesky, University of Gottingen
- 9) Prof. David R. Rankin, University of Edinburgh
- 10) Prof. Janusz Lewinski, Warsaw University of Technology
- 11) Dr. Al Hepp, NASA
- 12) Prof. Michael Stuke, Max Planck Institute

FINANCIAL SUPPORT: 1987 - Present

- 1) Advanced Research Projects Agency (ARPA)
- 2) Coleman Foundation
- 3) Department of Energy (DOE)
- 4) Dreyfus Foundation
- 5) Environmental Protection Agency (EPA)
- 6) Ford Foundation
- 7) National Academies Keck Futures Initiatives
- 8) National Science Foundation (NSF)
- 9) National Aeronautics and Space Administration (NASA)
- 10) Office of Naval Research (ONR)
- 11) Petroleum Research Fund (PRF)

- 12) Texas Medical Center Fleming and Davenport Awards
- 13) Robert A. Welch Foundation

CORPORATE SUPPORT: 1987 - Present

- 1) Akzo Nobel
- 2) British Petroleum
- 3) Colgate-Palmolive Company
- 4) Gentex Optics Inc.
- 5) Halliburton Energy Services
- 6) ICI
- 7) Idemitsu Chemicals Corp.
- 8) TDA Research Inc.

TEACHING AND EDUCATION DEVELOPMENT:

Rice University

- 1) Transition Metal Chemistry, CHEM 495 (1996-present)
- 2) Chemistry of Electronic Materials, CHEM 496 (1995, 1997)
- 3) Honors Lab, CHEM 106 (1998)
- 4) Inorganic Chemistry, CHEM 360 (1997, 2001, 2003, 2004)
- 5) Special Topics in Inorganic Chemistry, CHEM 595 (1996).
- 6) Physical Methods in Inorganic Chemistry, CHEM 575 (1996, 2000)
- 7) Effective Presentations in Chemistry, CHEM 606 (1997-present)
- 8) Chemistry of Electronic Materials, CHEM 596 (1997, 1999)
- 9) Inorganic Seminar. CHEM 600 (1996, 1997, 1998, 1999, 2003)
- 10) Technology Management for Scientist and Engineers. CHEM/MSCI/MGMT 603 (1998, 1999)
- 11) Entrepreneurial Management for Science and Engineering, CHEM/MSCI/MGMT 750 (2000 - present)
- 12) New Venture Creation for Science and Engineering, CHEM/MSCI/MGMT 751 (2001-present)
- 13) Managerial Chemistry, Jones School of Business (1998, 1999)
- 14) Advanced Module in Catalysis, CHEM 391 (2000, 2001)
- 15) Advanced Module in Experimental Chemistry, CHEM 351 (2000)

Harvard University

- 1) Organometallic Chemistry, CHEM 105 (1987 - 1995)
- 2) Inorganic Chemistry, CHEM 40 (1993 - 1994)
- 3) General Chemistry, CHEM 5 (1988 - 1994)
- 4) Chemical Safety Seminar Series for the Faculty of Arts and Science, "Handling Hazardous Chemicals" (1988 -1995)

Houston

- 1) Scientific lecturer to the Houston Fire Department (1995-present).
- 2) Scientific lecturer to the Houston Police Department Bomb Squad (2006-present).
- 3) Scientific programs for Channel 11 (CBS) News (1997 - present).

- 4) Scientific programs for Channel 26 (Fox) News (1998 - present).
- 5) Scientific programs for Channel 2 (NBC) News (1998 - present)
- 6) "Explosions in Chemistry" demonstration to high school students (1997 and 1998).

Cambridge

- 1) Scientific advisor appointed to the Cambridge School Committee, 1990 - Present
- 2) Scientific advisor and lecturer to the Cambridge Fire Department, "Hazardous Metals", "Acids and Corrosives" and "Pyrophorics", (1990 - 1995)

National

- 1) Scientific Advisor to The National Science Resource Center (jointly operated by the Smithsonian Institution and the National Academy of Science) aimed at the development of a national hands-on school science curriculum for K through 8th grade. Review and advisory role of all new chemically based programs.
- 2) Science Advisor to the Library of Congress. Review and advisory role for mass deacidification program.

DEPARTMENT AND UNIVERSITY SERVICE:

- 1) Graduate Admissions Committee (1996 - 2000)
- 2) Chemistry Department Curriculum Committee (1996, 1997, 1998)
- 3) Department of Mechanical Engineering and Materials Science Chair Search Committee (1996)
- 4) School of Sciences Steering Committee (1996)
- 5) Jones School Dean Search Committee (1997)
- 6) Technology Transfer Committee (1996, 1997)
- 7) School of Continuing Studies: Lecture on Topics in Contemporary Science (1996)
- 8) Curriculum Innovations: Development of Weiss School/Jones School joint programs (1996)
- 9) Committee on Scholarships and Awards (1997, 1998)
- 10) Promotion and Tenure Committee (1998)
- 11) Search Committee for Vice Provost for Development (1999)
- 12) Materials Science Steering Committee (1998)
- 13) Departmental Seminar Committee (1998)
- 14) Provost Search Committee (1998)
- 15) Executive Education - Managerial Chemistry (1997, 1998, 1999)
- 16) Rice Alliance for Technology and Entrepreneurship, Steering Committee (1999, 2000)
- 17) Academic Advisor, Baker College (1996 - Present)
- 18) Graduate Admissions Committee (2001)
- 19) Curriculum Committee (2001, 2002)
- 20) Graduate Recruiting Committee (2002)
- 21) Division Contacts Committee (2002)
- 22) Industrial Enterprise Committee (2002)
- 23) Faculty Sponsor, Rice Cricket Club (2002)
- 24) Steering Committee Member, Rice Alliance for Technology and Entrepreneurship (2002)
- 25) Member, Advisory Board for the Energy and Environmental Systems Institute

RESEARCH GROUP: Present (Total since 1987 in parentheses)

- 1) Graduate Students 10 (36)
- 2) Postdoctoral Associates 0 (18)
- 3) Undergraduate Assistants 1 (29)
- 4) Sabbatical and Visiting Scholars 0 (11)

THESES:

- 1) Sterically Crowded Aryloxides of Aluminum, M. D. Healy, Harvard University, April 1992. 1,3-Diphenyltriazene Compounds of Aluminum and Indium, J. T. Leman, Harvard University, May 1993.
- 2) Tert-butyl Compounds of Gallium, W. M. Cleaver, Harvard University, January 1994.
- 3) Chemical Routes to Group 13-16 Materials, C. C. Landry, Harvard University, May 1994.
- 4) Intramolecular Coordination in Compounds of Aluminum, J. A. Francis, Rice University, March, 1999.
- 5) Surface and Coordination Chemistry Related to GaAs, A. Keys, Rice University, April 1999.
- 6) Advanced Ceramic Composites and Coatings via Alumoxane Nanoparticles, R. L. Callender, Rice University, April, 1999.
- 7) Chemical Vapor Deposition of Alumina-Based Thin Films, B. Fahlman, Rice University, April, 2000
- 8) Inorganic - Organic Materials Incorporating Alumoxane Nano-Particles, C. Vogelson, Rice University, April, 2000
- 9) Controlled Ceramic Porosity and Membrane Fabrication via Alumoxane Nanoparticles, C. Jones, Rice University, April, 2000
- 10) Cement Hydration Inhibition and Crosslinking in the Guar-Borate System, M. Bishop, Rice University, March, 2001
- 11) Aluminum and Gallium Chloride Stabilized Arene-Mercury Complexes, A. Borovik, Rice University, March, 2001
- 12) Development of Homogeneous and Heterogeneous Alkylalumoxane Catalysts, S. Obrey, Rice University, April, 2001
- 13) Controlling Ceramic Porosity Using Carboxylate-Alumoxane Nanoparticles, K. DeFriend, Rice University, April, 2002
- 14) Reversible Binding of Lewis Bases to Aluminum and Gallium Aryloxides, L. van Poppel, Rice University, March, 2002
- 15) Chemistry of Group 13 Lewis Acids, C. S. Branch, Rice University, April, 2002
- 16) Liquid Phase Deposition of Silica: Thin Films, Colloids and Fullerenes. Elizabeth Whitsitt, Ph.D Rice University, October, 2004.
- 17) Nanoparticles as crosslinking agents in polymer systems. N. Shahid, Ph.D. November, 2004.
- 18) Formation of Alumina Features & Cadmium Chalcogenide Coatings of Single-Walled Carbon Nanotubes. John Ryan Loscutova, Ph.D. Rice University, November, 2004.
- 19) Metal catalyzed reactions of fullerenes and single walled carbon nanotubes. D. Ogrin, Ph.D., Rice University, April, 2005
- 20) Transition Metal Catalyzed Reactions of Fullerenes and Carbon Nanotubes, R. Anderson, Ph.D., Rice University, September, 2005.

- 21) Jianzhong Yang, Ph.D. "From Fullerene Amino Acids to Fullerene Peptides." (2006).
- 22) Lei Zhang, Ph.D. "Functionalization of Single Walled Carbon Nanotubes." (2006).
- 23) Christopher Edwards, Ph.D. "Characterization via Nuclear Magnetic Resonance of Portland Cement and Related Materials." (2006).

SELECTED PRESENTATIONS: 1995 - present

- 1) "A chemical approach for structural, composite, and coating materials for automotive applications", invited lecture, World Car Conference '96, Riverside, CA, January, 1996
- 2) "Alkyl alumoxanes: destroying the myth", invited lecture, University of Texas at Arlington, Arlington, TX, January, 1996
- 3) "Alkyl alumoxanes: destroying the myth", invited lecture, University of North Texas, Denton, TX, February, 1996
- 4) "Molecular control over materials synthesis", NREL Photochemical Sciences Workshop, Estes Park, CO, February, 1996
- 5) "Environmentally benign processing of aluminum-based ceramic materials: water soluble alumoxanes", ACS National Meeting; New Orleans, LA, March, 1996
- 6) "Gallium sulfide: molecules materials and transistors", invited lecture, University of Delaware, DE, May, 1996
- 7) "Alkyl alumoxanes: destroying the myth", invited lecture, DuPont Central Research, Delaware, DE, May, 1996
- 8) "Alkyl alumoxanes: destroying the myth", invited lecture, GE; Schenectady, NY, July, 1996
- 9) "Dialkylaluminum carboxylates: models for carboxylate alumoxanes", International Coordination Chemistry Conference, Vancouver, BC, August, 1996
- 10) "The future of inorganic chemistry: nano-science and technology", Monsanto, St. Louis, MO, October, 1996
- 11) "Alkyl alumoxanes: destroying the myth", invited lecture, ACS Southwestern Regional Meeting; Houston, TX, October, 1996
- 12) "Gallium sulfide: molecules materials and transistors", invited lecture, University of Southern Illinois, IL, October, 1996
- 13) "A new route to alumina-based ceramics via a novel transmetalation reaction", American Ceramic Society, San Antonio, TX; October, 1996
- 14) "Alumoxane precursors to designer catalysts and catalyst supports: catalytic oxidation of dichloromethane", invited lecture, MRS Fall Meeting, Boston, MA, December, 1996
- 15) Inorganic Gordon Conference, Salve Regina University, Newport, RI, July, 1997
- 16) Symposium Chair for special symposium in honor of Sir. Geoffrey Wilkinson, ACS National Meeting, San Francisco, CA. April 1997
- 17) Organometallic Gordon Conference, Salve Regina University, Newport, RI, July, 1997
- 18) MRS Fall Meeting, Boston, MA, December 1997.
- 19) 81st Canadian Society for Chemistry Conference & Exhibition, Vancouver, Canada, May 31 - June 4, 1998
- 20) 2nd Fargo Conference on Main Group Chemistry, Fargo, ND, June 4 - June 6, 1998
- 21) Hunter College Symposium, New York, NY, April 28 - April 30, 1998
- 22) "A new route to hexaluminate ceramics via a novel transmetalation reaction", American Ceramic Society, Coco Beach, FL, Jan. 25-Jan. 28, 1999

- 23) "Carboxylate Alumoxanes Environmentally Benign Routes to Ceramics", Alcoa Chemical Co., Alcoa, PA, March 9, 1999
- 24) "Enhancement of Intermolecular Hydrogen Bonding Through Coordination", American Chemical Society, Anaheim, CA, March 21, 1999
- 25) "Carboxylate Alumoxane Nanoparticles", University of Oldenburg, Germany, May 17, 1999
- 26) "Carboxylate Alumoxane Nanoparticles", University of Munchen, Munich, Germany, May 19, 1999
- 27) "Analytical Facilities at Rice University", Baker Hughes, Sugar Land, TX, June 4, 1999
- 28) "CVD of Conformal Alumina Films", Gordon Conference, Chemistry of Electronic Materials, New England College, New Hampshire, July 4 - July 9, 1999
- 29) "Aluminate Interphase Coatings for FRCMC", NASA Glenn Research Center, Cleveland, OH, July 13, 1999
- 30) "Gas Phase Structure of $\text{Al}(\text{t-Bu})_3$ and $\text{Ga}(\text{t-Bu})_3$ ", Gordon Conference, Inorganic Chemistry, Newport, RI, July 19 - July 23, 1999
- 31) "Reaction of Tert-Butylalumoxane with Trimethylaluminum", American Chemical Society, New Orleans, LA, Aug. 23 - Aug. 26, 1999
- 32) "Cleavage of Organosiloxanes by Aluminum Hydrides", American Chemical Society Regional Meeting, El Paso, TX, Oct. 20 - Oct. 22, 1999
- 33) "Activation of Small Molecules by Group 12/13 Complexes", International Conference on Lewis Acidity, Nagoya, Japan, Nov. 1 - Nov. 3, 1999
- 34) "Alumoxane Nanoparticles", Toyota Motor Company, Toyota City, Japan, Nov. 4, 1999
- 35) "Understanding Methyl Alumoxane", Sumitomo Chemical, Chiba, Japan, Nov. 5, 1999
- 36) "Understanding MAO", Albemarle Corp., Baton Rouge, LA, Dec. 7, 1999
- 37) "Understanding Alumoxanes", Albemarle Corp., Baton Rouge, LA, April, 2000
- 38) "Aluminum Oxides: How a New Look at an Old Material Can Provide Unexpected Results", Society of Minerals, Metals, and Materials, Rice University, Spring, 2000
- 39) "An Investigation in to the Mechanism of Cement Hydration Inhibition", Halliburton Energy, Duncan, OK, Spring, 2000
- 40) "A ^{11}B NMR Investigation into the Mechanism of Crosslinking in the Guar-Boron System", Halliburton Energy, Duncan, OK, Spring, 2000
- 41) "Fiber-Reinforced Ceramic Matrix Composites Using Alumina Nanoparticles", American Ceramic Society, St. Louis, MO, May, 2000
- 42) "Simple Solutions are Often the Best: Cross-Disciplinary Research from the Barron Group", presentation to Rice University Alumni, Rice University, March, 2000
- 43) "Carboxylate Alumoxanes: Inorganic-Organic Composite Materials for Automotive Applications", Rice University School of Continuing Studies, Spring, 2000
- 44) "Activation of Aromatics Using Group 12/13 Lewis Acids", Gordon Conference, Inorganic Chemistry, Salve Regina College, Newport, RI, July, 2000
- 45) "Aluminum and gallium chloride stabilized arene-mercury complexes", American Chemical Society National Meeting, San Diego, CA, April, 2001
- 46) "Cement hydration inhibition: In situ creation of composite structures", American Chemical Society National Meeting, San Diego, CA, April, 2001
- 47) "Carboxylate-Alumoxanes: Environmentally Benign Precursors for Developing Aluminum Based Ceramic Membranes and Filters", Halliburton Energy Services, Duncan, OK, June, 2001

- 48) "Arene-Mercury Complexes Stabilized by Aluminum and Gallium Chloride: Catalysis for H/D Exchange of Aromatic Compounds." University of Arizona, Tucson, Arizona. January 18, 2002
- 49) "Arene-Mercury Complexes Stabilized by Aluminum and Gallium Chloride: Catalysis for H/D Exchange of Aromatic Compounds." Los Alamos National Laboratory, Los Alamos, New Mexico. January 24, 2002
- 50) "Carboxylate-Alumoxanes: A Journey from Understanding Sol-Gels to Catalysts, Composites, and Membranes." Sandia National Laboratory, Albuquerque, New Mexico. January 23, 2002
- 51) "Carboxylic Acid Functionalized Alumina Nanoparticles: A Flexible Class of Pre-Ceramics for Structural Composites and Ultrafiltration Membranes." Georgia Institute of Technology, Atlanta, GA. 9/16/2002
- 52) "Carboxylic Acid Functionalized Alumina Nanoparticles: A Flexible Class of Pre-Ceramics for Structural Composites and Ultrafiltration Membranes." Central Michigan University, Mount Pleasant, MI. 9/18/2002
- 53) "Carboxylic Acid Functionalized Alumina Nanoparticles: A Flexible Class of Pre-Ceramics for Structural Composites and Ultrafiltration Membranes." University of Houston, Houston, TX. 10/8/2002
- 54) "Nanotechnology Presentation." Cleantech Venture Network, Toronto, Canada. Workshop, November 13, 2002
- 55) "A Structural and Reactivity Model for MAO: Does Anyone Believe Me Now?." American Chemical Society, New Orleans, LA, March 22, 2003
- 56) "Controlling Surface Chemistry of Oxide Membranes." CBEN NanoDays 2003, Rice University. October 14, 2003
- 57) "Coating and Exposing SWNTs." CBEN NanoDays 2003, Rice University. October 14, 2003
- 58) "Coating and Exposing SWNTs." Welch Foundation, Houston, Texas. October 28, 2003
- 59) "Coatings, Spontaneous Interconnects, Regioselective Functionalization, and Interactions with Biological Systems of SWNTs." National Science Foundation, Jackson Hole, WY. June 1, 2003
- 60) "Interface of Wet and Dry Nanotechnology." Affymetrix, Inc., San Francisco, CA, San Francisco, CA. September 9, 2003
- 61) "Interface of Wet and Dry Nanotechnology." Puretech, Inc., Boston, MA. October 23, 2003
- 62) "Nanostructure Coating Technology." Valve Technologies Technical Conference International Seminar 2003, Houston, TX. October 24, 2003
- 63) "Use of Carboxylate Alumoxanes in Bone Replacement Materials." IRIS X 10th International Symposium on Inorganic Ring Systems, Burlington, VT. August 22, 2003
- 64) "Fabrication of Nanostructured Ceramic Membrane", France/Texas Water Treatment Research Congress: Emerging Technologies and Challenges . January 12, 2004
- 65) Lecture to CBEN for high school teachers, February 17th, 2004
- 66) Teaching at Lee High School for CBEN, February 17th, 2004
- 67) "Biological and Environmental Applications of Nanotechnology", Case Fellowship 'Societal Implications of Nanotechnology' March 15, 2004

- 68) "Reinforcement of Poly Propylene Fumarate -Based Networks with Surface Modified Alumoxane Nanoparticles for Bone Tissue Engineering". Alliance for NanoHealth Workshop, Texas Heart Institute, Houston, TX. May 14, 2004
- 69) "New High Density Fuels: A Chemical Approach" DARPA/TTO Seedling Study, Rice University, Houston, TX. (August 31, 2005)
- 70) "Alumoxanes: A Journey from Research to Commercialization." Nanotechnology Colloquium, Houston, Texas. (October 31, 2005)
- 71) "Alumoxanes: A Journey from Ceramics and Catalysts to Bone Replacement and Fuel Cells" Baylor College of Medicine, Houston, TX. (January 14, 2005)
- 72) "Coating and Exposing SWNTs" University of Notre Dame, Notre Dame, IN. (February 17, 2005)
- 73) "Coating and Exposing SWNTs" United States Air Force, Wright Patterson Air Force Base, Ohio. (February 22, 2005)
- 74) "SWNTs and Fullerenes: From Composites and Catalysis to Biology and Remediation" Strategic Partnership for Research in Nanotechnology, Houston, Texas. (October 11-12, 2005)
- 75) "Membranes" Nanotechnologies for a Sustainable Environment, Rice University, Houston, TX. (December 15, 2005)
- 76) "Nano-Applications in Energy: Fuel Cells/Catalysis" Rice Energy Symposium, Rice University, Houston, TX. (January 10, 2006)
- 77) "Technology Transfer at Rice University" Nanotechnology Venture Forum 5, Rice University. (January 20, 2006)
- 78) "Evaluation and Accessing University Based Technology" Sino-US Small Business Development Forum & Expo, Houston, TX. (April 26-29, 2006)
- 79) "Water Purification with Nanostructured Membranes" VIII International Physics Symposium, Monterrey, Mexico. (February 16-18, 2006)
- 80) "How the Presence of Nanoparticles Control the Reactivity/Mobility of Biological Materials" Nano Tox Conference, Boston, MA. (April 24, 2006)
- 81) "The Chemistry Behind Explosives and the Application of Nanotechnology" Tactical Operations Division, Houston Police Department, Houston, TX. (September 11, 2006)
- 82) "Big Energy Solutions with Complex Licensing Issues" Licensing Executives Society, New York, NY. (September 10, 2006)
- 83) "Catalysts and SWNT Modification: Towards a Vision of SWNT Amplification" ACS Conference, San Francisco, CA. (September 12, 2006)
- 84) "Growth of Single Walled Carbon Nanotubes from Seeds" Trinity College, Dublin, Dublin, Ireland. (December 7, 2006)
- 85) "Fullerene Amino Acids as a Passport for Peptides Through Cell Membranes" University College Dublin, Dublin, Ireland. (December 8, 2006)

MISCELLANEOUS:

- 1) Science Advisory Board MDEChem Inc. 1998-2000)
- 2) Founder and Chairman Scientific Advisory Board, Gallia Inc. 1992 - 1997).
- 3) President: Aluminum Research Board 1991 - present)
- 4) Founder, Oxane, Inc. (2002)
- 5) Founder, NatCore (2004)
- 6) Founder, NewCyte (2005)

- 7) Member, Innovation and Leadership Committee of Greater Houston Energy Collaborative, Greater Houston Partnership (2006)