

Luis Echegoyen
Professor
Department of Chemistry
University of Texas at El Paso
El Paso, TX 79968

PERSONAL STATUS

Born: January 17, 1951, in La Habana, Cuba
Citizenship: Citizen of the United States of America

LANGUAGES

Fully proficient in both English and Spanish
(Speak, read, and write)

EDUCATIONAL BACKGROUND

- | | | | |
|----|---------------|--------|---|
| a) | B. S. | (1971) | University of Puerto Rico, Río Piedras, Puerto Rico
(Magna Cum Laude) |
| b) | Ph. D. | (1974) | University of Puerto Rico, Río Piedras, Puerto Rico
(work done under the supervision of Prof. G. R. Stevenson) |
| c) | Postdoctorate | (1975) | University of Wisconsin at Madison (work done under the supervision of Prof. S. F. Nelsen) |

THESIS

"Thermodynamic Parameters Controlling the Stability of Anion Radicals in Solution."
(Work done under the supervision of Prof. G. R. Stevenson.)

PROFESSIONAL POSITIONS

- a) Teaching Assistant at the University of Puerto Rico, (1971-1972)
- b) Research Corporation Fellow at the University of Puerto Rico, (1972-1974)
- c) Postdoctoral Research Associate at the University of Wisconsin at Madison, (1974-1975)
- d) Chemist I, Nuclear Magnetic Resonance Spectroscopist at Union Carbide Corporation, Bound Brook, New Jersey, (1975-1977)
- e) Assistant Professor at the University of Puerto Rico, (1977-1980)
- f) Associate Professor at the University of Puerto Rico, (1980-1983)
- g) Adjunct Associate Professor at the University of Maryland, College Park, Maryland, (1982-1983)
- h) Program Officer, Chemical Dynamics Program, National Science Foundation,

Washington, D. C., (1982-1983)

- i) Associate Professor at the University of Miami, Coral Gables, Florida, (1983-1987)
- j) Member of the Chemistry Advisory Committee - NSF, (1986-1989)
- k) Professor at the University of Miami, Coral Gables, Florida, (1987-2002)
- l) Sabbatical at the Universite Louis Pasteur, Strasbourg, France, with Prof. Jean-Marie Lehn, (1990)
- m) Sabbatical at the ETH, Zürich, Switzerland, with Prof. François Diederich, (1997-8)
- n) Chairman at Clemson University, Clemson, SC, (2002-2006)
- o) Professor of Chemistry, Clemson University, Clemson, SC (2002-2010)
- p) Director, Chemistry Division, National Science Foundation (2006-2010)
- q) Robert A. Welch Professor at the University of Texas at El Paso, El Paso, Texas, (2010-)
- r) President-elect of the ACS for 2019, President - 2020

TEACHING EXPERIENCE

- a) Instrumental Analysis Laboratory Course
- b) General Chemistry Laboratory Course
- c) General Chemistry Course (both semesters)
- d) Honors General Chemistry Course
- e) Graduate Physical Chemistry; Thermodynamics, Statistical Thermodynamics and Chemical Kinetics
- f) Undergraduate Experimental Physical Chemistry (both semesters)
- g) Undergraduate Physical Chemistry; Thermodynamics, Quantum Mechanics, Statistical Thermodynamics, Kinetics, and Spectroscopy
- h) Magnetic Resonance Spectroscopy, both ESR and NMR, at the graduate level
- i) Short Course (12 hours) of NMR Spectroscopy (^1H and ^{19}F) given to private industry (Hoffman-LaRoche)
- j) Fourier Transform NMR; graduate level and mini-course given at different places, such as U. Puerto Rico, Humacao, and U. of Sao Paulo, Sao Paulo, Brasil
- k) Quantitative Chemical Analysis
- l) ESR Spectroscopy: Basic Principles and Applications, NMR Institute Short Course, Miami
- m) Short Course (10 hours) of Electrochemistry and Supramolecular Science, given at Universidad Autónoma de Madrid, June, 2001
- n) ESR/Electrochemistry/NMR Basic Principles Chemistry Course, Spring 2015

ADMINISTRATIVE AND PROFESSIONAL EXPERIENCE

- a) President, ACS Recruiting Committee, U. Puerto Rico (1978)
- b) President, Graduate Exam Committee (Orientation, Qualifying, and Cumulative Exams), U. Puerto Rico (1977-1979)
- c) Natural Science Library Committee (Representative for the Chemistry Department), U. Puerto Rico (1979-1982)
- d) In charge of Major Instrument Room, U. Puerto Rico (1979-1982)
- e) Member, Academic Affairs Committee, U. Puerto Rico (1980-1982)
- f) Program Officer, Chemical Dynamics, National Science Foundation, Washington, D. C. (1982-1983)
- g) Chairman, Physical Chemistry Division, University of Miami (1984-1994)
- h) Member, Curriculum Committee, U. of Miami (1985- 1987)
- i) Member, Tenure and Promotion Committee, Faculty of Arts and Sciences, U. of Miami (1989-92)
- j) Member, Patent and Copyright Committee, U. of Miami (1986-1988)
- k) Member, Tenure and Promotion Committee, Provost Level, U. of Miami (1992-1995)
- l) Chairman of several Faculty Search Committees in Physical Chemistry, U. of Miami, (1985-2002)
- m) Member, Chemistry Chairman Search Committee, U. Miami (1992-1993)
- s) Associate Chair of Graduate Studies, U. Miami (1999-2001)
- t) Chairman, Chemistry Department, Clemson University, SC (2002-2006)
- u) Elected Member of CEOSE (Committee for Equal Opportunity in Science & Engineering)-NSF-Congressionally mandated committee (2003-6). Extended for 2006-9, cancelled due to NSF employment in 2006.
- v) Member of Mathematical and Physical Sciences Advisory Committee of the NSF (2003-5)
- w) Member of ACS Committee on Science (2003-2006)
- x) Appointed member of the US National Committee for IUPAC (started fall, 2005)
- y) Member of Editorial Board, *Journal of the Mexican Chemical Society* (2005-)
- z) Member of Editorial Board, *Fullerenes, Nanotubes, and Carbon Nanostructures* (2006-)
- aa) Member of the Board of the Council for Chemical Research (2008-2010)
- bb) Vice-Chair, Gordon Research Conference on “Physical Organic Chemistry”, 2009
- cc) Chair, Gordon Research Conference on “Physical Organic Chemistry”, 2011
- dd) Member of the Board of Trustees, Instituto Madrileño de Educación Avanzada (IMDEA) Nanociencias (Madrid, Spain, 2008-present)
- ee) Member of the International Advisory Board, Physical Chemistry of Solid Surfaces (PCOSS) Institute, Xiamen, China, 2009-present
- ff) Appointed Robert A. Welch Chair Professor of Chemistry at the University of Texas at El Paso (2010-)
- gg) Editor in Chief, *Journal of Physical Organic Chemistry*, (2011-2018)
- hh) Society for Advancement of Chicanos and Native Americans in Science Board Member – (2012-2015)
- ii) Open Chemistry Collaborative in Diversity Equity (OXIDE) Board Member, (2012-

- Present); Chair (2017-2020)
- jj) University of Texas San Antonio PREM External Advisory Committee Member-San Antonio, TX, (2015-2018)
 - kk) University of South Dakota Advisory Board Member-Vermillion, SD, (2016-2018)
 - ll) University of California Santa Barbara MRL External Advisory Board Member, Santa Barbara, CA, (2016-2019)
 - mm) Panelist for various NSF Meetings throughout the year
 - nn) Selection Committee for the George A. Olah Award in Hydrocarbon or Petroleum Chemistry for the 2018 American Chemical Society (ACS) National Awards.

PRINCIPAL AREAS OF RESEARCH INTEREST

Fullerene Electrochemistry, Monolayer Films, Supramolecular Chemistry, and Spectroscopy.

Endohedral Fullerenes, chemistry and electrochemistry.

Carbon Nanoions: synthesis, derivatizations and fractionation. Chemical and Electrochemical switching of macrocycle-cation binding.

Active cation transport through membranes.

Preparation of Novel Electronic Materials, Based on Reduction of metal Cation Cryptates.

Organic Metals.

Aggregation of Lipophilic Macrocycles.

SUPERVISORY EXPERIENCE

Graduated two Ph. D. students (Ileana Nieves and Aurora Vassos) and one M. S. student (Jose Rivera) in 1980, a Ph. D. in 1982 (René Maldonado) and another (Angel Kaifer) in 1984. In 1987, Jose Rivera, Deborah Gustowski, Milagros Delgado, and Jaime Nieves all finished their Ph. D., and Jose Almirall finished his M. S. Two students finished their Ph. D.'s in 1990: Lourdes E. Echegoyen, in January, 1990, and Dennisse Parra in May, 1990. Other Ph.D. graduates are Zhihong Chen, who finished in December, 1991, Ms. Yi Li, who finished in May, 1993, and Mr. Qingshan Xie, in 1994. Marielle Gómez-Kaifer, Raphael Lawson, and Francisco Arias received their Ph.D. degrees in 1997. Olena Lukoyanova and Amit Palkar received their Ph.D. degrees in 2007, Bevan Elliott in 2008 and Manuel Chaur in 2009. Julio Pinzón and Angy Ortiz received their PhD degrees from Clemson University in 2010. Venkata Neti received his PhD at UTEP in 2014 and Maira Cerón and Danisha Rivera received theirs in 2015. Catalina Suárez obtained her MS degree in 2017. Edison Castro received his PhD at UTEP in 2017.

The complete list of students graduated and their thesis titles follows:

- 1) Ileana Nieves: "Structural and Thermodynamic Studies of Divalent Cation Ion Pairs"
- 2) Aurora Vassos: "Hydrogen Bonding and Electron Transfer Reactions of Cyclooctatetraene Anions"
- 3) José Rivera: "Ion Pairing Studies in Radical Ion Systems"
- 4) René Maldonado: "Electron Transfer and Spin Distribution in Anion Radicals Derived from Substituted Cyclooctatetraene and Aromatic Compounds"

- 5) Angel Kaifer: "Structural and Charge Effects on the Dynamics and Binding Properties of Macrocyclic Polyether-Metal Complexes"
- 6) José Rivera: "Redox, Photochemical and Photophysical Studies of DNA Base Derivatives, Pyrimidine Dimers and N-7 and N-9 Methyl-substituted Purines"
- 7) Deborah Gustowski: "Cation Effects on the Electrochemistry of Crown Ethers, Lariat Ethers, and Podands"
- 8) Jaime E. Nieves: "ESR Studies of Spin Distribution and Cation Binding in Organic and Biological Systems"
- 9) Milagros Delgado: "Spin Distribution and Binding Properties of Macrocyclic Polyether-Metal Complexes and Cyclooctatetraene Derivatives: ESR Studies"
- 10) José Almirall: "Electron Spin Resonance Studies of Novel Cyclooctatetraene-Crown Ether Compounds"
- 11) Lourdes Echegoyen: "Lariat Ethers: From Electrochemically-enhanced Cation Transport to Supramolecular Assemblies"
- 12) Dennisse Parra: "Relaxation Times and Molecular Mechanics Studies of Cryptand-like Behavior of Some Lariat Ethers and Their Metal Cation Complexes"
- 13) Zhihong Chen: "Redox-switched and Lipophilic Ligands: From Enhanced Cation Binding and Transport to Molecular Assemblies"
- 14) Yi Li: "Cation Exchange Kinetics and Mechanisms of Macrocyclic Polyether Cation Complexes and Chiral Recognition by Triazole-Crown Ligands"
- 15) Qingshan Xie: "²³Na-NMR Studies of Na⁺ Transport Mediated by Synthetic Carriers Across Vesicle Membranes and Fullerides of Fullerenes and Fullerooids: An ESR and Electrochemical Study"
- 16) Raphael Lawson: "Spectroelectrochemistry of Nitroxide Biradicals and Cation Binding Enhancement Studies of Anthraquinone Crown Compounds"
- 17) Marielle Gómez-Kaifer: "Conformational, Binding, and Electrochemical Studies of Redox-Active Calixarenes"
- 18) Francisco Arias: "Electrochemistry of Fullerenes and Fullerene Derivatives"

- 19) Soomi Pyo “Electrochemistry of Molecular Dyads Containing Fullerenes, Porphyrins, or Phthalocyanines and Electrocrystallization of Transition Metal Complexes”
- 20) Olena Lukoyanova “Studies of the Stability and Potential Applications of Pyrrolidinofullerenes and Other Fullerene Derivatives”
- 21) Amit Palkar “Development of Fullerene-Based Structures for Photovoltaic and Electronic Applications”
- 22) Bevan Elliott “Synthesis, Electronic Structure and Reactivity of Endohedral Metallofullerenes and Endohedral Nanostructures”
- 23) Manuel Chaur “Synthesis and Development of Novel Fullerene-based Structures for Photovoltaics, Electronic Applications and MRI Contrast Agents”
- 24) Julio Pinzón “Synthesis of Trimetallic Nitride Endohedral Metallofullerene Derivatives for Enhanced Solar Energy Conversion”
- 25) Angy Ortiz “Design and Regioselective Synthesis of Two and Three-Pronged C₆₀ Fullerene Derivatives and their Applications in Molecular Electronics”
- 26) Venkata Neti “Design and Synthesis of Porous Organic Frameworks for H₂, CH₄ Storage and for Selective CO₂ Adsorption”
- 27) Maira Cerón “Novel Endohedral Derivatives of Sc₃N@C_{2n} (n=34, 40) and Unique Tether-Controlled *Bis*-Functionalizations of Fullerenes”
- 28) Danisha Rivera “Triphenylamine-, Porphyrin- and Fullerene-Based Derivatives for Photovoltaic and Other Applications”
- 29) Catalina Suárez “Design and Regioselective Synthesis of Fullerene Derivatives for the Construction of Metal-Organic Hybrid Architectures”
- 30) Edison Castro “Synthesis Of New Fullerene Derivatives For Photovoltaic And Biological Applications”

AWARDS AND DISTINCTIONS

- a) Bausch and Lomb Honorary Science Award (1968)
- b) Magna Cum Laude - B. S. Chemistry (1971)
- c) Research Corporation Fellow (1972-1974)

- d) Postdoctoral Research Fellow (1974-1975)
- e) Florida-American Chemical Society Awardee for 1996
- f) University of Miami, Provost's Scholarly Activity Award (1997)
- g) Elected Fellow of AAAS (2003)
- h) Clemson University, College of Engineering and Science Award for Faculty Achievement in the Sciences, for Exemplary Leadership in the Sciences (2004)
- i) Herty Medal – Georgia ACS Section (2007)
- j) University of Puerto Rico, Rio Piedras, Distinguished Alumnus, 2007
- k) Alumni Research Award, Clemson University, 2007
- l) Elected Fellow of IUPAC (2009)
- m) Elected Fellow of American Chemical Society (2011)
- n) ACS Award for Recognizing Underrepresented Minorities in Chemistry for Excellence in Research & Development (2011)
- o) Gordon Research Conference Chair, Physical Organic Chemistry Session, Holderness School, NH, June 26-July 1, 2011.
- p) Elected Fellow of the Royal Society of Chemistry (2019)

NAMED LECTURESHIPS, VISITING PROFESSORSHIPS AND CONFERENCE CHAIRS

- a) Nelson Lecture Series Speaker, "Buckyball Maracas: Electrochemistry and Reactivity of Trimetallic Nitride Endohedral Fullerenes", University of Miami, 2009
- b) Distinguished Guest Professor, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, 2009
- c) L. Carroll King Memorial Lecture Series Speaker, "Buckyball Maracas: Chemical and Electrochemical Properties of Endohedral Fullerenes," Northwestern University, November, 2010
- d) Bryan E. Kohler Lectureship, "Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes," Univ. of California, Riverside, November 1-2, 2011
- e) 33rd Annual Arthur Sweeny Jr. Lecture, Lehman College, New York City, May 3, 2013, "Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes"
- f) Peter B. Sherry Memorial Lecture, Georgia Tech., Atlanta, GA, April 16, 2015,

“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Exohedral or Internal Cluster Control?”

- g) Brown and Williamson Distinguished Lecturer, University of Louisville, Louisville, Kentucky, September 25, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Pronounced Differences due to the Encapsulated Clusters”
- h) Pacificchem “Chemistry of Nanocarbons: Fullerenes, Carbon Nanotubes, Nanographenes and Related Materials” Chair and Co-organizers, December 16-18, 2015
- i) Visiting Professor, Université de Strasbourg, Strasbourg, France, May 8-23, 2016
- j) Neal Thorpe Memorial Lectureship, Murdock Charitable Trust Conference, Spokane, Washington, November 10, 2017

GRANTS

- a) Petroleum Research Fund Type G Award (1978-1980)
“Cation Radical Intermediates in the Mechanisms of Antioxidation, and ESR Study,” \$10,000
- b) Cancer Center of the University of Puerto Rico (1978)
“Clinical Applications of Electron Spin Resonance,” \$5,000
- c) Center for Energy and Environment Research of Puerto Rico, (1977-1978), (1978-1979) \$7,000 and \$12,000
“Electron Transfer States: A Possible Source of Hydrogen”
- d) Office of Graduate Studies and Research of the University of Puerto Rico, (1977-1978), (1978-1979), \$5,000 and \$5,000
- e) NSF - Major Instrument Program (1979)
“Purchase of JEOL FX-900,” \$63,000
- f) NSF - RIMI, (1979-1981), \$45,000
“Homogeneous and Heterogeneous Electron Transfer Studies”
- g) NIH-MBS, (1981-1984), \$130,000
“Redox Studies of Pyrimidine Dimers”
- h) MARC - Faculty Fellowship
“Electrochemical and Chemical Redox Studies of Pyrimidine Cyclobutane Dimers,”
“Electrochemical and Electron Spin Resonance Studies of Electron Transfer Processes,”
\$30,000 plus their annual salaries (Angel Kaifer and Jose Rivera, Ph. D. students)
- i) NIH, (1984-1987), \$259,000
“Reversible Redox Control of Macrocyclic-Cation Binding,” R01 GM 33940
- j) NIH, (1985-1988), co-PI with J. D. Puett, \$455,973
“Endorphin, Phenothiazine and Enzyme Sites on Calmodulin,” R01 GM 35415
- k) NIH, (1987-1990), \$325,000
“Nonionic Liposomes and Redox Activated Cation Pumps,” R01 GM 33940
- l) NSF, (1990-1993), \$169,000
“Separation of Cation Isotopes by Complexation with Crown Ethers,” CHE-9011901
- m) NSF, (1992-1996), \$344,142

- "CRYPTATIUM Species: Preparation and Characterization of a New Family of Expanded Metal Type Materials," DMR-9119986.
- n) NATO (1993-96), \$6,000
"CRYPTATIUM Complexes: Novel Expanded Metals from Organic Complexes," SRG.921445
- o) NSF, (1994-96), \$261,000
"Fullerenes, Fulleroids, and Fullerides: Electrochemistry, ESR, and Supramolecular Complexation."
CHE-9313018, granted 11/93.
Extended two additional years until 1999 via a Creativity Extension, with an additional award of \$310,000.
- p) PRF, (1994-96), \$50,000
"Fullerenes, Fulleroids, and Fullerides: Electrochemistry, ESR, and Supramolecular Complexation."
PRF-27827-AC, granted 11/93.
- q) NATO (1995), \$52,000
"Advanced Research Workshop: Physical Supramolecular Chemistry"
ARW-941404
- r) NIH-Fogarty Senior International Fellowship (1997-98), \$46,745
"Crown Ether-Fullerenes: Synthesis and Electrochemistry"
1 F06 TW02231-01, granted 7/97.
- s) NSF, (1998-2001), \$360,000
"Molecular Materials from Complexes with Bipyridine-like Ligands: Novel Electrudes"
DMR-9803088, granted 8/98.
- t) NSF, (1999-2002), \$500,000
"Retro-Bingel and Isomerization Reactions of Fullerene Derivatives *via* Electrochemistry: Synthesis, Mechanisms, and New Materials"
CHE-9816503, granted 1/99.
- u) Fulbright: Spain-US Cooperative Program, co-PI Prof. Nazario Martín (1999-2000), \$25,000
"Electron Donor Dyads as Electrically Conducting and Superconducting Materials"
- v) NSF, (2002-2005), \$515,000
"Fullerenes: Reactivity, Supramolecular Interactions, and Devices"
CHE-0135786, granted 2/02.
- w) NSF, (2004-2005), \$115,313
"Preparation, Functionalization, and Purification of Multilayer Fullerenes (Buckyonions)"
- x) NSF, (2005-2008), \$623,000
"Fullerene Derivatives and Endohedral Fullerenes: From Supramolecular Self Assembled Structures to Molecular Electronics"
CHE-0509989, granted 7/05.
- y) Luna (2005-8), \$200,042
"Novel Nanomaterials for Advanced Photonic Applications", granted 9/01/05.
- z) NSF, (2010-2011), \$147,280
"Fullerene and Endohedral Fullerene Structures for Applications in Molecular Electronics and MRI"
DMR-1108636, granted 01/11.
- aa) NSF, (2011-2014), \$450,000 - PI
"Metal and Covalent Organic Frameworks (MOFs and COFs) and Supramolecular Structures Incorporating Fullerene Derivatives "

- CHE-1110967, granted 07/11.
- bb) NSF, (2011-2014), \$225,000 - PI
 “International Collaboration in Chemistry: Endohedral Fullerene Donor-Acceptor Dyads for Photovoltaic Applications”
 CHE-1124075, granted 08/11.
- cc) NSF, (2012-2017), \$3,302,000 – PI
 “UTEP-UCSB PREM: Fundamental Molecular and Interfacial Design for Next Generation Photovoltaic Systems”
 DMR-1205302, granted 05/12.
- dd) AFOSR,(2012-2015), \$450,469 – PI
 “Photoswitchable Donor-Acceptor (D-A) Dyad Interfacial Self-Assembled Monolayers for Organic Photovoltaic Cells”
 FA9550-12-1-0053, granted 03/12.
- ee) AFOSR,(2012-2015), \$190,900 – PI
 “(HBCU) - Required Equipment for Photo-switchable Donor-Acceptor (D-A) Dyad Interfacial Self-Assembled Monolayers for Organic Photovoltaic Cells”
 FA9550-12-1-0468, granted 09/12.
- ff) NSF, (2012-2015), \$225,035– PI
 MRI: Acquisition of an Electron Paramagnetic Resonance (EPR) Spectrometer for Research and Education in Chemistry and Physics”
 CHE-1228325, granted 09/12.
- gg) NSF, (2014-2018), \$600,000 - PI
 “Regioselective Multiple Additions to Empty and Endohedral Fullerenes”
 CHE-1408865, granted 07/14.
- hh) NSF, (2018-2021), \$399,000 – co-PI
 “MRI: Acquisition of an X-ray Diffractometer for Research, Education, and Regional Use”
 FED-1827875, granted 08/18.
- ii) NSF, (2018-2022), \$600,000 – PI
 “Fullerene Cages as Molecular Nanocontainers to Stabilize Unprecedented Uranium Clusters and Bonding Motifs”
 CHE- 1801317, granted 09/18.

PATENTS

1. W. Gokel, G.; Echegoyen, L. Reversible, electrochemically-switched lariat ethers. US4631119, Us Patent and Trademark Office, 23 Dec 1986.
2. Echegoyen, L.; D. Irwin, M.; M. Rivera-Nazario, D., Photo-switchable fullerene-based materials as interfacial layers in organic photovoltaics. US9837611, US Patent and Trademark Office, 5 December 2017.
3. Echegoyen, L.; M. Rivera-Nazario, D.; Castro-Portillo, E.; Martinez, Z.; Llano, M., [1-3]-thiazine-fulleropyrrolo derivatives of C60 and C70 as HIV-inhibitor agents. US9856272, Us Patent and Trademark Office, 2 January 2018.

PROFESSIONAL AND HONORARY SOCIETIES

- a) American Chemical Society - 1973 to present
- b) Society of Sigma Xi - 1976 to present

PAPERS PRESENTED(only since 1987) Prior to 1987 there were 67 presentations

1. SEMINAR
Univ. of Puerto Rico, March 13, 1987
"Cation Binding and Selectivity by Neutral and Reduced Lariat Ethers"
2. SEMINAR
Hunter College of the CUNY, May 8, 1987
"Cation Binding and Selectivity by Neutral and Reduced Lariat Ethers"
3. GORDON CONFERENCE ON "MICELLAR AND MACROMOLECULAR CATALYSIS"
July 6-10, 1987
"Vesicles of Steroidal Lariat Ethers"
4. 1987 INTERNATIONAL MINICONFERENCE FOR YOUNG CHEMISTS
Tokyo, Japan, July 16-17, 1987
"Increased Rigidity in Negatively-Charged Lariat Ether Complexes"
5. SBBC SYMPOSIUM
Kyoto University, Japan, July 18-19, 1987
"ESR Observation of One- and Two-Cation Binding Behavior of Syn and Anti Anthraquinone Bibrachial Podand Anion Radicals"
6. XII INTERNATIONAL SYMPOSIUM ON MACROCYCLIC CHEMISTRY
Hiroshima, Japan, July 20-23, 1987
"Novel Niosomes, Liposomes, and Micelles Based on Lariat Ethers"
7. SEMINAR
Univ. of Sao Paulo, Brazil, August 27, 1987
"Lariat Ethers: From Cation Binding to Supramolecular Assemblies"
8. SEMINAR
Univ. of Alabama, Tuscaloosa, October 22, 1987
"Lariat Ethers as Molecular Switches for Enhanced Cation Binding and Transport"
9. US-JAPAN MEETING ON MOLECULAR RECOGNITION
November 3, 1987
"Lariat Ethers: Effect of K_s on their Electrochemistry, Cation Transport Properties, and Niosome Formation"
10. SEMINAR
New Mexico State Univ., Las Cruces, January 6, 1988
"Lariat Ethers: From Cation Binding to Supramolecular Assemblies"
11. SEMINAR
Univ. Texas, Dallas, January 8, 1988
"Lariat Ethers: From Cation Binding to Supramolecular Assemblies"

12. FLORIDA ORGANIC CHEMISTRY FACULTY 6th CONFERENCE
Univ. of Florida, Gainesville, Florida, February 27, 1988
"Lariat Ethers: From Cation Binding to Supramolecular Assemblies"
13. SEMINAR
Florida Institute of Technology, April 21, 1988
"Substituted Crown-Ethers: From Cation Binding and Transport to Supramolecular Assemblies"
14. SEMINAR
Univ. Central Florida, April 22, 1988
"Substituted Crown-Ethers: From Cation Binding and Transport to Supramolecular Assemblies"
15. SEMINAR
Univ. Simon Bolivar, Caracas, Venezuela, July 25, 1988
"Substituted Crown-Ethers: From Cation Binding and Transport to Supramolecular Assemblies"
16. V INTERNATIONAL SYMPOSIUM ON INCLUSION PHENOMENA AND MOLECULAR RECOGNITION
Orange Beach, Alabama, Sept. 19-23, 1988
"Electrochemically- and Chemically-Pumped Cation Transport Across Model Liquid Membranes"
17. SEMINAR
Oak Ridge National Laboratory, Oak Ridge, TN, May 15, 1989
"Lariat Ethers: From Cation Binding and Transport to Supramolecular Assemblies"
18. WORKSHOP ON SUPRAMOLECULAR ORGANIC CHEMISTRY AND PHOTOCHEMISTRY
Universität des Saarlandes, Aug.27-Sep.1, 1989
"Novel Lipophilic Crowns and Cryptands: Cation Transport and Aggregation Properties"
19. 198TH ACS NATIONAL MEETING IN MIAMI BEACH
Sept. 10-15, 1989
"Electrochemistry and ESR Studies of Complexation Properties for Anthraquinone Derivatives"
20. 198TH ACS NATIONAL MEETING IN MIAMI BEACH
Sept. 10-15, 1989
"¹H and ²³Na NMR Study of a Cylindrical Molecular Receptor Molecule"
21. SEMINAR
University of Puerto Rico at Mayagüez, November 9, 1989.
"Crown Ethers: From Cation Binding to Supramolecular Assemblies"
22. SEMINAR

University of Twente, Enschede, Holland, June 20, 1990.
"Redox-active Crown Ethers: Aggregation, Cation Binding, and Transport"

23. SEMINAR
Université Louis Pasteur, Strasbourg, France, July 6, 1990.
"Lipophilic Crown Ethers: Aggregation, Cation Binding, and Transport"
24. LECTURE
First International Summer School of Supramolecular Chemistry, Strasbourg, France, September 26, 1990.
"External Switching Control of Functionalized Macrocycles: Redox Active Systems as an Example"
25. SEMINAR
Universita di Pavia, Pavia, Italy, October 8, 1990.
"Redox Active and Lipophilic Crown Ethers for Enhanced Cation Binding and Transport"
26. SEMINAR
Universita degli Studi di Parma, Parma, Italy, October 10, 1990.
"Redox Active and Lipophilic Crown Ethers for Enhanced Cation Binding and Transport"
27. SEMINAR
Universita degli Studi di Padova, Padova, Italy, October 12, 1990.
"Redox Active and Lipophilic Crown Ethers for Enhanced Cation Binding and Transport"
28. SEMINAR
Universita degli Studi di Firenze, Florence, Italy, October 15, 1990.
"Redox Active and Lipophilic Crown Ethers for Enhanced Cation Binding and Transport"
29. SEMINAR
Universita degli Studi di Sassari, Sassari, Italy, October 17, 1990.
"Redox Active and Lipophilic Crown Ethers for Enhanced Cation Binding and Transport"
30. SEMINAR
Universidad Autónoma de Madrid, Madrid, España, November 16, 1990.
"Propiedades Redox de Macrociclos Electroquímicamente Activos Diseñados para la Complejación de Cationes"
31. SEMINAR
Instituto de Química Médica, CSIC, Madrid, España, November 16, 1990.
"Macrociclos Electroquímicamente Activos para el Transporte de Cationes"
32. SEMINAR
Inorganic Chemistry Laboratory, University of Oxford, Oxford, England, November 19, 1990.
"Redox-active Macrocycles for Enhanced Binding, Transport, and Separation of Isotopes"

33. SEMINAR
University of Sheffield, Sheffield, England, November 20, 1990.
"External Switching Control of Functionalised Macrocycles"
34. SEMINAR
University of Liverpool, Liverpool, England, November 23, 1990.
"Redox-active Macrocycles for Enhanced Binding, Transport, and Separation of Isotopes"
35. SEMINAR
Universidad del Pais Vasco, Donostia-San Sebastián, España, November 28, 1990.
"Macrociclos Electroquímicamente Activos para Transporte de Cationes"
36. SEMINAR
Universidad Autónoma de Barcelona, Barcelona, España, December 3, 1990.
"Macrociclos Electroquímicamente Activos para el Transporte de Cationes"
37. SEMINAR
Universidad Central de Venezuela, Caracas, Venezuela, July 11, 1991.
"Macrociclos Electroquímicamente Activos para la Separación de Isótopos"
38. SEMINAR
Universidad Nacional Pedro Henríquez Ureña, Santo Domingo, República Dominicana, August 22, 1991.
"Química Supramolecular: Más Allá del Enlace Covalente"
39. SECOND PANAMERICAN CHEMICAL CONGRESS
San Juan, Puerto Rico, Sept. 23-27, 1991
"Reducible Macrocyclic and Macrobicyclic Ligands for Selective Metal Ion Isotope Binding"
40. SEMINAR
University of Puerto Rico, Río Piedras Campus, Sept. 27, 1991
"Redox Active Macrocyclic Ligands for Selective Complexation of Isotopes and for the Preparation of Cryptatium Species"
41. SEMINAR
Universidad de Costa Rica, San José, Costa Rica, Oct. 30, 1991
"Macrociclos Electroquímicamente Activos para la Separación de Isótopos y la Preparación de Nuevos Materiales"
42. 10th Florida Organic Faculty Conference
University of Florida, Gainesville, Feb. 22, 1992
"Redox-active Macrocycles and Macrobicycles for Isotope Separations"
43. Gordon Research Conference on Isotopes in the Physical and Life Sciences
Ventura, California, March, 1992
"Redox-active Macrocyclic and Macrobicyclic Ligands for Metal Ion Isotope Separations"

44. XXth Latin American Chemical Congress
Santo Domingo, Dominican Republic, May 18-22, 1992
"Reducing Supermolecules to Pseudo-atoms"
45. SEMINAR
University of the West Indies, Kingston, Jamaica, July 8, 1992
"Redox-active Macrocyclic and Macrobicyclic Systems: New Functions and Novel Properties"
46. XVIIth International Symposium of Macrocyclic Chemistry
Provo, Utah, August 14, 1992
"Reducing Supermolecules to Pseudo-atoms and Anions: Cryptatium Species and C₆₀"
47. SEMINAR
Duquesne University, Pittsburgh, September 4, 1992
"Redox-active Macrocycles and Macrobicycles"
48. Symposium: Fullerenes, Chemistry, Physics, and New Directions
Electrochemical Society Meeting, Toronto, Ontario, Canada, October 11, 1992
"Electrochemical Generation and ESR Detection of C₆₀ⁿ⁻ Species in Liquid Solution"
49. SEMINAR
University of Houston, Houston, Texas, October 20, 1992
"Redox Chemistry of Supermolecules and their Complexes"
50. Symposium on Synthetic Hosts for Recognition of Molecular and Ionic Guests
48th Regional Meeting of the ACS, Lubbock, Texas, October 22, 1992
"Redox-active Crowns and Cryptands for Isotope Separations"
51. SEMINAR
Michigan State University, East Lansing, Michigan, November 12, 1992
"Cryptatium Species: Novel Materials"
52. SEMINAR
Universite Louis Pasteur, Department de Chimie, Strasbourg, France, December 17, 1992
"Redox Properties of Macrocyclic and Macrobicyclic Compounds"
53. LECTURE
International Summer School of Supramolecular Chemistry, Gdansk, Poland, June 14-25, 1993.
"Electrochemistry of Supramolecular Systems: Changing Properties and Making New Materials"
54. INVITED LECTURE
184th Meeting of the Electrochemical Society, New Orleans, Oct. 10-15, 1993.
"Electrochemistry of Crown-Ether Substituted Fullerenes at Very Negative"

Potentials"

55. INVITED SEMINAR
National Science Foundation, Chemistry Division, January 19, 1994.
"Crown Ethers, Cryptands, and Fullerenes: Hosts for Cation Binding and Transport and for Novel Materials"
56. INVITED LECTURE
The Annual Congress of the Royal Society of Chemistry, Dalton Division Symposium, Liverpool, UK, April 12-15, 1994.
"Redox-active Macrocycles and Macrobicycles: Isotope Separations and Novel Crystalline Materials"
57. INVITED LECTURE
NATO Advanced Research Workshop on Transition Metals in Supramolecular Chemistry, Genoa, Italy, April 14-16, 1994.
"Redox Chemistry of Metal Ion Complexes: Preparation of New Materials"
58. INVITED SEMINAR
National Science Foundation, Chemistry Division, May 2, 1994.
"Redox-active Ligands and Complexes: From Switching of Enhanced Cation Binding to the Preparation of New Materials"
59. INVITED SEMINAR
Naval Research Laboratory, Washington, D.C., May 3, 1994.
"Redox-active Ligands and Complexes: From Switching of Enhanced Cation Binding to the Preparation of New Materials"
60. INVITED LECTURE
Symposium on Physical-Organic Chemistry, Florida ACS Meeting, Orlando, FL, May 5, 1994.
"Redox Chemistry of Cryptates and Fullerenes: A Source of New Materials"
61. INVITED LECTURE
Minisymposium on "Molecular Engineering and Supramolecular Chemistry," University of Copenhagen, Copenhagen, Denmark, May 6, 1994.
"Fullerides and Cryptatium from Fullerenes and Cryptates: New Materials"
62. INVITED LECTURE
NATO Advanced Research Workshop on Molecular Engineering for Advanced Materials, Hindsø, Denmark, May 7-11, 1994.
"New Materials from the Redox Chemistry of Old Metal Ion Complexes"
63. INVITED LECTURE
185th Meeting of the Electrochemical Society, San Francisco, May 23-27, 1994.
"Electrochemistry of Fullerene Derivatives at Very Negative Potentials"
64. CONTRIBUTED PAPER
XIX International Symposium on Macrocyclic Chemistry, Lawrence, Kansas, June 12-17, 1994.
"New Materials from the Redox Chemistry of Old Metal Complexes"

65. SEMINAR
Universidad del Salvador, Buenos Aires, Argentina, August 29, 1994.
"Of Cryptates and Fullerenes"
66. INVITED PLENARY LECTURE
Second International Symposium on Macrocyclic Ligands for the Design of New Materials, Buenos Aires, Argentina, August 29-September 1, 1994.
"New Materials from the Redox Chemistry of Old Metal Ion Complexes"
67. SEMINAR
University of South Florida, Tampa, Florida, September 8, 1994.
"Cryptatium from Cryptates and Fullerides from Fullerenes and Fulleroids"
68. INVITED LECTURE
13th Florida Organic Faculty Meeting, Orlando, Florida, March 4, 1995.
"Fullerides of Fullerenes and Fulleroids"
69. SEMINAR
University of Costa Rica, San José, Costa Rica, April 20, 1995.
"New Materials Derived from Metallic Complexes and Fullerenes"
71. INVITED SEMINAR
University of California at Santa Barbara, May 18, 1995.
"Electrochemistry of Hollow Organic Molecules and Their Complexes: Cryptates and Fullerenes"
71. INVITED SEMINAR
University of Southern California, May 19, 1995.
"Electrochemistry and Electrocrystallization of Fullerenes and Bipyridyl-based Complexes"
72. INVITED LECTURE
187th Meeting of the Electrochemical Society, Reno, Nevada, May 21-26, 1995.
"Electrochemical Interconversions Between Fullerenes and Fulleroids"
73. INVITED LECTURE
210th ACS National Meeting, Symposium on Surface Modification of and with Inorganic Materials, Chicago, August 20-24, 1995.
"New Crystalline Materials from Metal Ion Complexes"
74. INVITED PLENARY LECTURE
3rd Panamerican Chemical Congress, San Juan, Puerto Rico, September 11-15, 1995.
"Electrochemistry and Electrocrystallization of Hollow Molecules and their Complexes"
75. INVITED LECTURE
University of Florida at Gainesville, October 5, 1995.
"Electrocrystallization of New Materials from Old Metal Ion Complexes"

76. INVITED LECTURE
PacifiChem '95, Symposium on Fullerenes, 12/17 to 12/22/95, Honolulu, Hawaii.
"Fullerene Derivatives: Electrochemistry, Electrosynthesis, and Monolayer Formation"
77. INVITED LECTURE
PacifiChem '95, Symposium on Molecular Recognition, 12-17 to 12-22-95.
"New Crystalline Materials from Metal Ion Complexes"
78. INVITED LECTURE
1996 Florida Advanced Materials Chemistry Conference, March 17-20, 1996.
"Crown-Ether Fullerene Derivatives: Synthesis, Electrochemistry, and Monolayer Formation"
79. INVITED LECTURE
189th Meeting of the Electrochemical Society, Los Angeles, CA, May 5-10, 1996.
"Crown Ether Derivatives of Fullerenes: Synthesis and Monolayer Formation by Self-Assembly and LB Techniques"
80. INVITED LECTURE
ETH Zürich, Switzerland, June 24, 1996.
"Crown Ether Derivatives of Fullerenes: Synthesis and Monolayer Formation by Self-Assembly and LB Techniques"
81. INVITED LECTURE
University of Trieste, Trieste, Italy, June 27, 1996.
"Crown Ether Derivatives of Fullerenes: Synthesis and Monolayer Formation by Self-Assembly and LB Techniques"
82. AWARD ADDRESS-Florida ACS Award Symposium, 1996.
212th ACS National Meeting, Orlando, FL, August 28, 1996.
"New Fullerene Derivatives: Synthesis, Electrosynthesis, and Monolayer Formation"
83. INVITED LECTURE
Louisiana State University, Baton Rouge, October 14, 1996.
"Redox Chemistry of Bipyridine Complexes and Fullerene Derivatives: New Materials"
84. INVITED LECTURE
MRS Fall Meeting, Boston, MA, December, 1996
"Crown Ether Fullerene Derivatives: Synthesis, Langmuir Films, and Self-Assembled Monolayers Using Supramolecular Interactions"
85. INVITED LECTURE
14th Annual Florida Organic Faculty Conference, USF, Tampa, FL, March 1, 1997
"New Materials from Electrocrystallized Metal Complexes and Monolayers of Fullerene Derivatives"
86. INVITED LECTURE
Florida Atlantic University, Boca Raton, FL, April 22, 1997.

“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

87. INVITED LECTURE

191st Meeting of the Electrochemical Society, Montreal, Canada, May 4-9, 1997.
"Fullerenes Derivatives: Monolayer Formation by Self-Assembly and LB Techniques"

88. INVITED SPEAKER

University of Texas at Austin, Texas, May 16, 1997.
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

89. INVITED LECTURE

Auburn University, Alabama, May 22, 1997.
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

90. INVITED LECTURE

University of Kentucky, Lexington, Kentucky, October 16, 1997.
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

91. INVITED LECTURE

Conference on Electrochemistry of Carbon Allotropes, Case Western Reserve University, Cleveland, Ohio, October 20, 1997.
“Fullerene Recipes: Add Six Electrons and Spread Them Really Thin”

92. INVITED LECTURE

University of Würzburg, Würzburg, Germany, December 15, 1997
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

93. INVITED LECTURE

University of Erlangen, Erlangen, Germany, December 15, 1997
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

94. INVITED LECTURE

University of Basel, Basel, Switzerland, January 12, 1998
“New Materials from Electrocrystallized Metal Complexes and from Self-Assembled Fullerene Derivatives”

95. INVITED LECTURE

University of Twente, Enschede, The Netherlands, January 20, 1998
“New Crystalline Materials from Electroreduction of Bipyridine Complexes and Novel Fullerene Monolayers”

96. INVITED LECTURE

University of Nijmegen, Nijmegen, The Netherlands, January 21, 1998
“New Crystalline Materials from Electroreduction of Bipyridine Complexes and

Novel Fullerene Monolayers”

97. INVITED LECTURE
University of Pennsylvania, Philadelphia, March 2, 1998
“Electrochemistry of Fullerenes and their Monolayers”
98. INVITED LECTURE
University of Maryland, College, Park, March 3, 1998
“Electrochemistry of Fullerenes and their Monolayers”
99. INVITED LECTURE
ETH Zürich, Switzerland, May 4, 1998
“Electrochemical Studies of Fullerenes and their Monolayers”
100. INVITED LECTURE
Univ. Louis Pasteur, Strasbourg, France, June 4, 1998
“Electrochemistry of Fullerenes and their Monolayers”
101. INVITED LECTURE
ETH-Technopark, Zürich, Switzerland, June 16, 1998
“Electrochemistry of Fullerenes”
102. INVITED LECTURE
University of Geneva, Switzerland, June 22, 1998
“Electrochemistry of Fullerenes and their Monolayers”
103. INVITED LECTURE
University of Innsbruck, Austria, July 2, 1998
“Electrochemistry of Fullerenes and their Monolayers”
104. INVITED LECTURE
33rd International Conference on Coordination Chemistry, Florence, Italy, Aug.
30-Sept. 4, 1998
“Electrochemistry of Fullerenes and Their Monolayers”
105. INVITED LECTURE
NATO Advanced Research Workshop on Supramolecular Science, Lerici, Italy,
Sept. 4-7, 1998
“Fullerene Derivative Electrochemistry: Recent Results and Some Prospects”
106. INVITED LECTURE
New York University, NY, Nov. 6, 1998
“Electrochemical Transformations of Fullerene Derivatives”
107. INVITED LECTURE
RSC UK Macrocycles and Supramolecular Chemistry Group, January 7-8, 1999
“Electrochemistry of Fullerene Derivatives”
108. INVITED LECTURE
University of Puerto Rico, Río Piedras Campus, April 9, 1999
“Electrochemical Studies of Fullerenes and their Derivatives”

109. INVITED LECTURE
European Research Conferences: 34th Euchem Conference on Stereochemistry-
Bürgenstock, April 24-30, 1999
"Electrochemical Transformations of Fullerenes"
110. INVITED LECTURE
Florida Annual Meeting and Exposition (FAME '99), May 7,8, 1999
"Impedance Spectroscopy Study of Self-Assembled Films of Bis-Thiols and
Thioctic Acid Derivatives Possessing Polyether Segments"
111. INVITED KEYNOTE LECTURE
COST ACTION 518: First Working Group Meeting; Molecular Materials, May
28, 29, 1999, Madrid, Spain
"Crown Ethers Attached to Fullerenes"
112. INVITED LECTURE

Universidad Autónoma de Madrid, May 31, 1999, Madrid, Spain
"Eteres Corona, Fulerenos, y TTFs: Electroquímica y Posible Aplicación a
Sensores"
113. INVITED LECTURE

Fullerenes '99, Chateau de Bonas, Toulouse, France
"Electrochemical Transformations of Fullerene Derivatives"
114. INVITED LECTURE

51st Southeastern ACS Regional Meeting, Oct. 17-20, 1999, Knoxville, TN
"Metal Ion Sensors Based on Crown Ethers, TTF, and Fullerenes"
115. INVITED LECTURE

Department of Chemistry, University of Puerto Rico at Humacao, November 4,
1999
"Electroquímica de Fulerenos: Desde C₆₀ hasta C₈₄"
116. INVITED LECTURE

Department of Chemistry, University of Puerto Rico at Mayaguez, November 5,
1999
"Electroquímica de Fulerenos: Desde C₆₀ hasta C₈₄"
117. INVITED LECTURE

Department of Chemistry, Barry University, Miami, FL, November 22, 1999
"Electrochemistry of Fullerenes: Playing with Soccer Balls"
118. PLENARY LECTURE

16th Chemical Conference, Santiago de Cuba, Cuba, December 9, 1999

"Electrochemical Transformations of Fullerene Derivatives"

119. INVITED LECTURE

Faculty of Chemistry, University of Habana, Habana, Cuba, December 13, 1999
"Crown Ethers and Fullerenes: Together and Apart"

120. INVITED LECTURE

Department of Chemistry, Florida State University, Tallahassee, FL, February 21, 2000
"Electrochemistry of Fullerene and Crown Ether Compounds"

121. INVITED LECTURE

Department of Chemistry, University of Texas-Pan American, April 24, 2000
"Electrochemistry of Fullerene Derivatives"

122. INVITED LECTURE

197st Meeting of the Electrochemical Society, Toronto, Canada, May 14-25, 2000
"Electrochemistry of Fullerene Derivatives"

123. INVITED LECTURE

Department of Chemistry, New Mexico Highlands University, May 25, 2000
"Electrochemical Transformations of Fullerene Derivatives"

124. INVITED ORGANIC COLLOQUIUM

Organic Division, Department of Chemistry, UCLA, June 8, 2000
"Electrochemistry and Electrosynthesis of Fullerene Derivatives"

125. INVITED LECTURE

Molecular Materials and Functional Polymers for Advanced Devices, Patras, Greece, June 22-25, 2000
"Crown Ethers and Fullerenes: Together and Apart"

126. INVITED LECTURE

Metal-Containing Molecules, 1st Chianti Electrochemistry Meeting, Siena, Italy, July 29 - August 3, 2000
"Electrochemical Transformations of Fullerene Derivatives"

127. INVITED LECTURE

Department of Chemistry, Florida International University, September 26, 2000
"Electrochemical Transformations of Fullerene Derivatives"

128. INVITED LECTURE

Department of Chemistry, New York University, New York, October 6, 2000
"Fullerenes, Crown Ethers, and TTF: Together and Apart"

129. INVITED LECTURE

Department of Chemistry, Clemson University, Clemson, SC, October 12, 2000
"Fullerenes, Crown Ethers, and TTF: Together and Apart"

130. INVITED LECTURE

Department of Chemistry, U. California-Riverside, November 8, 2000
"Crown Ethers, Fullerenes, and TTFs: Architectures for Ion Sensing"

131. INVITED LECTURE

Department of Chemistry, U. Complutense of Madrid, Spain, November 16, 2000
"Crown Ethers, Fullerenes, and TTFs: Architectures for Ion Sensing"

132. INVITED LECTURE

Department of Chemistry, U. of Toledo, Spain, November 17, 2000
"Electrochemical Transformations of Fullerene Derivatives"

133. INVITED LECTURE

Pacificchem 2000, Honolulu, Hawaii, December 17, 2000
"Self-Assembled Monolayers Containing Polyethers for Metal Ion Recognition"

134. INVITED LECTURE

Department of Chemistry, Wayne State University, February 9, 2001
"Electrochemical Transformations of Fullerene Derivatives"

135. INVITED LECTURE

Department of Chemistry, North Carolina State University, March 2, 2001
"Electrochemical Transformations of Fullerene Derivatives"

136. INVITED LECTURE

Department of Chemistry, Clemson University, March 12, 2001
"Electrochemical Transformations of Fullerene Derivatives"

137. INVITED LECTURE

199st Meeting of the Electrochemical Society, Washington, DC, March 24-29, 2001
"Ten Years of Buckyball Electrochemistry: Past, Present, and Future"

138. INVITED LECTURE
- 199st Meeting of the Electrochemical Society, Washington, DC, March 24-29, 2001
"Electrochemically-Induced Migration of Fullerene Adducts: Fromation of Bis-Adducts from Mono-Adducts in THF"
139. INVITED LECTURE
- Fourth International Chemical Conference, Habana, Cuba, April 16-20, 2001
"Fullerenes, Crown Ethers, and TTFs: Architectures for Ion Sensing"
140. INVITED LECTURE
- Université d'Angers, France, May 31, 2001
"Electrochemical Transformations of Fullerene Derivatives"
141. INVITED OPENING LECTURE
- Fourth Molecular Materials School, Peñíscola, Spain, June 2, 2001
"New Materials via Self-Assembly and Electrocrystallization: Sensors and Expanded-Atoms"
142. INVITED LECTURE
- Fourth Molecular Materials School, Peñíscola, Spain, June 6, 2001
"Electrochemical Transformations of Fullerene Derivatives"
143. INVITED LECTURE
- Universidad de Santiago de Compostela, June 19, 2001
"Electrochemical Transformations of Fullerene Derivatives"
144. INVITED LECTURE
- Universidad de Oviedo, June 21, 2001
"Synthesis and Electrochemistry of Fullerene Derivatives"
145. INVITED LECTURE
- Consejo Superior de Investigaciones Científicas, Sevilla, Spain, June 26, 2001
"Synthesis and Electrochemistry of Fullerene Derivatives"
146. INVITED LECTURE
- Universidad Autónoma de Barcelona, Spain, June 27, 2001
"Electrochemical Transformations of Fullerene Derivatives"
147. INVITED LECTURE

Universidad Autónoma de Madrid, Spain, June 29, 2001
"Electrochemical Transformations of Fullerene Derivatives"

148. INVITED LECTURE

PittCon 2002, New Orleans, March 18, 2002
"Electrochemical Transformations of Fullerene Derivatives"

149. INVITED LECTURE

PittCon 2002, New Orleans, March 18, 2002
"Ion Templated Self-Assembled Monolayers for Metal Ion Sensing"

150. INVITED LECTURE

Furman University, April 26, 2002
"Fullerene Regiochemistry: Fullerenocrown Derivatives"

151. PLENARY LECTURE

First Santa María Workshop on Chemistry (Supramolecular Chemistry), July 1-5, 2002, Havana, Cuba
"Fullerenocrown Derivatives of C₆₀ and C₇₀: Cation Binding and Electrochemical Properties"

152. PLENARY LECTURE

XXVth Latin American Chemical Congress, September 22-26, 2002, Cancún, Mexico
"Electrochemistry of Fullerenocrown Derivatives"

153. INVITED LECTURE

Virginia Polytechnic Institute, Oct. 18, 2002
"Fullerenocrown Derivatives of C₆₀ and C₇₀: Cation Binding and Electrochemical Properties"

154. INVITED LECTURE

University of Georgia, January 7, 2003
"Fullerenocrowns: Regioselectivity and Electrochemical Properties"

155. INVITED LECTURE

University of North Carolina, Wilmington, February 28, 2003
"Fullerenes: A Brief History and Current Work"

156. INVITED LECTURE

University of Vermont, Burlington, April 17, 2003
"Regiochemistry and Electrochemistry of Multiple Adducts of Fullerenes"

157. INVITED LECTURE
203rd Meeting of the Electrochemical Society, Paris, France, April 27-May 2, 2003
"Intermediates Observed During Retro-Cyclopropanation Reactions"
158. INVITED LECTURE
XIX Congress of the Mexican Electrochemical Society, Chihuahua, Mexico, May 26-30, 2003
"Regiochemistry and Electrochemistry of Multiple Adducts of Fullerenes"
159. INVITED LECTURE
Clemson University, NSF Solid-State Chemistry Program, June 2, 2003
"Buckyballs: A Strong Case for Basic Research"
160. INVITED LECTURE
Chemistry Olympiad Banquet, ACS, USAFA, Colorado Springs, June 14, 2003
"Buckyballs: A Strong Case for Basic Research"
161. INVITED LECTURE
University of Miami, June 20, 2003
"Recent Electrochemical Studies of Fullerene Derivatives and Endohedral Fullerenes"
162. INVITED LECTURE
6th International Workshop on Fullerenes and Atomic Clusters, St. Petersburg, Russia, July 1, 2003
"Electrochemical Studies of Fullerene-Based Compounds"
163. INVITED LECTURE
Clemson University, SURP Program, July 18, 2003
"Buckyballs: A Strong Case for Basic Research"
164. INVITED LECTURE
University of Puerto Rico, Río Piedras Campus, September 24, 2003
"Fullerene Derivatives: Regioselective Synthesis and Electrochemistry"
165. INVITED LECTURE
University of Puerto Rico, Humacao Campus, September 25, 2003
"Research at Clemson University: Fullerenes"
166. INVITED LECTURE
University of Puerto Rico, Río Piedras Campus, September 26, 2003

"Buckyball Research at Clemson University"

167. INVITED LECTURES

Universidad Del Valle, Cali, Colombia, Dec. 4-5, 2003
"Síntesis Regioselectiva de Derivados de C₆₀ y C₇₀ con Eteres Corona y Ciclotriveratrilenos" (Dec. 4); and "Retrociclopropanaciones en Fullerenos Usando Métodos Electrosintéticos" (Dec. 5).

168. GUEST LECTURE

Daniel Senior High School, Central, SC, March 18, 2004
"Buckyballs: A Strong Case for Basic Research"

169. INVITED LECTURE

University of Central Florida, April 8, 2004
"Electrochemical Transformations of Fullerenes and Fullerene Derivatives"

170. INVITED LECTURE

205th Meeting of the Electrochemical Society, San Antonio, TX, May 13, 2004
"Fullerenes Immobilized on Surfaces via Covalent or Supramolecular Interactions"

171. INVITED LECTURE

Federation of Latin American Chemical Societies (FLAQ) Congress, Salvador, Brazil, May 31, 2004 (Symposium on Exciting Adventures in the Chemical Sciences)
"Nanocarbon Structures: From Fullerenes to Nano-onions"

172. INVITED LECTURE

College of Charleston, Sept. 30, 2004
"Electrochemistry of Fullerenes and their Derivatives"

173. INVITED PLENARY LECTURE

Vth International Chemical Congress, Habana, Cuba, October 22, 2004
"Nanocarbon Structures: from Fullerenes to Nano-onions"

174. INVITED COLLOQUIUM SPEAKER

Auburn University, Novemebr 11, 2004
"Regiochemistry and Electrochemistry of Fullerene Derivatives"

175. INVITED LECTURE

ECS Meeting, Quebec, Canada, May, 2005
"Regioselective Additions of Pyridyl-Pyrrolidines to Fullerenes: C₆₀ and

M₃N@C₈₀”

176. INVITED LECTURE

NSF Solid State Chemistry Summer Program, Clemson Univ., May 28, 2005
“Buckyballs: A Strong Case for Basic Research”

177. INVITED LECTURE

Stephen F. Nelsen Symposium, Univ. of Wisconsin-Madison, June 3, 2005
“Regioselective Additions of Pyrrolidines to Fullerenes: C₆₀ and M₃N@C₈₀”

178. INVITED LECTURE

Gordon Research Conference in Physical Organic Chemistry, Plymouth, NH,
June 26-July 1, 2005
“Supramolecular and Surface Chemistry of Fullerenes”

179. INVITED LECTURE

Department of Chemistry, Universidad Nacional de Bogotá, Bogotá, Colombia,
September 13, 2005
“Introducción a la Química y Electroquímica de Fullerenos y Algunos de sus Derivados”

180. INVITED LECTURE

Department of Chemistry, Universidad Nacional de Bogotá, Bogotá, Colombia,
September 15, 2005
“Fullerenos Endohedrales: Nanomarcas y Nanocebellas”

181. INVITED LECTURE

Institute of the Chinese Academy of Sciences for Applied Chemistry, Changchun,
China, November 8, 2005
“Endohedral Fullerenes: Chemical and Electrochemical Properties”

182. INVITED LECTURE

Department of Chemistry, Nangjin Normal University, Nangjin, China,
November 10, 2005
“Endohedral Fullerenes: Chemical and Electrochemical Properties”

183. INVITED LECTURE

Department of Chemistry, East China Normal University, Shanghai, China,
November 21, 2005
“Endohedral Fullerenes: Chemical and Electrochemical Properties”

184. INVITED LECTURE

Department of Chemistry, Beijing University, Beijing, China, November 22,

2005

“Endohedral Fullerenes: Chemical and Electrochemical Properties”

185. INVITED LECTURE

Institute of Chemistry of the Chinese Academy of Sciences, Beijing, China,
November 23, 2005

“Endohedral Fullerenes: Chemical and Electrochemical Properties”

186. INVITED LECTURE

Pacificchem 2005, Honolulu, Hawaii, December 16, 2005

“Differential Reactivity of Trimetallic Nitride Endohedral Fullerenes”

187. INVITED LECTURE

Department of Chemistry, Universidad Complutense de Madrid, Spain, January
16, 2006

“Propiedades Químicas y Electroquímicas de Fullerenos Endoédricos”

188. INVITED LECTURE

Department of Organic Chemistry, Univ. Autónoma de Madrid, Spain, January
17, 2006

“Propiedades Químicas y Electroquímicas de Fullerenos Endoédricos”

189. INVITED LECTURE

Department of Organic Chemistry, ETH, Zürich, Switzerland, January 19, 2006

“Chemical and Electrochemical Properties of Endohedral Fullerenes”

190. INVITED LECTURE

Gordon Research Conference – Electrochemistry, Santa Ynez, CA, February 12-
17, 2006

“Chemical and Electrochemical Properties of Fullerenes and Their Derivatives:
From C₆₀ to M₃N@C_{2n} (M=Sc, Y, Er and n=39, 40)”

191. INVITED LECTURE

Electrochemical Society Meeting, Denver, CO, May 9, 2006

“Chemical and Electrochemical Properties of M₃N@C₈₀ (M=Sc, Y, Er) and their
Derivatives”

192. INVITED LECTURE

ACS-PRF Summer School in Optical, Photonic and Electronic Materials, June 4-
11, 2006, UCF, Orlando, FL

“Chemical and Electrochemical Properties of Fullerene and Endohedral Fullerene
Derivatives”

193. INVITED LECTURE

National Science Foundation, Arlington, VA, Sept. 21, 2006
“Synthesis and Electrochemical Properties of Fullerenes and Other Carbon-based Materials”

194. INVITED LECTURE

University of Arkansas, October 9, 2006
“Synthesis and Electrochemical Properties of Fullerenes and Other Carbon-based Materials”

195. INVITED LECTURE

University of Maryland, October 26, 2006
“Chemical and Electrochemical Properties of Fullerenes, Endohedral Fullerenes and Other Carbon Compounds”

196. INVITED LECTURE

University of Puerto Rico, Rio Piedras, February 1, 2007
“Facts and Opportunities in the Chemistry Division at the NSF”

197. INVITED LECTURE

AAAS/AGEP Workshop, San Juan, Puerto Rico, February 2, 2007
“Facts and Opportunities in the Chemistry Division at the NSF”

198. INVITED LECTURE

AAAS Meeting, San Francisco, CA Feb. 18, 2007
“Chemistry for a Sustainable Future”

199. INVITED LECTURE

University of Puerto Rico, Rio Piedras, March 9, 2007
“Chemical and Electrochemical Properties of Fullerenes, Endohedral Fullerenes and Other Carbon Compounds”

200. HERTY AWARD BANQUET ADDRESS

Georgia Institute of Technology, Atlanta, Georgia, March 29, 2007
“Some Fullerene Science and a Little Science Policy: Fullerene Chemistry and the NSF”

201. HERTY UNDERGRADUATE RESEARCH SYMPOSIUM

Morehouse College, Atlanta, Georgia, March 30, 2007
“Buckyballs: A Strong Case for Basic Research”

202. COUNCIL FOR CHEMICAL RESEARCH

New Orleans, April 15, 2007
“NSF Chemistry Division: An Update”

203. INVITED LECTURE

Univ. of Texas, El Paso, White House Initiative for Hispanic Serving Institutions, ACI and HIS, April 23, 2007
“Opportunities for Hispanic Institutions in the Chemistry Division at NSF under the American Competitiveness Initiative”

204. INVITED LECTURE

Univ. of Texas, San Antonio, April 27, 2007
“Facts About and Opportunities at the Chemistry Division of the NSF”

205. INVITED LECTURE

Univ. of Texas, San Antonio, April 27, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

206. INVITED LECTURE

Electrochemical Society Meeting, Chicago, IL, May 9, 2007
“Chemical and Electrochemical Properties of $M_3N@C_{80}$ (M=Sc, Y, Er) and Multilayer Fullerenes”

207. INVITED LECTURE

UCLA, Los Angeles, CA, May 22, 2007
“Chemical and Electrochemical Properties of Endohedral and Multilayer Fullerenes”

208. INVITED LECTURE

European Science Foundation, London, England, June 15, 2007
“The US National Science Foundation: Chemistry and International Programs”

209. INVITED LECTURE

Physical-Organic Gordon Conference, Holderness, NH, June 24-29, 2007
“Chemical and Electrochemical Properties of Fullerenes, Endohedral Fullerenes and Other Carbon Materials”

210. INVITED LECTURE

IUPAC Task Force for International Chemistry Funding, Torino, Italy, Aug. 9, 2007
“Cooperative Activities in Chemistry between US and German Investigators (DFG-NSF)”

211. INVITED LECTURE

234th ACS Meeting, Boston MA, August 20, 2007
“Ethical Issues and Practices in Federal Funding”

212. TOWN HALL MEETING – Chemistry Division at NSF

234th ACS Meeting, Boston MA, August 20, 2007
“CHE Facts and Figures and Strategic Directions”

213. INVITED LECTURE

58th Annual Meeting of the International Society of Electrochemistry, Banff, Canada, September 9-14, 2007
“Chemical and Electrochemical Properties of Fullerenes Derivatives and Endohedral Fullerenes”

214. INVITED LECTURE

University of Maryland, College Park, September 28, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

215. INVITED LECTURE

EPSCor Annual Meeting, Lexington KY, Oct. 2, 2007
“The US National Science Foundation, Chemistry Division”

216. INVITED LECTURE

NSF: CEOSE Committee, Oct. 17, 2007
“Broadening Participation Activities in Chemistry”

217. INVITED LECTURE

Institute of Chemistry, Chinese Academy of Sciences, Beijing, China, Oct. 23, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

218. INVITED LECTURE

Beijing Normal University, Beijing, China, Oct. 25, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

219. INVITED LECTURE

Foxconn Center for Nanoscience, Tsinghua Univ., Oct. 26, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

220. INVITED LECTURE

University of Puerto Rico, Rio Piedras PR, Nov. 1, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

221. INVITED LECTURE

Senior Technical Meeting, Plenary, Mayaguez PR, Nov. 3, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

222. PRESENTATION TO MPS Advisory Committee

NSF, Nov. 8, 2007
“Plans and Directions of the Chemistry Division at the NSF”

223. INVITED LECTURE

Chemical Society of Washington, Arlington VA, Nov. 8, 2007
“Buckyballs: A Strong Case for Basic Research”

224. INVITED LECTURE

Georgetown University, Washington DC, Nov. 20, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

225. INVITED LECTURE

Georgia Institute of Technology, Atlanta GA Dec. 5, 2007
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

226. INVITED LECTURE

IMDEA Nanoscience Meeting, Madrid, Spain, Dec. 14, 2007
“Chemistry Division at the US NSF: International and Other Programs”

227. INVITED LECTURE

Virginia Tech., March 21, 2008
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

228. INVITED LECTURE

Virginia Tech., March 21, 2008
“NSF Chemistry: Facts and Figures”

229. INVITED LECTURE

Clemson Univ., March 25, 2008

“NSF Chemistry: Realities and Myths”

230. INVITED LECTURE

Univ. of Missouri, St. Louis, March 31, 2008
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

231. INVITED LECTURE

Univ. of Missouri, St. Louis, March 31, 2008
“NSF Chemistry: Facts and Figures”

232. INVITED LECTURE

Univ. of Pennsylvania, Philadelphia, April 14, 2008
“Chemical and Electrochemical Properties of Fullerenes and Endohedral Fullerenes”

233. INVITED LECTURE

Univ. of Pennsylvania, Philadelphia, April 14, 2008
“NSF Chemistry: Facts and Figures”

234. INVITED LECTURE

ACS Meeting, New Orleans, April, 2008
“National Science Foundation Policy and Planning”

235. COMMUNITY PRESENTATION

ACS Meeting, New Orleans, April, 2008
“NSF Chemistry Division: Strategic Directions”

236. INVITED LECTURE

Council for Chemical Research, April 27, 2008
“NSF Chemistry Division: Facts and Figures”

237. INVITED LECTURE

213th ECS Meeting, Phoenix, AZ, May 21, 2008
“New $M_3N@C_{2n}$ (M = Nd, Pr, Ce, and La and $n > 40$) Compounds: Chemical and Electrochemical Properties”

238. INVITED LECTURE

Chemistry Olympiad Competition-Banquet, Colorado Springs, June 14, 2008
“Buckyballs: A Strong Case for Basic Research”

239. INVITED LECTURE

Rare Earth Research Conference '08, Tuscaloosa, AL, June 24, 2008
“New $M_3N@C_{2n}$ (M = Nd, Pr, Ce, and La and $n > 40$) Compounds: Chemical, Electrochemical and Structural Properties”

240. INVITED LECTURE

FLAQ (Federation of Latin American Chemical Societies) Meeting, San Juan, Puerto Rico, July, 2008
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedral Fullerenes”

241. INVITED LECTURE

FLAQ (Federation of Latin American Chemical Societies) Meeting, San Juan, Puerto Rico, July, 2008
“NSF Chemistry: Facts and Figures”

242. COMMUNITY PRESENTATION

ACS Meeting, Philadelphia, August, 2008
“NSF Chemistry Division”

243. PLENARY LECTURE

43rd Congress of the Mexican Chemical Society, Tijuana, Mexico, Sept. 27-Oct. 2, 2008,
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedral Fullerenes”

244. PLENARY LECTURE

4th ERA Chemistry Flash Conference on Organic Photovoltaics, El Escorial, Spain, Nov. 12, 2008
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedral Fullerenes, $M_3N@C_{2n}$ ”

245. KEYNOTE SPEAKER

Workshop – Increasing Hispanic Participation in Chemistry, American Chemical Society, Washington, DC, Nov. 14, 2008
“Hispanics in Chemistry – Problems and Possible Solutions”

246. DISTINGUISHED LECTURE SERIES – Division of Materials Research, NSF

NAS, Arlington VA, Nov. 20, 2008,
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedral Fullerenes”

247. INVITED LECTURE

University of Akron, January 13, 2009
“What’s Happening at NSF Chemistry”

248. INVITED LECTURE
University of Akron, January 13, 2009
“Structure and Properties of Trimetallic Nitride Endohedral Fullerenes”
249. INVITED LECTURE
University of Teaxs, El Paso, February 6, 2009
“Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes, $M_3N@C_{2n}$ ”
250. INVITED LECTURE
Nelson Lecture Series, University of Miami, February 13, 2009
“Buckyball Maracas: Electrochemistry and Reactivity of Trimetallic Nitride Endohedral Fullerenes”
251. INVITED LECTURE
University of Miami, February 13, 2009
“Funding Opportunities and Procedures in the Chemistry Division at the NSF”
252. INVITED LECTURE
University of Turabo, Puerto Rico, EPSCoR Outreach for NSF, February 17, 2009
“US NSF: Structure, Programs and Opportunities”
253. INVITED LECTURE
University of Turabo, Puerto Rico, EPSCoR Outreach for NSF, February 17, 2009
“NSF: Mathematical and Physical Sciences Directorate (MPS)”
254. INVITED LECTURE
Trinity College Dublin, Ireland, Feb. 23, 2009
“Buckyball Maracas: Structure and Properties of Trimetallic Nitride Endohedrals Fullerenes”
255. INVITED LECTURE
Trinity College Dublin, Ireland, Feb. 25, 2009
“US NSF: Programs and Opportunities in the Chemistry Division”
256. INVITED BRIEFING
OSTP, March 12, 2009
“US Division of Chemistry- NSF”
257. INVITED LECTURE

International Symposium for Functional Molecules, Tsukuba, Japan, March 16, 2009
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedrals Fullerenes”

258. INVITED LECTURE

Univ. of Tokyo, Tokyo, Japan, March 17, 2009
“Chemical and Electrochemical Properties of Trimetallicnitride Endohedrals Fullerenes”

259. INVITED LECTURE

Eminent Scientist Lecture, ACS National Meeting, Salt Lake City, Utah, March 23, 2009
“Buckyballs: From Basic Research to Nanotechnology”

260. INVITED LECTURE

ACS National Meeting, Salt Lake City, Utah, CHE Town Hall Meeting, March 23, 2009
“Proposed Realignment of NSF CHE Programs”

261. INVITED LECTURE

George Mason Univ., VA, April 6, 2009
“Buckyball *Maracas*: Chemical and Electrochemical Properties of Endohedral Fullerenes”

262. INVITED LECTURE

215th ECS Meeting, San Francisco, May 23rd – 29th, 2009
“Novel Trimetallic Nitride Endohedral Fullerenes”

263. INVITED LECTURE

Instituto Catalán de Investigaciones Químicas
Spain June 15th, 2009
“Buckyball *Maracas*: Synthesis Functionalization and Electronic Properties of Endohedral Fullerenes”

264. INVITED LECTURE

Universidad de Valencia ICIMOL
Spain June 16th, 2009
“Buckyball *Maracas*: Synthesis Functionalization and Electronic Properties of Endohedral Fullerenes”

265. INVITED LECTURE

Universidad de Zaragoza
Spain June 19th, 2009

“Buckyball *Maracas*: Synthesis Functionalization and Electronic Properties of Endohedral Fullerenes”

266. IMPROVISED LECTURE

Physical Organic Gordon Conference, Jul. 1, 2009, Holderness School NH
“What’s Happening at NSF Chemistry?”

267. INVITED LECTURE

ISNA 13, Luxembourg, Jul. 20, 2009
“Buckyball *Maracas*: Chemical and Electrochemical Properties of Trimetallic Nitride A=Endohedral Fullerenes”

268. INVITED LECTURE

University of Edinburgh, Edinburgh UK, July 30, 2009
“Buckyball *Maracas*: Synthesis Functionalization and Electronic Properties of Endohedral Fullerenes”

269. CONTRIBUTED LECTURE

238th ACS Meeting, Washington, DC, Aug. 16, 2009
“Tuning the Electronic and Structural Properties of Metallic Nitride Endohedral Metallofullerenes”

270. CONTRIBUTED LECTURE

238th ACS Meeting, Washington, DC, Aug. 16, 2009
“Violations of the Isolated Pentagon Rule in Metallic Nitride Endohedral Fullerenes: Electronic and Chemical Properties”

271. INVITED LECTURE

238th ACS Meeting, Washington, DC, Aug. 16, 2009, Senior Chemists Breakfast
“Budgets, Changes and Opportunities in the NSF Chemistry Division”

272. CONTRIBUTED LECTURE

238th ACS Meeting, Washington, DC, Aug. 16, 2009, Senior Chemists Breakfast
“Budgets, Changes and Opportunities in the NSF Chemistry Division”

273. TOWN HALL PRESENTATION

238th ACS Meeting, Washington, DC, Aug. 16, 2009
“NSF Chemistry Division Town Hall Overview of the Division and Chemistry Funding Opportunities”

274. INVITED LECTURE

75th Herty Medal Symposium, Georgia Tech., 17 Sept., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

275. INVITED LECTURE

75th Herty Medal Symposium, Future Medalists, Emory University, 18 Sept., 2009
“Why Chemistry?”

276. CONTRIBUTED WORKSHOP

SERMACS 2009, San Juan, Puerto Rico, 21 Sept., 2009 (3 hour workshop with Bert Holmes)
“Writing Better NSF Research and Education Proposals”

277. INVITED LECTURE

SERMACS 2009, San Juan, Puerto Rico, 23 Sept., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

278. INVITED LECTURE

Univ. of Florida, 28 Sept., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

279. INVITED LECTURE

Changchun Institute of Applied Chemistry, Changchun, China, 5 Oct., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

280. INVITED LECTURE

Xiamen Univ., Xiamen, China, 8 Oct., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

281. INVITED LECTURE

Hefei Univ., Hefei, China, 10 Oct., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

282. INVITED LECTURE

Virginia Commonwealth Univ., Richmond, VA, 20 Nov., 2009
“Overview of the Chemistry Division at NSF”

283. INVITED LECTURE

Virginia Commonwealth Univ., Richmond, VA, 20 Nov., 2009
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

284. INVITED LECTURE

Univ. of Florida, 14 Dec., 2009
“Functionalization and Properties of Empty and Endohedral Fullerenes”

285. INVITED LECTURE

Univ. of Puerto Rico, Humacao Campus, 23 Feb., 2010
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

286. INVITED LECTURE

Univ. of Puerto Rico, Humacao Campus, 23 Feb., 2010
“Funding Opportunities in the Chemistry Division at the NSF”

287. INVITED LECTURE

Interamerican Univ. of Puerto Rico, Metropolitan Campus, 24 Feb., 2010
“Funding Opportunities in the Chemistry Division at the NSF”

288. INVITED LECTURE

Univ. of Puerto Rico, Cayey Campus, 25 Feb., 2010
“Funding Opportunities in the Chemistry Division at the NSF”

289. INVITED LECTURE

Univ. of Puerto Rico, Cayey Campus, 25 Feb., 2010
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

290. INVITED LECTURE

Univ. of South Carolina, Columbia, SC, 1 Mar., 2010
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

291. INVITED LECTURE

Univ. of Texas at Austin, Austin TX, 12 Mar., 2010
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

292. INVITED LECTURE

Univ. of Texas at Austin, Austin TX, 12 Mar., 2010

“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

293. KEYNOTE LECTURE

239th ACS Meeting, San Francisco, 22 Mar., 2010, Presidential Symposium
“Chemistry Education for a New Global Economy”

294. TOWN HALL PRESENTATION

239th ACS Meeting, San Francisco, 22 Mar., 2010,
“NSF Chemistry Division Town Hall: Overview of the Division and Chemistry Funding Opportunities”

295. INVITED LECTURE

Univ. of Toledo, Toledo OH, exas 31 Mar., 2010
“Overview of the Division of Chemistry and Funding Opportunities”

296. INVITED COLLOQUIUM SPEAKER

Univ. of Wisconsin – Madison, Madison WI, 9 Apr., 2010
“Buckyball Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes”

297. INVITED LECTURE

Univ. of Wisconsin – Madison, Madison WI, 9 Apr., 2010
“NSF Chemistry: Statistics, Program Opportunities and Funding”

298. INVITED LECTURE

Heron 5, Heron Island, Australia, 10 July, 2010
“Maracas Moleculares: Reactividad y Propiedades Electroquímicas de Fulerenos Endohédricos”

299. INVITED LECTURE

Univ. of the Basque Country, Bilbao, Spain, 15 July, 2010
“Maracas Moleculares: Reactividad y Propiedades Electroquímicas de Fulerenos Endohédricos”

300. INVITED LECTURE

Univ. Autónoma de Madrid, Madrid, Spain, 18 July, 2010
“Maracas Moleculares: Reactividad y Propiedades Electroquímicas de Fulerenos Endohédricos”

301. INVITED LECTURE

Sioux Valley ACS-NPURCS Symposium, South Dakota, 6 August, 2010
"Buckyballs and Other Carbon Materials: From Basic Research to Innovation"

302. KEYNOTE LECTURE

240th ACS Meeting, Boston MA, 23 August, 2010
"Molecular Maracas: Chemical and Electrochemical Properties of Trimetallic Nitride Endohedral Fullerenes"

303. INVITED LECTURE

Simposio Mexicano de Quimica Supramolecular, Yautepec, Morelos, Mexico, 31 August, 2010
"Buckyball Maracas: Chemical and Electrochemical Properties of Endohedrals Fullerenes"

304. INVITED LECTURE

XXIX CONGRESO LATINOAMERICANO DE QUÍMICA – CLAQ
2010 30 September, 2010
"Maracas Moleculares: Síntesis y Propiedades Químicas y Electroquímicas de Fullerenos Endohedrales"

305. KEYNOTE LECTURE

Fullerene Silver Anniversary Symposium, Crete, Greece, 7 October, 2010
"Sc₂S@ C_{2n} (n=40-50): A novel Metallic Sulfide Endohedral Fullerene Family"

306. INVITED SPEAKER

Montana State University, October 18, 2010
"Buckyballs Maracas: Endohedral Fullerenes and Their Potential Applications"

307. INVITED LECTURE

International Symposium "The Chemistry of Synthetic Carbon Allotropes", Erlangen, Germany, November 25-26, 2010
"Buckyball Maracas: Chemical and Electrochemical Properties of Endohedral Fullerenes"

308. SEMINAR SPEAKER

The Institute of Organic Chemistry, Zürich, Switzerland, November 30, 2010
"Buckyball Maracas: Exploring the Inside-Outside Interactions of Endohedral Fullerenes"

309. INVITED SPEAKER

Pacificchem 2010, Honolulu, Hawaii, December 15-20, 2010

“Endohedral Fullerenes: New Clusters and Supramolecular Interactions with Porphyrins”

310. INVITED LECTURE

Northern Arizona University, March 4, 2011

“Buckyball Maracas: Exploring the Inside-Outside Interactions of Endohedral Fullerenes”

311. INVITED LECTURE

Texas State University in San Marcos, March 7, 2011

“Buckyball Maracas: Exploring the Inside-Outside Interactions of Endohedral Fullerenes”

312. INVITED LECTURE

241st National ACS Meeting, Anaheim CA, March, 2011

“Symposium: STEM Education in the Global Economy: Innovation”

313. INVITED LECTURE

241st National ACS Meeting, Anaheim CA, March, 2011

“Buckyball Maracas: Exploring the Inside and Outside of Endohedral Fullerenes”

314. INVITED LECTURE

New Mexico State University, Las Cruces NM, April 21, 2011

“Buckyball Maracas: Interplay between Encapsulated Clusters and Exohedral Chemistry in Endohedral Fullerenes”

315. INVITED LECTURE

219th ECS Meeting, Montreal, Canada, May, 2011

“Thermal and Redox Stabilities of Endohedral Metallofullerene Derivatives”

316. INVITED LECTURE

9th Annual CSACS Meeting, Montreal, Canada, May 5, 2011

“Buckyball Maracas: Exploring the Inside and Outside of Endohedral Fullerenes”

317. INVITED LECTURE

Universidad de Alicante, Madrid, Spain, May. 11, 2011

“Buckyball Maracas: Interplay between Encapsulated Clusters and Exohedral Chemistry in Endohedral Fullerenes”.

318. INVITED LECTURE

Universidad Miguel Hernández de Elche, Spain, May 12, 2011

“Fullerenos: Un Buen Ejemplo de Financiación de la Investigación Básica”

319. INVITED LECTURE
SACNAS Summer Leadership Institute, Washington DC, July 27, 2011.
“Strategic Planning and Serendipity”
320. INVITED LECTURE
IUPAC Meeting, San Juan, Puerto Rico, August 1st. 2011
“Buckyball Maracas: Exploring the Interplay between Endo- and Exohedral Properties of Endohedral Fullerenes”
321. INVITED LECTURE
European Symposium on Organic Reactivity, Tartu, Estonia, Sept. 16th, 2011
“Buckyball Maracas: Exploring the Inside and Outside Properties of Endohedral Fullerenes”
322. INVITED LECTURE
Univ. of Texas, San Antonio, October 6, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
323. INVITED LECTURE
Queen’s Univ., Kingston, Ontario, Canada, October 14, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
324. KOHLER LECTURE
Univ. of California – Riverside, November 1, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
325. KOHLER LECTURE
Univ. of California – Riverside, November 2, 2011
“Strategic Planning and Serendipity”
326. INVITED LECTURE
3rd International Symposium on Emergence of Highly Elaborated π -Space and Its Function, Tsukuba, Japan, Nov. 18, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
327. INVITED LECTURE
Chinese Academy of Sciences – Institute of Chemistry, Beijing, China, Nov. 21, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
328. INVITED LECTURE
Shantou Univ., Shantou, China, Nov. 24, 2011
“Playing with Buckyball Maracas: Interplay between the Inside and Outside Properties of Endohedral Fullerenes”
329. INVITED LECTURE

- 20th. Chemical Conference, Santiago de Cuba, Hotel Melia Santiago, Cuba, Dec. 7, 2011
“Maracas Moleculares: Propiedades Quimicas y Electroquimicas De Fulerenos Endohericos”
330. INVITED LECTURE
MROP, US Santa Barbara, California, Feb. 1, 2012
“Buckyball Maracas: Interplay Between the Inside Clusters and the Exohedral Chemistry of Endohedral Fullerenes”
331. INVITED LECTURE
Conference BioNanoTechno, Institute of Chemistry, University of Bialystok, Poland, March 8, 2012
“Buckyball Maracas: Tuning the Electronic Properties of Endohedral Fullerene Acceptors for Photovoltaic Applications”
332. INVITED LECTURE
Universidad del Valle, Cali, Colombia, March 15, 2012
“Maracas Moleculares: Correlacion Entre el Interior y la Quimica Exterior de Fulerenos Endohedricos”
333. INVITED LECTURE
Universidad del Valle, Cali, Colombia, March 16, 2012
“Oportunidades para Estudios de Post-Grado en la Universidad de Texas, El Paso”
334. INVITED LECTURE
243rd ACS National Meeting, San Diego, March 26, 2012
“Buckyball Maracas: The Inside (and Outside) Story”
335. INVITED LECTURE
Calvin College, Holland MI, April 19, 2012
“Playing with Buckyball Maracas: Interplay Between the Inside and Outside Properties of Endohedral Fullerenes”
336. INVITED LECTURE
Hope College, Holland MI, April 20, 2012
“Playing with Buckyball Maracas: Interplay Between the Inside and Outside
337. INVITED LECTURE
ECS Meeting, Seattle, Canada, May 10, 2012
“The Sc₂S@C_{2n} Family (n=35-50): Some Unusual Cages” INVITED
338. INVITED LECTURE
Universidad Complutense de Madrid, Spain, Madrid, May 30, 2012
“Maracas Moleculares: Correlación entre el Contenido Interior y la Química Exterior de Fulerenos Endoédricos”.
339. INVITED LECTURE
Research Corporation for Science Advancement, 2012 Cottrell Scholar, Conference, Tucson, Arizona, July 13, 2012
“Carbon Materials and Serendipity: the Inside (and Outside) Story”

340. INVITED LECTURE
University of California Santa Barbara, Summer Intern Research Programs, Santa Barbara, California, August 14, 2012
“Carbon Materials and Serendipity: the Inside (and Outside) Story”
341. INVITED LECTURE
Trinity University, San Antonio, TX, October 4, 2012
“Carbon Materials and Serendipity: the Inside (and Outside) Story”
342. INVITED LECTURE
Congreso Latinoamericano de Química – CLAQ 2012, October 31st, 2012
“Buckyball Maracas: the Inside (and Outside) Properties of Endohedral Fullerenes”
343. INVITED LECTURE
Annual Biomedical Research Conference for Minority Students, San Jose, CA, November 7th, 2012
“Carbon Materials and Serendipity: the Inside (and Outside) Story”
344. INVITED LECTURE
20 years of fullerenes at IFW Dresden, Dresden, Germany, November 20th, 2012
“Buckyball Maracas: the Inside (and Outside) Story”
345. DISTINGUISHED INVITED LECTURE
Xiamen University, Xiamen, China, November 30th, 2012
“Endohedral Fullerenes: the Inside (and Outside) Story of Buckyball “Maracas”
346. INVITED LECTURE
City University of Hong Kong, December 4th, 2012
“Endohedral Fullerenes: the Inside (and Outside) Story of Buckyball “Maracas”
347. INVITED LECTURE
The Hong Kong University of Science and Technology, December 5th, 2012
“Endohedral Fullerenes: the Inside (and Outside) Story of Buckyball “Maracas”
348. INVITED LECTURE
The University of California Santa Barbara, February 11-12th, 2013
“Design and Synthesis of Endohedral and Empty Fullerene Derivatives as Acceptors for OPV Devices”
349. INVITED LECTURE
Center for Materials Research in Bilbao, Spain, February 25th, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
350. INVITED LECTURE
Energigune Center in Vitoria, Spain, February 26th, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
351. INVITED LECTURE
BiomaGune Center in San Sebastian, Spain, February 28th, 2013

- “Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
352. PLENARY LECTURE
Universidad de Puerto Rico, Rio Piedras, March 6, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
353. PLENARY LECTURE
Primer Congreso Estudiantil de Química: Nanotecnología, Universidad de Puerto Rico, Rio Piedras, March 6, 2013
“Carbon Materials and Serendipity”
354. PLENARY LECTURE
JTM/PRISM 2013, Universidad del Turabo, Caguas Puerto Rico, March 9, 2013
“Carbon Nanomaterials and Serendipity: the Inside (and Outside) Story”
355. INVITED LECTURE
New Mexico Highlands University, Las Vegas, NM, March 27, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
356. PLENARY LECTURE
CLAFQO 12, Iguassu Falls, April 11, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
357. PLENARY LECTURE
33rd. Annual Arthur Sweeny Jr. Lecture, Lehman College,
City University of New York, NY, May 3rd, 2013
“Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes”
358. INVITED LECTURE
223rd. ECS Meeting, Toronto, Canada, May 14, 2013
“New Endohedral Fullerene Compounds and their Reactivity Differences”
359. INVITED LECTURE
223rd. ECS Meeting, Toronto, Canada, May 15, 2013
“A Cluster Fullerene Containing Only Non Group III Metals Inside the Carbon Cage: $Ti_2S@C_{78}-D_{3h}$ with a Linear Sulfide Cluster Inside the Cage”
360. INVITED LECTURE
Univ. of Bordeaux, France, May 31, 2013
“Endohedral Fullerenes: the Inside (and Outside) Story of Buckyball “Maracas”
361. INVITED LECTURE
11th Conference on Functional π Systems, Arcachon, France, June 7, 2013
“Buckyball Maracas: the Inside (an Outside) Story of Endohedral Fullerenes”
362. Keynote Speaker
RISE Symposium, Rutgers University, July 31, 2013
“Carbon Materials and Serendipity: the Inside (and Outside) Story”
363. INVITED LECTURE
Univ. of Tokyo, Japan, July 28, 2013
“Endohedral Buckyballs: The Importance of Size, Shape and Electronic

Structure"

364. Keynote Lecture
MicroEchem 2013, La Muralla, Amealco de Bonfil, Mexico, September 19, 2013
"Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes"
365. Conferencia Magna
Univ. Interamericana de Puerto Rico, Recinto Metropolitano, 27 de Septiembre de 2013
"Serendipia y Ciencia: el Descubrimiento de Nuevos Materiales de Carbono y la Revolución Nano"
366. INVITED LECTURE
BioMed 2013, El Paso, TX, October 26, 2013
"Empty and Endohedral Fullerenes for Materials and Biomedicine"
367. INVITED LECTURE
University of Nevada at Las Vegas, November 1, 2013
"Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes"
368. INVITED LECTURE
University of Texas, Arlington, November 15, 2013
"Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes"
369. INVITED LECTURE
University of Suzhou, China, November 25, 2013
"Endohedral Fullerenes: Size, Shape and Electronic Complementarity between the Carbon Cage and the Cluster"
370. INVITED LECTURE
Hefei University of Science and Technology, November 26, 2013
"Endohedral Fullerenes: Size, Shape and Electronic Complementarity between the Carbon Cage and the Cluster"
371. INVITED LECTURE
Huazhong University of Science and Technology, November 28, 2013
"Endohedral Fullerenes: Size, Shape and Electronic Complementarity between the Carbon Cage and the Cluster"
372. INVITED LECTURE
University of New Mexico, Albuquerque, December 4, 2013
"Size, Shape and Electronic Complementarity Between Carbon Cages and Clusters for Endohedral Fullerenes"
373. INVITED LECTURE
University of Miami, February 18, 2013
"Size, Shape and Electronic Complementarity between Carbon Cages and the Clusters for Endohedral Fullerenes"
374. INVITED PLENARY LECTURE

25th Austin Symposium on Molecular Structure and Dynamics at Dallas, March, 2014

"Buckyball Maracas: the Inside (and Outside) Story of Endohedral Fullerenes"

375. INVITED LECTURE

247th ACS National Meeting, Dallas, TX, March 18, 2014

"Clusterfullerene Endohedral Compounds: Synthesis, Functionalization, and Properties in OPV Cells"

376. INVITED LECTURE

UCLA, Chemistry and Biochemistry, Los Angeles, CA, April 17, 2014

"Size, Shape and Electronic Complementarity between the Carbon Cages and the Clusters in Endohedral Fullerenes"

377. KEYNOTE SPEAKER

University of Texas at El Paso, COURI Symposium, April 26, 2014

"Science & Serendipity: From the Discovery of New Carbon Materials to the Nano Revolution"

378. INVITED LECTURE

Univ. of Lisbon, Centro de Química Estrutural, Portugal, June 6, 2014

"Size, Shape and Electronic Complementarity between the Carbon Cages and the Clusters in Endohedral Fullerenes"

379. INVITED LECTURE

Univ. Complutense de Madrid, Spain, June 11, 2014

"The Importance of Electronic, Size and Shape Complementarity between the Encapsulated Clusters and the Carbon Cages of Endohedral Fullerenes"

380. INVITED LECTURE

Univ. Autónoma de Madrid, Spain, June 12, 2014

"Complementaridad Electrónica, de Tamaño y de Forma en Fullerenos Endohédricos" (Maracas Moleculares)

381. PLENARY LECTURE

CIMTEC Meeting, Montecatini Terme, Italy, June 17, 2014

"Endohedral Fullerenes: the Importance of Size, Shape and Electronic Complementarity between the Encapsulated Clusters and the Carbon Cages"

382. INVITED LECTURE

Instituto Italiano di Tecnologia, Genova, Italy, June 23, 2014

"Buckyball Maracas: Size, Shape and Electronic Complementarity between the Carbon Cages and the Clusters for Endohedral Fullerenes"

383. INVITED LECTURE

Univ. Autónoma de Barcelona, Spain, June 25, 2014

"Maracas Moleculares: Complementaridad Electrónica, de Tamaño y de Forma en Fullerenos Endohédricos"

384. INVITED LECTURE

Workshop on Fullerene and Supramolecular Chemistry, Univ. Rovira i Virgili, Tarragona, Spain, June 26, 2014

"The Importance of Electronic, Size and Shape Complementarity between the Encapsulated Clusters and the Carbon Cages of Endohedral Fullerenes"

385. PLENARY LECTURE
XI Girona Seminar on Carbon, Metal, and Carbon-Metal Clusters: from Theory to Applications, Girona, Spain, June 30, 2014
"Single and Multiple Addition Reactions with Empty and Endohedral Fullerenes"
386. INVITED LECTURE
First Summer School in Organic Photovoltaics: From Molecules to Solar Cells, Bialystok, Poland, July 3, 2014
"Acceptors in Organic Photovoltaic Cells: the Central Role of Fullerenes and their Derivatives"
387. INVITED LECTURE
248th ACS National Meeting, San Francisco, CA, August 12, 2014
"Fullerenes and Metals: From Endohedral Structures (Molecular Maracas) to Supramolecular Assemblies"
388. INVITED LECTURE
XXIII International Materials Research Congress, Cancún, Mexico, August 19, 2014
"Size, Shape and Electronic Complementarity between the Carbon Cages and the Clusters in Endohedral Fullerenes"
389. INVITED LECTURE
University of North Texas, Denton, TX, September 12, 2014
"Size, Shape and Electronic Complementarity between Encapsulated Clusters and the Carbon Cages in Endohedral Fullerenes"
390. INVITED LECTURE
University of Texas at El Paso, Physics Dept., September 19, 2014
"Buckyball Maracas: the Importance of Size, Electronic Structure and Shape for Endohedral Fullerenes"
391. PLENARY LECTURE
CLAQ Meeting, Lima, Peru, October 17, 2014
"Maracas moleculares: La importancia del tamaño, la estructura electrónica y la forma geométrica en fulerenos endohédricos"
392. PLENARY INVITED LECTURE
XIV Jornada Científica del ICMol, University of Valencia, Spain, December 12, 2014
"Maracas moleculares: La importancia del tamaño, la estructura electrónica y la forma geométrica en fulerenos endohédricos"
393. PLENARY LECTURE
University of Malaga, Spain, December 17, 2014
"Buckyball Maracas: The Importance of Size, Shape and Electronic Structure Complementarity for Endohedral Fullerenes"

394. PLENARY LECTURE
Tecnológico de Monterrey, NUCLEUM, Monterrey, Mexico, March 14, 2015
“Serendipia y Ciencia: Desde el Descubrimiento de Nuevos Materiales de Carbono Hasta la Revolución Nano”
395. INVITED COLLOQUIUM SPEAKER
University of Houston, Houston, Texas, April 7, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Tether or Internal Cluster Control?”
396. INVITED COLLOQUIUM SPEAKER
Rice University, Houston, Texas, April 8, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Tether or Internal Cluster Control?”
397. PETER B. SHERRY MEMORIAL LECTURE
Georgia Techy., Atlanta, GA, April 16, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Exohedral or Internal Cluster Control?”
398. INVITED COLLOQUIUM LECTURE
UC-Davis, May 5, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Exohedral or Internal Cluster Control?”
399. PLENARY LECTURE
13^{ta} Conferencia Latinoamericana de Físico Química Orgánica, Córdoba, Argentina, May 17, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Exohedral or Internal Cluster Control?”
400. INVITED LECTURE
ACNS’2015, St. Petersburg, Russia, June 29, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
401. INVITED LECTURE
ISNA-16, Madrid, Spain, July 8, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
402. PLENARY LECTURE
XXIV International Materials Research Congress (IMRC 2015), Cancún, México, August 14, 2015
“Fullerenes as Acceptors in OPV Devices: Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes”
403. INVITED LECTURE
European Symposium on Organic Reactivity (ESOR) 2015, Kiel, Germany, August 31, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”

404. INVITED Colloquium
Florida State University, September 10, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
405. INVITED Colloquium
Dupont Manual High School, Louisville, Kentucky, 25 September, 2015
“Serendipity & Science: From the Discovery of New Carbon Materials to the Nano Revolution”
406. Brown and Williamson Distinguished Lecturer
University of Louisville, Louisville, Kentucky, September 25, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Fullerenes: Pronounced Differences due to the Encapsulated Clusters”
407. PLENARY LECTURE
Quimicuba 2015, Habana, Cuba, October 16, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
408. INVITED Colloquium
Pontificia Universidad de Chile, Santiago de Chile, October 19, 2015
“Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
409. PLENARY LECTURE
3rd International Conference on Materials Science (ICMS 2015), Valdivia, Chile, October 23, 2015
(Buckyvall Maracas) “Regioselective *Bis*-Additions to Empty and Endohedral Clusterfullerenes: External Tether or Internal Cluster Control?”
410. INVITED LECTURE
2nd UTEP-UCSB PREM Workshop, Santa Barbara, California, November 16, 2015
“Empty and Endohedral Fullerenes and their Derivatives: Potential Applications in Photovoltaic Devices.”
411. INVITED PLENARY LECTURE
Pacifichem 2015, Honolulu, Hawaii, December 18, 2015
“Uranium-Based Endohedral Fullerenes and Fullerenes as Anti-HIV Agents.”
412. INVITED LECTURE
Phthalocyanines and Close Friends Symposium to honor Prof. Tomás Torres, Elche, Spain, January 27, 2016
“Are Fullerenes Effective Anti-HIV Agents? Recent Results and Mechanistic Studies.”
413. INVITED LECTURE
Simposio sobre Nanoformas de Carbono, Grafenos y Otros Materiales 2D, Valencia, Spain, January 29, 2016
“Derivatization of Empty and Endohedral Fullerenes.”

414. INVITED LECTURE
Marquette University, Milwaukee, WI, April 22, 2016
“Buckyball Maracas: Synthesis and Properties of Endohedral Fullerenes.”
415. INVITED LECTURE
Suzhou University of Science and Technology, Suzhou, China, May 3, 2016
“Buckyball Maracas: Synthesis and Properties of Endohedral Fullerenes.”
416. INVITED LECTURE
Université de Stasbourg, Strasbourg, France, May 11, 2016
“Serendipity in Science: From the Discovery of Buckyballs to the Nanocarbon Revolution.”
417. INVITED LECTURE
Université de Stasbourg, Strasbourg, France, May 12, 2016
“Are Fullerenes Good for Anything? From Materials Applications to Biological Activity.”
418. INVITED LECTURE
Université de Stasbourg Cronembourg Campus, Strasbourg, France, May 18, 2016
“Are Fullerenes Good for Anything? From Materials Applications to Biological Activity.”
419. INVITED LECTURE
Université de Stasbourg, Strasbourg, France, May 19, 2016
“Buckyball Maracas: Synthesis and Properties of Endohedral Fullerenes.”
420. INVITED LECTURE
Universidad de La Habana, Cuba, June 6, 2016
“Are Fullerenes Good for Anything? From Materials Applications to Biological Activity.”
421. INVITED LECTURE
ICPOC-23, Sydney, Australia, July 4, 2016
“Are Fullerenes Effective Anti-HIV Agents? Recent Results and Mechanistic Studies.”
422. INVITED LECTURE
Telluride Science Conference, Radicals in the Rockies VII, Telluride, CO, August 3, 2016
“Recent Developments in Endohedral Clusterfullerene Chemistry.”
423. INVITED LECTURE
SIBEAQO III, Porto, Portugal, September 23, 2016
“Buckyball Maracas: Properties and Reactivity of Empty and Endohedral Fullerenes.”
424. INVITED LECTURE
Colorado School of Mines, Golden, CO, September 30, 2016
“Empty and Endohedral Fullerenes: New Structures and Unique Reactivity.”

425. INVITED LECTURE
10th WCCMS, Punta de Tralca, Chile, October 18, 2016
“New Endohedral Fullerene Structures: Reactivity and Mechanistic Aspects.”
426. INVITED LECTURE
Columbia University MRSEC Seminar, New York, NY, January 24, 2017
“Playing with Buckyball Maracas: Structure and Reactivity of Endohedral Fullerenes.”
427. INVITED LECTURE
Universidad de Castilla – La Mancha, Toledo, Spain, February 21, 2017
“Empty and Endohedral Fullerenes: Unique Structures, Properties, and Reactivities.”
428. INVITED LECTURE
Universidad de Castilla – La Mancha, Ciudad Real, Spain, February 24, 2017
“Empty and Endohedral Fullerenes: Unique Structures, Properties, and Reactivities.”
429. INVITED LECTURE
Ulm University, Ulm, Germany, March 15, 2017
“Empty and Endohedral Fullerenes: Unique Structures, Properties, and Reactivities.”
430. INVITED LECTURE
CLAFQO-14, Concón, Chile, May 7, 2017
“New Endohedral Fullerene Structures: Reactivity and Mechanistic Aspects.”
431. INVITED LECTURE
231st ECS Meeting, New Orleans, LA, May 29, 2017
“Actinide Endohedral Fullerenes: Uranium-Based Systems with Unique Bonding Motifs.”
432. INVITED LECTURE
XIII Congreso Internacional de Investigación Científica, June 8, 2017
“Buckyball Maracas: Structures, Properties and Applications of Empty and Endohedral Fullerene Compounds.”
433. SPECIAL LECTURE
XIII Congreso Internacional de Investigación Científica, June 9, 2017
“Science and Serendipity: From the Discovery of New Carbon Materials to the Nanocarbon Revolution.”
434. INVITED LECTURE
Physical-Organic Gordon Research Conference, Holderness, NH, June 28, 2017
“Fullerene Cages as Nano-Containers for Unique Uranium Species.”
435. INVITED LECTURE
254th ACS National Meeting, Washington, DC, August 22, 2017
“Monometallic, Dimetallic and Cluster Endohedral Fullerenes: New Bonding Motifs and Unexpected Properties”

436. INVITED LECTURE
University of Wyoming, Laramie, Wyoming, September 6, 2017
“Playing with Buckyball Maracas: Structure and Reactivity of Endohedral Fullerenes.”
437. INVITED LECTURE
University of Nebraska-Lincoln, Lincoln, Nebraska, September 8, 2017
“Playing with Buckyball Maracas: Structure and Reactivity of Endohedral Fullerenes.”
438. INVITED LECTURE
CINVESTAV, Mexico City, Mexico, September 13, 2017
“Playing with Buckyball Maracas: Structure and Reactivity of Endohedral Fullerenes.”
439. PLENARY LECTURE
Congreso Colombiano de Química, Bucaramanga, Colombia, October 27, 2017,
“Science and Serendipity: From the Discovery of New Unexpected Carbon Materials to Unanticipated Applications.”
440. INVITED PLENARY LECTURE
Universidad del Valle, Cali, Colombia, October 30, 2017,
“New Endohedral Fullerene Structures: Reactivity and Mechanistic Aspects.”
441. INVITED PLENARY LECTURE
Neal Thorpe Memorial Lecture, Murdock College Science Research Conference,
Spokane, Washington, November 10, 2017,
“Science and Serendipity: From the Discovery of Unexpected Carbon Materials to Unanticipated Applications.”
442. INVITED LECTURE
Huazhong University of Science & Technology, Wuhan, China, November 17, 2017,
“New Endohedral Fullerenes: Structures and Mechanistic Aspects.”
443. INVITED LECTURE
Univ. Rovira I Virgili, Tarragona, Spain, March 14, 2018,
“Science and Serendipity: From the Discovery of Unexpected Carbon Materials to Unanticipated Applications.”
444. INVITED LECTURE
Univ. Rovira I Virgili, Tarragona, Spain, March 19, 2018,
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions.”
445. INVITED LECTURE
Institute of Materials Science of Barcelona, Barcelona, Spain, April 4, 2018,
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions.”

446. INVITED LECTURE
University of Barcelona, Barcelona, Spain, April 5, 2018,
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions.”
447. INVITED LECTURE
Univ. Rovira I Virgili, Tarragona, Spain, April 19, 2018,
“From Serendipity to Practical Applications: The Buckyball Story.”
448. INVITED LECTURE
University of Girona, Girona, Spain, April 18, 2018,
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions.”
449. INVITED LECTURE
Univ. of Girona, Girona, Spain, May 8, 2018,
“From Serendipity to Practical Applications: The Buckyball Story.”
450. INVITED LECTURE
233rd ECS Meeting, Seattle, Washington, 16 May, 2018
“Uranium-Based Endohedral Fullerenes: Supramolecular Purification”
451. PLENARY LECTURE
Fusion Conference: From Carbon-Rich Molecules to Carbon-Based Materials,
Nassau, Bahamas, 9 June, 2018
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions”
452. INVITED LECTURE
CUNY Advanced Science Research Center, 13 September, 2018
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Mechanistic Aspects”
453. INVITED LECTURE
Hunter College CUNY, 14 September, 2018
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Mechanistic Aspects”
454. INVITED LECTURE
Kaohsiung Medical University, 14 November, 2018
“Buckyball: From Serendipitous Discoveries to Practical Applications in Biology and Solar Cells”
455. INVITED LECTURE
Academia Sinica, 15 November, 2018
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions”
456. INVITED LECTURE
Academia Sinica, 16 November, 2018
“Buckyball Maracas: New Endohedral Fullerene Structures, Reactivity and Supramolecular Interactions”

457. INVITED LECTURE
Universidad de Málaga, España, 14 December, 2018
“Materiales Moleculares en Castellano”
458. INVITED LECTURE
PREM Annual Director’s Meeting, UTEP, 21 February, 2019
“Best Practices – PREM Program”
459. INVITED LECTURE
35 Congreso Centroamericano y El Caribe y 7^{mo} Congreso de Farmaceuticos y Quimicos de Guatemala, 27 February, 2019
“From Serendipitous Discoveries to Practical Applications: The Buckyball Story”
460. INVITED LECTURE
Universidad del Valle, 28 February, 2019
“Fullerenos Endoedricos: Nueva Estructuras, Mecanismos de Formación y Reactividad”
461. INVITED LECTURE
National Diversity Equity Workshop (NDEW), 9 April 2019
“A Personal Perspective”
462. INVITED LECTURE
Central Texas Local Section, Awards Banquet, 10 April 2019
“Is Serendipity Serendipitous?”
463. INVITED LECTURE
UIUC SACNAS, 30 April 2019
“Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
464. INVITED LECTURE
Pre-ECS UNT Symposium, 25 May 2019
“Fullerene Nanocontainers that Stabilize Unique Uranium Clusters and Oxidation States”
465. INVITED LECTURE
235th ECS Meetings, Dallas, TX, 28 May 2019
“Uranium-based Endohedral Fullerene: Completely Unexpected and Unusual Cage Structures Dictated by the Tetracationic Metal Ions”
466. INVITED LECTURE
Humboldt Symposium on Natural Sciences 2019, Santa Clara, Cuba, 30 June 2019
“Fullerene Cages as Nano-containers that Stabilize Unique Clusters and Metals Inside”
467. INVITED LECTURE
UMBC Fall Seminar Speaker Series, San Marcos, Texas, 16 September 2019
“Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”

468. INVITED LECTURE
Clemson Fall Seminar Speaker Series, Clemson, South Carolina, 3 October 2019
“Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
469. INVITED LECTURE
SERMACS, Savannah, GA, 21 October 2019
“Actinide-based buckyball maracas: Fullerene cages as nanocontainers that stabilize monometallic and actinide clusters inside”
470. INVITED LECTURE
42nd Senior Technical Meeting, Mayaguez, Puerto Rico, 9 November 2019
“Actinide-based buckyball maracas: Fullerene cages as nanocontainers that stabilize monometallic and actinide clusters inside”
471. INVITED LECTURE
ACS SWRM/RMRM, El Paso, TX, 15 November 2019
“Actinide-based buckyball maracas: Fullerene cages as nanocontainers that stabilize monometallic and actinide clusters inside”
472. INVITED LECTURE
SIBEAQO, Cayo Santa Maria, Cuba, 7 December 2019
“Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
473. INVITED LECTURE
Organic Syntheses Distinguished Seminar NJIT, Newark, NJ, 5 February 2020
“Buckyball Maracas: Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
474. INVITED LECTURE
Weizmann Institute, Rehovot, Israel, 23 February 2020
“Buckyball Maracas: Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”

PRESENTATIONS ON BEHALF OF ACS

1. INVITED
Leadership Development Institute – ACS, YCC, 25 January 2019
“Strategic Planning and Serendipity for Professional Success”
2. INVITED
257th ACS National Meeting, Orlando, FL – ACS, YCC, 30 March 2019
“Future Plans as President Elect”
3. INVITED
257th ACS National Meeting, Orlando, FL – ACS, IAC, 30 March 2019
“Future Plans as President Elect”
4. INVITED

47th IUPAC Chemistry Congress, Paris, France – ACS, Society Presidents’
Forum, 8 July 2019
“ACS international engagement”

5. INVITED
ACS Columbus Local Section, Columbus, Ohio – 24 September 2019
“Chemistry without Borders: Global Advocacy and Sustainability”
6. INVITED
SQM, Puebla, Mexico – 30 September 2019
“Actinide-based Buckyball maracas: Fullerene cages as nanocontainers that stabilize monometallic and actinide clusters inside”
7. INVITED
Pontifical Catholic University, Santiago, Chile – 15 October 2019
“Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
8. PLENARY
SWRM/RMRM Plenary Symposium, El Paso, TX – 14 November 2019
“Buckyball maracas: New endohedral fullerene structures, reactivity and mechanistic aspects”
9. KEYNOTE
NESACS meeting, Boston, MA – 21 January 2020
“Buckyball maracas: Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
10. INVITED
Georgia Local Section, Atlanta, GA – 23 January 2020
“Buckyball maracas: Fullerene Nanocontainers that Stabilize Unusual Atoms and Clusters Inside”
11. INVITED
Young Chemist Committee (YCC), Atlanta, GA – 26 January 2020
“Is My Professional Success the Result of Luck?”
12. PLENARY
The 85th Annual Meeting of the Israel Chemical Society, Jerusalem, Israel – 18 February 2020
“Fullerene nanocontainers that stabilize unusual atoms and clusters inside”

LIST OF PUBLICATIONS

PEER REVIEWED ARTICLES

1. G. R. Stevenson, L. Echegoyen, and L. Lizardi, "Equilibrium Studies by Electron Spin Resonance. I. The `Free' Nitrobenzene Anion Radical," *J. Phys. Chem.*, **76**, 1438-1442, **1972**.
2. G. R. Stevenson, L. Echegoyen, and L. Lizardi, "Equilibrium Studies by Electron Spin Resonance. II. The Nitrobenzene `Free' Ion-Ion Pair Equilibrium," *J. Phys. Chem.*, **76**, 2058-2060, **1972**.

3. G. R. Stevenson and L. Echegoyen, "Equilibrium Studies by Electron Spin Resonance. IV. Enthalpies of Ion Pairing for Substituted Nitrobenzene Anion Radical," *J. Phys. Chem.*, *77*, 2339-2342, **1973**.
4. L. Echegoyen, H. Hidalgo, and G. R. Stevenson, "Equilibrium Studies by Electron Spin Resonance. V. The Role of the Cation in Hydrogen Bonding to the Nitrobenzene Anion Radical," *J. Phys. Chem.*, *77*, 2649-2652, **1973**.
5. G. R. Stevenson and L. Echegoyen, "A Method for Estimating the Enthalpy of Hydrogen Bonding of a Proton Donor with an Anion Radical Acceptor," *J. Am. Chem. Soc.*, *96*, 3381-3385, **1974**.
6. G. R. Stevenson, J. G. Concepción, and L. Echegoyen, "The Effect of Electron Releasing Groups Upon the Molecular Orbitals and Anion Disproportionation Equilibria of Substituted Cyclooctatetraenes," *J. Am. Chem. Soc.*, *96*, 5452-5455, **1974**.
7. G. R. Stevenson and L. Echegoyen, "An Electron Spin Resonance Study of the Effect of Electron Releasing Groups Upon the Molecular Orbitals of Substituted Phenylcyclooctatetraenes Anion Radicals," *J. Phys. Chem.*, *79*, 929-932, **1975**.
8. G. R. Stevenson, L. Echegoyen, and H. Hidalgo, "Equilibrium Studies of Electron Spin Resonance. IX. Free Energies of Hydrogen Bonding to Substituted Nitrobenzene Anion Radicals," *J. Phys. Chem.*, *79*, 152-154, **1975**.
9. S. F. Nelsen, L. Echegoyen, and D. H. Evans, "Electrochemical Detection of Conformational Equilibria in Tetraalkylhydrazine," *J. Am. Chem. Soc.*, *97*, 3530-3532, **1975**.
10. S. F. Nelsen and L. Echegoyen, "Temperature Effects on the Electron Spin Resonance Spectra of Tetraalkylhydrazine Radical Cations," *J. Am. Chem. Soc.*, *97*, 4930-4933, **1975**.
11. S. F. Nelsen, L. Echegoyen, E. J. Clennan, D. H. Evans, and D. A. Corrigan, "Low Temperature Cyclic Voltammetry. II. Conformational Analysis of Cyclic Tetraalkylhydrazines," *J. Am. Chem. Soc.*, *99*, 1130-1134, **1977**.
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