

Curriculum Vitae

Jean-Luc Bredas

PERSONAL DATA

Place and date of birth: Fraire (Belgium), 23 May 1954.
Marital status: Married to Monique Bredas. Two daughters: Amélie and Véronique.
Professional address: School of Chemistry and Biochemistry
Center for Organic Photonics and Electronics
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PROFESSIONAL POSITIONS

Georgia Institute of Technology

- 2009-present: Regents' Professor of Chemistry and Biochemistry.
- 2008-present: Vasser-Woolley and Georgia Research Alliance Chair in Molecular Design.
- 2005-2008: Georgia Research Alliance Chair in Molecular Design.
- 2005-present: Georgia Research Alliance Eminent Scholar.
- 2003-2009: Professor of Chemistry and Biochemistry.

King Abdullah University of Science and Technology – KAUST, Saudi Arabia (on leave from Georgia Tech)

- 07/2014-12/2016: Distinguished Professor of Materials Science and Engineering.
- 07/2014-12/2016: Rawabi Holding Research Chair in Solar Energy Science & Engineering.
- 09/2014-05/2016: Director, Solar & Photovoltaics Engineering Research Center.

King Abdulaziz University, Saudi Arabia

- 2011-2014: Adjunct Professor of Chemistry.

Université de Mons, Belgium

- 2000-present: Professeur Extraordinaire – Extraordinary Professor.
- 2003-present: Scientific Director, Laboratory for Chemistry of Novel Materials.
- 1990-1999: Professeur Ordinaire – Full Professor.
- 1989-1995: Director, Department of Materials and Processes.
- 1988-1990: Chargé de Cours.

The University of Arizona

- 2016-present: Visiting Professor of Chemistry.
- 1999-2003: Professor of Chemistry.

1995-1999: Visiting Professor, Université de Namur, Belgium.

1994-1999: Visiting Professor, Université Catholique de Louvain, Belgium.

1977-1988: Research Fellow of “Fonds National Belge de la Recherche Scientifique (FNRS)”, Université de Namur, Belgium (1987-1988: Maître de Recherches; 1983-1987: Chercheur Qualifié; 1981-1983: Chargé de Recherches; 1977-1981: Aspirant); Honorary “Directeur de Recherche FNRS” (2001-present); Honorary “Maître de Recherche FNRS” (1992-2001).

1976-1977: Research Fellow of the “Institut pour l'encouragement de la Recherche Scientifique dans l'Industrie et l'Agriculture (IRSIA)”, Université de Namur, Belgium.

EDUCATION

- 1986: **Agrégation de l'Enseignement Supérieur (“Habilitation”)**
Université Catholique de Louvain, Louvain-la-Neuve (Belgium).
- March 1980 - March 1981: **Postdoctoral Fellowship** jointly at:
Allied Corporation, Corporate Research Center, Morristown, New Jersey (Dr. R.H. Baughman, Dr. R.R. Chance) and Massachusetts Institute of Technology, Department of Chemistry, Cambridge, Massachusetts (Professor R. Silbey).
- 1976-1979: **Doctorat en Sciences, groupe des Sciences Chimiques (Ph.D., Theoretical Chemistry)**
Université de Namur, Belgium – *summa cum laude*
Supervisor: Professor J.M. André.
- 1972-1976: **Licence en Sciences Chimiques (B.Sc., Chemistry)**
Université de Namur, Belgium – *summa cum laude*
- 1966-1972: **Humanités gréco-latines (secondary school: Greek-Latin Humanities)**
Collège Notre-Dame de la Paix, Namur, Belgium.

AWARDS AND SCIENTIFIC DISTINCTIONS

- Jean Stas Prize, Royal Academy of Belgium, 1980.
- Louis Empain Scientific Prize for Chemistry, Empain Foundation - Belgium, 1984.
- Louis D'Or Prize of the Royal Society of Sciences of Liège - Belgium, 1985.
- Cercle des Alumni Prize for Chemistry and Chemical Engineers, University Foundation - Belgium, 1986.
- Folia Theoretica Chimica Acta Prize, 1987.
- Prize of the Désiré Jaumain Foundation “Sciences, Art et Culture en Wallonie”, 1988.
- *Triennial Prize of the Royal Society of Chemistry*, Belgium, 1991.
- Appointed “Invited Professor” at Université Catholique de Louvain, 1991-1992.
- Holder of the 1993-1994 Chaire Francqui at Facultés Universitaires Notre-Dame de la Paix à Namur (Faculty of Sciences).
- Holder of the 1993-1994 Chaire Francqui at Université de Liège (Faculty of Sciences).
- *Fellow of the American Physical Society*, elected 1993.
- Alphonse Wetrems Prize, Royal Academy of Belgium, 1995.
- Holder of the 1995-1996 Chaire Francqui at University of Antwerp (Faculty of Sciences).
- Appointed as “Invited Professor” at Institut Supérieur des Matériaux du Mans, France, 1995-1996.
- *President-Elect (1995-1997) and President (1997-1999) of the Royal Society of Chemistry - Belgium (Société Royale de Chimie)*.
- *Francqui Prize*, 1997.
- Gold Medal of Université de Mons-Hainaut, 1997.
- Holder of the 1998-1999 Chaire Francqui at Université Catholique de Louvain (Faculty of Applied Sciences).
- *Fellow of the American Association for the Advancement of Science*, elected 1998.
- *Quinquennial Prize for Exact Sciences of the Belgian National Science Foundation (FNRS)*, 2000.
The Francqui and FNRS Quinquennial Prizes are the two highest scientific awards in Belgium.
- *Member of the Royal Academy of Belgium*, elected 1998; Corresponding Member, 1998-2000; Associate Member, 2000-present.

- Chairman of the “International Francqui Symposium on Conjugated Polymers and Oligomers: From Polyacetylene to DNA”, Brussels, Belgium, Oct. 21-23, 1998.
- Chairman of the “International Chemistry Celebration – 1999”, Brussels, Belgium, April 22-23, 1999.
- *Doctor Honoris Causa*, University of Linköping, Sweden, 2000.
- *Italgas Prize for Research and Technological Innovation in Applied Molecular Sciences*, Italgas Foundation, Italy, 2001 (shared with R.H. Friend).
- *Member of the European Research Advisory Board for Science, Technology, and Innovation (EURAB)*, 2001-2007. EURAB was the Science Policy Council reporting to the Commissioner for Research of the European Union and considered as the equivalent of the US National Science Board.
- *Outstanding Honors Faculty Certificate for Teaching*, Honors College, The University of Arizona, 2001.
- Named by Thomson Scientific – Institute of Science Information (ISI) as one of the top five researchers in the field of conducting polymers, based on the number of citations for the period 1991-2000; (see <http://www.esi-topics.com/conducting-polymers/interviews/Jean-Luc-Bredas.html>).
- *Doctor Honoris Causa*, Université Libre de Bruxelles, Belgium, June 2002.
- Named to the Center for Molecular Science Lectureship at the Institute of Chemistry of the Chinese Academy of Sciences in Beijing, July 2002.
- Named to the Moskowitz Lectureship at the University of Minnesota, November 2002.
- Inclusion as one of the Thomson Scientific – ISI Highly Cited Researchers for Chemistry since 2003 (see <http://isihighlycited.com>).
- *Fellow of the Optical Society of America*, elected 2003.
- *Honorary Professor*, Institute of Chemistry of the Chinese Academy of Sciences in Beijing, named 2003.
- *Descartes Prize* of the European Commission, 2003.
- Named to the Williams-Weissberger Lectureship at the Kodak Research Laboratories, Rochester, New York, April 2004.
- Co-Chair of the “International Fragrant Hill Symposium on Molecular and Plastic Electronics and Photonics”, Beijing, P.R. China, May 20-22, 2004.
- *Georgia Research Alliance Eminent Scholar and Chair in Molecular Design at the Georgia Institute of Technology*, appointed 2005.
- Vice-Chair of the Gordon Research Conference on “Electronic Processes in Organic Materials”, Mount Holyoke, Massachusetts, July 31-Aug. 04, 2006.
- Chair, Gordon Research Conference on “Electronic Processes in Organic Materials”, 2008.
- Named by Thomson Scientific – Essential Science Indicators as one of the top three researchers in the field of organic transistors, based on the number of citations for the period 1997-February 2007 (see <http://www.esi-topics.com/otft/authors/b1a.html>).
- Chair of the “European Conference on Molecular Electronics - ECME”, Metz, France, Sept. 05-08, 2007.
- Chair of the 2008 Gordon Research Conference on “Electronic Processes in Organic Materials”, Mount Holyoke, Massachusetts, July 20-25, 2008.
- *Fellow of the Materials Research Society*, elected 2008 in the Inaugural Class of Fellows.
- Outstanding Faculty Research Author Award, Georgia Institute of Technology, 2008.
- *Fellow of the Royal Society of Chemistry* (UK), elected 2008.
- *Appointed Regents’ Professor of Chemistry and Biochemistry*, Georgia Institute of Technology, 2009.
- *Fellow of the American Chemical Society*, elected 2009 in the Inaugural Class of Fellows.

- *Ranked consistently on the list of the 100 most cited chemists. Included in the list of the 100 top materials scientists for the period 2000-2010* (Source: Thomson Reuters – Essential Science Indicators).
- Appointed Scientific Advisor for Chemistry to the Administration Board of the International Solvay Institutes, Belgium, 2010 – 2013.
- *Charles H. Stone Award of the American Chemical Society*, 2010.
- Co-Chair of the “International Conference on Pi-Functional Materials – F- π -9”, Atlanta, Georgia, May 23-28, 2010.
- Inclusion in the list of the top 50 chemists worldwide with the highest h-index (Dec. 2011 – RSC Chemistry World).
- *Elected Member of the International Academy of Quantum Molecular Science*, 2011.
- *Named to the 2011 International Chair in Chemistry*, International Solvay Institutes, Belgium.
- Chair of the “International Conference on the Science and Technology of Synthetic Metals (ICSM-2012)”, held in Atlanta, July 08-13, 2012.
- Appointed to the Georgia Research Alliance Board of Trustees for 2012.
- *David Adler Award of the American Physical Society in Materials Physics*, 2013.
- Appointed Distinguished Visiting Professor, Kyushu University, Spring 2013.
- Member of the Prize Selection Committee for the 2014 David Adler Award of the American Physical Society in Materials Physics, 2013.
- *Georgia Tech Outstanding Faculty Leadership Award for the Development of Graduate Research Assistants*, 2013.
- Inclusion as one of the 2014 Thomson Reuters Highly Cited Researchers for Chemistry (citations for the 2002-2012 period, see <http://highlycited.com>).
- Inclusion among the “World’s Most Influential Scientific Minds, Thomson Reuters”, 2014.
- *Member of the European Academy of Sciences*, elected 2014.
- Chair of the 2015 Pacificchem Symposium on “Advances in Organic Light-Emitting Diodes”, held in Honolulu, Hawaii, Dec. 16-17, 2015.
- *Award of the American Chemical Society in the Chemistry of Materials*, 2016.
- Inclusion in the 2016 list of most cited researchers in Materials Science & Engineering by Elsevier Scopus.
- Named to the Inaugural Sigma-Aldrich Lecture at Princeton University, Andlinger Center for Energy and the Environment, 01 May 2017.
- Elected Officer of the Engineering Division of the *European Academy of Sciences*, 2017-present.
- Co-organizer of the Symposium on: “Organic Semiconductors: Surface, Interface, Bulk Doping, and Charge Transport” at the 2017 Fall Meeting of the Materials Research Society (Boston, Nov. 26-Dec. 01, 2017).
- Memberships in Professional Societies: American Physical Society (Fellow); American Association for the Advancement of Science (Fellow); American Chemical Society (Fellow); Materials Research Society (Fellow); Optical Society of America (Fellow); Royal Society of Chemistry, Belgium (Former President); Royal Society of Chemistry – UK (Fellow).
- Editor of “Chemistry of Materials”, published by the American Chemical Society, 2008-present.
- Editor of the “European Journal of Inorganic Chemistry”, published by VCH-Wiley, 1998-2002.
- Regional Editor of “Synthetic Metals”, published by Elsevier Science, 1994-2008.

- Member of the Editorial Board of “Materials Science and Engineering Reports”, published by Elsevier Science, 1998-2012.
- Member of the Editorial Advisory Board of “Advanced Theory and Simulations”, published by Wiley-VCH, 2018-present.
- Member of the Editorial Advisory Board of “Materials Horizons”, published by the Royal Society of Chemistry, 2013-present.
- Member of the Editorial Board for the series “Materials and Energy”, published by World Scientific, 2009-present.
- Member of the Editorial Advisory Board of “Accounts of Chemical Research”, published by the American Chemical Society, 2007-present.
- Member of the Advisory Board of the “European Journal of Inorganic Chemistry”, published by VCH-Wiley, 2003-2004.
- Member of the Editorial Advisory Board of “Advanced Functional Materials”, published by Wiley-VCH, 2000-present.
- Member of the Editorial Board of “Nonlinear Optics, Quantum Optics”, published by OCP Science, Philadelphia, 1991-present.
- Member of the Advisory Board of “Chemistry of Materials”, published by the American Chemical Society, 1997-2002.
- Member of the Editorial Board for the “Series in Electrically and Optically Active Polymers”, published by Marcel Dekker, New York, 1988-1996.

LECTURES, SEMINARS

- ◇ Presentation of over 575 invited talks at scientific meetings and seminars at various institutions in Europe, America, and Asia.

ORGANIZATION OF SCIENTIFIC MEETINGS

- Chairman or Co-Chairman of over 30 International Conferences, Symposia, or Workshops in the US, Europe, and Asia.
- Member of the International Advisory Board or Program Committee for over 75 International Conferences in the US, Europe, and Asia.

PUBLICATIONS

- Author or co-author of over 1,100 scientific papers among which over 1,050 publications in international refereed journals such as: *Science*, *Nature*, *Nature Materials*, *Nature Photonics*, *Advanced Materials*, *Journal of the American Chemical Society*, *Proceedings of the National Academy of Sciences USA*, *Chemical Reviews*, *Accounts of Chemical Research*, *Physical Review Letters*, *Chemistry of Materials*, *Angewandte Chemie*.
- Co-author of two books; editor of ten books; guest-editor of two special issues of *Accounts of Chemical Research*, three special issues of *Chemistry of Materials*, one special issue of *Advanced Functional Materials*, one special issue of *Nonlinear Optics - Quantum Optics*, and one special issue of *Synthetic Metals*.
- Citation h-index (Source: Web of Science, April 2018): 121. Total number of citations of 71,000; average citations per publication: 63.3. (Google Scholar h-index, April 2018: 140; > 91,000 citations; i10-index: 805).

Selected Publications

- “Comparative Theoretical Study of the Doping of Conjugated Polymers: Polarons in Polyacetylene and Polyparaphenylene”, J.L. Brédas, R.R. Chance, and R. Silbey, *Physical Review B*, **26**, 5843-5854 (1982).
- “Chain Length Dependence of Electronic and Electrochemical Properties of Conjugated Systems: Polyacetylene, Polyphenylene, Polythiophene, and Polypyrrole”, J.L. Brédas, R. Silbey, D.S. Boudreaux, and R.R. Chance, *Journal of the American Chemical Society*, **105**, 6555-6559 (1983).
- “Relationship between Bandgap and Bond-Length Alternation in Organic Conjugated Polymers”, J.L. Brédas, *Journal of Chemical Physics*, **82**, 3808-3811 (1985).
- “Polarons, Bipolarons, and Solitons in Conducting Polymers”, J.L. Brédas and G.B. Street, *Accounts of Chemical Research*, **18**, 309-315 (1985).
- “Polaron Lattice in Highly Conducting Polyaniline: Theoretical and Optical Studies”, S. Stafström, J.L. Brédas, A.J. Epstein, H.S. Woo, D.B. Tanner, W.S. Huang, and A.G. MacDiarmid, *Physical Review Letters*, **59**, 1464-1467 (1987).
- “A Unified Description of Linear and Nonlinear Polarization in Organic Polymethine Dyes”, S.R. Marder, C.B. Gorman, F. Meyers, J.W. Perry, G. Bourhill, J.L. Brédas, and B.M. Pierce, *Science*, **265**, 632-635 (1994).
- “Third-Order Nonlinear Optical Response in Organic Materials: Theoretical and Experimental Aspects”, J.L. Brédas, C. Adant, P. Tackx, A. Persoons, and B.M. Pierce, *Chemical Reviews*, **94**, 243-278 (1994).
- “Large Molecular Third-Order Optical Nonlinearities in Polarized Carotenoids”, S.R. Marder, W.E. Torruellas, M. Blanchard-Desce, G.I. Stegeman, J.L. Brédas, J. Li, S.G. Boxer, et al., *Science*, **276**, 1233-1236 (1997).
- “Charge Separation in Localized and Delocalized Electronic States in Polymeric Semiconductors”, A. Köhler, D.A. dos Santos, D. Beljonne, J.L. Brédas, R.H. Friend, A.B. Holmes, K. Müllen, et al., *Nature*, **392**, 903-906 (1998).
- “Design of Organic Molecules with Large Two-Photon Absorption Cross Sections”, M.A. Albota, D. Beljonne, J.L. Brédas, J.E. Ehrlich, J.Y. Fu, A.A. Heikal, S. Hess, T. Kogej, M.D. Levin, S.R. Marder, D. McCord-Maughon, J.W. Perry, H. Röckel, M. Rumi, G. Subramaniam, W.W. Webb, X.L. Wu, and C. Xu, *Science*, **281**, 1653-1656 (1998).
- “Electroluminescence in Conjugated Polymers”, R.H. Friend, R.W. Gymer, A.B. Holmes, J.H. Burroughes, C. Taliani, D.D.C. Bradley, D.A. dos Santos, J.L. Brédas, et al., *Nature*, **397**, 121-128 (1999).
- “Organic Semiconductors: A Theoretical Characterization of the Basic Parameters Governing Charge Transport”, J.L. Brédas, J.P. Calbert, D.A. da Silva Filho, and J. Cornil, *Proceedings of the National Academy of Sciences USA*, **99**, 5804-5809 (2002).
- “Interface Energetics and Level Alignment at Covalent Metal-Molecule Junctions: π -Conjugated Thiols on Gold”, G. Heimel, L. Romaner, J.L. Brédas, and E. Zojer, *Physical Review Letters*, **96**, 196806/1-196806/4 (2006).
- “Charge Transport in Organic Semiconductors”, V. Coropceanu, J. Cornil, D.A. da Silva Filho, Y. Olivier, R. Silbey, and J.L. Brédas, *Chemical Reviews*, **107**, 926-952 (2007).
- “Exciton Dissociation and Charge-Recombination Processes in Pentacene-C60 Solar Cells: A Theoretical Insight into the Impact of Interface Geometry”, Y. Yi, V. Coropceanu, and J.L. Brédas, *Journal of the American Chemical Society*, **131**, 15777-15783 (2009).
- “Molecular Understanding of Organic Solar Cells: The Challenges”, J.L. Brédas, J.E. Norton, J. Cornil, and V. Coropceanu, *Accounts of Chemical Research*, **42**, 1691-1699 (2009).
- “Design of Polymethine Dyes with Large Third-Order Optical Nonlinearities and Loss Figures of Merit”, J.M. Hales, J. Matichak, S. Barlow, S. Ohira, Y. Kada, J.L. Brédas, J.W. Perry, S.R. Marder, et al., *Science*, **327**, 1485-1488 (2010).
- “A Universal Method to Produce Low Work Function Electrodes for Organic Electronics”, Y. Zhou, C. Fuentes-Hernandez, J.L. Brédas, S.R. Marder, B. Kippelen, et al., *Science*, **336**, 327-332 (2012).

- “Unification of Trap-limited Electron Transport in Semiconducting Polymers”, H.T. Nicolai, M. Kui, G.A. H. Wetzelaer, B. de Boer, C. Campbell, C. Risko, J.L. Brédas, and P.W.M. Blom, *Nature Materials*, 11, 882-887 (2012).
- “Intermixing at the Pentacene-Fullerene Bilayer Interface: A Molecular Dynamics Study”, Y.T. Fu, C. Risko, and J.L. Brédas, *Advanced Materials*, 25, 878-882 (2013).
- “Mind the Gap”, J.L. Brédas, *Materials Horizons*, 1, 17-19 (2014).
- “Transparent Conducting Oxides of Relevance to Organic Electronics: Electronic Structures of Their Interfaces with Organic Layers”, H. Li, P. Winget, and J.L. Brédas, *Chemistry of Materials*, 26, 631-646 (2014).
- “Mode-Selective Vibrational Modulation of Charge Transport in Organic Electronic Devices”, A.A. Bakulin, R. Lovrincic, X.Yu, O. Selig, H.J. Bakker, Y.L.L. Rezus, P.K. Nayak, A. Fonari, V. Coropceanu, J.L. Brédas, and D. Cahen, *Nature Communications*, DOI: 1038/ncomms8880 (2015).
- “The Density of States and the Transport Effective Mass in a Highly Oriented Semiconducting Polymer: Electronic Delocalization in 1D”, B.B.Y Hsu, C.M. Cheng, C. Luo, S.N. Patel, C. Zhong, H. Sun, J. Sherman, B.H. Lee, L. Ying, M. Wang, G. Bazan, M. Chabinyc, J.L. Brédas, and A.J. Heeger, *Advanced Materials*, 27, 7759-7765 (2015).
- “Non-Covalent Intermolecular Interactions in Organic Electronic Materials: Implications for the Molecular Packing vs. Electronic Properties of Acenes”, C. Sutton, C. Risko, and J.L. Brédas, *Chemistry of Materials*, 28, 3-16 (2016).
- “Photovoltaic Concepts Inspired by Coherence Effects in Photosynthetic Systems”, J.L. Brédas, E.H. Sargent, and G.D Scholes, *Nature Materials*, 16, 35-44 (2017).
- “Limits for Recombination in a Low Energy Loss Organic Heterojunction”, S.M. Menke, A. Sadhanala, M. Nikolka, N.A. Ran, M.K. Ravva, S. Adel-Azeim, H.L. Stern, M. Wang, H. Sirringhaus, T.Q. Nguyen, J.L. Brédas, G.C. Bazan, and R.H. Friend, *ACS Nano*, 10, 10736-10744 (2016).
- “Unprecedented Operational and Environmental Stability of High-Mobility Conjugated Polymer Field-Effect Transistors Achieved through the Use of Molecular Additives”, M. Nikolka, I. Nasrallah, B. Rose, M.K. Ravva, K. Broch, D. Harkin, J. Charmet, M. Hurhangee, A. Brown, S. Illig, P. Too, J. Jongman, I. McCulloch, J.L. Brédas, and H. Sirringhaus, *Nature Materials*, 16, 356-362 (2017).
- “Quantitative Interaction-Miscibility-Function Relations in Organic Solar Cells”, H. Ade, L. Ye, H. Hu, M. Ghasemi, T. Wang, B. Collins, J.H. Kim, K. Jiang, J. Carpenter, H. Li, Z. Li, T. McAfee, J. Zhao, X. Chen, J.Y.L. Lai, T. Ma, J.L. Brédas, and H. Yan, *Nature Materials*, 17, 253-260 (2018).
- “Fused Electron Deficient Semiconducting Polymers for Air Stable Electron Transport”, A. Onwubiko, Y. Wang, C. Xiao, M. Kumar Ravva, H. Liao, M. Little, Z. Wang, J.L. Brédas, I. McCulloch, and W. Yue, *Nature Communications*, in press.
- “Modeling of Actual-Size Organic Electronic Devices from Efficient Molecular-Scale Simulations”, H. Li and J.L. Brédas, *Advanced Functional Materials*, DOI: 10.1002/adfm.201801460.
- “Impact of Hydroxylation and Hydration on the Reactivity of α -Fe₂O₃ (0001) Surfaces under Environmental and Electrochemical Conditions”, J. Noh, H. Li, O.I. Osman, S.G. Aziz, P. Winget, and J.L. Brédas, *Advanced Functional Materials*, DOI: 10.1002/aenm.201800545.

List of Publications

Jean-Luc Bredas

BOOKS & SPECIAL ISSUES

1. “Recent Advances in the Quantum Theory of Polymers”, edited by J.M. André, J.L. Brédas, J. Delhalle, J. Ladik, G. Leroy, and C. Moser, Lecture Notes in Physics Series, Vol. 113, 306 pp., Springer Verlag, Berlin, 1980.
2. “Conjugated Polymeric Materials: Opportunities in Electronics, Optoelectronics, and Molecular Electronics”, edited by J.L. Brédas and R.R. Chance, NATO-ARW Series E, Vol. 182, 607 pp., Kluwer, Dordrecht, 1990.
3. “Quantum Chemistry Aided Design of Organic Polymers. An Introduction to the Quantum Chemistry of Polymers and its Applications”, J.M. André, J. Delhalle, and J.L. Brédas, 377 pp., World Scientific, Singapore, 1991.
4. “Conjugated Polymers: The Novel *Science* and Technology of Highly Conducting and Nonlinear Optically Active Materials”, edited by J.L. Brédas and R. Silbey, 624 pp., Kluwer, Dordrecht, 1991.
5. “Polymer-Solid Interfaces”, edited by J.J. Pireaux, P. Bertrand, and J.L. Brédas, 498 pp., Institute of Physics, Bristol, 1992.
6. Special issue of *Nonlinear Optics*: “Quantum Chemical Computational Calculation of Nonlinear Susceptibilities of Organic Materials”, guest-edited by J.L. Brédas, A.F. Garito, and Y. Ito, 136 pp., Gordon and Breach, Yverdon, 1994.
7. “Organic Materials for Electronics: Polymer Interfaces with Metals and Semiconductors”, edited by J.L. Brédas, W.R. Salaneck, and G. Wegner, 329 pp., North-Holland, Amsterdam, 1994.
8. “Conjugated Polymer Surfaces and Interfaces: Electronic and Chemical Structure of Interfaces for Polymer Light Emitting Devices”, W.R. Salaneck, S. Stafström, and J.L. Brédas, 157 pp., Cambridge University Press, Cambridge, 1996.
9. Special issue of *Synthetic Metals*: “The Alan J. Heeger Festschrift”, guest-edited by J.L. Brédas and W.R. Salaneck, 137 pp., Elsevier, Lausanne, 1996.
10. “Conjugated Oligomers, Polymers, and Dendrimers: From Polyacetylene to DNA”, edited by J.L. Brédas, Francqui Scientific Library, Vol. 4, 632 pp., De Boeck Université, Louvain-la-Neuve, 1999.
11. Special issue of *Advanced Functional Materials* on: “Organic Electronics and Photonics”, guest-edited by J.L. Brédas and S.R. Marder, 91 pp., VCH, Weinheim, 2002.
12. Special issue of *Accounts of Chemical Research* on: “Organic Photovoltaics”, guest-edited by J.L. Brédas and J.D. Durrant, American Chemical Society, Nov. 2009.
13. Special issue of *Chemistry of Materials* on: “ π -Functional Materials”, guest-edited by J.L. Brédas, S.R. Marder, and E. Reichmanis, American Chemical Society, Feb. 2011.
14. Special issue of *Accounts of Chemical Research* on: “Density Functional Theory Elucidation of Materials Properties”, guest-edited by J.L. Brédas and K. Houk, American Chemical Society, 2014.
15. “Organic Semiconductors”, Vol. 1: “Basic Concepts” and Vol. 2: “Fundamental Aspects of Materials and Applications”, edited by J.L. Brédas and S.R. Marder, 870 pp., World Scientific, Singapore, 2016.

PUBLICATIONS

1. "A Floating Spherical Gaussian Orbital (FSGO) Model for Polymers: Calculations of X-Ray Diffraction Structure Factors", J.M. André and J.L. Brédas, *Chemical Physics*, 20, 367-370 (1977).
2. "On the Calculation of Long-Range Coulombic Contributions to the Direct Space LCAO-CO Matrix Elements of Model Polymers", J. Delhalle, J.M. André, C. Demanet, and J.L. Brédas, *Chemical Physics Letters*, 54, 186-190 (1978).
3. "Long-Range Coulombic Interactions in the Theory of Polymers: A Statement of the Problem and a Method for Calculation by the Fourier Transformation Technique", J.M. André, J.G. Fripiat, C. Demanet, J.L. Brédas, and J. Delhalle, *International Journal of Quantum Chemistry*, S12, 233-247 (1978).
4. "A Floating Spherical Gaussian Orbital Model for Polymers. II. An Extended Formalism and Computational Procedure for Saturated and Conjugated Systems", J.L. Brédas, J.M. André, J.G. Fripiat, and J. Delhalle, *Gazetta Chimica Italiana*, 108, 307-313 (1978).
5. "An FSGO-CO Study of the Long-Range Effects on Calculated Conformational Stability and One-Electron Levels of Polyethylene", J.L. Brédas, J.M. André, and J. Delhalle, *Chemical Physics*, 45, 109-118 (1980).
6. "Importance of the Long-Range Contributions in a Polymer Computation", J.L. Brédas, *Lecture Notes in Physics Series* (Springer, Berlin), 113, 92-103 (1980).
7. "Multipole Expansion in Tight-Binding Hartree-Fock Calculations for Infinite Model Polymers", J. Delhalle, L. Piela, J.L. Brédas, and J.M. André, *Physical Review B*, 22, 6254-6267 (1980).
8. "Long-Range Interactions in Periodic Helices. A Method for Accurate Calculation at the Hartree-Fock Level", L. Piela, J. Delhalle, J.M. André, and J.L. Brédas, *International Journal of Quantum Chemistry*, S14, 405-418 (1980).
9. "AMO in Linear Chains of Hydrogen Atoms Revisited", J.M. André, J.L. Brédas, J. Delhalle, Y. Kalenov, L. Piela, and J.L. Calais, *International Journal of Quantum Chemistry*, S14, 419-429 (1980).
10. "Revue critique des propriétés électroniques du polynitrure de soufre", J.L. Brédas, *Annales de la Société Scientifique de Bruxelles*, 94, 83-128 (1980).
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1076. “Polaron Self-localization in White-light Emitting Hybrid Perovskites”, D. Cortecchia, J. Yin, A. Bruno, S.Z. Alencious Lo, G. G. Gurzadyan, S. Mhaisalkar, J.L. Brédas, and C. Soci, *Journal of Materials Chemistry C*, 5, 2771-2780 (2017).
1078. “Kinetic Monte Carlo Modelling of Charge Carriers in Organic Electronic Devices: Suppression of the Self-Interaction Error”, H. Li and J.L. Brédas, *Journal of Physical Chemistry Letters*, 8, 2507-2512 (2017).
1079. “Charge-Transfer States in Organic Solar Cells: Understanding the Impact of Polarization, Delocalization, and Disorder”, Z. Zheng, N.R. Tummala, Y.T. Fu, V. Coropceanu, and J.L. Brédas, *ACS Applied Materials and Interfaces*, 9, 18095-18102 (2017).
1080. “Impact of Dielectric Constant on the Singlet-Triplet Gap in Thermally Activated Delayed Fluorescence (TADF) Materials”, H. Sun, Z. Hu, C. Zhong, X. Chen, Z. Sun, and J.L. Brédas, *Journal of Physical Chemistry Letters*, 8, 2393-2398 (2017).
1081. “Pyridine-induced Dimensionality Change in Hybrid Perovskite Nanocrystals”, G. Ahmed, J. Yin, R. Bose, L. Sinatra, E. Alarousu, E. Yengel, N. Alyami, M. Saidaminov, Y. Zhang, M. Hedhili, O. Bakr, J.L. Brédas, and O. Mohammed, *Chemistry of Materials*, 29, 4393-4400 (2017).
1082. “Impact of Position of Electron Withdrawing Cyano Groups on Nonlinear Optical Properties of Centrosymmetric Donor- π -Acceptor System”, R.H. Lee, J.S. Park, K.S. Lee, K. Zojer, and J.L. Brédas, *International Journal of Quantum Chemistry*, 117, e25441 (2017).
1083. “Effect of Solid-State Polarization on Charge-Transfer Excitations and Transport Levels at Organic Interfaces from a Screened Range-Separated Hybrid Functional”, Z. Zheng, D.A. Egger, J.L. Brédas, L. Kronik, and V. Coropceanu, *Journal of Physical Chemistry Letters*, 8, 3277-3283 (2017).

1084. "Assessment of Front-Substituted Zwitterionic Cyanine Polymethines for All-Optical Switching Applications", S. Shiring, R. Giesecking, C. Risko, and J.L. Brédas, *Journal of Physical Chemistry C*, **121**, 14166-14175 (2017).
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1090. "Electronic Properties of 1,5-Diaminonaphthalene:tetrahalo-1,4-benzoquinone Donor-Acceptor Cocrystals", R.K. Behera, N.R. Goud, A.J. Matzger, J.L. Brédas, and V. Coropceanu, *Journal of Physical Chemistry C*, **121**, 23633-23641 (2017).
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1093. "Voltage Losses in Organic Solar Cells: Understanding the Contributions of Intramolecular Vibrations to Non-Radiative Recombinations", X. Chen and J.L. Brédas, *Advanced Energy Materials*, 1702227/1-9 (2017).
1094. "Time Dependent – Density Functional Theory Characterization of Organic Dyes for Dye-sensitized Solar Cells", R. Hilal, S.G. Aziz, O.I. Osman, and J.L. Brédas, *Molecular Simulation*, **43**, 1523-1531 (2017).
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1100. "Quantitative Relations between Interaction Parameter, Miscibility and Function in Organic Solar Cells", L. Ye, H. Hu, M. Ghasemi, T. Wang, B.A. Collins, J.H. Kim, K. Jiang, J.H. Carpenter, H. Li, Z. Li, T. McAfee, J. Zhao, X. Chen, J.Y. Lin Lai, T. Ma, J.L. Brédas, H. Yan, and H. Ade, *Nature Materials*, 17, 253-260 (2018).
1101. "Intrinsic Lead Ion Emissions in Zero-Dimensional Cs₄PbBr₆ Nanocrystals", J. Yin, Y. Zhang, A. Bruno, C. Soci, O. Bakr, J.L. Brédas, and O. Mohammed, *ACS Energy Letters*, 2, 2805-2811 (2017).
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1103. "Local Electronic Structure of a Single-Layer Porphyrin-Containing Covalent Organic Framework", C. Chen, T. Joshi, H. Li, A. Chavez, Z. Pedramrazi, P.N. Liu, H. Li, W. Dichtel, J.L. Brédas, and M. Crommie, *ACS Nano*, in press.
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1106. "A New Design Strategy for Efficient Thermally Activated Delayed Fluorescence (TADF) Organic Emitters: From Twisted to Planar Structures", X. Chen, Y. Tsuchiya, Y. Ishikawa, C. Zhong, C. Adachi, and J.L. Brédas, *Advanced Materials*, 29, 1702767/1-8 (2017).
1107. "Inside Perovskites: Quantum Luminescence from Bulk Cs₄PbBr₆ Single Crystals", M. De Bastiani, I. Dursun, Y.H. Zhang, B.A. Alshankiti, X.H. Miao, J. Yin, E. Yengel, E. Alarousu, B. Turedi, J.M. Almutlaq, M.I. Saidaminov, S. Mitra, I. Gereige, A. AlSaggaf, Y.H. Zhu, Y. Han, I.S. Rogan, J.L. Brédas O.F. Mohammed, and O.M. Bakr, *Chemistry of Materials*, 29, 7108-7113 (2017).
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1110. “Organic Field-Effect Transistors: A 3D Kinetic Monte Carlo Simulation of the Current Characteristics in Micrometer-Sized Devices”, H.Y. Li, Y. Li, H. Li, and J.L. Brédas, *Advanced Functional Materials*, 27, 1605715 (2017).
1111. “Characterization of the Valence and Conduction Band Levels of n=1 Two-Dimensional Perovskites: A Combined Experimental and Theoretical Investigation”, S. Silver, J. Yin, H. Li, J.L. Brédas, and A. Kahn, *Advanced Energy Materials*, 8, 1703468/1-8 (2018).
1112. “Nonlinear Optical Materials Discovery by Function Based Screening of Multicomponent Solids”, N.R. Goud, X. Zhang, J.L. Brédas, V. Coropceanu, and A. Matzger, *Chem*, 4, 150-161 (2018).
1113. “Bulk Heterojunction Solar Cells: Impact of Minor Structural Modifications to the Polymer Backbone on the Polymer-Fullerene Mixing and Packing and on the Fullerene-Fullerene Connecting Network”, T. Wang, X. Chen, A. Ashokan, Z. Zheng, M. Ravva, and J.L. Brédas, *Advanced Functional Materials*, 28, 1705868 (2018).
1114. “High-efficiency Electroluminescence and Amplified Spontaneous Emission from a Thermally Activated Delayed Fluorescent Near Infrared Emitter”, D.H. Kim, A. D’Aléo, X. Chen, A. Sandanayaka, D. Yao, L. Zhao, T. Komino, E. Zaborova, G. Canard, Y. Tsuchiya, E. Choi, J. Wu, F. Fages, J.L. Brédas, J.C. Ribierre, and C. Adachi, *Nature Photonics*, 12, 98-104 (2018).
1115. “Hydrolytic Stability of Boronate Ester-Linked Covalent Organic Frameworks”, H. Li, H. Li, Q. Dai, H. Li, and J.L. Brédas, *Advanced Theory and Simulations*, 1, 1700015 (2018).
1116. “Fused Electron Deficient Semiconducting Polymers for Air Stable Electron Transport”, A. Onwubiko, Y. Wang, C. Xiao, M. Kumar Ravva, H. Liao, M. Little, Z. Wang, J.L. Brédas, I. McCulloch, and W. Yue, *Nature Communications*, in press.
1117. “Modeling of Actual-Size Organic Electronic Devices from Efficient Molecular-Scale Simulations”, H. Li and J.L. Brédas, *Advanced Functional Materials*, 28, 1801460 (2018).
1118. “Impact of Hydroxylation and Hydration on the Reactivity of α -Fe₂O₃ (0001) Surfaces under Environmental and Electrochemical Conditions”, J. Noh, H. Li, O.I. Osman, S.G. Aziz, P. Winget, and J.L. Brédas, *Advanced Energy Materials*, 8, 1800545 (2018).
1119. “Increased Exciton Delocalization of Polymer upon Blending with Fullerene”, B. Gauta, E. Klump, X. Yi, I. Constantinou, N. Shewmon, A. Salehi, C.K. Lo, Z. Zheng, J.L. Brédas, K. Gundogdu, J.R. Reynolds, and F. So, *Advanced Materials*, 30, 1801392 (2018).
1020. “Design Rules for Minimizing Voltage Losses in High-Efficiency Organic Solar Cells”, D. Qian, Z. Zheng, H. Yao, W. Tress, T.R. Hopper, S. Chen, S. Li, J. Liu, S. Chen, J. Zhang, X.K. Liu, B. Gao, L. Ouyang, Y. Jin, G. Pozina, I. Buyanova, W. Chen, O. Inganäs, V. Coropceanu, J.L. Brédas, H. Yan, J. Hou, F. Zhang, A.A. Bakulin, and F. Gao, *Nature Materials*, in press.

Talks & Seminars

Jean-Luc Bredas

1. “Méthodes théoriques d'étude de la structure électronique des polymères”, Donegani Research Center, Montedison Corporation (Prof. E. Clementi), Novara, Italy, Aug. 26, 1977.
2. “Interactions électrostatiques à longue portée et leur rôle dans les chaînes polymères”, IX Congrès des Chimistes Théoriciens d'Expression Latine (dir.: Prof. E. Clementi), Stresa, Italy, Sept. 03-08, 1978.
3. “Importance of the Long-Range Contributions in a Polymer Computation”, CECAM Meeting on the Quantum Theory of Polymers (dir.: Prof. J.M. André), Namur, Belgium, Feb. 11-14, 1979.
4. “Quantum-Chemical Studies of the Electronic Properties of Stereoregular Polymer Chains”, Exxon Research and Engineering Corporation (Dr. R. Espino), Linden, New Jersey, Sept. 19, 1980.
5. “Nonempirical Studies of the Electronic Properties of Highly Conducting Polymers”, Sanibel International Symposium on Atomic, Molecular and Solid State Theory (dir.: Prof. P.O. Löwdin), Palm Coast, Florida, March 08-14, 1981.
6. “Etudes non-empiriques des propriétés électroniques des polymères organiques hautement conducteurs”, *Invited talk*, Colloque Physique et Chimie des Conducteurs Unidimensionnels, Société Française de Physique (dir.: Dr. P. Bernier), Clermont-Ferrand, France, June 30 - July 02, 1981.
- 7-8. “Ab Initio Studies of the Electronic Structure of Highly Conducting Polymers” and “Correlation in Infinite Linear Chains of Hydrogen Atoms: AMO Studies”, CECAM Workshop on the Quantum Theory of Polymers (dir.: Dr. C. Moser), Orsay, France, July 06-10, 1981.
9. “Theoretical Studies of Conducting Polymers”, Allied Corporation, Materials Research Center (Dr. R.R. Chance), Morristown, New Jersey, Aug. 07, 1981.
10. “Theoretical Studies of Charged Defect States and Charge-Transfer Induced Geometry Changes in Doped Polymers”, International Conference on Low Dimensional Conductors (dirs.: Dr. A.J. Epstein, Dr. E. Conwell), Boulder, Colorado, Aug. 09-14, 1981.
11. “Propriétés électroniques des polymères organiques conducteurs: discussion du modèle des solitons”, Département de Chimie, Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium, Sept. 17, 1981.
12. “Structure et propriétés électroniques des polyacétylènes et polydiacétylènes”, Département de Chimie, Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium, July 21, 1982.
13. “Theoretical Studies of the Physics of Charged Defect Formation in Doped Organic Polymers”, *Invited talk*, International Conference on the Physics and Chemistry of Organic and Synthetic Metals (dir.: Prof. R. Comès), Les Arcs, France, Dec. 10-15, 1982.
14. “Structure électronique des polymères dopés”, *Invited talk*, Réunion Française sur les Polymères Electroactifs (dir.: Dr. J.J. André), Mont-Sainte-Odile, France, May 09-11, 1983.

15. “La méthode de Hartree-Fock-Roothan”,
Invited lectures (5 hours), 3ème cycle FNRS sur la Chimie Physique Moléculaire (dir.: Prof. G. Leroy),
Université Catholique de Louvain,
Louvain-la-Neuve, Belgium, May 24-27, 1983.
16. “Propriétés électroniques des polymères organiques hautement conducteurs”,
Invited talk, Congrès des Chimistes Théoriciens d'Expression Latine (dir.: Prof. G. Leroy),
Louvain-la-Neuve, Belgium, May 30 - June 02, 1983.
17. “Hartree-Fock Ab Initio Studies of Conjugated Systems: Bandgaps, Instabilities, Correlation, and Dopant Influence”,
Invited talk, International Symposium on Synthetic Metals (dirs.: Dr. S. Mazumdar, Dr. R. Liepins),
Los Alamos, New Mexico, Aug. 20-23, 1983.
18. “The Role of Mobile Radicals and Ions in the Transport Properties of Doped Conjugated Polymers”,
Invited seminar, IBM Research Laboratory (Dr. G.B. Street),
San Jose, California, Sept. 9, 1983.
19. “Polarons and Bipolarons in Doped Polymers and their Role in the Transport Properties”,
Institute for Polymers and Organic Solids, University of California at Santa Barbara (Prof. A.J. Heeger, Prof. F. Wudl),
Santa Barbara, California, Sept. 12, 1983.
20. “Evolution de la structure de bandes sous dopage des polymères organiques”,
Invited lecture, Congrès de la Société Française de Physique (dir.: Dr. M. Nechtschein),
Grenoble, France, Sept. 19-23, 1983.
21. “Propriétés électroniques des polymères et applications”,
Invited lecture, Journée d'étude sur les polymères à l'intention des enseignants du secondaire (dir.: Prof. P. Pirson),
Namur, Belgium, Nov. 11, 1983.
22. “Conjugated Polymers: How Insulators Become Conductors”,
Invited lecture, Polymer Research Contact Group (dir.: Dr. A. Delbouille), Solvay SA,
Bruxelles, Belgium, March 27, 1984.
23. “Les polymères organiques dopés: comment rendre des isolants bons conducteurs de l'électricité”,
Département de Physique, Facultés Universitaires Notre-Dame de la Paix,
Namur, Belgium, March 27, 1984.
24. “Propriétés électroniques des polymères organiques dopés”,
Laboratoire de Chimie Organique, Facultés Universitaires Notre-Dame de la Paix,
Namur, Belgium, April 02 and 09, 1984.
25. “Polymères organiques conjugués : évolution des propriétés électroniques sous dopage”,
Invited seminar, Laboratoire de Physico-Chimie et Physique des Solides, Université Catholique de Louvain
(Prof. J.P. Issi),
Louvain-la-Neuve, Belgium, April 20, 1984.
26. “Etude théorique du premier état excité singulet dans les chaînes de polyacétylène et polydiacétylène”,
Ecole Normale Supérieure (Prof. G. Berthier),
Paris, France, May 15-16, 1984.
27. “Bipolarons in Doped Conjugated Polymers: A Critical Comparison between Theoretical Results and Experimental Data”,
Invited talk, International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals
(dirs.: Prof. C. Pecile, Prof. G. Zerbi),
Abano Terme, Italy, June 17-22, 1984.

28. "The Role of Mobile Radicals and Ions (Polarons, Bipolarons, Solitons) in the Transport Properties of Doped Organic Polymers",
Invited talk, Conference on Electrical Conduction in Polymers II,
London, UK, June 26, 1984.
29. "The Role of Mobile Radicals and Ions (Polarons, Bipolarons, Solitons) in the Transport Properties of Doped Organic Polymers",
Invited lecture, Gordon Conference on Electron Donor-Acceptor Interactions (dir.: Dr. E.M. Engler),
Plymouth, New Hampshire, Aug. 13-19, 1984.
30. "Polarons and Bipolarons in Polyheterocycles",
Invited seminar, Institute for Polymers & Organic Solids, University of California at Santa Barbara,
Santa Barbara, California, Sept. 23-25, 1984.
31. "Electronic Properties of Amorphous Carbon Films: Model Compound Studies",
Invited seminar, IBM Research Laboratory,
San Jose, California, Jan. 23, 1985.
32. "Polarons and Bipolarons in Doped Aromatic Polymers",
Invited seminar, Center for Nonlinear Studies, Los Alamos National Laboratory (Dr. A.R. Bishop, Dr. D.K. Campbell),
Los Alamos, New Mexico, Jan. 24-26, 1985.
33. "Polarons and Bipolarons in Doped Organic Polymers",
Invited seminar, Allied Corporation, Materials Research Center (Dr. R.H. Baughman, Dr. R.R. Chance),
Morristown, New Jersey, Jan. 30 - Feb. 02, 1985.
34. "Polarons and Bipolarons in Doped Aromatic Polymers",
Invited lecture, International Winterschool on the Electronic Properties of Polymers (dir.: Prof. H. Kuzmany),
Kirchberg, Austria, Feb. 24 - March 02, 1985.
- 35-36. "Electronic Properties of Conjugated Polymers" and
"The Role of Polarons and Bipolarons in Doped Aromatic Polymers",
Invited lectures, Colloquium on Conducting Polymers (Dr. E. Voss), Varta Research Center,
Kelkheim, West Germany, April 17, 1985.
37. "Electronic-Structure Calculations on Polymers. Application to Polymer Surfaces and Interfaces",
Invited talk, American Chemical Society Workshop on the Science and Technology of Polymer Interfaces
(dir.: Dr. G.B. Street),
Hyannis, Massachusetts, June 09-12, 1985.
38. "Polarons and Bipolarons in Doped Aromatic Polymers",
Invited seminar, Massachusetts Institute of Technology (Prof. R. Silbey),
Cambridge, Massachusetts, June 13, 1985.
39. "Electronic Properties of Doped Conjugated Polymers",
Invited seminar, General Motors Research Laboratories (Dr. J. Heremans),
Warren, Michigan, June 14, 1985.
40. "Conducting Polymers: The Role of Charged Defects as Charge Carriers",
Invited seminar, Kernforschungszentrum Karlsruhe (Dr. J. Fink),
Karlsruhe, West Germany, July 09-10, 1985.
- 41-42. "Electronic Properties of Conjugated Polymers" and "The Role of Charged Defects (Polarons, Bipolarons, Solitons) in the Transport Properties of Doped Aromatic Polymers",
Invited seminars, Department of Physics, University of Linköping (Prof. K.A. Chao),
Linköping, Sweden, Aug. 14, 1985.
43. "Electronic Band-Structure Calculations on Polymers: Application to Polymer Surfaces and Interfaces",
Invited seminar, Department of Physics, University of Linköping (Prof. W.R. Salaneck),
Linköping, Sweden, Aug. 16, 1985.

44. “Electronic Properties of Conducting Polymers”,
Invited seminar, Quantum Chemistry Group, Uppsala University (Prof. J.L. Calais),
Uppsala, Sweden, Aug. 23, 1985.
45. “Theoretical Search for New, Intrinsically Conducting Organic Polymers”,
Invited lecture, Symposium on Transport and Excitation in Polymers, Fall Meeting of the Materials Research
Society,
Boston, Massachusetts, Dec. 01-06, 1985.
46. “Electronic Band-Structure Calculations on Organic Polymers. Application to Polymer Surfaces and
Interfaces”,
Invited seminar, Bell Communications Research (Dr. D.L. Allara),
Murray Hill, New Jersey, Dec. 10, 1985.
47. “Electronic Properties of Conducting Organic Polymers”,
Invited seminar, AT&T Bell Laboratories (Dr. J. Orenstein),
Murray Hill, New Jersey, Dec. 11, 1985.
- 48-50. “Electronic Properties of Amorphous Carbon Films”, “Towards Organic Polymers with Very Small
Intrinsic Bandgaps: Polyisothianaphthene and Derivatives”, and “Electronic Structure of Long Polyacetylene
and Polydiacetylene Oligomers”,
Euchem Meeting on Molecular Materials for Electronic and Opto-Electronics, (dirs.: Prof. J. Simon, Dr. J.J.
André, Dr. P. Bernier),
Les Arcs, France, Jan. 13-17, 1986.
51. “Propriétés électroniques et optiques des polymères organiques conjugués”,
Invited lecture, Réunion Annuelle de la Société Chimique de Belgique,
Bruxelles, Belgium, April 17, 1986.
52. “Electronic Properties of Conducting Polymers”,
Invited seminar, Mitsubishi Chemical Industries Research Center (Dr. R. Mezaki),
Yokohama, Japan, May 26-27, 1986.
53. “Theoretical Study of the Electronic Properties of Organic Polymers”,
Invited seminar, Institute of Molecular Science (Dr. K. Seki),
Okazaki, Japan, May 28-30, 1986.
54. “Theoretical Design of Conducting Polymers”,
Invited lecture, Symposium on Conducting Polymers, Society of Polymer Science of Japan (dir.: Dr. H.
Sasabe),
Kyoto, Japan, May 31, 1986.
55. “Calculation of Electronic Properties of Organic Polymers and Relationship with Conductivity”,
Invited talk, seminar on Conducting Polymers, Research Association for Basic Polymer Technology (dirs.:
Dr. M. Hirooka, Dr. T. Doi),
Kyoto, Japan, June 01, 1986.
56. “Theoretical Design of Polymeric Conductors”,
Invited lecture, International Conference on the Science and Technology of Synthetic Metals (dirs.: Prof. H.
Shirakawa, Prof. T. Yamabe),
Kyoto, Japan, June 02-06, 1986.
57. “Etude théorique des caractéristiques électroniques et optiques de matériaux polymériques aux
propriétés nouvelles”,
Invited lecture, XVI Congrès des Chimistes Théoriciens d'Expression Latine (dir.: Prof. C. Barbier),
Lyon, France, July 07-11, 1986.
58. “Theoretical Design of Polymeric Conductors”,
Invited seminar, Department of Physics, Ohio State University (Prof. A.J. Epstein),
Columbus, Ohio, Sept. 02, 1986.

59. “Electronic Properties of Conducting Polymers”,
Invited seminar, IBM Thomas J. Watson Research Center (Dr. J.J. Ritsko),
Yorktown Heights, New York, Sept. 03, 1986.
60. “Photoelectron Spectroscopy of Polythiophene”
Invited talk, Symposium on Conducting Polymers, General Meeting of the American Chemical Society (dirs.:
Prof. A.G. MacDiarmid, Dr. G.B. Street),
Anaheim, California, Sept. 10-12, 1986.
61. “Theoretical Design of Polymeric Conductors”
Invited talk, Symposium on Conducting Polymers, General Meeting of the American Chemical Society (dirs.:
Prof. A.G. MacDiarmid, Dr. G.B. Street),
Anaheim, California, Sept. 10-12, 1986.
62. “Du mercure aux cristaux moléculaires: septante-cinq ans de supraconductivité”,
Leçon publique de la thèse d'agrégation de l'enseignement supérieur,
Louvain-la-Neuve, Belgium, Oct. 10, 1986.
63. “Theoretical Studies of the Conformation, Pyrolysis, and Metallization Effects on the Electronic
Structure of Organic Polymers”,
Invited talk, Workshop of the European Science Foundation on Polymer Surfaces and Interfaces (dirs.: Dr. W.
Spiess, Prof. G. Zerbi, Dr. C. Bubeck),
Mainz, West Germany, Nov. 05-06, 1986.
64. “Propriétés électroniques des polymères organiques conducteurs”,
Invited seminar, Centre National d'Etudes des Télécommunications (Dr. G. Froyer),
Lannion, France, Nov. 17-18, 1986.
65. “Electronic and Nonlinear Optical Properties of Conjugated Polymers”,
Invited seminar, Department of Physics, University of Linköping (Prof. W.R. Salaneck),
Linköping, Sweden, Dec. 10-14, 1986.
66. “Electronic Properties of Highly Conducting Conjugated Polymers”,
Invited seminar, Max-Planck Institut für Polymerforschung (Prof. G. Wegner),
Mainz, West Germany, Jan. 19-20, 1987.
67. “Du mercure aux cristaux moléculaires : septante-cinq ans de supraconductivité”,
Invited seminar, Département de Chimie, Facultés Universitaires Notre-Dame de la Paix,
Namur, Belgium, Feb. 03, 1987.
68. “Theoretical Design of Polymeric Conductors”,
Invited seminar, Tokyo University of Agriculture and Technology (Prof. S. Miyata),
Tokyo, Japan, Feb. 24, 1987.
69. “Electronic Properties of Highly Conducting Polymers”,
Invited talk, Seminar of the AIST Committee for Promotion of Polymer Science and Technology,
Tokyo, Japan, Feb. 26, 1987.
70. “Electronic and Nonlinear Optical Properties of Conjugated Polymers”,
Invited seminar, Research Institute for Polymers and Textiles (Dr. H. Nakanishi, Dr. M. Kato),
Tsukuba, Japan, March 02, 1987.
- 71-72. “Electronic and Nonlinear Optical Properties of Conjugated Polymers: A Quantum Chemistry
Approach”, *Invited lecture*, and
“Theoretical Investigation on Segmented Polyacetylene”, *Invited talk*,
International Winterschool on the Electronic Properties of Polymers (dirs.: Prof. H. Kuzmany, Prof. M.
Mehring, Dr. S. Roth),
Kirchberg, Austria, March 14-21, 1987.

73. "Electronic Structure of Amorphous Hydrogenated Carbon Films: Theoretical Investigations on Model Compounds",
Invited talk, European Materials Research Society Symposium on Amorphous Hydrogenated Carbon Films (dirs.: Dr. P. Koidl, Prof. P. Oelhafen),
Strasbourg, France, June 02-05, 1987.
74. "Electronic and Nonlinear Optical Properties of Conducting Polymers",
Invited lectures (3 hours), NATO Advanced Study Institute on Chemical Physics of Intercalation (dirs.: Prof. A.P. Legrand, Dr. S. Flandrois),
Bonas, France, June 10-19, 1987.
75. "Electronic and Nonlinear Optical Properties of Conjugated Polymers: A Theoretical Approach",
Invited lecture, Symposium on Raman Spectroscopy and Nonlinear Effects (dir.: Dr. C. Taliani),
Bologna, Italy, Sept. 21-22, 1987.
76. "Polaron Lattices in the Highly Conducting Regime of Doped Conjugated Polymers",
Invited talk, Symposium on Electroresponsive Polymers (dirs.: Dr. T.A. Skotheim, Dr. A.N. Goland, Prof. Y. Okamoto),
Brookhaven, New York, Oct. 04-07, 1987.
77. "New Perspectives on Electronic Structure of Conducting Polymers: Polythiophene and Polyacetylene",
Invited seminar, Department of Physics, Ohio State University (Prof. A.J. Epstein),
Columbus, Ohio, Oct. 07-08, 1987.
78. "Valence Effective Hamiltonian Calculations on Conducting Polymers",
Invited seminar, Allied-Signal Corporation (Dr. R.H. Baughman),
Morristown, New Jersey, Oct. 09-10, 1987.
79. "Electronic Properties of Polyaniline and Related Polymers",
Invited seminar, Department of Chemistry (Prof. A.G. MacDiarmid), Department of Physics (Prof. E.G. Mele), and Department of Materials Science (Prof. J.E. Fischer), University of Pennsylvania,
Philadelphia, Pennsylvania, Oct. 12-13 (1987).
80. "Propriétés électroniques des polymères conducteurs",
Département de Chimie, Université de l'Etat à Mons,
Mons, Belgium, Nov. 05, 1987.
81. "Theoretical Design of Polymeric Materials for Nonlinear Optics",
Materials Research Society Fall Meeting, Symposium on Nonlinear Optical Properties of Polymers (dirs.: Prof. A.J. Heeger, Dr. J. Orenstein, Dr. D.R. Ulrich),
Boston, Massachusetts, Dec. 01-03, 1987.
82. "Approche théorique des propriétés électroniques et de transport des polymères conducteurs",
Invited lecture, Symposium on "Electrochimie et Polymères" (dirs.: Dr. J.F. Fauvarque and Dr. M. Costa),
Meudon-Bellevue, France, Jan. 25-26, 1988.
83. "Propriétés électroniques et optiques non linéaires des polymères conjugués",
Invited seminar, Laboratoire de Spectrochimie des Eléments de Transition (Prof. O. Kahn), Université de Paris-Sud,
Orsay, France, Feb. 04-05, 1988.
84. "Propriétés électroniques et de transport des polymères conducteurs de l'électricité",
Invited seminar, Unité de Physico-Chimie et de Physique des Matériaux (Prof. J.P. Issi), Université Catholique de Louvain,
Louvain-la-Neuve, Belgium, Feb. 25, 1988.
85. "Conjugated Materials: Electronic and Nonlinear Optical Properties",
Invited seminar, Center for Research on Macromolecules (Dr. W. Porzio),
Milano, Italy, March 15, 1988.

86. "Transport Properties in the Highly Doped Regime of Conducting Polymers",
Invited seminar, Dipartimento di Chimica Industriale (Prof. G. Zerbi), Politecnico di Milano,
Milano, Italy, March 16, 1988.
87. "Nonlinear Optical Properties of Conjugated Polymers",
Invited seminar, Department of Chemistry (Prof. G. Delle Piane), University of Genova,
Genova, Italy, March 17, 1988.
88. "The Contributions of Theoretical Calculations in the Understanding of the Electronic Properties of
Conducting Polymers",
Invited seminar, BASF Corporation (Dr. H. Naarmann),
Ludwigshafen, Germany, March 22-23, 1988.
89. "Approche théorique des propriétés électroniques et de transport des polymères conducteurs
intrinsèques de l'électricité",
Invited lecture, Meeting of the Polymer Division of the Belgian Royal Chemical Society,
Bruxelles, Belgium, March 25, 1988.
90. "Vers des matériaux supraconducteurs à température ambiante",
Université de l'Etat à Mons,
Mons, Belgium, March 31, 1988.
91. "Theoretical Characterization of the Intrinsic Electronic and Nonlinear Optical Properties of
Conjugated Polymers",
Invited seminar, Department of Chemistry (Prof. M. Hanack), University of Tübingen,
Tübingen, West Germany, May 02-03, 1988.
92. "Electronic Structure of Highly Doped Conducting Polymers as a Function of Lattice Conformation",
Invited plenary lecture, 37th Annual Meeting of the Society of Polymer Science of Japan,
Nagoya, Japan, May 25-27, 1988.
93. "Electronic and Nonlinear Optical Properties of Aromatic Vinylene Polymers and Derivatives",
Invited lecture, Symposium on Nonlinear Optical Properties of Organic Materials (dir.: Prof. S. Miyata),
Tokyo, Japan, May 28, 1988.
94. "Electronic and Nonlinear Optical Properties of Conjugated Polymers",
Invited talk, Japan Society for the Promotion of Chemistry,
Tokyo, Japan, May 30, 1988.
95. "Conjugated Polymers: Relationship between Electronic Structure Evolution upon Doping and
Nonlinear Optical Properties",
Invited talk, Materials Research Society International Meeting on Advanced Materials, Symposium on
Photoresponsive Materials (dir. Prof. S. Tazuke),
Tokyo, Japan, May 31 - June 02, 1988.
96. "Fundamental Approach to the Electronic and Nonlinear Optical Properties of Conjugated Polymers",
Invited seminar, Department of Applied Physics, University of Tokyo,
Tokyo, Japan, June 02, 1988.
97. "Electronic Structure and Nonlinear Optical Properties of Aromatic Polymers and their Derivatives",
Invited talk, International Conference on Synthetic Metals (ICSM'88),
Santa Fe, New Mexico, June 26 - July 02, 1988.
98. "Electronic Properties of Highly Conducting Polymers",
Invited seminar, Department of Chemistry (Prof. R.H. Grubbs), California Institute of Technology,
Pasadena, California, July 25, 1988.
99. "Electronic and Nonlinear Optical Properties of Polyarylene Vinylenes and Related Conjugated
Systems",
Invited talk, SPIE Symposium on "Nonlinear Optical Properties of Organic Materials" (dir.: Dr. G.
Khanarian),
San Diego, California, Aug. 17-19, 1988.

100. “La supraconductivité : 75 ans du mercure aux oxydes de cuivre”,
Invited lecture, Congrès des Sciences,
Brussels, Belgium, Aug. 31, 1988.
101. “Approche théorique des propriétés électroniques et optiques des polymères conjugués”,
Invited talk, Congrès sur les Polymères Conducteurs (dir.: Prof. S. Lefrant),
Nantes, France, Sept. 20-23, 1988.
102. “Aspects fondamentaux de la supraconductivité”,
Invited lecture, Journée de recyclage des professeurs du secondaire (dir.: Prof. P. Pirson).
Namur, Belgium, Nov. 11, 1988.
103. “Propriétés électroniques des polymères hautement conducteurs de l'électricité”,
Invited seminar, Laboratoire Central de Recherches, Thomson-CSF (Dr. J.C. Dubois),
Corbeville, France, Nov. 25, 1988.
104. “Electronic Properties of Highly Conducting Polymers”,
Invited seminar, Hoechst AG Research Center (Prof. H. Sixl).
Frankfurt, Germany, Dec. 09, 1988.
105. “Propriétés optiques non linéaires des chaînes polymériques conjuguées”,
Invited lecture, Journées Polymères Conducteurs Electroniques (dir.: Dr. M. Nechtschein),
Autrans, France, Jan. 10-13, 1989.
106. “Electronic and Nonlinear Optical Properties of Conjugated Polymers”,
Invited seminar, Universität Bayreuth, Dept. of Physics (Dr. K. Fesser),
Bayreuth, West Germany, Feb. 09-10, 1989.
107. “Excitations élémentaires dans les polymères organiques conjugués. Des propriétés de conduction à l'optique non linéaire”,
Invited seminar, Centre National d'Etudes des Télécommunications (Dr. J. Zyss),
Bagneux, France, March 01-02, 1989.
108. “Conjugated Polymers: The Role of Solitons, Polarons, and Bipolarons in the Nonlinear Optical Properties”,
Invited plenary lecture, International Winterschool on the Electronic Properties of Polymers and Related Compounds (dirs.: Prof. H. Kuzmany, Prof. M. Mehring, Dr. S. Roth),
Kirchberg, Austria, March 11-18, 1989.
109. “Les matériaux organiques et plastiques conducteurs de l'électricité”,
Université de l'Etat à Mons,
Mons, Belgium, March 23, 1989.
110. “Theoretical Aspects and Design of Conjugated Polymers for Nonlinear Optics”,
Invited lecture, Quantum Electronics and Laser Science Conference QELS'89, Symposium on Nonlinear Optical Polymers (dir.: Dr. G.C. Bjorklund),
Baltimore, Maryland, Apr. 23-26, 1989.
111. “Electronic and Nonlinear Optical Properties of Polyanilines”,
Invited seminar, Dept. of Chemistry, University of Pennsylvania (Prof. A.G. MacDiarmid),
Philadelphia, Pennsylvania, Apr. 27-28, 1989.
112. “Elementary Excitations in Organic Conjugated Polymers: From Conduction Properties to Nonlinear Optics”,
Invited plenary lecture, The Eight Seminar on Frontier Technology: Organic Photonics and Nonlinear Optics,
The Association for the Progress of New Chemistry,
Nihon Center, Japan, May 09-12, 1989.
113. “Electronic Properties of Highly Conducting Organic Polymers”,
Invited plenary lecture, First Symposium of the Italian Consortium for Condensed-Matter Physics,
Trieste, Italy, June 08-09, 1989.

114. "Elementary Nonlinear Excitations in Conjugated Polymers: From Conduction Properties to Nonlinear Optics",
Fourth International Conference on Unconventional Photoactive Solids,
San Jose, California, Oct. 15-18, 1989.
115. "Elementary Nonlinear Excitations in Conjugated Polymers: From Conduction Properties to Nonlinear Optics",
Invited seminar, Institute for Polymers and Organic Solids (Prof. A.J. Heeger),
University of California, Santa Barbara, Oct. 18-22, 1989.
116. "Electronic and Nonlinear Optical Properties of Conjugated Polymers",
Invited seminar, IBM Corp., Data Systems Division (Dr. M. Dupuis),
Kingston, New York, Oct. 23-24, 1989.
117. "Elementary Nonlinear Excitations in Conjugated Polymers: From Conduction Properties to Nonlinear Optics",
Invited talk, Symposium on Electroresponsive Molecular and Polymeric Materials, Brookhaven National
Laboratory,
Upton, New York, Oct. 25-27, 1989.
118. "Polymers Theoretical Chemistry: A Tool for the Design of Novel Materials",
Invited lecture, Visiting Speaker Programme, Courtaulds Research,
Coventry, UK, Nov. 21-22, 1989.
119. "The Polyanilines: A Fascinating Class of Electrically Conducting Organic Polymers",
Invited talk, Polymer Research Contact Group Meeting,
Spa, Belgium, Nov. 23-24, 1989.
120. "Propriétés électroniques et optiques non linéaires des polymères conjugués",
Invited seminar, Université de Liège,
Liège, Belgium, Jan. 10, 1990.
121. "Nouveaux Matériaux",
Invited lectures (7h.), Cours de formation interdisciplinaire pour doctorands,
Namur, Belgium, Jan. 22-26, 1990.
122. "Electronic Properties of Highly Conducting Conjugated Polymers",
Invited seminar, Agfa-Gevaert Research Center (Dr. W. De Winter),
Mortsel, Belgium, Feb. 15, 1990.
123. "Novel Concepts in Highly Conducting Conjugated Polymers: Polyanilines",
Invited seminar, Department of Physics, University of Linköping (Prof. W. R. Salaneck),
Linköping, Sweden, April 24-25, 1990.
124. "Novel Concepts in Highly Conducting and Nonlinear Optically Active Conjugated Polymers",
Invited lecture, STU Workshop on Conducting Polymers and Polymer Electric Properties,
Göteborg, Sweden, April 26-27, 1990.
125. "Les polymères conducteurs de l'électricité",
Invited seminar, Institut Paul Lambin (Prof. E. Goffin),
Louvain-en-Woluwe, Belgium, May 03, 1990.
126. "Nonlinear Optical Properties of Organic Conjugated Materials",
Invited lecture, European Physical Society Industrial Workshop on the Science and Applications of
Conducting Polymers (dirs.: Prof. W.R. Salaneck, Prof. D.T. Clark),
Lofthus, Norway, May 28-31, 1990.
127. "Electronic and Nonlinear Optical Properties of Conjugated Polymers",
Invited lecture, NATO Advanced Research Workshop on Organic Molecules for Nonlinear Optics and
Photonics (dir.: Dr. J. Messier),
La Rochelle, France, Aug. 26-31, 1990.

128. "Electronic and Nonlinear Optical Properties of Organic Conjugated Molecules and Polymers", *Invited talk*, Supercomputing User Forum, Katholieke Universiteit Leuven, Leuven, Sept. 21, 1990.
129. "Conjugated Polymeric Materials: From the Electrical Conduction Properties to Nonlinear Optics", *Invited talk*, Seminar Series: Frontiers in Applied Physics, Vrije Universiteit Brussel, Brussels, Belgium, Oct. 04, 1990.
130. "Theoretical Investigation of the Nonlinear Optical Properties of Organic Molecules and Polymers", *Invited talk*, Symposium de la Société Royale de Chimie, Mons, Belgium, Oct. 17, 1990.
131. "Electronic Structure Insight into Novel Molecular Architectures for High Electrical Conductivity and Nonlinear Optical Response in Conjugated Materials", *Invited seminar*, Hitachi Research Laboratory, Hitachi City, Japan, Oct. 24, 1991.
132. "Electronic Structure Insight into Novel Molecular Architectures for High Electrical Conductivity and Nonlinear Optical Response in Conjugated Materials", *Invited plenary lecture*, The 39th Okazaki Conference on the Development of Molecular Functions and Control of Assembly Structures towards Molecular Devices, Okazaki, Japan, Oct. 25-27, 1990.
133. "Electronic Structure Insight into Novel Molecular Architectures for High Electrical Conductivity and Nonlinear Optical Response in Conjugated Materials", *Invited seminar*, RIKEN Frontier Research Seminar, Wako, Japan, Oct. 29, 1990.
134. "Electronic Structure Insight into Novel Molecular Architectures for High Electrical Conductivity and Nonlinear Optical Response in Conjugated Materials", *Invited seminar*, Showa-Denko Corporation (Dr. M. Kobayashi), Tokyo, Japan, Oct. 30, 1990.
135. "On the Nature of the Ground State in Push-Pull Organic Conjugated Systems", *Invited talk*, 1990 Esprit Conference on Organics for Information Technology, Bruxelles, Belgium, Nov. 13, 1990.
136. "Highly Conducting Polymers: Insight into their Electrical, Optical, and Mechanical Properties", *Invited plenary lecture*, General Meeting of the Belgian Research Contact Group on Polymers, Bruxelles, Belgium, Jan. 31, 1991.
137. "Propriétés Electriques et Optiques des Polymères Conjugués", *Invited lectures* (3h.), Université de Liège (Prof. R. Jérôme), Liège, Belgium, Feb. 28, 1991.
138. "Nonlinear Optical Properties of Conjugated Polymers", *Invited seminar*, Department of Polymer Science, University of Groningen (Prof. G. Hadziioannou), Groningen, The Netherlands, March 26-28, 1991.
139. "Electronic and Nonlinear Optical Properties of Conjugated Polymers", *Invited talk*, Meeting of the Belgian Research Contact Group on the Study of Atomic and Molecular Wavefunctions, Bruxelles, Belgium, March 29, 1991.
140. "Polyanilines: On the Interplay between Chemical and Electronic Structure", *Invited talk*, General Meeting of the American Chemical Society, Symposium on Conducting Polymers (Dr. R.L. Elsenbaumer), Atlanta, Georgia, April 14-19, 1991.
141. "Polyanilines: On the Interconnection between Chemical, Geometric, and Electronic Structure", *Invited seminar*, Department of Chemistry of the University of Pennsylvania (Prof. A.G. MacDiarmid), Philadelphia, Pennsylvania, April 21-23, 1991.

142. "Polyanilines: On the Interconnection between Chemical, Geometric, and Electronic Structure", *Invited seminar*, Department of Physics of the Ohio State University (Prof. A.J. Epstein), Columbus, Ohio, April 24-25, 1991.
143. "Les méthodes de chimie quantique appliquées à l'étude des matériaux polymères aux propriétés nouvelles", *Invited lecture*, FNRS graduate courses in Molecular Chemical Physics, Brussels, Belgium, May 16, 1991.
144. "Highly Conducting Polymers", *Invited talk*, Journées SCF (Prof. J.M. André), Namur, Belgium, May 30, 1991.
145. "Polymères Conjugués: Science et Technologie des Matériaux Electriquement et Optiquement Actifs", *Invited plenary lecture*, General Meeting of the Belgian Royal Society of Chemistry, Bruxelles, May 31, 1991.
146. "Theoretical Characterization of Polyanilines: A Prototypical Example of the Interconnection between Chemical and Electronic Structure", *Invited plenary lecture*, Nobel Symposium on Conjugated Polymers and Related Materials (Profs. W.R. Salaneck and I. Lundström), Luleå, Sweden, June 13-18, 1991.
147. "Quantum Chemistry Approach to the Calculation of Electronic and NLO Properties of Conjugated Materials", *Invited lectures* (3h.), E-MRS Summer School on Organic Materials for Photonics (Prof. G. Zerbi), Obereggen, Italy, April 24-28, 1991.
148. "Theoretical Insight into the Quadratic Nonlinear Optical Response of Organics: Derivatives of Pyrene and Triaminotrinitrobenzene", *Invited talk*, SPIE Symposium on Nonlinear Optical Properties of Organic Materials (Prof. K. Singer), San Diego, California, July 21-26, 1991.
149. "Theoretical Insight into the Nonlinear Optical Properties of Conjugated Molecules and Polymers", *Invited seminar*, IBM Almaden Research Center, San Jose, California, Aug. 09-12, 1991.
150. "Electronic Structure, Nature of Excited States, and Nonlinear Optical Properties of Conjugated Oligomers and Polymers", *Invited lecture*, International Symposium on Optical Probes of Conjugated Polymers (Prof. Z. Vardeny), Snowbird, Utah, Aug. 19-22, 1991.
151. "Nouveaux Matériaux : Nouveaux Défis", *Inaugural lecture* at the Opening of the Academic Year, Université de Mons-Hainaut, Mons, Belgium, Oct. 11, 1991.
152. "Theoretical Insight into the Nonlinear Optical Properties of Polyconjugated Materials", *Invited plenary lecture*, E-MRS Symposium on Polyconjugated Materials: Chemistry, Physics, and Technology (Prof. G. Zerbi), Strasbourg, Nov. 05-08, 1991.
153. "Excitations collectives dans les polymères conjugués pour l'optique non linéaire", *Invited seminar*, Observatoire Français des Techniques Avancées, Groupe Optoélectronique Moléculaire (Prof. M. Dupuis), Paris, France, Nov. 22, 1991.
154. "Nouveaux Matériaux", *Invited professorship* (15 h.), Université Catholique de Louvain, Jan.-Feb., 1992.

155. "On New Strategies for Enhancing the Nonlinear Optical Response of Organic Materials", *Invited seminar*, Frontier Research Program, RIKEN Institute, Wako, Japan, Feb. 16-20, 1992.
156. "Conjugated Oligomers and Polymers: Electronic Structure and Nonlinear Optical Response", *Invited seminar*, Institute of Chemical Research (Prof. H. Nakanishi), Tohoku University, Sendai, Japan, Feb. 21, 1992.
157. "Electronics and Nonlinear Optical Properties of Polymeric Conductive Polymers", *Invited seminar*, Wright Laboratory (Dr. D.S. Dudis), Wright Patterson Air Force Base, Dayton, Ohio, March 11-14, 1992.
158. "Ring-Torsional Dimerization: Influence on the Electronic Structure", *Invited lecture*, General Meeting of the American Physical Society: Symposium on Ring Torsional Peierls Systems, Indianapolis, Indiana, March 16-20, 1992.
159. "Theory and Structure/Property Relationship of $\chi^{(3)}$ Materials", *Invited lecture*, American Chemical Society Workshop on Organic Opto-Electronic Materials, Monterey, California, March 30 - April 02, 1992.
160. "Modelling Intrinsic Properties of Polymers", *Invited plenary lecture*, 32nd Moretonhampstead Conference on Polymer Science and Technology: Signposts for the Future, Moretonhampstead, UK, April 27-30, 1992.
161. "Structure Electronique des Polymères Conducteurs", *Invited lectures* (6h.), CNRS School on "La Physique autour des Polymères Conducteurs", Marseille, France, May 20-22, 1992.
162. "Electronic and Nonlinear Optical Properties of Conjugated Polymers", *Invited seminar*, Institut für Theoretische Physik, Universität Stuttgart (Prof. E. Sigmund), Stuttgart, Germany, June 15-16, 1992.
163. "Quadratic and Cubic Non-Linearities in Conjugated Organic Molecules: On the Role of Elementary Excitations, Symmetry, and Chain Length", *Invited plenary lecture*, IBM Europe Institute on Computer-Aided Chemistry for Molecular Properties and Molecular Design, Oberlech, Austria, July 05-11, 1992.
164. "Influence of Macromolecular Architecture on the Nonlinear Optical Response and Luminescence of Conjugated Polymers", *Invited talk*, International Conference on the Science and Technology of Synthetic Metals ICSM-92, Göteborg, Sweden, Aug. 12-18, 1992.
165. "Second-Order Polarizabilities of Conjugated Organic Molecules with Zero Dipole Moment: Assessment of the Importance of Octupolar Contributions", *Invited keynote lecture*, Royal Society of Chemistry Symposium on Organic Materials for Nonlinear Optics, Oxford, England, Aug. 19-21, 1992.
166. "Quadratic and Cubic Nonlinear Optical Properties of Organic Conjugated Molecules with Octupolar Symmetry", *Invited lecture*, KULeuven Symposium on Nonlinear Optics, Leuven, Belgium, Sept. 10-11, 1992.
167. "Les Polymères Conducteurs de l'Electricité", *Invited lecture*, Journée de la Société Royale de Chimie sur la Chimie d'Intercalation, Louvain-la-Neuve, Belgium, Oct. 02, 1992.
168. "Electronic Properties of Doped and Metallized Conjugated Oligomers and Polymers", *Invited seminar*, Philips Research Laboratories (Dr. R.J. Visser), Eindhoven, The Netherlands, Nov. 12, 1992.

169. "Propriétés Electroniques et Optiques des Matériaux Polymères Conjugués", *Invited lectures*, Université de Liège (Prof. R. Jérôme), Liège, Belgium, Dec. 09, 1992.
170. "Electronic Structure of Metal-Conjugated Polymers Interfaces", *Invited talk*, International Conference on Advanced Polymeric Materials (Prof. P.N. Prasad), Jakarta, Indonesia, Jan. 10-15, 1993.
171. "Electronic Structure of Low Bandgap Polymers", *Invited seminar*, Hoechst Research Center (Dr. H. Schenk), Frankfurt, Germany, April 13, 1993.
172. "Theoretical Insight into the Nonlinear Optical Response and Light-Emitting Properties of Conjugated Oligomers and Polymers", *Invited seminar*, RIKEN Frontier Research Programme (Dr. H. Sasabe), Wako, Japan, April 22-28 (1993).
173. "Theoretical Insight into the Nonlinear Optical Response of Conjugated Oligomers and Polymers", *Invited seminar*, Tohoku University (Prof. H. Nakanishi), Sendai, Japan, April 25-26, 1993.
174. "Nonlinear Optical Properties of Organic Materials", *Invited seminar*, The Beckman Institute, California Institute of Technology (Dr. S. Marder), Pasadena, California, May 23 - June 04, 1993.
175. "How to Manipulate the Bandgap of Light-Emitting Conjugated Polymers", *Invited seminar*, UniAx Corporation (Prof. A.J. Heeger), Santa Barbara, California, July 12, 1993.
176. "Electronic Structure of Metal-Conjugated Polymers Interfaces", *Invited seminar*, Department of Physics, University of California (Prof. A.J. Heeger), Santa Barbara, California, July 15, 1993.
177. "Theory: A Guide toward Novel Advanced Polymers", *Invited plenary lecture*, The Polymer Conference (Dr. D.C. Bott), Cambridge, England, July 19-21, 1993.
178. "On the Relationship between Molecular Geometry, Electronic Structure, and Nonlinear Optical Response in Conjugated Compounds", *Invited seminar*, Department of Materials and Interfaces, Weizmann Institute of Science (Prof. G. Berkovic), Rehovot, Israel, Nov. 22-25, 1993.
179. "Electronic Structure Calculations on Conjugated Polymers: A Guide toward Novel Advanced Materials", *Invited plenary lecture*, Belgian Polymer Research Contact Group Annual Meeting (Prof. J. Gelan), Houthalen, Belgium, Dec. 02, 1993.
180. "From Sulfur Nitride to Polyparaphenylene Vinylene: Twenty Years of Band-Structure Calculations", *Invited plenary lecture*, The Alan G. MacDiarmid Symposium, Philadelphia, Pennsylvania, Dec. 04, 1993.
181. "Electronic Structure Calculations on Conjugated Polymers: A Guide toward Novel Advanced Materials", *Invited seminar*, Department of Physics, The Ohio State University (Prof. A.J. Epstein), Columbus, Ohio, Dec. 07-09, 1993.
182. "Scanning Tunneling Microscopy: Quantum Chemical Approaches to Image Contrast", Joint Meeting of the TOPFIT and LEDFOS ESPRIT Basic Research Actions, Eindhoven, The Netherlands, Jan. 04-06, 1994.

183. "Influence of Geometry and Chain Length on the Nonlinear Optical Response of Conjugated Compounds: On the Fine Tuning of β and γ ",
Invited lecture, International Conference on Organics for Nonlinear Optics ICONO'1 (Dr. F. Kajzar), Val Thorens, France, Jan. 10-13, 1994.
184. "On the Relationship between Molecular Geometry and Nonlinear Optical Response in Organic Conjugated Compounds",
Invited seminar, Center for Research in Electro-Optics and Lasers, University of Central Florida (Prof. G. Stegeman), Orlando, Florida, Feb. 15, 1994.
185. "Electrical and Optical Properties of Conjugated Polymers: From Synthetic Metals to Light-Emitting Diodes",
Invited talk, 34th Sanibel Symposium, Ponte Vedra, Florida, Feb. 16-19, 1994.
186. "Nouveaux Matériaux: Nouveaux Défis",
Chaire Francqui au titre belge (15h.), Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium, Feb. - March 1994.
187. "Nouveaux Matériaux: Nouveaux Défis",
Chaire Francqui au titre belge (15h.), Université de Liège, Liège, Belgium, March 1994.
188. "Electronic Structure of Conjugated Polymers: Influence of Copolymerization and Derivatization on Light-Emitting Characteristics",
Invited talk, 207th General Meeting of the American Chemical Society, San Diego, California, March 13-17, 1994.
189. "De la recherche fondamentale à la recherche orientée",
Invited talk, Symposium Transchannel' 94 on "Efficacité universitaire de la recherche orientée", Tournai, Belgium, April 21, 1994.
190. "Nonlinear Optical Response of Conjugated Organics: On the Interconnection between Geometric and Electronic Structure and Medium Characteristics",
Invited talk, 4th Iketani Conference, Mauna Kea, Hawaii, May 17-20, 1994.
191. "Chemical and Electronic Structure of Conjugated Polymers and their Interfaces with Metals",
Invited lecture, Symposium on Organic Materials for Electronics, E-MRS Spring Meeting, Strasbourg, France, May 24-27, 1994.
192. "Nonlinear Optical Response of Organic Conjugated Compounds: Theoretical Description of Solvent-Mediated Enhancement of Hyperpolarizabilities",
Invited talk, 208th General Meeting of the American Chemical Society, Washington, DC, Aug. 21-25, 1994.
193. "Molecular Geometry and Nonlinear Optical Response in Organic Conjugated Compounds",
Invited lecture, Second European Conference on Molecular Electronics ECME-94, Kloster Banz, Germany, Sept. 04-09, 1994.
194. "Structure électronique des oligomères et polymères conjugués: *fiat lux*",
Invited plenary lecture, Journées Polymères Conducteurs 1994, Strasbourg, France, Sept. 19-23, 1994.
195. "Conjugated Polymers and Oligomers: The Design of Novel Materials via Quantum-Chemical Approaches",
Invited talk, Sixth Japanese-Belgian Seminar on Polymers, Namur, Belgium, Oct. 17-20, 1994.

196. "The Center for Molecular Electronics and Photonics at the Universities of Mons-Hainaut, Leuven, and Eindhoven",
Symposium on Advanced Materials for Molecular Electronics and Photonics,
Mons, Belgium, Dec. 01-02, 1994.
197. "Conjugated Polymers and Oligomers: Electronic Structure and Light-Emitting Characteristics",
Invited seminar, Department of Chemistry, University of Pennsylvania (Prof. A.G. MacDiarmid),
Philadelphia, Pennsylvania, Jan. 05, 1995.
198. "Electronic and Optical Properties of Semiconducting Polymers for Light-Emitting Diodes",
Invited talk, Third International Conference on Frontiers of Polymers and Advanced Materials (Prof. P.N.
Prasad),
Kuala Lumpur, Malaysia, Jan. 15-20, 1995.
199. "Characterization of the Interfaces between Low Workfunction Metals and Conjugated Polymers in
Light-Emitting Diodes",
Invited seminar, NTT Basic Research Laboratories (Dr. Y. Suzuki),
Atsugi, Japan, Jan. 24, 1995.
200. "Electronic Structure of Electroluminescent Conjugated Polymers and their Interfaces with Metals",
Invited seminar, Riken Frontier Research Program (Dr. H. Sasabe),
Wako, Japan, Jan. 20-26, 1995.
201. "Chemical and Electronic Structure of Metal-Conjugated Polymer Interfaces",
Invited talk, NEOME Discussion Meeting (Prof. E.W. Meijer),
Eindhoven, The Netherlands, Feb. 02-03, 1995.
202. "Optical and Electro-optical Absorption in Conjugated Oligomers and Polymers",
Invited talk, American Physical Society General March Meeting,
San Jose, California, March 20-24, 1995.
203. "Light-Emitting Devices Based on Conjugated Polymers: A Theoretical Characterization",
Invited lecture, 209th General Meeting of the American Chemical Society,
Anaheim, California, April 02-07, 1995.
204. "Electronic and Optical Properties of Conjugated Polymers",
Invited talk, Biosym Discussion Meeting (Dr. J. Harris),
Paris, France, April 28, 1995.
205. "Electronic Structure of Electroluminescence Conjugated Oligomers and Polymers: Optical Response
and Nature of the Interfaces with Metals",
Invited seminar, Department of Chemistry, University of Rochester (Prof. E.M. Conwell),
Rochester, New York, May 05, 1995.
206. "Electronic Structure and Optical Response of Conjugated Oligomers and Polymers",
Invited plenary lecture, International Symposium on "Charge Transport in Electronic Polymers: A Tribute to
Esther Conwell and Her Accomplishments",
Rochester, New York, May 06, 1995.
207. "Electronic Structure and Nonlinear Optical Response of Organic Conjugated Molecules: The Case
of Linear Polymethines",
Invited seminar, Faculty of Chemical Technology, University of Twente (Prof. F. van Veggel),
Enschede, The Netherlands, June 06-07, 1995.
208. "Modélisation des polymères",
Invited lectures (10 h.), Ecole d'été d'Analyse Numérique EDF-CEA-INRIA,
Le Bréaux, France, June 25 - July 7, 1995.

209. "The Chemical and Electronic Structure of Conjugated Polymer - Metal Interfaces in Polymer-Based Light-Emitting Diodes",
Invited talk, SPIE - The International Society for Optical Engineering, Symposium on Nonlinear Optical Properties of Organics (Dr. G. Möhlmann),
San Diego, California, July 11-13, 1995.
210. "Modelling of the Vibronic Coupling in Linear Absorption and Electro-absorption Spectra of Conjugated Oligomers and Polymers. Relation to Exciton Binding Energies",
Invited seminar, Institute for Polymers and Organic Solids, University of California at Santa Barbara (Prof. A.J. Heeger),
Santa Barbara, California, Aug. 18, 1995.
211. "Electronic Structure of Conjugated Polymers and Oligomers",
Invited talk, Second Japan-France Joint Forum on Organic Materials and Optoelectronic Devices (Dr. D. Fichou),
Paris, France, Nov. 23-24, 1995.
212. "Matériaux Nouveaux : Les Défis de la Recherche",
Invited talk, Rotary de Namur-Citadelle (Mr. M. Istasse),
Namur, Belgium, Dec. 08, 1995.
213. "Electronic Properties of Electroluminescent Conjugated Polymers",
Invited talk, Fourth Pacific Polymer Conference Symposium on Polymers for Advanced Optical Applications (Prof. S. Jenekhe),
Kauai, Hawaii, Dec. 12-16, 1995.
214. "Characterization of the Lowest-lying Excited States in Conjugated Oligomers: Application to the Information Technology Area",
Invited talk, International Discussion Meeting on Time-Dependent Quantum Mechanics in Many-Electron Systems (Prof. S. Ramasesha),
Bangalore, India, Jan. 09-12, 1996.
215. "Conjugated Polymers and Oligomers: From Solitons to Excitons",
Invited plenary lecture, International Symposium in Honor of Professor A.J. Heeger 60th Birthday,
Santa Barbara, California, Jan. 20, 1996.
216. "Structure-Properties Relationship in Organic Conjugated Compounds for Nonlinear Optics",
Invited seminar, Seminario del Dept. de Química Física, University of Valencia,
Valencia, Spain, Feb. 07, 1996.
217. "Novel Challenges for Organic Materials: Conjugated Polymers with Remarkable Electronic and Optical Properties",
Invited plenary lecture, 100th Anniversary of the Faculty of Chemistry at the University of Valencia,
Valencia, Spain, Feb. 08, 1996.
218. "Electronic and Optical Properties of Conjugated Polymers",
Invited seminar, Department of Physics, Delft University of Technology,
Delft, The Netherlands, Feb. 28, 1996.
219. "Novel Challenges for Organic Materials: Conjugated Polymers with Remarkable Electronic and Optical Properties",
Invited lecture, Chilean-EU Workshop on Polymers for Information Technology,
Punta de Tralca, Chile, March 13-16, 1996.
220. "Molecular Based Electronics and Photonics for Future Information Technology",
Invited plenary lecture, Inauguration of the Physics Building at Linköping University,
Linköping, Sweden, March 29, 1996.
221. "Novel Materials: The Challenges Ahead",
Chaire Francqui au titre belge (15h.), University of Antwerp,
Antwerp, Belgium, April 1996.

222. "Electronic Structure and Optical Properties of Conducting and Semiconducting Conjugated Oligomers and Polymers",
Invited talk, NATO Workshop on Atomic and Molecular Wires,
Les Houches, France, May 06-10, 1996.
223. "Nonlinear Optical Response of Conjugated Organic Compounds",
Invited lecture, Optics Day, Université de Mons-Hainaut,
Mons, Belgium, May 13, 1996.
224. "Polymères conducteurs",
Invited lectures (10 h.), Institut Supérieur des Matériaux du Mans,
Le Mans, France, May 23 and 31, 1996.
225. "Electronic Excitations in Conjugated Oligomers and Polymers",
Invited lecture, Royal Society Discussion Meeting on "Electronics with Molecular Materials: From Synthesis to Devices",
London, England, June 04-05, 1996.
226. "Electronic Properties of Conjugated Oligomers and Polymers: Application to the Information Technology Arena",
Invited talk, ERPOS - 7, NATO Workshop on "Electronic and Related Properties of Organic Solids",
Polanica Zdrój, Poland, June 18-22, 1996.
227. "Chemical and Electronic Structure of the Interfaces between Metals and Conjugated Polymers or Oligomers",
Invited talk, Gordon Research Conference on "Electronic Processes in Organic Materials",
Proctor Academy, New Hampshire, July 21-26, 1996.
228. "Electronic Structure and Optical Properties of Conducting and Semiconducting Conjugated Oligomers and Polymers",
Invited tutorial, International Conference on the Science and Technology of Synthetic Metals - ICSM'96,
Snowbird, Utah, July 28 - Aug. 02, 1996.
229. "Structure Electronique et Réponse Optique des Polymères et Oligomères Conjugués",
Invited plenary lecture, XXIII Congreso Internacional de Químicos Teóricos de Expresión Latina,
Cáceres, España, Sept. 16-20, 1996.
230. "Electronic Structure and Optical Properties of Conducting and Semiconducting Conjugated Oligomers and Polymers",
Invited talk, 6th European Polymer Federation Symposium on Polymeric Materials,
Creta, Greece, Oct. 06-09, 1996.
231. "Electronic Structure and Optical Properties of Conducting and Semiconducting Conjugated Oligomers and Polymers",
Invited seminar, Laboratory of Organic Chemistry, Eindhoven University of Technology (Prof. E.W. Meijer),
Eindhoven, The Netherlands, Oct. 24, 1996.
232. "Electronic Structure and Optical Properties of Conducting and Semiconducting Conjugated Oligomers and Polymers",
Invited seminar, DSM Research (Dr. L. Kleintjens),
Geleen, The Netherlands, Oct. 25, 1996.
233. "Excited-state Electronic Structure and Nonlinear Optical Response of Long Donor-Acceptor Conjugated Molecules",
Invited talk, ICONO'3 - International Conference on Organics for Nonlinear Optics,
Marco Island, Florida, Dec. 16-20, 1996.
234. "Electronic Structure of Luminescent Conjugated Polymers and Oligomers",
Invited talk, Fourth International Conference on Frontiers of Polymers and Advanced Materials (Prof. P.N. Prasad),
Cairo, Egypt, Jan. 04-09, 1997.

235. "Excited-state Electronic Structure and Nonlinear Optical Response of Long Donor-Acceptor Conjugated Molecules",
Invited seminar, Riken Frontier Research Program (Dr. H. Sasabe),
Wako, Japan, Jan. 18-23, 1997.
236. "Electronic Structure and Optical Response of Conjugated Polymers and Oligomers: An Overview of Calculations and their Impact on Applications",
Invited tutorial lecture, General Meeting of the American Physical Society,
Kansas City, Missouri, March 16-21, 1997.
237. "Excited-State Electronic Structure and Nonlinear Optical Response of Conjugated Organics",
Invited talk, General Meeting of the American Physical Society,
Kansas City, Missouri, March 16-21, 1997.
238. "Electronic Structure of Luminescent Conjugated Polymers: Relevance to Polymer-Based Light-Emitting Diodes",
Invited talk, ANTEC'97, Society of Plastic Engineers,
Toronto, Canada, April 27 - May 02, 1997.
239. "Electronic Structure and Optical Response of Conjugated Polymers and Oligomers: An Overview of Calculations and their Impact on Applications",
Invited tutorial lectures (3h.), SELOA Spring School,
Siena, Italy, May 11-16, 1997.
240. "Electronic Structure and Optical Response of Conducting and Semiconducting Conjugated Polymers and Oligomers",
Invited seminar, Department of Organic Chemistry (Prof. F. Diederich), ETH,
Zürich, Switzerland, May 29-30, 1997.
241. "Structure électronique et réponse optique non linéaire des composés organiques conjugués",
Invited seminar, Département de Chimie (Prof. M. Blanchard-Desce), Ecole Normale Supérieure,
Paris, France, June 03, 1997.
242. "Award Lecture of the Francqui Laureate",
Award Ceremony of the Francqui Prize, Brussels, Belgium, June 19, 1997.
243. "Electronic Structure of Electroluminescent Conjugated Polymers: Influence of Interchain Interactions",
Invited talk, SPIE - The International Society for Optical Engineering, Symposium on Organic Light-Emitting Materials and Devices (Dr. Z. Kafafi),
San Diego, California, July 27 - Aug. 01, 1997.
244. "Electronic Structure of Electroluminescent Conjugated Polymers: Influence of Interchain Interactions",
Invited talk, International Conference on Polymers for Advanced Technologies - PAT'97,
Leipzig, Germany, Aug. 31-Sept. 02, 1997.
245. "Electroluminescent Conjugated Polymers: Analysis of the Absorption and Emission Characteristics of Isolated and Interacting Conjugated Chains",
Invited talk, European Conference on Molecular Electronics - ECME'97 (Prof. R.H. Friend),
Cambridge, England, Sept. 07-10, 1997.
246. "Excited-state Electronic Structure and Nonlinear Optical Response of Long Donor-Acceptor Conjugated Molecules",
Invited talk, All-Russian Conference on Theoretical Chemistry,
Kazan, Russia, Oct. 06-09, 1997.
247. "Nouveaux Matériaux et Néomatériaux : Les Défis de la Recherche",
Invited lecture, Séance Solennelle du 50ème Anniversaire de l'Institut Scientifique du Verre,
Charleroi, Belgium, Oct. 17, 1997.

248. "Electronic Structure of Electroluminescent Conjugated Polymers: Influence of Interchain Interactions",
Invited seminar, Riken Frontier Research Program (Dr. H. Sasabe),
Wako, Japan, Oct. 27-28, 1997.
249. "Electronic Structure and Optical Response of Electroluminescent Conjugated Polymers and Oligomers",
Invited talk, Seventh Belgium-Japan Seminar on Polymers,
Shona, Japan, Nov. 02-05, 1997.
250. "Les Défis de la Recherche à l'Aube du XXIème Siècle",
Invited lecture, Séance de Clôture des Journées de la Recherche, Conseil de la Politique Scientifique,
Rixensart, Belgium, Nov. 25, 1997.
251. "Electronic Structure and Optical Response of Electroluminescent Conjugated Polymers",
Invited talk, Fall Meeting of the Materials Research Society,
Boston, Massachusetts, Dec. 01-05, 1997.
252. "Electronic Structure and Optical Response of Electroluminescent Conjugated Polymers and Oligomers",
Invited seminar, IMEC (Prof. R. Van Overstraeten), KULeuven,
Leuven, Belgium, Dec. 22, 1997.
253. "Rational Design of π -Conjugated Chromophores for Two-Photon Absorption Processes",
Invited talk, Symposium on Materials with Spatio-Temporal Functions,
Sapporo, Japan, Jan. 21-22, 1998.
254. "Electroluminescence and Nonlinear Optical Response of Conjugated Oligomers and Polymers",
255. "Electronic Structure of Highly Conducting and Semiconducting Conjugated Polymers",
256. "Nonlinear Optical Response of Conjugated Oligomers and Polymers",
257. "Electronic Structure of Luminescent Conjugated Oligomers and Polymers",
Invited lectures, National Institute of Materials and Chemical Research (Dr. N. Minami),
Tsubuka, Japan, Jan. 23-31, 1998.
258. "Nouveaux matériaux : Les défis de la recherche",
Invited lecture, Rotary de Namur – Confluent,
Namur, Belgium, Feb. 19, 1998.
259. "Ingénierie de nouveaux matériaux polymères conjugués pour l'électronique et l'optique. Apport de la chimie quantique",
Invited plenary lecture, Journées de Rencontre des Jeunes Chimistes (Société Royale de Chimie),
Spa, Belgium, March 01-02, 1998.
260. "Nouveaux matériaux : Les défis de la recherche à l'aube du XXIème siècle",
Invited lecture, Séance Académique de Présentation du Pôle d'Excellence Materia Nova,
Mons, Belgium, March 03, 1998.
261. "On the Optimization of Organic Architectures for Third-Order Nonlinear Optical Processes",
Invited talk, From Small to Large IV: High Performance Computing of Nonlinear and Photonic Materials
(Prof. H. Ågren),
Linköping, Sweden, March 04-06, 1998.
262. "Nouveaux matériaux : Nouveaux défis",
Invited seminar, Classe des Sciences de l'Académie Royale de Belgique,
Brussels, Belgium, March 07, 1998.
263. "Ingénierie de nouveaux matériaux polymères pour l'électronique et l'optique. Apport de la chimie quantique",
Invited seminar, Department of Chemistry, University of Namur,
Namur, Belgium, March 12, 1998.

264. "Nouveaux matériaux : Les défis de la recherche à l'aube du XXI^{ème} siècle",
Invited seminar, Fondation Francqui,
Bruxelles, Belgium, April 21, 1998.
265. "Theoretical Investigation of the Singlet and Triplet Excitations in Cyano-Substituted Oligo(Phenylene Vinylene)s",
Invited talk, Annual Technical Conference of the Society of Plastic Engineers (ANTEC'98),
Atlanta, Georgia, April 26-30, 1998.
266. "Design of Novel Polymeric Materials with Remarkable Electrical and Optical Properties",
Invited seminar, Klasse der Wetenschappen, Koninglijke Akademie van België,
Brussels, Belgium, May 13, 1998.
267. "Excited-State Electronic Structure of Conjugated Polymers and Oligomers: Characterization of the Luminescence and Two-Photon Absorption Properties",
Invited seminar, Wright-Patterson Air Force Base, Polymer Branch (Dr. D.S. Dudis),
Dayton, Ohio, May 17-19, 1998.
268. "Excited-State Electronic Structure of Conjugated Polymers and Oligomers: Characterization of the Luminescence and Two-Photon Absorption Properties",
Invited seminar, The Beckman Institute, University of Illinois (Prof. S.I. Stupp),
Urbana-Champaign, Illinois, May 20-21, 1998.
269. "Les matériaux du futur : Les défis de la recherche",
Invited lecture, Société des Sciences, des Arts et des Lettres du Hainaut (Prof. P. Dufour),
Mons, Belgium, June 21, 1998.
270. "Electronic Structure and Nonlinear Optical Response of Conjugated Organics",
Invited talk, International Forum on New Frontiers in Functional Organic Nanomaterials,
Schloß Ringberg, Tegernsee, Germany, June 24-27, 1998.
271. "Mechanism for Enhancement of Two-Photon Absorption in Donor-Acceptor Conjugated Chromophores",
Invited talk, International Symposium on Optical Power Limiting (Dr. F. Kajzar),
Cannes, France, June 28 - July 01, 1998.
272. "Theoretical Design of Mechanisms for Enhanced Two-Photon Absorption in Organic Chromophores",
Invited talk, IEEE/LEOS Symposium on Organic Optics and Optoelectronics,
Monterey, California, July 22-24, 1998.
273. "Theoretical Design of Organic Chromophores with Large Two-Photon Absorption Cross-Sections",
Invited seminar, The Beckman Institute, California Institute of Technology (Dr. S.R. Marder),
Pasadena, California, Aug. 03, 1998.
274. "Electronic Structure of Luminescent π -Conjugated Polymers",
Invited seminar, Department of Chemistry, The University of Arizona,
Tucson, Arizona, Aug. 20-21, 1998.
275. "Design, Synthesis, and Applications of Two-Photon Absorbing Organic Molecules",
Invited talk, 216th General Meeting of the American Chemical Society,
Boston, Massachusetts, Aug. 23-27, 1998.
276. "Excited-State Electronic Structure of Conjugated Oligomers and Polymers: A Quantum-Chemical Approach to Optical Phenomena",
Invited talk, Europhysics Conference on Electrooptical Properties of Polymers and Related Phenomena (Dr. A. Bolognesi),
Varenna, Italy, Sept. 13-18, 1998.
277. "Excited-State Electronic Structure and Nonlinear Optical Response of π -Conjugated Chromophores: Theoretical Design of Two-Photon Absorbing Chromophores",
Invited talk, International Conference on Organic Nonlinear Optics (ICONO'4),
Chitose, Japan, Oct. 12-15, 1998.

278. "Excited-State Electronic Structure of Conjugated Polymers and Oligomers: Characterization of the Luminescence and Two-Photon Absorption Properties",
Invited talk, General Meeting of the American Vacuum Society,
Baltimore, Maryland, Nov. 02-05, 1998.
279. "Les défis de la recherche à l'aube du XXI^{ème} siècle : Vers les matériaux intelligents",
Invited lecture, Connaissance et Vie d'Aujourd'hui,
Ottignies, Belgium, Nov. 16, 1998.
280. "Electronic Polymers: Promises and Prospects".
Invited keynote lecture, Symposium on Plastic Electronics, Philips Research and Eindhoven University of Technology,
Eindhoven, The Netherlands, Nov. 19, 1998.
281. "Nanomaterials: Electrically and Optically Active Polymers from Nanowires to Flexible Displays",
Invited keynote lecture, Symposium on Nanomaterials and Nanocomposites, Belgian Polymer Group,
Louvain-la-Neuve, Belgium, Nov. 26-27, 1998.
282. "Design of Organic Chromophores with Large Two-Photon Absorption Cross-Sections",
Invited seminar, Department of Physics, ETH,
Zürich, Switzerland, Dec. 21-22, 1998.
283. "Excited-State Electronic Structure and Two-Photon Absorption of Organic Chromophores",
Invited talk, SPIE - The International Society for Optical Engineering, Symposium on Organic Photonic Materials and Devices (Dr. B. Kippelen),
San Jose, California, Jan. 25-26, 1999.
284. "Les Matériaux Organiques Nouveaux",
Chaire Francqui au titre belge (15h.), Université Catholique de Louvain,
Louvain-la-Neuve, Feb.-March, 1999.
285. "Structure électronique des matériaux polymères conjugués luminescents",
Invited seminar, Département des Matériaux, Ecole Polytechnique Fédérale,
Lausanne, Switzerland, March 29-30, 1999.
286. "Electronic Structure of Luminescent π -Conjugated Polymers",
Invited seminar, Department of Chemistry, ETH,
Zürich, Switzerland, April 20-21, 1999.
287. "Theoretical Design of Organic Molecules with Large Two-Photon Absorption Cross Sections",
Invited talk, Materials Research Society Fall Meeting, Symposium on "Materials for Optical Limiting III",
Boston, Massachusetts, Nov. 29 - Dec. 03, 1999.
288. "Interchain Interactions in π -Conjugated Oligomers: Impact on Luminescence and Transport Properties",
Invited talk, Fourth International Topical Conference on "Optical Probes of Conjugated Polymers and Photonic Crystals",
Salt Lake City, Utah, Feb. 15-19, 2000.
289. "Dimensionality Aspects for Two-Photon Absorption in π -Conjugated Chromophores",
Invited talk, International Conference on Organic Nonlinear Optics (ICONO-5),
Davos, Switzerland, March 22, 2000.
290. "Dimensionality Aspects for Two-Photon Absorption in Conjugated Chromophores",
Invited seminar, 3M Corporate Research Center,
Minneapolis, Minnesota, April 13-14, 2000.
291. "Computational Chemistry: A New Tool in the Design of Electronic and Optical Organic Materials",
Invited lecture, Promotion Ceremony for the Honorary Doctors, Linköping University,
Linköping, Sweden, May 17-19, 2000.

292. "Interchain Interactions in π -Conjugated Oligomers and Polymers: A Primer", *Invited plenary lecture*, International Conference on the Science and Technology of Synthetic Metals (ICSM-2000), Bad Gastein, Austria, July 15-19, 2000.
293. "Two-Photon Absorption in Conjugated Chromophores", *Invited talk*, Gordon Research Conference on Electronic Processes in Organic Materials, Newport, Rhode Island, July 30 - Aug. 4, 2000.
294. "Interchain Interactions in π -Conjugated Oligomers and Polymers: A Primer", *Invited talk*, 3M Corporate Research Center, Minneapolis, Minnesota, Aug. 16, 2000.
295. "Electronic Structure and Optical Response of π -Conjugated Polymers: Towards Plastic Electronics", *Invited seminar*, Department of Chemistry, University of Texas at Arlington, Arlington, Texas, Oct. 26-27, 2000.
296. "Electronic Structure of Semiconducting Oligomers and Polymers: Ground-State and Excited-State Properties", *Invited tutorial*, March Meeting of the American Physical Society, Seattle, Washington, March 11, 2001.
297. " π -Conjugated Polymers and Oligomers: Impact of Supramolecular Architectures on Luminescence and Photovoltaic Properties", *Invited talk*, 14th Biennial Marvel Symposium on Supramolecular Materials, The University of Arizona, Tucson, Arizona, March 12-13, 2001.
298. "Interfacial Interactions in Organic π -Conjugated Materials: Impact on Electronic Structure, Optical Response, and Charge Transport", *Invited talk*, Spring Meeting of the Materials Research Society, San Francisco, California, April 16-20, 2001.
299. "Electronic Structure of π -Conjugated Oligomers and Polymers: A Quantum-Chemical Approach to Transport Properties", *Invited talk*, Symposium to Celebrate the 2000 Nobel Prize in Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania, May 04-05, 2001.
300. "Characterization of the Charge Transfer and Transport Processes in Semiconducting Polymers and Molecular Crystals", *Invited talk*, Symposium on Excited State Processes in Electronic and Bio-Materials, Los Alamos, New Mexico, Aug. 13-16, 2001.
301. "Electronic Structure of Conjugated Oligomers and Polymers: From Solitons to Excitons", *Invited talk*, Symposium for the Nobel Laureates in Polymer Chemistry, American Chemical Society 222nd National Meeting, Chicago, Illinois, Aug. 26-30, 2001.
302. "Characterization of the Charge Transfer and Transport Processes in Semiconducting Polymers and Molecular Crystals", *Invited seminar*, Laboratory of Organic Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands, Sept. 10, 2001.
303. "Characterization of the Charge Transfer and Transport Processes in Semiconducting Polymers and Molecular Crystals", *Invited keynote lecture*, European Conference on Molecular Electronics, Rolduc, The Netherlands, Sept. 12-16, 2001.

304. "Characterization of the Charge Transfer and Transport Processes in Semiconducting Polymers and Molecular Crystals",
Invited seminar, Complex Systems Seminar, Department of Physics, The University of Arizona, Tucson, Arizona, Nov. 01, 2001.
305. "Novel Organic Materials for Electronics and Optics: The Challenges Ahead",
Invited seminar, The Yale Club, Tucson, Arizona, Dec. 07, 2001.
306. "Characterization of Charge Transport in Organic Semiconducting Oligomers, Polymers, and Molecular Crystals",
Invited talk, International Conference on Organic Nonlinear Optics – ICONO-6, Tucson, Arizona, Dec. 16-20, 2001.
307. "Theoretical Characterization of the Charge Transfer and Transport Processes in Organic Semiconductors: The Case of Oligomer Single Crystals and Discotic Liquid Crystals",
Invited colloquium, Northwestern University, Evanston, Illinois, Feb. 11, 2002.
308. "Electronic Structure of π -Conjugated Oligomers and Polymers: From Light-Emitting Diodes to Transistors",
Invited seminar, Princeton University, Princeton, New Jersey, Feb. 13, 2002.
309. "Energy Transfer and Electron Transfer Processes in π -Conjugated Oligomers and Polymers",
Invited plenary talk, Fifth International Symposium on Functional π -Electron Systems, Ulm, Germany, May 30 - June 04, 2002.
310. "Characterization of the Charge Transport and Energy Transfer Processes in Organic Semiconductors",
Invited talk, IBM Conference on Organic Electronics and Photonics, White Plains, New York, June 19-20, 2002.
311. "Energy Transfer and Electron Transfer Processes in π -Conjugated Oligomers and Polymers",
Invited talk, International Conference on Science and Technology of Synthetic Metals, Shanghai, PR China, June 29 - July 05, 2002.
312. "Characterization of the Energy and Charge Transfer Processes in π -Conjugated Semiconducting Oligomers and Polymers",
Invited talk, 224th American Chemical Society Meeting, Boston, Massachusetts, Aug. 18-22, 2002.
313. "Characterization of the Charge Transport and Energy Transfer Processes in Organic Semiconductors",
Invited talk, European Physical Society 12th Annual Conference, "Trends in Physics", Budapest, Hungary, Aug. 26-30, 2002.
314. "Les Matériaux organiques semi-conducteurs, un élément clef de l'électronique et de l'optique du futur",
Invited talk, Société Royale de Chimie, "La chimie : une science d'actualité", Bruxelles, Belgium, Sept. 26, 2002.
315. "Plastics are Fantastic: The New Generation of Semiconductors and Metals",
Invited seminar, Department of Chemistry, Idaho State University, Pocatello, Idaho, Oct. 11, 2002.
316. "Two-Photon Absorption in Organic Chromophores: Structure-Properties Relationships",
Invited seminar, CREOL, University of Central Florida, Orlando, Florida, Oct. 15, 2002.

317. "Charge-Transport and Energy-Transfer Processes in Organic Semiconductors", *Invited seminar*, Department of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, Georgia, Oct. 29, 2002.
318. "Organic Semiconductors: A Theoretical Characterization of the Basic Parameters Governing Charge Transport", *Invited talk*, The Moscowitz Memorial Lectureship in Chemistry, Department of Chemistry, University of Minnesota, Minneapolis, Minnesota, Nov. 01, 2002.
319. "Les composés organiques semi-conducteurs : matériaux du futur", *Invited lecture*, College of Sciences Lecture, Université Libre de Bruxelles, Bruxelles, Belgium, Nov. 29, 2002.
320. "Characterization of the Interface Dipole at Organic-Metal Interfaces", *Invited talk*, Fall Meeting of the Materials Research Society, Symposium B, Boston, Massachusetts, Dec. 01-05, 2002.
321. "Characterization of the Energy and Charge-Transfer Processes in π -Conjugated Semiconducting Oligomers and Polymers", *Invited talk*, Fall Meeting of the Materials Research Society, Symposium V, Boston, Massachusetts, Dec. 01-05, 2002.
322. "Characterization of the Interface Dipole at Organic-Metal Interfaces", *Invited lecture*, "New Mountains to Climb: New Phenomena, Materials and Technologies for the 21st Century: Festschriften Honoring Alan G. MacDiarmid's Achievements for his 75th Year", University of Texas at Dallas, Dallas, Texas, Dec. 05-07, 2002.
323. "Theoretical Characterization of Charge-Transport and Energy-Transfer Processes in Organic Semiconductors", *Invited seminar*, Los Alamos National Laboratory, Los Alamos, New Mexico, Jan. 30, 2003.
324. "Charge-Transport and Energy-Transfer Processes in Semiconducting π -Conjugated Oligomers and Polymers", *Invited talk*, "Fifth International Topical Conference on Optical Probes of Conjugated Polymers and Organic & Inorganic Nanostructures", Venice, Italy, Feb. 09-14, 2003.
325. "Characterization of Charge-Transport and Energy-Transfer Processes in Organic Semiconductors", *Invited seminar*, Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, Illinois, Mar. 12, 2003.
326. "Charge-Transport and Energy-Transfer Processes in Organic Semiconductors", *Invited talk*, Materials Research Science and Engineering Center Symposium, Northwestern University, Evanston, Illinois, Apr. 10, 2003.
327. "Charge-Transport and Energy-Transfer Processes in Semiconducting π -Conjugated Oligomers and Polymers", *Invited talk*, "Organic and Polymeric Materials and Devices", Spring Meeting of the Materials Research Society, Symposium L, San Francisco, California, April 21-25, 2003.
328. "Electronic Structure of π -Conjugated Organic Materials", *Invited talk*, Petroleum Research Fund Workshop for the Center of Materials and Devices for Information Technology Research, Seattle, Washington, June 18-21, 2003.

329. “Charge Transport and Charge Recombination Processes in Organic Semiconductors”, *Invited keynote lecture*, European Conference on Molecular Electronics – ECME-7, Avignon, France, Sept. 10-14, 2003.
330. “Two-photon Absorption in π -Conjugated Molecules: Influence of Ground-state Polarization and Nature of the Conjugated Backbone”, *Invited talk*, Centre Européen de Calcul Atomique et Moléculaire (CECAM) Workshop on “Modelling Electronic Processes in Molecular Scale Devices”, Lyon, France, Sept. 15-17, 2003.
331. “Charge Transport and Energy Transfer in Organic Semiconducting Polymers and Oligomers”, *Invited lecture*, 11th Conference on Unconventional Photo-active Systems (UPS), Leuven, Belgium, Sept. 14-17, 2003.
332. “Two-photon Absorption in π -Conjugated Molecules: Influence of Ground-state Polarization and Nature of the Conjugated Backbone”, *Invited lecture*, International Symposium on Organic Power Limiting (ISOPL3), Sedona, Arizona, Sept. 30 - Oct. 02, 2003.
333. “Charge Transport and Charge Recombination Processes in Organic Semiconductors”, *Invited lecture*, 2003 Frontiers in Optics Symposium of the Optical Society of America, Tucson, Arizona, Oct. 07-09, 2003.
334. “Characterization of Organic–Metal and Organic–Organic Interfaces”, *Invited lecture*, 50th International Symposium of the American Vacuum Society, Baltimore, Maryland, Nov. 03-06, 2003.
335. “Charge Transport and Charge Recombination Processes in Organic Semiconductors”, *Invited talk*, Optics in the Southeast 2003 Symposium of the Optical Society of America, Orlando, Florida, Nov. 13, 2003.
336. “Charge Transport and Charge Recombination Processes in Organic Semiconductors”, *Invited talk*, 55th Southeast Regional Meeting of the American Chemical Society, Atlanta, Georgia, Nov. 16-19, 2003.
337. “Transatlantic Mobility of Researchers: From Brain Drain to Mutual Benefit”, *Invited talk*, Symposium on Transatlantic Mobility of Researchers: New Opportunity for Career Development and EU/US Cooperation in Science and Technology, Washington, DC, Dec. 09, 2003.
338. “Charge Transport and Charge Recombination Processes in Organic Semiconducting Polymers and Oligomers”, *Invited seminar*, Department of Chemistry, University of Alabama at Birmingham, Birmingham, Alabama, Mar. 04, 2004.
339. “Chain-Length Dependence of Singlet and Triplet Formation Rates in Organic Light-Emitting Diodes”, *Invited lecture*, 227th American Chemical Society Spring National Meeting, Anaheim, California, Mar. 28 - Apr. 01, 2004.
340. “Charge Transport, Charge Separation, and Charge Recombination Processes in Organic Semiconductors”, *Invited talk*, Weissberger-Williams Lecture Series, Kodak Research Laboratories, Rochester, New York, April 30, 2004.
341. “Organic Semiconductors: New Frontiers in Electronics and Photonics”, *Invited talk*, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China, May 19, 2004.
342. “Charge Transport and Charge Recombination Processes in Organic Semiconductors”, *Invited plenary lecture*, Fragrant Hills Symposium on “Molecular and Plastic Electronics and Photonics”, Beijing, China, May 20-22, 2004.

343. "Organic Semiconductors: New Frontiers in Electronics and Photonics",
Invited talk, Center for Workshops in Chemical Sciences,
Atlanta, Georgia, June 01, 2004.
344. "Charge Transport, Charge Separation, and Charge Recombination Processes in Organic Semiconductors",
Invited plenary lecture, Sixth International Symposium on Functional π -Electron Systems,
Ithaca, New York, June 14-18, 2004.
345. "Charge Transport and Charge Recombination Processes in Organic Semiconductors",
Invited seminar, Center for Materials Research, Norfolk State University,
Norfolk, Virginia, Sept. 03, 2004.
346. "Charge Transport and Charge Recombination Processes in Organic Semiconductors",
Invited seminar, Department of Chemistry, University of Florida,
Gainesville, Florida, Nov. 18, 2004.
347. "Charge Transport Processes in Organic Semiconductors",
Invited seminar, Konarka Technologies,
Lowell, Massachusetts, Feb. 04, 2005.
348. "Semiconducteurs organiques : description des processus de transport de charge",
Invited seminar, Département de Chimie, Université Laval,
Québec, Canada, Mar. 30, 2005.
349. "Charge-Transfer and Energy-Transfer Processes in Organic Semiconductors",
Invited seminar, "Soft Matter Series", Department of Physics and Astronomy, Arizona State University,
Tempe, Arizona, Apr. 06, 2005.
350. "Les phénomènes de transport de charge et d'énergie dans les matériaux organiques semi-conducteurs",
Invited seminar, Regroupement Québécois sur les Matériaux de Pointe, Université de Montréal,
Montréal, Canada, May 04, 2005.
351. "Electron Transfer and Transport Processes in π -Conjugated Materials",
Invited lecture, Stanford Photonics Research Center: Organic Photonics Workshop,
Stanford, California, May 14, 2005.
352. "Charge Transport in Organic Semiconductors: A Molecular Picture",
Invited lecture, Unconventional Magnetic and Electronic Materials Symposium in Honor of Art Epstein's
60th Birthday, Ohio State University,
Columbus, Ohio, June 03-05, 2005.
353. "Charge-Transport Processes in π -Conjugated Materials",
Invited lecture, American Chemical Society Division of Polymer Chemistry: Photonics 2005 Symposium
on Nanophotonics, Biophotonics, and Optoelectronic Polymer Systems,
Orlando, Florida, June 06-07, 2005.
354. "Charge Transport in Organic Semiconductors",
Invited lecture, Theory for Experimentalists: A Symposium Celebrating Robert J. Silbey's 65th Birthday,
Cambridge, Massachusetts, June 24-25, 2005.
355. "Charge Generation and Recombination in Organic Solar Cells: The Role of Molecular Packing and Dimensionality",
Invited lecture, European Conference on Molecular Electronics ECME-8,
Bologna, Italy, June 29 - July 02, 2005.
356. "Transport Properties of Organic Semiconductors: The Case of Rubrene and Pentacene",
European Conference on Molecular Electronics ECME-8,
Bologna, Italy, June 29 - July 02, 2005.

357. “Charge-Transport Processes in π -Conjugated Materials”,
Invited lecture, Joint ACS-IEEE-MRS Organic Microelectronics Workshop,
Newport, Rhode Island, July 10-13, 2005.
358. “Electronic and Optical Properties of Organic Semiconductors”,
Invited lecture, The 54th Fujihara Seminar - Organic Semiconductors and Conductors: Half Century and
Future Prospects,
Tomakomai, Japan, Aug. 31 - Sept. 04, 2005.
359. “Electrical and Optical Properties of π -Conjugated Materials: A DFT Perspective”,
Invited lecture, The Fifth International Conference on Density Functional Theory DFT-05,
Geneva, Switzerland, Sept. 11-15, 2005.
360. “Charge and Energy Transport in Organic Semiconductors”,
Invited seminar, The University of Texas at Austin: Physical Chemistry Seminar,
Austin, Texas, Nov. 11, 2005.
361. “Charge Transport Processes in π -Conjugated Materials”,
Invited lecture, Fall Meeting of the Materials Research Society, Symposium D on Organic and
Nanostructured Composite Photovoltaics and Solid-State Lighting,
Boston, Massachusetts, Nov. 28 - Dec. 02, 2005.
362. “Electronic Structure and Transport Properties of Organic Semiconductors”,
Invited lecture, Symposium for the Inauguration of the Institute for Molecular Sciences at the University
of Valencia,
Valencia, Spain, Dec. 12, 2005.
363. “Organic Semiconductors: New Frontiers in Electronics”,
Invited seminar, Department of Chemistry, University of North Carolina at Pembroke,
Pembroke, North Carolina, Jan. 19, 2006.
364. “Organic Semiconductors: New Frontiers in Electronics”,
Invited seminar, Department of Chemistry, University of North Carolina at Wilmington,
Wilmington, North Carolina, Jan. 20, 2006.
365. “Energy Transfer and Interfacial Charge Injection in π -Conjugated Materials”,
Invited lecture, Spring Meeting of the Materials Research Society, Symposium M on “Conjugated
Organic Materials – Synthesis, Structure, Device, and Applications”,
San Francisco, California, April 18-21, 2006.
366. “Metal-Organic Interfaces in Plastic Electronics Devices: First-Principles Determination of Level
Alignments and Workfunction Modifications”,
Invited lecture, Atomistix Symposium on Atomic Scale Simulation, NSTI Nanotech 2006,
Boston, Massachusetts, May 08, 2006.
367. “Charge and Energy Transport in Organic Semiconductors”,
Invited lecture, Meeting of the Southeast Theoretical Chemists’ Association (SETCA) 2006 – Emory
University,
Atlanta, Georgia, May 19, 2006.
368. “Organic Semiconductors: A Molecular Picture of the Charge-Transport and Energy-Transport
Processes Metal-Organic Interface Engineering in Plastic Electronic Devices”,
Invited lecture, Discussion Meeting of the Royal Society on Supramolecular Nanotechnology for Organic
Electronics,
London, England, June 05-06, 2006.

369. "Electronic Structure of Conjugated Polymers",
370. "Survey of the Main Quantum-Chemical Techniques",
371. "Light Emitting Plastics",
Invited lectures, Center for Workshop in the Chemical Sciences: Workshop on "Advanced Functional Organic Materials throughout the Undergraduate Curriculums",
Atlanta, Georgia, July 16-21, 2006.
372. "Charge-separation and Exciton-Migration Processes in Organic Semiconductors: A Molecular Viewpoint",
Invited lecture, 232nd American Chemical Society Fall National Meeting, Symposium on "Science and Technology of Next Generation Photovoltaics",
San Francisco, Sept. 10-14, 2006.
373. "The Nature of Excited States in π -Conjugated Materials: Impact on the Electronic and Photonic Properties",
Invited plenary lecture, Ninth International Conference on Organic Nonlinear Optics (ICONO'9- ICOPE),
Bruges, Belgium, Sept. 24-28, 2006.
374. "Electron Transfer and Transport Processes in π -Conjugated Materials",
Invited lecture, 50th Anniversary Celebration of the Institute of Chemistry of the Chinese Academy of Sciences,
Beijing, PR China, Oct. 16, 2006.
375. "Charge Transport Parameters in Organic Molecular Systems: A Quantum Chemical Insight",
Invited seminar, Key Laboratory for Organic Solids, Institute of Chemistry of the Chinese Academy of Sciences,
Beijing, PR China, Oct. 16, 2006.
376. "Electron Transfer and Transport Processes in π -Conjugated Materials",
Invited seminar, Department of Chemistry, Peking University,
Beijing, PR China, Oct. 19, 2006.
377. "Charge-separation and Exciton-Migration Processes in Organic Semiconductors for Solar-Cell Applications: A Molecular Viewpoint",
Invited lecture, 210th Meeting of The Electrochemical Society, Symposium on "Organic Photovoltaics",
Cancun, Mexico, Oct. 29 - Nov. 03, 2006.
378. "Charge and Energy Transport in Organic Semiconductors",
Invited lecture, 15th Conference on Current Trends in Computational Chemistry, Jackson State University,
Jackson, Mississippi, Nov. 03-05, 2006.
379. "Organic Semiconductors: Description of Charge and Energy Transport Processes",
Invited lecture, Symposium on "Theory & Simulation of Functional Materials", Theoretical Chemistry Day of the Royal Society of Chemistry,
London, England, Dec. 06, 2006.
380. "The Path Toward Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge Transport Parameters",
Invited talk, DARPA Workshop on "3D Design of Organic Semiconductors",
New Orleans, Louisiana, Jan. 23-24, 2007.
381. "Organic Semiconductors: A Molecular Picture of the Charge-Transport and Energy-Transport Processes",
Invited talk, Symposium on "Organic Heterojunction Photovoltaics", American Physical Society,
Denver, Colorado, March 05-09, 2007.
382. "Charge Transport in Conjugated Polymers: Thirty Years of Progress in Theoretical Description – *Where have we been – where are we – where are we going?*",
Invited talk, 233rd American Chemical Society National Meeting, Symposium on Thirty Years of Conducting Polymers & Alan MacDiarmid Memorial Symposium,
Chicago, Illinois, March 27-29, 2007.

383. “Charge-Separation, Energy Transfer, and Charge Transport Processes in Organic Semiconductors for Solar-Cell Applications”,
Invited talk, Materials Research Society Spring Meeting,
San Francisco, California, April 10-13, 2007.
384. “Organic Semiconductors for Solar Cells: A Molecular Picture of the Charge-Transfer and Energy-Transfer Processes”,
Invited talk, International Conference on Optical Probes of Conjugated Polymers,
Turku, Finland, June 11-15, 2007.
385. “Principes de base des diodes électroluminescentes polymères”,
Invited seminar, Solvay Central Corporate Research Center,
Brussels, Belgium, June 15, 2007.
386. “Metal-Organic Interfaces: Understanding the Metal Workfunction Modulation upon Deposition of Self-Assembled Monolayers”,
Invited talk, Solvay Symposium on Charge Transport in Organic Semiconductors,
Brussels, Belgium, June 15, 2007.
387. “Internationalization of Research: Challenges and Realities”,
Invited talk, European Researchers Get-Together at Georgia Tech organized by the European Commission Science and Technology Delegation in DC,
Atlanta, Georgia, June 18, 2007.
388. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited talk, 13th International Conference on Unconventional Photoactive Systems,
Evanston, Illinois, Aug. 06-09, 2007.
389. “Metal-Organic Interfaces: Modulation of the Metal Workfunction upon Deposition of Self-Assembled Monolayers”,
Invited talk, 234th American Chemical Society National Meeting, Symposium on Emergence of Function in Molecular Assemblies,
Boston, Massachusetts, Aug. 20-23, 2007.
390. “From Principles to Molecules: Transport Properties of Organic Semiconductors”,
Invited talk, DPG Physics School 2007 on Charge Transport in Organic Materials: From Single Molecules to Devices,
Bad Honnef, Germany, Sept. 23-28, 2007.
391. “Electronic Structure of Metal/Organic Interfaces: Self-Assembled Monolayers on Noble Metals and Conducting Oxides”,
Invited talk, The 4th Workshop on Advanced Spectroscopy of Organic Materials for Electronic Applications,
Chiba, Japan, Oct. 08-12, 2007.
392. “Charge Transport and Energy Transfer Processes in Organic Semiconductors for Electronics Applications”,
Invited seminar, Department of Chemistry, Southern Illinois University,
Carbondale, Illinois, Nov. 9, 2007.
393. “Electronic Structure of Metal/Organic Interfaces: Self-Assembled Monolayers on Noble Metals and Conducting Oxides”,
Invited talk, Materials Research Society Fall Meeting,
Boston, Massachusetts, Nov. 26-30, 2007.
394. “Charge Transport in Organic Semiconductors for Electronics Applications”,
Invited seminar, Department of Chemistry, Indiana University,
Bloomington, Indiana, Jan. 23, 2007.

395. "Electronic Structure of Metal/Organic Interfaces: Self-Assembled Monolayers on Noble Metals and Conducting Oxides",
Invited seminar, Physical Chemistry Division, Massachusetts Institute of Technology, Boston, Massachusetts, Feb. 12, 2008.
396. "Les matériaux organiques semi-conducteurs: des transistors aux cellules solaires",
Invited lecture, Royal Academy of Belgium, Brussels, Belgium, March 01, 2008.
397. "Electronic Structure of Metal/Organic Interfaces: Self-Assembled Monolayers on Noble Metals and Conducting Oxides",
Invited seminar, Humboldt University, Berlin, Germany, March 03, 2008.
398. "Interfacial Electronic Structure at Metal/Organic and Organic/Organic Heterojunctions",
Invited talk, Materials Research Society Spring Meeting, San Francisco, California, March 24-28, 2008.
399. "Building Lasting Cooperation Through Mobility of Scientists",
Invited talk, 235th American Chemical Society National Meeting, Joint European Commission-ACS Symposium on Transatlantic Research, New Orleans, Louisiana, April 06-10, 2008.
400. "Electronic Structure of Metal/Organic and Organic/Organic Interfaces",
Invited talk, 235th American Chemical Society National Meeting, New Orleans, Louisiana, April 06-10, 2008.
401. "Organic Photovoltaics: Understanding the Electronic Processes from Computational Modeling",
Invited talk, Organic Photovoltaics 2008, InterTech-PIRA, Philadelphia, Pennsylvania, April 21-23, 2008.
402. "Organic Solar Cells: Understanding the Electronic Processes from Computational Modeling",
Invited talk, Solvay Materials Science Community Meeting, Alpharetta, Georgia, May 28, 2008.
403. "Theoretical Description of Self-Assembled Monolayers on Noble Metals and Conducting Oxides: Relevance to Organic Electronic Devices",
Invited lecture, ESPMI-IV, Princeton University, Princeton, New Jersey, June 10-12, 2008.
404. "The Path to Predicting Charge Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters",
Invited plenary lecture, International Conference on the Science and Technology of Synthetic Metals, Pernambuco, Brazil, July 06-11, 2008.
405. "The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters",
Invited talk, 236th American Chemical Society National Meeting, "Tribute to Alan MacDiarmid" Symposium, Philadelphia, Pennsylvania, August 17-21, 2008.
406. "Introduction to the Interfacial Electronic Structure of Metal/Organic Heterojunctions",
Invited talk, 236th American Chemical Society National Meeting, Symposium on Organic Thin Films, Philadelphia, Pennsylvania, Aug. 17-21, 2008.
407. "The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters",
Invited seminar, Discovery Chemistry Seminar Series, DuPont, Wilmington, Delaware, Sept. 17, 2008.

408. “Theoretical Description of Self-Assembled Monolayers on Noble Metals and Conducting Oxides: Relevance to Organic Electronic Devices”,
Invited seminar, The University of Arizona, Special Chemistry Seminar,
Tucson, Arizona, Oct. 17, 2008.
409. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited seminar, University of Minnesota,
Minneapolis, Minnesota, Oct. 23, 2008.
410. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited seminar, University of Michigan, Department of Chemistry,
Ann Harbor, Michigan, Oct. 31, 2008.
411. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited seminar, Rutgers University, Department of Physics,
New Brunswick, New Jersey, Nov. 11, 2008.
412. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited talk, Workshop on “Modeling Electro-active Conjugated Materials at the Multiscale”,
Bologna, Italy, Jan. 14-15, 2009.
413. “The Role of Vibrations in the Charge-Transport Mechanism of Organic Semiconductors”,
Invited talk, Symposium on “Advanced Materials” dedicated to Professor Giuseppe Zerbi on the occasion of his 75th Birthday,
Milan, Italy, Feb. 10, 2009.
414. “Midi de l’info : L’électronique organique”,
Invited talk, Solvay Company, Corporate Research Center,
Brussels, Belgium, March 16, 2009.
415. “Organic Semiconductors: A New Generation of Materials for Opto-electronic Devices”,
Invited talk, Free University of Brussels, Colloquium of the Solvay Institute,
Brussels, Belgium, March 17, 2009.
416. “ π -Conjugated Organic Materials: A New Generation of Semiconductors”,
Invited talk, Réunion des Jeunes Chimistes de la Société Royale de Chimie,
Wépion, Belgium, March 19, 2009.
417. “Les nouvelles technologies: de la recherche à l’innovation”,
Invited talk, Cycle de Conférences “Sciences: Clés du Futur”, University of Mons,
Mons, Belgium, March 19, 2009.
418. “Interfacial Electronic Properties in Functional Polymers for Energy Conversion”,
Invited talk, 237th American Chemical Society National Meeting, Symposium on “Functional Polymer Nanocomposites for Energy Storage and Conversion”,
Salt Lake City, Utah, March 22-24, 2009.
419. “Theory and Modeling in Molecular and Polymer Solar Cells”,
Invited talk, Center for Advanced Molecular Photovoltaics (CAMP) Annual Meeting,
San Francisco, California, April 09-10, 2009.
420. “Electronic Processes in Organic Electronic and Photonic Devices: A Theoretical Description of Charge Carrier Mobility”,
Invited talk, Materials Research Society Spring Meeting, Symposium on “Concepts in Molecular and Organic Electronics and Photonics”,
San Francisco, California, April 13-17, 2009.

421. “Organic Semiconductors: Computational Chemistry Aided Understanding of Basic Concepts and Design of New Materials – The Case of Organic Solar Cells”,
Invited talk, Materials Research Society Spring Meeting, Symposium on “Computational Nanoscience: How to Exploit Synergy between Predictive Simulations and Experiment”,
San Francisco, California, April 13-17, 2009.
422. “Matériaux organiques nouveaux pour une énergie propre et renouvelable”,
Invited talk, 35th Anniversary Celebration of the Chemistry Department, University of Namur,
Namur, Belgium, April 25, 2009.
423. “Excimer Formation in Platinum-Based Phosphors: Roles of Pt-Pt Bimetallic Interactions and Inter-Ligand π - π Interactions”,
Invited talk, The 3rd Solvay-COPE Symposium on Organic Electronics,
Beijing, PR China, June 05-06, 2009.
424. “Interfacial Electronic Properties in Functional Polymers for Energy Conversion: A Theoretical Description”,
Invited plenary lecture, The 8th International Conference on Optical Probes of Conjugated Polymers and Organic Nanostructures,
Beijing, PR China, June 06-09, 2009.
425. “Simulation of Organic-Inorganic Interfaces: The Case of Self-Assembled Monolayers on Metal Oxides in Organic Opto-electronic Devices”,
Invited talk, 238th American Chemical Society National Fall Meeting, Symposium on “Simulation of (Bio)Organic-Inorganic Interfaces and Nanostructures Using MD, MC, and Multiscale Approaches”,
Washington, D.C., Aug. 16-19, 2009.
426. “Organic-Inorganic Interfaces: Self-Assembled Monolayers on Metal Oxides”,
Invited talk, Workshop on “Modelling Electroactive Conjugated Materials at the Multiscale (MODECOM)”,
Copenhagen, Denmark, Sept. 08, 2009.
427. “The Charge Dissociation Process in Organic Solar Cells: A Theoretical Insight”,
Invited plenary lecture, European Conference on Molecular Electronics (ECME-2009),
Copenhagen, Denmark, Sept. 09-12, 2009.
428. “Organic Semiconductors: A New Generation of Materials for Full-Color Displays and Solar Cells”,
Invited seminar, North Georgia College & State University,
Dahlonega, Georgia, Oct. 16, 2009.
429. “Organic-Inorganic Interfaces in Organic Electronics Devices: Self-Assembled Monolayers on Noble Metals and Conducting Metal Oxides”,
Invited seminar, New York University, Department of Chemistry,
New York, New York, Oct. 22, 2009.
430. “Electronic and Optical Processes in Organic Solar Cells”,
Invited seminar, Polytechnic Institute of New York University,
New York, New York, Oct. 23, 2009.
431. “La Recherche et l’innovation: Perspectives américaines et européennes”,
Invited seminar, University of Mons, Department of Chemistry,
Mons, Belgium, Nov. 04, 2009.
432. “Electronic Processes at Heterojunctions in Organic Solar Cells”,
Invited talk, Materials Research Society Fall Meeting,
Boston, Massachusetts, Nov. 30 - Dec. 04, 2009.

433. “Theoretical Description of Organic-Inorganic Interfaces: The Case of Self-Assembled Monolayers on Metal Oxides in Organic Opto-Electronic Devices”,
Invited seminar, Loyola University, Department of Chemistry,
Chicago, Illinois, Jan. 14, 2010.
434. “Simulation of Organic-Organic Interfaces: Electronic and Optical Processes in Organic Solar Cells”,
Invited talk, International Conference on Electronic Structure and Processes at Molecular-Based Interfaces (ESPMI-V),
Chiba, Japan, Jan. 25-28, 2010.
435. “Theoretical Characterization of the Transport and Interface Electronic Processes in Organic Solar Cells”,
Invited talk, Total-Konarka Symposium on Organic Photovoltaics,
Lowell, Massachusetts, Feb. 10, 2010.
436. “The Path to Predicting Charge-Carrier Mobilities in Organic Semiconductors: Description of the Charge-Transport Parameters”,
Invited seminar, IGERT Program in Nanotechnology Innovation, University of Massachusetts Amherst,
Amherst, Massachusetts, Feb. 11, 2010.
437. “A Computational Chemistry Description of the Optical and Electronic Processes in Organic Solar Cells”,
Invited talk, 9th North American Organic Electronics Association Working Group Meeting,
Atlanta, Georgia, March 04-05, 2010.
438. “Electronic and Optical Processes in Organic Solar Cells: Theoretical Description of Organic-Organic Interfaces”,
Invited lecture, Center for Nanophase Materials Sciences Discovery Lecture Series, Oak Ridge National Laboratory,
Oak Ridge, Tennessee, March 11, 2010.
439. “Interfacial Electronic Properties in Organic Solar Cells: A Theoretical Description”,
Invited talk, 239th American Chemical Society National Meeting, Symposium on “Chemistry for a Sustainable World”,
San Francisco, California, March 21-25, 2010.
440. “Electronic Processes in Organic Solar Cells: A Theoretical Description of the Donor-Acceptor Interface”,
Invited talk, FIRST Symposium on “Organic Photovoltaics”,
Kyoto, Japan, July 04, 2010.
441. “Electronic and Optical Processes in Organic Solar Cells”,
Invited keynote lecture, ICSM–International Conference on Science and Technology of Synthetic Metals,
Kyoto, Japan, July 04-09, 2010.
442. “Organic Semiconductors: A Theoretical Insight into Their Interfacial and Transport Properties”,
Invited talk, Gordon Research Conference on Electronic Processes in Organic Materials,
Mount Holyoke, Massachusetts, July 25-30, 2010.
443. “Theoretical Challenges in the Description of the Electronic and Optical Processes in Organic Solar Cells”,
Invited plenary lecture, SPIE Conference on Optics + Photonics,
San Diego, California, Aug. 01-05, 2010.
444. “Organic-Inorganic and Organic-Organic Interfaces in Organic Solar Cells”,
Invited talk, 240th American Chemical Society National Meeting, WCU International Symposium on “Energy Storage and Conversion”,
Boston, Massachusetts, Aug. 22-26, 2010.

445. “Molecular Understanding of the Electronic and Optical Processes in Organic Solar Cells: The Challenges”,
Invited talk, 240th American Chemical Society National Meeting, Symposium on “Polymer Science and Energy: Current Directions and Future Opportunities”,
Boston, Massachusetts, Aug. 22-26, 2010.
446. “Electronic and Geometric Structure of Conducting Oxide/Organic Interfaces in Organic Solar Cells”,
Invited talk, 240th American Chemical Society National Meeting, Symposium on “Inorganic-Organic Solar Cells”,
Boston, Massachusetts, Aug. 22-26, 2010.
447. “Electronic and Optical Processes in Organic Solar Cells: The Nature of the Donor-Acceptor Interfaces”,
Invited talk, Psi-k 2010 Conference on “Theoretical and Computational Research on Electronic Structure and Properties of Matter”,
Berlin, Germany, Sept. 13-18, 2010.
448. “Description of the Electronic and Optical Processes in Organic Solar Cells: The Theoretical Challenges”,
Invited seminar, Innovation Lab,
Heidelberg, Germany, Oct. 27, 2010.
449. “Quantum-Chemical Evaluation of the Nonlinear Optical Response in New Cyanine-Type Dyes For All-Optical Signal Processing (AOSP) Applications”,
Invited talk, 2010 International Chemical Congress of Pacific Basin Societies, PACIFICHEM-2010,
Honolulu, Hawaii, Dec. 15-20, 2010.
450. “Electronic Structure of Pi-Conjugated Materials: From Conducting Polymers to Organic Semiconductor Crystals”,
Invited talk, Advances in Organic Materials: A Symposium in Honor of Fred Wudl’s 70th Birthday,
Santa Barbara, California, Jan. 07-08, 2011.
451. “Organic Solar Cells or the Art of Compromise: A Theoretical Perspective”,
Invited talk, AAAS Annual Meeting, Symposium on “The Science and Technology of Organic Photonic and Electronic Materials: Impacts on Information Technology, Energy and Sensors”,
Washington DC, Feb. 20, 2011.
452. “Organic Solar Cells or the Art of Compromise: A Theoretical Perspective”,
Invited talk, Workshop on Advanced Molecular Photovoltaics, King Abdullah University of Science and Technology,
Thuwal, Saudi Arabia, March 01-03, 2011.
453. “Impact of the Interfacial Nanostructures on the Electronic Processes in Organic Solar Cells”,
Invited talk, American Physical Society National Meeting,
Dallas, Texas, March 21-25, 2011.
454. “Organic Solar Cells: A Description of the Electronic Structure at the Donor-Acceptor Interface”,
Invited talk, 241st American Chemical Society National Meeting, Symposium on “20 Years of Tunneling Pathways”,
Anaheim, California, March 27-31, 2011.
455. “Organic Solar Cells: Electronic Structure of Organic/Inorganic and Organic/Organic Interfaces”,
Invited talk, Conference on “Light-Harvesting Processes (LHP 2011)”,
Kloster Banz, Germany, April 10-14, 2011.
456. “Organic Solar Cells: Electronic Structure of Organic/Inorganic and Organic/Organic Interfaces”,
Invited seminar, Department of Chemistry, Pennsylvania State University,
University Park, Pennsylvania, April 29, 2011.

457. “Electronic and Optical Processes in Organic Semiconductors: The Case of Organic Solar Cells”, *Invited seminar*, Greater Boston Area Theoretical Chemistry Lecture Series – MIT/BU/Harvard, Cambridge, Massachusetts, May 04, 2011.
458. “Electronic and Optical Processes in Organic Solar Cells: The Organic-Organic Interface”, *Invited seminar*, Seoul National University, Seoul, Korea, July 11, 2011.
459. “Electronic and Optical Processes in Organic Solar Cells: The Organic-Organic Interface”, *Invited seminar*, Korea Advanced Institute of Science and Technology, Department of Chemistry, Daejeon, Korea, July 12, 2011.
460. “Electronic and Geometric Structure at Metal/Organic and Conducting Oxide/Organic Interfaces of Relevance to Organic Devices”, *Invited seminar*, LG Chem Research Park, Daejeon, Korea, July 13, 2011.
461. “Developing Design Principles for Hosts and Emitters in Phosphorescent OLEDs”, *Invited plenary lecture*, The First International Symposium on “Advanced Materials for AMOLEDs”, Korea University, Sejong, Korea, July 13-14, 2011.
462. “Organic Solar Cells: Geometric and Electronic Structure at the Organic/Organic Interface”, *Invited seminar*, Department of Materials Science and Engineering, University of Florida, Gainesville, Florida, Sept. 14, 2011.
463. “Electronic and Optical Processes in Organic Semiconductors: The Case of Organic Solar Cells”, *Invited talk*, Conference on “Electronic Properties of Pi-Conjugated Materials II”, Wuerzburg, Germany, Sept. 27-30, 2011.
464. “Organic Solar Cells: Electronic Structure of Organic/Inorganic and Organic/Organic Interfaces”, *Invited talk*, 10th International Symposium on “Functional Pi-Electron Systems”, Beijing, China, Oct. 13-18, 2011.
465. “Electronic and Geometric Structure at Metal/Organic and Conducting Oxide/Organic Interfaces”, *Invited seminar*, Department of Chemistry, University of North Texas, Denton, Texas, Nov. 04, 2011.
466. “Organic Electronics”, *Inaugural Lecture of the 2011 International Chair in Chemistry*, International Solvay Institutes, Brussels, Belgium, Nov. 29, 2011.
467. “Chemistry and Energy”, *Plenary Lecture*, Closing Ceremony of the International Year of Chemistry, Brussels, Belgium, Dec. 01, 2011.
468. “Electronic and Optical Processes in Organic Semiconductors: The Case of Organic Solar Cells”, *Invited seminar*, Argonne National Laboratory, Argonne, Illinois, Dec. 15, 2011.
469. “Combined Quantum-Chemical / Molecular Simulations Approach to the Description of Electronic and Optical Processes in Organic Solar Cells”, *Invited talk*, 243rd American Chemical Society National Meeting, San Diego, California, March 25, 2012.
470. “Polymer-Based Solar Cells: Understanding Gained from a Combined Quantum-Chemical / Molecular-Simulations Approach”, *Invited talk*, 243rd American Chemical Society National Meeting, San Diego, California, March 26, 2012.

471. “Electronic Processes in Organic Solar-Cells: An Integrated Quantum-Mechanics / Molecular Dynamics Approach”,
Invited talk, Materials Research Society Spring Meeting, San Francisco, California, Apr. 09, 2012.
472. “Charge-Transport Processes in Organic Materials”,
2011 International Chair in Chemistry, International Solvay Institutes, Brussels, Belgium, Apr. 16, 2012.
473. “Hybrid Interfaces Between Organic Layers and Transparent Conducting Oxides”,
2011 International Chair in Chemistry, International Solvay Institutes, Brussels, Belgium, Apr. 17, 2012.
474. “Organic Electroluminescence and Applications of Organic Light-Emitting Diodes”,
2011 International Chair in Chemistry, International Solvay Institutes, Brussels, Belgium, Apr. 18, 2012.
475. “Electronic and Optical Processes in Organic Semiconductors: The Case of Organic Solar Cells”,
Invited seminar, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, May 13, 2012.
476. “Chemistry and Energy: From our Planet’s Energy Needs to Organic Electronics”,
Invited seminar, Department of Chemistry, King Abdulaziz University, Jeddah, Saudi Arabia, May 14, 2012.
477. “Organic Electronic Materials: A Bright Future”,
Invited seminar, Department of Chemistry, King Abdulaziz University, Jeddah, Saudi Arabia, May 15, 2012.
478. “Electronic and Optical Processes in Organic Semiconductors: The Case of Organic Solar Cells”,
Invited seminar, Department of Chemistry, King Abdulaziz University, Jeddah, Saudi Arabia, May 16, 2012.
479. “Theoretical Investigations of the Electronic and Optical Processes in Organic Solar Cells”,
Invited talk, International Congress of Quantum Chemistry, Boulder, Colorado, June 26, 2012.
480. “Molecular Understanding of Organic Solar Cells: The Challenges”,
Invited talk, Nobel Symposium on “Nanoscale Energy Converters”, Orenas, Sweden, Aug. 15, 2012.
481. “Electronic Structure of π -Conjugated Polymers: Recent Theoretical Advances”,
Invited talk, 244th American Chemical Society National Meeting, Symposium in Honor of John Reynolds, Philadelphia, Pennsylvania, Aug. 19, 2012.
482. “Electronic Structure of Conducting Oxide–Organic and Organic–Organic Interfaces of Relevance in OLED and OPV Devices”,
Keynote lecture, 9th International Conference on Electroluminescence and Organic Optoelectronics (ICEL 2012), Fukuoka, Japan, Sept. 05, 2012.
483. “Electronic and Optical Processes in Organic Electronic Devices: The Case of Charge Transport”,
Invited seminar, Department of Physics, Wake Forest University, Winston-Salem, North Carolina, Oct. 10, 2012.
484. “Electronic Structure and Charge-Transport Properties of Organic Single Crystals”,
Invited talk, Materials Research Society Fall Meeting, Boston, Massachusetts, Nov. 26, 2012.
485. “Electronic Structure at Conducting Oxide–Organic and Organic–Organic Interfaces”,
Invited talk, Materials Research Society Fall Meeting, Boston, Massachusetts, Nov. 27, 2012.

486. "Organic Nonlinear Optical Chromophores for All-Optical Signal Processing Applications", *2011 International Chair in Chemistry*, International Solvay Institutes, Brussels, Belgium, Dec. 11, 2012.
487. "Electronic and Optical Processes in Organic Solar Cells", *2011 International Chair in Chemistry*, International Solvay Institutes, Brussels, Belgium, Dec. 13, 2012.
488. "An Integrated Computational Approach to the Electronic and Optical Processes in Organic Electronic Devices", *Invited seminar*, Department of Polymer Engineering, The University of Akron, Akron, Ohio, Jan. 18, 2013.
489. "An Integrated Computational Approach to the Electronic and Optical Processes in Organic Electronic Devices", *Invited seminar*, University of Michigan, EFRC Center for Solar and Thermal Energy Conversion (CSTEC), Ann Harbor, Michigan, Jan. 31, 2013.
490. "Charge Transport in Organic Semiconductors: A Primer", *Invited seminar*, Center for Organic Photonics and Electronics Research (OPERA), Kyushu University, Fukuoka, Japan, Feb. 14, 2013.
491. "An Integrated Computational Approach to the Electronic and Optical Processes in Organic Solar Cells", *Invited seminar*, Center for Organic Photonics and Electronics Research (OPERA), Kyushu University, Fukuoka, Japan, Feb. 15, 2013.
492. "Charge Transport in Organic Semiconductors: A Primer", *Invited seminar*, Department of Chemistry, King Abdulaziz University, Jeddah, Saudi Arabia, Feb. 24, 2013.
493. "Electronic Structure of Conducting Oxide-Organic Interfaces Relevant for Organic Electronic Devices", *Invited seminar*, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, Feb. 25, 2013.
494. "Electronic Structure of Conducting Oxide-Organic Interfaces Relevant for Organic Electronic Devices", *Invited seminar*, Department of Chemistry, King Abdulaziz University, Jeddah, Saudi Arabia, Feb. 26, 2013.
495. "A Molecular Picture of Charge-Transfer Processes at Donor-Acceptor Interfaces in Organic Solar Cells", *Invited talk*, DPG (German Physics Society) Spring Meeting, Regensburg, Germany, March 11, 2013.
496. "An Integrated Computational Approach to the Electronic and Optical Processes in Organic Electronic Devices", *Invited lecture*, American Physical Society National Meeting, "David Adler Award Lectureship in the Field of Materials Physics," Baltimore, Maryland, March 21, 2013.
497. "A Molecular Picture of the Donor-Acceptor Interface in Organic Solar Cells", *Invited talk*, Materials Research Society Spring Meeting, San Francisco, California, April 02, 2013.
498. "Charge Transport in Organic Semiconductors: The Interplay Between Electronic Couplings and Electron-Phonon Couplings", *Invited talk*, 245th American Chemical Society National Meeting, New Orleans, Louisiana, April 10, 2013.

499. "Electronic Structure, Optical Properties, and Morphological Aspects of π -Conjugated Polymers and Oligomers for Organic Solar Cell Applications",
Invited talk, 245th American Chemical Society National Meeting,
New Orleans, Louisiana, April 10, 2013.
500. "Electronic and Optical Processes in Organic Solar Cells: Insights from a Multiscale Computational Approach",
Invited keynote lecture, Second Symposium on Advances in Organic Photovoltaics, Kent State University,
Kent, Ohio, April 17, 2013.
501. "Electronic Structure, Optical Properties, and Morphological Aspects of π -Conjugated Polymers and Oligomers for Organic Solar Cell Applications",
Invited talk, 7th Solvay-COPE Symposium on Organic Electronics, University of Bordeaux,
France, May 16, 2013.
502. "Electronic and Optical Processes in Organic Solar Cells: Insights from a Multiscale Computational Approach",
Invited plenary lecture, 11th International Symposium on Functional π -Electron Systems,
Arcachon, France, June 02-07, 2013.
503. "Electronic and Optical Processes in Organic Solar Cells: Insights from a Multiscale Computational Approach",
Invited keynote lecture, 73rd Physical Electronics Conference, NC State University,
Raleigh, North Carolina, June 18-21, 2013.
504. "Electronic and Optical Processes in Organic Solar Cells: Insights from a Multiscale Computational Approach",
Invited plenary lecture, 15th International Symposium on Novel Aromatic Compounds (ISNA-15),
Taipei, Taiwan, July 28 - Aug. 02, 2013.
505. "Multiscale Computational Approach for the Description of Electronic and Optical Processes in Organic Semiconductor Devices",
Invited talk, 246th American Chemical Society National Meeting,
Indianapolis, Indiana, Sept. 08, 2013.
506. "Electronic and Optical Processes in Organic Solar Cells: Insights from a Multiscale Computational Approach",
Invited talk, 246th American Chemical Society National Meeting,
Indianapolis, Indiana, Sept. 10, 2013.
507. "Electronic and Geometric Structure of Hybrid Oxide-Organic Interfaces of Relevance to OLED and OPV Devices",
Invited talk, 246th American Chemical Society National Meeting,
Indianapolis, Indiana, Sept. 11, 2013.
508. "Description of the Electronic and Optical Processes in Organic Solar Cells from a Multiscale Computational Approach",
Invited talk, International Colloquium on Flexible Electronics and Photovoltaics, King Abdullah University of Science and Technology (KAUST),
Thuwal, Saudi Arabia, Nov. 02-05, 2013.
- 509-510. "Electronic Structure of π -Conjugated Organic Materials",
Invited lectures, Department of Chemistry, King Abdulaziz University,
Jeddah, Saudi Arabia, Nov. 06-07, 2013.
511. "Quantum Chemistry and Dynamics of Organic Photovoltaics",
Invited talk, 2013 Fall Mini-workshop Series II, City University of New York,
New York, New York, Dec. 10, 2013.

512. “Electronic and Optical Processes in Organic Electronic Devices: Insights from a Multiscale Computational Approach”,
Invited seminar, Physical Sciences and Engineering Division, KAUST, Thuwal, Saudi Arabia, Jan. 28, 2014.
513. “Electronic Structure and Nonlinear Optical Response of Polymethine Dyes for All-Optical Switching Applications”,
Invited talk, SPIE Photonics West 2014, San Francisco, California, Feb. 05, 2014.
514. “Description of the Electronic and Optical Processes in Organic Solar Cells from a Multiscale Computational Approach”,
Invited talk, 247th American Chemical Society National Meeting, Dallas, Texas, March 17, 2014.
515. “Nonlinear Optical Applications of Conjugated Materials: Polymethine Dyes for All-Optical Switching Applications”,
Invited talk, 247th American Chemical Society National Meeting, Dallas, Texas, March 18, 2014.
516. “A Multiscale Computational Approach to the Electronic and Optical Processes in Organic Solar Cells”,
Invited lecture, 2nd International Symposium of the Theoretical Chemistry Center, Tsinghua University, Beijing, China, March 31, 2014.
517. “Description of the Electronic and Optical Processes in Organic Solar Cells from a Multiscale Computational Approach”,
Invited seminar, Institute of Polymer Optoelectronic Materials and Devices, South China University of Technology, Guangzhou, China, April 02, 2014.
518. “Electronic and Optical Processes in Organic Solar Cells: A Description from a Multiscale Computational Approach”,
Invited seminar, Department of Chemistry, University of Southern California, Los Angeles, California, April 17, 2014.
519. “Polarization Energy in Organic Semiconductors: Impact of Molecular Packing”,
Invited talk, Materials Research Society Spring Meeting, San Francisco, California, April 21, 2014.
520. “Challenges in the Theoretical Description of the Electronic and Optical Processes in Organic Solar Cells”,
Invited talk, Materials Research Society Spring Meeting, San Francisco, California, April 23, 2014.
521. “Electronic Processes in Organic Materials: Exploring the Fundamentals of Organic Electronics”,
Invited talk, Gordon Research Seminars on “Organic Electronics: Energy Conversion and Device Basics”, Lucca Barga, Italy, May 03-04, 2014.
522. “A Multi-scale Computational Approach to Charge Separation and Transport across Interfaces”,
Invited talk, Gordon Research Conference on “Electronic Processes in Organic Materials”, Lucca Barga, Italy, May 04-09, 2014.
523. “A Multiscale Computational Approach to the Electronic and Optical Processes in Organic Solar Cells”,
Invited plenary lecture, Sixth International Conference on Hybrid and Organic Photovoltaics (HOPV14), Lausanne, Switzerland, May 11-14, 2014.

524. "A Multiscale Computational Approach to the Electronic and Optical Processes in Organic Solar Cells",
Invited talk, 2014 Annual Meeting of the Southeast Theoretical Chemistry Association (SETCA), Emory University, Atlanta, Georgia, May 15-17, 2014.
525. "Electronic and Optical Processes in Organic Solar Cells: A Multiscale Computational Description of the Donor-Acceptor Interface",
Invited plenary lecture, International Conference on the Science and Technology of Synthetic Metals (ICSM 2014), Turku, Finland, June 30 - July 05, 2014.
526. "Transport Mechanism in Donor-Acceptor Bimolecular Crystals",
Invited lecture, FET 2014, Kashiwa, Japan, Oct. 17-21, 2014
527. "Electronic and Optical Processes in Organic Solar Cells: A Multiscale Computational Description of the Donor-Acceptor Interface",
Invited talk, "Solar Future 2014 Symposium", King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, Nov. 08-11, 2014.
528. "Theoretical Description of the Electron-Transfer Processes in Organic Semiconductors",
Invited talk, Materials Research Society Fall Meeting, Boston, Massachusetts, Dec. 01-05, 2014.
529. "Electronic and Molecular Structure of Donor-Acceptor Interfaces: Insight from a Multiscale Computational Description",
Invited keynote lecture, 578th Heraeus Seminar on Charge-Transfer Effects in Organic Heterostructures, Bad-Honnef, Germany, Dec. 09-12, 2014.
530. "Electron-Vibration Coupling in π -Conjugated Materials",
Invited talk, American Physical Society March Meeting, San Antonio, Texas, March 01-04, 2015.
531. "Electronic Structure of π -Conjugated Materials for Organic Electronics Applications",
Invited talk, 249th American Chemical Society National Meeting, Denver, Colorado, March 22-25, 2015.
532. "Importance of Polymer Donor / Fullerene Packing in Organic Solar Cells: A Joint Computational and Experimental Study",
Contributed talk, Hybrid and Organic Photovoltaics Conference - HOPV-2015, Rome, Italy, May 10-13, 2015.
533. "DefectDriven Interfacial Electronic Structure at Organic / MetalOxide Semiconductor Heterojunctions: A Joint Theoretical and Experimental Investigation",
Invited talk, 8th International Conference on Materials - ICMAT-2015, Singapore, June 28 - July 03, 2015.
534. "Importance of Donor Polymer / Fullerene Packing and Intermolecular Interactions in Organic Bulk-Heterojunction Solar Cells",
Invited talk, 12th International Symposium on Functional π -Electron Systems - F- π -2015, Seattle, Washington, July 19-24, 2015.
535. "Importance of Donor Polymer / Fullerene Packing and Intermolecular Interactions in Organic Bulk-Heterojunction Solar Cells",
Invited plenary lecture, 13th European Conference on Molecular Electronics - ECME-2015, Strasbourg, France, Sept. 01-05, 2015.

536. “Recent Progress in Organic Electronics and Photonics: A Perspective on the Future of Organic Devices”,
Invited talk, 20th Micro-Optics Conference – MOC’15,
Fukuoka, Japan, Oct. 25-27, 2015.
537. “Impact of Polymer/Fullerene Intermolecular Interactions on the Performance of Organic Solar Cells”,
Invited seminar, OPERA, Kyushu, University,
Fukuoka, Japan, Oct. 27, 2015.
538. “Importance of Donor Polymer/Fullerene Packing and Intermolecular Interactions in Organic Bulk-Heterojunction Solar Cells”,
Invited talk, Solar Future 2015 Symposium – KAUST,
Thuwal, Saudi Arabia, Nov. 07-11, 2015.
539. “Defect-Driven Interfacial Electronic Structure at Organic/Metal-Oxide Semiconductor Heterojunctions: A Joint Theoretical and Experimental Investigation”,
Invited talk, Materials Research Society Fall Meeting,
Boston, Massachusetts, Dec. 01-04, 2015.
540. “Organic Bulk-Heterojunction Solar Cells: Importance of Donor Polymer/Fullerene Packing and Intermolecular Interactions”,
Invited talk, International Symposium on Functional Materials 2016, Okinawa Institute of Science and Technology,
Okinawa, Japan, Jan. 25-29, 2016.
541. “The Power of π : A Computational Chemistry Journey into π -Conjugated Materials”,
Invited seminar, Hamad Bin Kalifa University, Division of Sustainable Development,
Doha Education City, Qatar, Feb. 24, 2016.
542. “The Power of π : A Computational Chemistry Journey into π -Conjugated Materials”,
Invited talk, 251th American Chemical Society National Meeting,
San Diego, California, March 13-17, 2016.
543. “On the Nature of Polymer/Fullerene Intermolecular Interactions and Their Impact on the Performance of Organic Solar Cells”,
Invited talk, 251th American Chemical Society National Meeting,
San Diego, California, March 13-17, 2016.
544. “Impact of Polymer/Fullerene Intermolecular Interactions on the Performance of Organic Solar Cells”,
Invited talk, Materials Research Society Spring Meeting,
Phoenix, Arizona, March 28-31, 2016.
545. “On the Nature of Polymer/Fullerene Intermolecular Interactions and their Impact on the Performance of Organic Solar Cells”,
Invited seminar, The Molecular Foundry, Lawrence Berkeley National Labs.,
Berkeley, California, May 03, 2016.
546. “The Power of π : A Computational Chemistry Journey into π -Conjugated Materials”,
Invited seminar, Department of Chemistry and Biochemistry, The University of Arizona,
Tucson, Arizona, May 10, 2016.
547. “Defect-driven Interfacial Electronic Structure at Organic/Metal Oxide Semiconductor Heterojunctions”,
Invited plenary lecture, Workshop in Memory of Carlo Taliani, CNR Bologna,
Bologna, Italy, June 08-10, 2016.
548. “Structure-Properties Relationships in π -Conjugated Polymers”,
Invited plenary lecture, International Conference on the Science and Technology of Synthetic Metals (ICSM 2016),
Guangzhou, China, June 26-July 01, 2016.

549. “Dynamics of the Donor/Acceptor Interface in Organic Solar Cells”,
Invited talk, 252nd American Chemical Society National Meeting,
Philadelphia, Pennsylvania, Aug. 21-25, 2016.
550. “Electronic Structure of Quasi-One-Dimensional and Two-Dimensional π -Conjugated Polymers with Small Carrier Effective Masses”,
Invited talk, 252nd American Chemical Society National Meeting,
Philadelphia, Pennsylvania, Aug. 21-25, 2016.
551. “Organic Electronics: Characterization of Hybrid Organic – Conducting Oxide Interfaces”,
Invited plenary lecture, International Conference on Theory and Applications of Computational Chemistry (TACC2016),
Seattle, Washington, Aug. 28 - Sept. 02, 2016.
552. “The Impact of Coherence Effects in Organic Electronics”,
Invited plenary lecture, ZING Conference on Organic Semiconductors,
Dubrovnik, Croatia, Sept. 22-26, 2016.
553. “Organic Solar Cells: Understanding the Impact of Molecular Packing on Charge Separation and Charge Recombination Processes”,
Invited plenary lecture, International Conference on Electroluminescence and Optoelectronic Devices (ICEL 2016),
Raleigh, North Carolina, Oct. 02-05, 2016.
554. “The Impact of Coherence Effects in Organic Electronics”,
Invited lecture, Solvay Workshop on Charge, Spin, and Heat Transport in Organic Semiconductors,
Brussels, Belgium, Nov. 15-17, 2016.
555. “Charge Transport in Quasi-1D and 2D π -Conjugated Polymers with Small Carrier Effective Masses”,
Invited talk, SPIE Photonics West,
San Francisco, California, Jan. 29-Feb. 01, 2017.
556. “Organic Solar Cells: Characterization of the Polymer-Fullerene Intermolecular Interactions and their Impact on Performance”,
Invited seminar, Department of Chemistry, Purdue University,
West Lafayette, Indiana, March 08, 2017.
557. “Electronic Structure of Two-dimensional π -Conjugated Polymer Networks: Impact of Lattice Symmetry”,
Invited talk, American Chemical Society National Meeting,
San Francisco, California, April 02-06, 2017.
558. “Electronic Structure of Quasi One-dimensional and Two-dimensional π -Conjugated Polymers: Design Principles for High Charge-Carrier Mobility Materials”,
Invited talk, Materials Research Society Spring Meeting,
Phoenix, Arizona, April 17-21, 2017.
559. “Organic Electronics and Energy”,
Invited inaugural lecture, Sigma-Aldrich Lecture Series at the Andlinger Center for Energy & the Environment, Princeton University,
Princeton, New Jersey, May 01, 2017.
560. “Charge-Transfer Electronic States: How to Describe Them Theoretically and Their Impact on the Performance of Organic Solar Cells”,
Invited plenary tutorial, 13th International Symposium on Functional π -Electron Systems,
Hong Kong, China, June 04-09, 2017.

561. “Electronic Structure of Two-dimensional π -Conjugated Polymer Networks: Impact of Lattice Symmetry”,
Invited talk, 13th International Symposium on Functional π -Electron Systems,
Hong Kong, China, June 04-09, 2017.
562. “Novel Design Strategy for Efficient TADF Organic Emitters: From Twisted to Planar Structures”,
Invited plenary talk, Second International TADF (Thermally Assisted Delayed Fluorescence) Workshop,
Kyushu University,
Fukuoka, Japan, July 19-21, 2017.
563. “The Impact of Coherence Effects in Organic Electronics”,
Invited talk, The University of Tokyo, Takeya Laboratory,
Tokyo, Japan, July 24, 2017.
564. “Organic Electronics and Energy”,
Invited plenary lecture, 50th Anniversary Symposium of the Solid State Physics Department, Instituto
Politécnico Nacional,
Mexico City, Mexico, Aug. 16-17, 2017.
565. “Polymer/Fullerene Solar Cells: Characterization of the Intermolecular Interactions and Interfacial
Charge-Transfer States”,
Invited talk, Conference of the World Association of Theoretical Organic Chemists,
Munich, Germany, Aug. 27-28, 2017.
566. “Charge-Transfer States at Donor-Acceptor Interfaces: A Computational Characterization”,
Invited plenary lecture, Symposium of the Dresden Integrated Center for Applied Physics and Photonic
Materials,
Dresden, Germany, Aug. 29, 2017.
567. “Two-Dimensional π -Conjugated Networks: Electronic Properties and Impact of Lattice Symmetry”,
Invited talk, 14th European Conference on Molecular Electronics (ECME),
Dresden, Germany, Aug. 30-Sept. 02, 2017.
568. “Organic Solar Cells: Characterization of Interfacial Charge-Separation and Charge-Recombination
Processes”,
Invited seminar, Department of Chemical Engineering, University of Buffalo,
Buffalo, New York, Sept. 20, 2017.
569. “Organic Electronics: Characterization of Hybrid Organic-Conducting Oxide Interfaces”,
Invited talk, Emory Emerson Center Lectureship Award Symposium on “Sustainable Energy:
Fundamental Principles, Multidisciplinary Approaches and Progress”, Emory University,
Atlanta, Georgia, Nov. 02, 2017.
570. “Two-dimensional π -Conjugated Networks: Electronic Properties and Impact of Lattice Symmetry”,
Invited plenary lecture, Center for Emergent Matter Science – CEMSupra-2018, University of Tokyo,
Tokyo, Japan, Jan. 09-11, 2018.
571. “Two-dimensional π -Conjugated Covalent Organic Networks: Establishing Chemical Structure –
Electronic Properties and Impact of Lattice Symmetry”,
Invited talk, American Chemical Society National Meeting,
New Orleans, Louisiana, March 18, 2018.
572. “Polymer-Acceptor Bulk Heterojunction Solar Cells: Establishing Relationships among Polymer
Chemical Structure, Polymer Packing, and Polymer-Acceptor Mixing”,
Invited talk, American Chemical Society National Meeting,
New Orleans, Louisiana, March 21, 2018.
573. “Design Strategy for Efficient Thermally Activated Delayed Fluorescence (TADF) Organic
Emitters: From Twisted to Planar Structures”,
Invited talk, American Chemical Society National Meeting,
New Orleans, Louisiana, March 21, 2018.

574. “Two-dimensional π -Conjugated Networks: Electronic Properties and Impact of Lattice Symmetry”, *Invited seminar*, Department of Materials Science and Engineering, The University of Arizona, Tucson, Arizona, March 30, 2018.
575. “Electronic Structure and NLO Response of Polymethine Dyes for All-Optical Switching Applications: The Case of Zwitterionic and Pd-substituted Cyanines”, *Invited talk*, Materials Research Society Spring Meeting, Phoenix, Arizona, April 02-05, 2018.
576. “Polymer-Acceptor Bulk Heterojunction Solar Cells: From Chemical Structure to Packing and Efficiency”, *Invited seminar*, Center for Excitonics, Massachusetts Institute of Technology, Cambridge, Mass., April 17, 2018.
577. “Molecular Design of Advanced Organic Materials”, *Invited presentation*, College of Sciences Advisory Board Meeting, Georgia Institute of Technology, Atlanta, Georgia, April 20, 2018.
578. “Two-dimensional π -Conjugated Networks: Electronic Properties and Impact of Lattice Symmetry”, *Invited colloquium*, Center for Hybrid Inorganic/Organic Systems for Opto-Electronics (HIOS), Humboldt University, Berlin, Germany, April 26, 2018.
579. “Polymer-Acceptor Bulk Heterojunction Solar Cells: From Chemical Structure to Packing and Efficiency”, *Invited seminar*, Department of Physics, University of Potsdam, Potsdam, Germany, April 27, 2018.
580. “Polymer-Acceptor Bulk Heterojunction Solar Cells: From Chemical Structure to Packing and Efficiency”, *Invited lecture*, IMDEA Nanosciences, Madrid, Spain, May 08, 2018.
581. “Two-dimensional π -Conjugated Networks: Electronic Properties and Impact of Lattice Symmetry”, *Invited lecture*, Department of Physical Chemistry, University of Málaga, Málaga, Spain, May 17, 2018.