

CURRICULUM VITAE

Andres D. Campiglia

University of Central Florida

Department of Chemistry

P. O. Box 25000 Orlando, FL, 32816-2366

Phone: (407) 823-4162 e-mail: andres.campiglia@ucf.edu

1. EDUCATION

- 1986 – 1990: UNIVERSITY OF FLORIDA, Gainesville, FL, USA; Ph.D. Chemistry (Advisor: Prof. James D. Winefordner).
- 1982 – 1984: UNIVERSITY OF BRASILIA, Brasilia, DF, Brazil; M.Sc. Chemistry (Advisor: Prof. Clausius G. de Lima).
- 1978-1982: UNIVERSITY OF BRASILIA, Brasilia, DF, Brazil; B.S. Chemistry.

2. APPOINTMENTS

- 2010 – present: Secondary joint appointment at the University of Sao Paulo, Faculty of Pharmaceutical Sciences of Ribeirao Preto, Ribeirao Preto, SP, Brazil.
- 2009 – present: UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL, USA; *professor of Chemistry*.
- 2004 – present: UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL, USA; *graduate coordinator of Ph.D. and M.Sc. programs*.
- 2003 – 2009: UNIVERSITY OF CENTRAL FLORIDA, Orlando, FL, USA; *associate professor of Chemistry*, transferred from NDSU with tenure.
- 1996 – 2003: NORTH DAKOTA STATE UNIVERSITY, Fargo, ND, USA; *assistant/associate professor of Chemistry*, promoted to associate professor with tenure in 2001.
- 1995 -1996: OAK-RIDGE NATIONAL LABORATORY, Oak Ridge, TN, USA; visiting scientist; temporary position.
- 1990 -1995: UNIVERSITY OF BRASILIA, Brasilia, DF, Brazil; *assistant/associate professor of Chemistry*, tenured and promoted to associate professor in 1994.
- 1984 -1986: UNIVERSITY OF BRASILIA, Brasilia, DF, Brazil; Chemistry instructor; temporary appointment.

3. AWARDS AND RECOGNITION

- 2014 – 2015 Research Incentive Award (RIA), College of Sciences, University of Central Florida.
- 2009 – 2010 Teaching Incentive Program (TIP) Award, College of Sciences, University of Central Florida.
- 2009 – present: member of the editorial board of peer- reviewed journal entitled The International Journal of Spectroscopy.
- 2009 Outstanding Chemist, American Chemical Society, Orlando Section, Florida.
- 2007 Distinguished Research Award, College of Sciences, University of Central Florida.
- 2007 Award for Excellence in Graduate Teaching, College of Sciences, University of Central Florida.
- 1992-1995: Research Fellowship Award from Conselho Nacional de Pesquisa e Desenvolvimento (CNPq), Brazil.
- 1990-1992: Young Investigator Fellowship Award from Conselho Nacional de Pesquisa e Desenvolvimento (CNPq), Brazil.

- 1986-1990: Ph.D. Graduate Fellowship from Conselho de Aperfeiçoamento de Pessoal de Ensino Superior (CAPES), Brazil.
- 1982-1984: M.Sc. Scholarship from Conselho Nacional de Pesquisa e Desenvolvimento (CNPq), Brazil.

4. RESEARCH ACTIVITIES

4.1. Research Interests

My research efforts are focused on the development of advanced spectroscopic techniques for the analysis of compounds of environmental, forensic, clinical, toxicological and biological interest.

Submitted

- 110)** E. C. Heider, N. Mujumdar, A. D. Campiglia*. Identification of Detergents for Forensic Fiber Analysis, *Applied Spectroscopy*, submitted May 30th, **2016**. Manuscript ID ASP-16-0186.
- 109)** A. Prakash, K. Sundaram*, A. D. Campiglia. Photoluminescence studies on BCN thin films synthesized by RF magnetron sputtering". *Applied Physics Letters*. Submitted 12/21/**2016**. Manuscript #L16-03772.
- 108)** J. Powell, E. C. Heider, A. D. Campiglia, J. Harper*. Predicting accurate fluorescence spectra for high molecular weight polycyclic aromatic hydrocarbons using density functional theory. *Journal of Molecular Spectroscopy*, submitted May 14th, **2016**.
- 107)** C. Maione, V. C. de Oliveira Souza, L. R. Tohni, J. L. da Costa, A. D. Campiglia, F. Barbosa Jr, R. M. Barbosa*, Using cluster analysis and ICP-MS to identify groups of ecstasy tablets in Sao Paulo state, Brazil. *Journal of Forensic Science*, submitted April 14, **2016**, revised and re-submitted.

In Press

- 106)** B. Alfarhani, M. Al-tameemi, A. V. Schenone, Hector C. Goicoechea, A. D. Campiglia*, Room temperature fluorescence spectroscopy of Benzo[a]pyrene metabolites on octadecyl extraction membranes, *Micro-chemical Journal*, submitted April 20, **2016**. Ms. Ref. No.: MICROC-D-16-00289. Re-submitted 6/6/2016. MICROC-D-16-00289R1. Accepted 6/6/2016.

4.2. Articles in Peer Reviewed Journals

The list of articles is presented in reverse chronological order. The asterisk indicates the corresponding author.

- 105)** B. A. Rocha, B. R. Brandao da Costa, N. C. Perez de Albuquerque, A. R. Moraes de Oliverira, J. M. O. souza, M. Al-Tameemi, A. D. Campiglia, F. Barbosa Jr.*, **2016**. A fast method for bisphenol A and six analogues (S, F, Z, P, AF, AP) determination in urine samples based on dispersive liquid-liquid microextraction and liquid chromatography-tandem mass spectrometry. *Talanta*, 154, 511 – 519. DOI: <http://dx.doi.org/10.1016/j.talanta.2016.03.098>.
- 104)** C. Maione, E. S. de Paula, M. Gallimberti, B. L. Batista, A. D. Campiglia, F. Barbosa Jr., R. M. Barbosa*, **2016**. Comparative study of data mining techniques for the authentication of organic grape juice based on ICP-MS analysis. *Expert Systems with Applications*, 49, 60–73. DOI: 10.1016/j.eswa.2015.11.024.
- 103)** A. M. de la Pena, N. Mujumdar, E. C. Heider, H. C. Goicoechea, D. M. de la Pena, A. D. Campiglia*, **2016**. Nondestructive Total Excitation-Emission Fluorescence Microscopy Combined with Multi-Way Chemometric Analysis for Visually Indistinguishable Single Fiber Discrimination. *Analytical Chemistry*, 88, 2967-2975. DOI: 10.1021/acs.analchem.6b00264.
- 102)** R. M. Barbosa, E. S. de Paula, A. C. Paulelli, A. F. T. Moore, J. O. de Souza, B. L. Batista, A. D. Campiglia, F. Barbosa Jr.*, **2016**. Recognition of organic rice samples based on trace elements and support vector machines. *Journal of Food Composition and Analysis*, 45, 95-100. DOI: 10.1016/j.jfca.2015.09.010.
- 101)** W. B. Wilson, B. Alfarhani, A. F. T. Moore, C. Bisson, S. A. Wise, A. D. Campiglia*, **2016**. Determination of high-molecular weight polycyclic aromatic hydrocarbons in high performance

- liquid chromatography fractions of coal tar standard reference material 1597a via solid-phase nanoextraction and laser-excited time-resolved Shpol'skii spectroscopy. *Talanta*, 148, 444 – 453. DOI: 10.1016/j.talanta.2015.11.018.
- 100) N. Mujumdar, E. C. Heider, A. D. Campiglia*, **2015**. Enhancing Textile Fiber Identification with Detergent Fluorescence. *Applied Spectroscopy*, 69[12], 1390 – 1396. DOI: 10.1366/15-07992.
- 99) B. A. Rocha, L. F. Azevedo, M. Gallimberti, A. D. Campiglia, F. Barbosa Jr*, **2015**. High levels of Bisphenol A and Bisphenol S in Brazilian thermal paper receipts and estimation of daily exposure. Accepted for publication in *Journal of Toxicology and Environmental Health-Part A-Current Issues*, 78, 1181-1188. DOI: 10.1080/15287394.2015.1083519.
- 98) A. F. T. Moore, H. C. Goicoechea, F. Barbosa Jr., A. D. Campiglia*, **2015**. Parallel Factor Analysis of 4.2K Excitation-Emission Matrices for the Direct Determination of Dibenzopyrene Isomers in Coal-Tar Samples with a Cryogenic Fiber Optic Probe Coupled to a Commercial Spectrofluorimeter. *Analytical Chemistry*, 87, 5232 – 5239. DOI: 10.1021/acs.analchem.5b00147.
- 97) R. M. Barbosa, B. L. Batista, C. V. Bariao, R. M. Varrique, V. A. Coelho, A. D. Campiglia, F. Barbosa Jr.*, **2015**. A simple and practical control of the authenticity of organic sugarcane samples based on the use of machine-learning algorithms and trace elements determination by inductively coupled plasma mass spectrometry. *Food Chemistry*, 184, 154-159. DOI:10.1016/j.foodchem.2015.02.146.
- 96) A. V. Schenone, A. de Araujo Gomes, M. J. Culzoni, A. D. Campiglia, M. C. Ugulino de Araujo and H. C. Goicoechea*, **2015**. Modeling nonbilinear total synchronous fluorescence data matrices with a novel adapted partial least squares method. *Analytica Chimica Acta*, 859, 20-28. DOI:10.1016/j.aca.2014.12.014.
- 95) A. W. Woodward, A. Frazer, A. R. Morales, J. Yu, A. F. Moore, A. D. Campiglia, E. V. Jucov, T. V. Timofeeva and K. D. Belfield*, **2014**. Two-photon sensitized visible and near-IR luminescence of lanthanide complexes using a fluorene-based donor- π -acceptor diketone. *Dalton Transactions*, 43, 16626 – 16639. DOI: 10.1039/c4dt01507j.
- 94) R. M. Barbosa, B. L. Batista, V. Coelho, A. D. Campiglia, F. Barbosa Jr *, **2014**. The use of advanced chemometric techniques and trace elements levels for controlling the authenticity of organic coffee. *Food Research International*, 61, 246 – 251. DOI: 10.1016/j.foodres.2013.07.060
- 93) K. Appalaneni, E. C. Heider, A. F. Moore, A. D. Campiglia*, **2014**. Single Fiber Identification with Nondestructive Excitation-Emission Spectral Cluster Analysis. *Analytical Chemistry*, 86, 6774 – 6780. DOI: 10.1021/ac500021h.
- 92) K. Trieu, E. C. Heider, S. C. Brooks, F. Barbosa Jr., A. D. Campiglia*, **2014**. Gold nanorods for surface Plasmon resonance detection of mercury (II) in flow injection analysis. *Talanta*, 128, 196 - 202. DOI: 10.1016/j.talanta.2014.04.028.
- 91) W.B. Wilson, M. Miller, U. Hewitt, A. D. Campiglia*, **2014**. Water Analysis of the Sixteen Environmental Protection Agency – Polycyclic Aromatic Hydrocarbons via Solid-Phase Nanoextraction Gas Chromatography-Mass Spectrometry. *Journal of Chromatography A*, 1345, 1-8. DOI: 10.1016/j.chroma.2014.03.082.
- 90) K. Calimag-Williams, G. Knobel, H. C. Goicoechea, A. D. Campiglia*, **2014**. Achieving second order advantage with multi-way partial least squares and residual bi-linearization with total synchronous fluorescence data of monohydroxy- polycyclic aromatic hydrocarbons in urine samples. *Analytica Chimica Acta*, 811, 60-69. DOI: 10.1016/j.aca.2013.12.004.
- 89) A. F. Moore, F. Barbosa Jr., A. D. Campiglia*, **2014**. Combining Cryogenic Fiber Optic Probes with Commercial Spectrofluorimeters for the Synchronous Fluorescence Shpol'skii Spectroscopy of High Molecular Weight Polycyclic Aromatic Hydrocarbons. *Applied Spectroscopy*, 61 (1), 14-25. DOI: 10.1366/13-07124.
- 88) A. V. Schenone, M. J. Culzoni, A. D. Campiglia, H. C. Goicoechea*, **2013**. Total synchronous fluorescence spectroscopic data modeled with first- and second-order algorithms for the determination of doxorubicin in human plasma. *Analytical Chemistry and Biochemistry*, 405, 8515 – 8523. DOI: 10.1007/s00216-013-7261-y.
- 87) E. C. Heider, K. Trieu, V. M. Diaz, A. D. Campiglia*, S. J. Duranceau, **2013**. Fabrication and characterization of optimized gold nanorod – Indium Tin Oxide electrode for potential controlled Surface Plasmon Resonance measurements. *Microchimica Acta*, 180, 1013 - 1020. DOI: 10.1007/s00604-013-1017-4.
- 86) W. B. Wilson, A. A. Costa, H. Wang, A. D. Campiglia*, J. A. Dias, Silvia C. L. Dias, **2013**. Pre-concentration of water samples with BEA zeolite for the direct determination of polycyclic aromatic

- hydrocarbons with laser-excited time-resolved Shpol'skii spectroscopy. *Microchemical Journal*, 110, 246-255. DOI 10.1016/j.microc.2013.04.001.
- 85) G. Knobel and A. D. Campiglia*, **2013**. Determination of Polycyclic Aromatic Hydrocarbon Metabolites in milk by QuEChERS and Capillary Electrophoresis. *Journal of Separation Science*, 36, 2291-2298. DOI 10.1002/jssc.201300250.
- 84) G. Knobel, K. Calimag-Williams, A. D. Campiglia*, **2013**. Analysis of Polycyclic Aromatic Hydrocarbon Metabolites in Cow's Milk by Liquid-Liquid Extraction and Synchronous Room-Temperature Fluorescence Spectroscopy. *Analytical Methods*, 5, 1577 – 1582. DOI: 10.1039/c3ay26114j.
- 83) S. S. de Souza, A. D. Campiglia and F. Barbosa Junior*, **2013**. A simple method for methylmercury, inorganic mercury and ethylmercury determination in plasma samples by high performance liquid chromatography-cold-vapor-inductively coupled plasma mass spectrometry *Analytica Chimica Acta*, 761, 11-17. DOI: 10.1016/j.aca.2012.11.038
- 82) W. B. Wilson, E. C. Heider, F. Barbosa Jr., A. D. Campiglia*, **2012**. Low-Temperature Multidimensional Luminescence Spectroscopy for the Analysis of Polycyclic Aromatic Compounds. *Current Topics in Analytical Chemistry*, 9, 1-23.
- 81) H. C. Goicoechea, S. Yu, A. F. T. Moore, A. D. Campiglia*, **2012**. Four-way modeling of 4.2K time-resolved excitation emission fluorescence data for the quantitation of polycyclic aromatic hydrocarbons in soil samples. *Talanta*, 101, 330 – 336. DOI: 10.1016/j.talanta.2012.09.035.
- 80) G. Knobel, K. Calimag-Williams, A. D. Campiglia*, **2012**. Solid-phase extraction, sample stacking and capillary zone electrophoresis for the analysis of urinary polycyclic aromatic hydrocarbon metabolites. *The Analyst*, 137, 5639 – 5647; DOI: 10.1039/c2an36265a.
- 79) G. F. M. Aguiar, B. L. Batista, J. L. Rodrigues, L. R. S. Silva, A. D. Campiglia, R. M. Barbosa, F. Barbosa Jr.*, **2012**. Determination of trace elements in bovine semen samples by inductively coupled plasma mass spectrometry and data mining techniques for identification of bovine class. *Journal of Dairy Science*, 95, 7066 – 7073. DOI: 10.3168/jds.2012-5515.
- 78) E. C. Heider, K. Trieu, A. F. T. Moore, A. D. Campiglia*, **2012**. Portable mercury sensor using Surface Plasmon Resonance of immobilized gold nanorods. *Talanta*, 99, 180 – 185. DOI:10.1016/j.talanta.2012.05.037.
- 77) W. B. Wilson; A. A. Costa; H. Wang; Jose A. Dias; Silvia C. L. Dias, A. D. Campiglia*, **2012**. Analytical evaluation of BEA zeolite for the pre-concentration of polycyclic aromatic hydrocarbons and their subsequent chromatographic analysis in water samples. *Analytica Chimica Acta*, 733, 103-109. DOI:10.1016/j.aca.2012.04.043.
- 76) H. C. Goicoechea, K. Calimag-Williams, A. D. Campiglia*, **2012**. Multi-way partial least-squares and residual bi-linearization for the direct determination of monohydroxy-polycyclic aromatic hydrocarbons on octadecyl membranes via room-temperature fluorescence excitation emission matrices. *Analytica Chimica Acta*, 717, 100 – 109. DOI:10.1016/j.aca.2011.12.031.
- 75) A. A. Costa, W. B. Wilson, H. Wang, A. D. Campiglia*, Jose A. Dias, Silvia C. L. Dias, **2012**. Comparison of BEA, USY and ZSM-5 for the quantitative extraction of polycyclic aromatic hydrocarbons from water samples. *Microporous and Mesoporous Materials*, 149, 186 –192. DOI:10.1016/j.micromeso.2011.06.016.
- 74) W. B. Wilson and A. D. Campiglia*, **2011**. Determination of polycyclic aromatic hydrocarbons with molecular weight 302 in water samples by solid-phase nano-extraction and laser excited time-resolved Shpol'skii spectroscopy. *The Analyst*, 136, 3366 – 3374. DOI: 10.1039/C1AN15309A.
- 73) K. Calimag – Williams, H. C. Goicoechea and A. D. Campiglia*, **2011**. Room-temperature fluorescence spectroscopy of monohydroxy metabolites of polycyclic aromatic hydrocarbons on octadecyl extraction membranes. *Talanta*, 85, 1805-1811. DOI:10.1016/j.talanta.2011.07.009.
- 72) W. B. Wilson and A. D. Campiglia*, **2011**. Analysis of co-eluted isomers of high-molecular weight polycyclic aromatic hydrocarbons in high performance liquid chromatography fractions via solid-phase nanoextraction and time-resolved Shpol'skii spectroscopy. *Journal of Chromatography A*, 1218, 6922 – 6929. DOI:10.1016/j.chroma.2011.08.015.
- 71) H. Wang, G. Knobel, K. Kolimag, W. B. Wilson and A. D. Campiglia*, **2011**. Gold nano-particles deposited capillaries for in-capillary micro-extraction capillary zone electrophoresis of monohydroxy polycyclic aromatic hydrocarbons. *Electrophoresis*, 32, 720 – 727. DOI: 10.1002/elps.201000516.

- 70) H. Wang and A. D. Campiglia*, **2010**. Direct determination of benzo[*a*]pyrene in water samples by a gold nanoparticle-based solid-phase extraction method and laser-excited time-resolved Shpol'skii spectrometry. *Talanta*, 83, 233 – 240. DOI:10.1016/j.talanta.2010.09.013.
- 69) H. Wang, W. B. Wilson and A. D. Campiglia*, **2009**. Using gold nanoparticles to improve the recovery and the limits of detection for the analysis of monohydroxy-polycyclic aromatic hydrocarbons in urine samples. *Journal of Chromatography A*, 1216, 5793-5799. DOI:10.1016/j.chroma.2009.06.015.
- 68) H. Wang, S. J. Yu and A. D. Campiglia*, **2009**. Solid-phase nano-extraction and laser-excited time-resolved Shpol'skii spectroscopy for the analysis of polycyclic aromatic hydrocarbons in drinking water samples. *Analytical Biochemistry*, 385, 249 – 256. DOI:10.1016/j.ab.2008.11.029.
- 67) H. Wang and A. D. Campiglia*, **2008**. Determination of Polycyclic Aromatic Hydrocarbons in Drinking Water Samples by Solid-Phase Nanoextraction and High-Performance Liquid Chromatography. *Analytical Chemistry*, 80, 8202 – 8209. DOI: 10.1021/ac8014824.
- 66) K. Vatsavai, H. C. Goicoechea, A. D. Campiglia*, **2008**. Direct quantification of monohydroxy-polycyclic aromatic hydrocarbons in synthetic urine samples via solid-phase extraction room-temperature excitation-emission matrix fluorescence spectroscopy. *Analytical Biochemistry*, 376, 213-220. DOI:10.1016/j.ab.2008.02.020.
- 65) S. Yu, H. C. Goicoechea, A. D. Campiglia*, **2007**. Sonication Laser-Excited Time-Resolved Shpol'skii Spectrometry: A Facile Method for the Direct Determination of Fifteen Priority Pollutants in Soil Samples. *Applied Spectroscopy*, 61, 165 – 170. DOI: 10.1366/000370207779947521.
- 64) A. D. Campiglia*, S. Yu., A. J. Bystol, H. Wang, **2007**. "Measuring Scatter with a Cryogenic Probe and an ICCD Camera: A Novel Approach for Recording Absorption Spectra in Shpol'skii Matrixes and Fluorescence Quantum Yields in Glassy Solvents". *Analytical Chemistry*, 79, 1682 – 1689. DOI: 10.1021/ac061914s.
- 63) M. Santos, S. Nadi, H. C. Goicoechea, M. K. Haldar, A. D. Campiglia* and S. Mallik, **2007**. Artificial neural networks for qualitative and quantitative analysis of target proteins with polymerized liposome vesicles. *Analytical Biochemistry*, 361, 109 – 119. DOI:10.1016/j.ab.2006.11.019.
- 62) A. Solis, M. Rex, A. D. Campiglia*, P. Sojo, **2007**. Accelerated multiple-pass moving average: a novel algorithm for baseline estimation in capillary electrophoresis and its application to baseline correction on real-time bases. *Electrophoresis*, 28, 1181 – 1188. DOI: 10.1002/elps.200600538.
- 61) S. Yu, D. G. Gomez and A. D. Campiglia*, **2006**. Solid-Liquid Extraction Fluorescence Line Narrowing Spectroscopy for the Analysis of Fluoroquinolones in Aqueous Samples. *Applied Spectroscopy*, 60, 1174 - 1180. DOI: 10.1366/000370207779947521.
- 60) M. Rex, F. E. Hernandez and A. D. Campiglia*, **2006**. Pushing the Limits of Mercury Sensors with Gold Nanorods. *Analytical Chemistry*, 78, 118-124. DOI: 10.1021/ac051166r.
- 59) A. D. Campiglia*, A. J. Bystol, S. Yu, **2006**. Instrumentation for Multidimensional Luminescence Spectroscopy and Its Application to Low-Temperature Analysis in Shpol'skii Matrixes and Optically Scattering Media. *Analytical Chemistry*, 78, 484-492. DOI: 10.1021/ac051332v.
- 58) F. E. Hernandez*, S. Yu, M. Garcia, A. D. Campiglia, **2005**. Fluorescence Lifetime Enhancement of Organic Chromophores Attached to Gold Nanoparticles. *Journal of Physical Chemistry*, 109, 9499 – 9504. DOI: 10.1021/jp050803e.
- 57) H. C. Goicoechea, S. Yu, A. C. Olivieri, A. D. Campiglia*, **2005**. Four-Way Data Coupled to Parallel Factor Model Applied to Environmental Analysis: Determination of 2,3,7,8-tetrachloro-dibenzo-para-dioxin in Highly Contaminated Waters by Solid-Liquid Extraction Laser- Excited Time-Resolved Shpol'skii Spectroscopy. *Analytical Chemistry*, 77, 2608 – 2616. DOI: 10.1021/ac048343t.
- 56) S. Yu and A. D. Campiglia*, **2005**. Direct Determination of Dibenzo[*a,l*]pyrene and Its Four Dibenzopyrene Isomers in Water Samples by Solid-Liquid Extraction and Laser-Excited Time-Resolved Shpol'skii Spectrometry. *Analytical Chemistry*, 77, 1440 – 1447. DOI: 10.1021/ac048310d.
- 55) S. Nadi, M. Santos, M. K. Haldar, B. C. Roy, S.Mallik*, A. D. Campiglia, **2005**. Solid-Supported Synthesis of Polymerizable Lanthanide-ion Chelating Lipids for Protein Detection. *Inorganic Chemistry*, 44, 2234 – 2244. DOI: 10.1021/ic048885t.
- 54) H. C. Goicoechea, M. Santos, B. C. Roy, A. D. Campiglia*, S. Mallik, **2005**. Evaluation of two lanthanide complexes for qualitative and quantitative analysis of target proteins via partial least squares analysis. *Analytical Biochemistry*, 336, 64-74. DOI: 10.1016/j.ab.2004.09.020.

- 53) S. Yu and A. D. Campiglia*, **2004**. Laser-Excited Time-Resolved Shpol'skii Spectroscopy for the Direct Analysis of Dibenzopyrene Isomers in Liquid Chromatography Fractions. *Applied Spectroscopy*, 58, 1385-1393. DOI: 10.1366/0003702042641416.
- 52) M. Santos, B. C. Roy, H. C. Goicoechea, A. D. Campiglia*, S. Mallik, **2004**. An Investigation of the Analytical Potential of Polymerized Liposomes bound to Lanthanide Ions for Protein Analysis. *Journal of the American Chemical Society*, 126, 10738-10745. DOI: 10.1021/ja048963b.
- 51) B. C. Roy, M. Santos, S. Mallik*, A. D. Campiglia, **2003**. Synthesis of metal-chelating lipids to sensitize lanthanide ions. *Journal of Organic Chemistry*, 68, 3999-4007. DOI: 10.1021/jo026833k.
- 50) A. J. Bystol and A. D. Campiglia*, **2003**. Fluorescence Line Narrowing of Polycyclic Aromatic Hydrocarbons on Solid-Liquid Extraction Membranes. *Applied Spectroscopy*, 57, 697-702. DOI: 10.1366/000370203322005409.
- 49) A. F. Arruda, S. Yu, A. D. Campiglia*, **2003**. Shpol'skii spectroscopy at the interface of two non-polar microenvironments: a novel approach for the analysis of polycyclic aromatic hydrocarbons. *Talanta*, 59, 1199-1211. DOI: 10.1016/S0039-9140(03)00033-X.
- 48) A. J. Bystol, S. Yu, A. D. Campiglia*, **2003**. Analysis of polycyclic aromatic hydrocarbons in HPLC fractions by laser-excited time resolved Shpol'skii spectrometry with cryogenic fiber optic probes. *Talanta*, 60, 449-458. DOI: 10.1016/S0039-9140(03)00111-5.
- 47) A. F. Arruda, H. C. Coicoechea, M. Santos, A. D. Campiglia* and A. C. Olivieri, **2003**. Solid-liquid extraction room temperature phosphorimetry and pattern recognition for screening polycyclic aromatic hydrocarbons and polychlorinated biphenyls in water samples. *Environmental Science and Technology*, 37, 1385-1391. DOI: 10.1021/es020717h.
- 46) A. J. Bystol, T. Thorstenson, A. D. Campiglia*, **2002**. Laser-Induced Multidimensional Fluorescence Spectroscopy in Shpol'skii Matrices for the Analysis of Polycyclic Aromatic Hydrocarbons in HPLC Fractions and Complex Environmental Extracts. *Environmental Science and Technology*, 36, 4424-4429. DOI: 10.1021/es020691u.
- 45) T. L. Martin, A. F. Arruda, A. D. Campiglia*, **2002**. Time-resolved laser excited phosphorimetry at liquid helium temperature for the direct analysis of 2,3,7,8-tetrachlorodibenzo-para-dioxin in complex mixtures. *Applied Spectroscopy*, 56, 1354-1360. DOI: 10.1366/000370202760354830.
- 44) A. J. Bystol, J. L. Whitcomb, A. D. Campiglia*, **2002**. A novel approach for low-temperature laser-induced fluorescence spectroscopy of polycyclic aromatic hydrocarbons adsorbed on solid-phase extraction membranes. *Talanta*, 57, 1101-1111. DOI: 10.1016/S0039-9140(02)00198-4.
- 43) G. M. Escandar*, A. J. Bystol and A. D. Campiglia, **2002**. Spectrofluorimetric method for the determination of piroxicam and pyridoxine. *Analytica Chimica Acta*, 466, 275 – 283. DOI: 10.1016/S0003-2670(02)00595-0.
- 42) J. L. Whitcomb, A. J. Bystol, A. D. Campiglia*, **2002**. Time-resolved laser induced fluorimetry for screening polycyclic aromatic hydrocarbons on solid-phase extraction membranes. *Analytica Chimica Acta*, 464, 261-272. DOI: 10.1016/S0003-2670(02)00425-7.
- 41) A. J. Bystol, A. D. Campiglia*, G. D. Gillispie, **2001**. Laser-Induced Multidimensional Fluorescence Spectroscopy in Shpol'skii Matrices with a Fiber Optic Probe at Liquid Helium Temperature. *Analytical Chemistry*, 73, 5762-5770. DOI: 10.1021/ac010828j.
- 40) T. L. Martin and A. D. Campiglia*, **2001**. Fiber Optic System for 77 K Phosphorescence Lifetime Measurements of Polycyclic Aromatic Compounds in Shpol'skii Matrices. *Applied Spectroscopy*, 55, 1266-1272. DOI: 10.1366/0003702011953306.
- 39) J. L. Whitcomb and A. D. Campiglia*, **2001**. Screening potential of solid-phase extraction and solid surface room temperature fluorimetry of polycyclic aromatic hydrocarbons in water samples. *Talanta*, 55, 509-518. DOI: 10.1016/S0039-9140(01)00451-9.
- 38) A. J. Bystol, J. L. Whitcomb and A. D. Campiglia*, **2001**. Solid-Liquid Extraction Laser Excited Time-Resolved Shpol'skii Spectrometry: A Facile Method for the Direct Identification of Fifteen Priority Pollutants in Water Samples. *Environmental Science and Technology*, 35, 2566-2571. DOI: 10.1021/es010575b.
- 37) A. F. Arruda and A. D. Campiglia*, **2000**. Screening Potential of Solid-Phase Extraction Room Temperature Phosphorimetry for the Analysis of Polychlorinated Dibenzofurans in Water Samples. *Environmental Science and Technology*, 34, 4982-4988. DOI: 10.1021/es001188p.
- 36) B. C. Roy, Md. Abul Fazal, Andrea Arruda, Sanku Mallik* and A. D. Campiglia, **2000**. Polymerized Fluorescent Liposomes Incorporating Lanthanide Ions. *Organic Letters*, 2(20), 3067-3070. DOI: 10.1021/ol006357p.

- 35) E. D. Hagestuen, A. F. Arruda and A. D. Campiglia*, **2000**. On the Improvement of Solid-Phase Extraction Room-Temperature Phosphorimetry for the Analysis of Polycyclic Aromatic Hydrocarbons in Water Samples. *Talanta*, 52, 727-737. DOI: 10.1016/S0039-9140(00)00427-6.
- 34) A. J. Bystol, A. D. Campiglia* and G. D. Gillispie, **2000**. Time-resolved laser-excited Shpol'skii spectrometry with a fiber optic probe and ICCD camera. *Applied Spectroscopy*, 54, 910-917. DOI: 10.1366/0003702001950319.
- 33) B. C. Roy, R. Peterson, S. Mallik* and A. D. Campiglia, **2000**. Synthesis and Fluorescence Properties of New Fluorescent, Polymerizable, Metal-Chelating Lipids. *Journal of Organic Chemistry* 65, 3644-3651. DOI: 10.1021/jo991836r.
- 32) A. F. Arruda, A. D. Campiglia*, B. P. S. Chauhan, P. Boudjouk, **1999**. New organosilicon polymer for the extraction and luminescence analysis of uranyl in environmental samples. *Analytica Chimica Acta*, 396, 263-272. DOI: 10.1016/S0003-2670(99)00448-1.
- 31) E. D. Hagestuen and A. D. Campiglia*, **1999**. New Approach for Screening Polycyclic Aromatic Hydrocarbons in Water Samples Based on Solid-Phase Extraction Room-Temperature Phosphorimetry. *Talanta*, 49, 547-560. DOI: 10.1016/S0039-9140(99)00040-5.
- 30) A. F. Arruda and A. D. Campiglia*, **1999**. Determination of trace levels of polychlorinated biphenyls on reversed phase octadecyl bonded silica phases. *Analytica Chimica Acta*, 386, 271-280. DOI: 10.1016/S0003-2670(99)00025-2.
- 29) E. D. Hagestuen and A. D. Campiglia*, **1998**. Phosphorimetric detection of polycyclic aromatic hydrocarbons on solid-phase extraction membranes. *Applied Spectroscopy*, 52, 1096-1102. DOI: 10.1366/0003702981944814.
- 28) T. Vo-Dinh*, J. Fetzer, and A. D. Campiglia, **1998**. Monitoring and Characterization of polyaromatic compounds in the environment. *Talanta*, 47, 943-969. DOI: 10.1016/S0039-9140(98)00162-3.
- 27) A. D. Campiglia and T. Vo-Dinh*, **1998**. Rapid Screening Method for Cocaine and Benzoylcegonine in Saliva Samples. *Analytica Chimica Acta*, 372, 349-355. DOI: 10.1016/S0003-2670(98)00317-1.
- 26) A. F. Arruda and A. D. Campiglia*, **1997**. Phosphorimetric Determination of Indomethacin in Pharmaceutical Formulations. *Analyst*, 122, 559-562. DOI: 10.1039/a700309i.
- 25) A. D. Campiglia, F. Moreau, D. M. Hueber, T. Vo-Dinh*, **1997**. Phosphorescence imaging system using an acousto-optic filter based charge-coupled device. *Analytica Chimica Acta*, 351, 229-239. DOI: 10.1016/S0003-2670(97)00236-5.
- 24) A. D. Campiglia, D. M. Hueber, F. Moreau and T. Vo-Dinh*, **1997**. Phosphorescence imaging system using an acousto optic tunable filter and a charge-coupled device. *Analytica Chimica Acta*, 346, 361- 372. DOI: 10.1016/S0003-2670(97)90079-9.
- 23) T. Vo-Dinh*, P. Viallet, I. M. Del Olmo, D. M. Hueber, C. L. Stevenson, A. D. Campiglia, **1996**. Laser-excited synchronous fluorescence system for the analysis of polycyclic aromatic compounds. *Polycyclic Aromatic Compounds*, 9, 265-272. DOI: 10.1080/10406639608031227.
- 22) A. D. Campiglia and T. Vo-Dinh*, **1996**. Fiber-optic sensor for laser-induced room-temperature phosphorescence detection of polycyclic aromatic compounds. *Talanta*, 43, 1805-1814. DOI: 10.1016/0039-9140(96)01945-5.
- 21) A. D. Campiglia, J. P. Alarie, and T. Vo-Dinh*, **1996**. Development of a room temperature phosphorescence fiber optic sensor. *Analytical Chemistry*, 68, 1599-1604. DOI: 10.1021/ac951035y.
- 20) A. D. Campiglia, D. M. Hueber and T. Vo-Dinh*, **1996**. Laser-induced solid surface room temperature phosphorimetry of polycyclic aromatic hydrocarbons. *Applied Spectroscopy*, 50, 252-256. DOI: 10.1366/0003702963906401.
- 19) A. D. Campiglia, D. M. Hueber and T. Vo-Dinh*, **1996**. Analysis of polycyclic aromatic compounds in soil samples using laser-induced phosphorimetry. *Polycyclic Aromatic Compounds*, 8, 117-128. DOI: 10.1080/10406639608048340.
- 18) J. de R. Furtado Jr. and A. D. Campiglia*, **1995**. Solid-surface room-temperature phosphorescence detection of serotonin, tryptamine, and gramine enhanced by inorganic salts and sodium dodecyl sulfate. *Talanta*, 42, 1505-1512. DOI: 10.1016/0039-9140(95)01602-8.
- 17) R. Q. Aucelio and A. D. Campiglia*, **1995**. Solid surface room temperature phosphorimetry analysis of yohimbine hydrochloride in pharmaceutical formulations. *Analytica Chimica Acta*, 309, 345-353. DOI: 10.1016/0003-2670(94)00672-9.

- 16) J. de R. Furtado Jr. and A. D. Campiglia*, **1995**. Room temperature phosphorescence characteristics of indole-3-propionic acid, DL-indole-3-lactic acid, and indole-3-glycolic acid on low-background paper substrate. *Microchemical Journal*, 52, 101-112. DOI: 10.1006/mchj.1995.1072.
- 15) R. Q. Aucelio and A. D. Campiglia*, **1994**. Solid surface room temperature phosphorimetry analysis of reserpine in pharmaceutical formulations. *Talanta*, 41, 2131-2136. DOI: 10.1016/0039-9140(94)00198-7.
- 14) S. M. C. Gioia and A.D. Campiglia*, **1994**. Room temperature phosphorescence of biogenic indoles in low background paper enhanced by heavy -atom salts and sodium dodecyl sulfate. *Analytica Chimica Acta*, 287, 89-94. DOI: 10.1016/0003-2670(94)85105-0.
- 13) R. Q. Aucelio and A. D. Campiglia*, **1994**. Pharmaceutical formulation analysis of thalidomide by solid surface room temperature phosphorimetry. *Microchimica Acta*, 117, 78-85. DOI: 10.1007/BF01243018.
- 12) A. D. Campiglia, J. J. Laserna, A. Berthod and J. D. Winefordner*, **1991**. Solid surface room-temperature phosphorimetric detection of caffeine, theophylline and theobromine in liquid chromatography. *Analytica Chimica Acta*, 244, 215-222. DOI: 10.1016/S0003-2670(00)82501-5.
- 11) J. J. Aaron, A. D. Campiglia and J. D. Winefordner*, **1990**. Solid-substrate room-temperature phosphorescence of purine derivatives enhanced by thallium (I) ions and a surface active agent. *Analytica Chimica Acta*, 236, 257-265. DOI: 10.1016/S0003-2670(00)83320-6.
- 10) A. D. Campiglia, A. Berthod and J. D. Winefordner*, **1990**. Solid-surface room-temperature phosphorescence detection for high performance liquid chromatography. *Journal of Chromatography*, 508, 37-49. DOI: 10.1016/S0021-9673(00)91238-X.
- 09) A. D. Campiglia, A. Berthod and J. D. Winefordner*, **1990**. Flow injection for continuous sample introduction in solid-substrate room-temperature phosphorescence. *Analytica Chimica Acta*, 231, 289-293. DOI: 10.1016/S0003-2670(00)86428-4.
- 08) A. D. Campiglia, L. M. Perry and J. D. Winefordner*, **1990**. Two-nebulizer automatic system for solid surface room-temperature phosphorescence analysis. *Applied Spectroscopy*, 44, 729-732. DOI: 10.1366/0003702904087316.
- 07) J. J. Laserna, A. D. Campiglia and J. D. Winefordner*, **1989**. Mixture analysis and quantitative determination of nitrogen-containing organic molecules by surface-enhanced Raman spectrometry. *Analytical Chemistry*, 61, 1697-1701. DOI: 10.1021/ac00190a022.
- 06) L. M. Perry, A. D. Campiglia and J. D. Winefordner*, **1989**. Room-temperature phosphorescence of polynuclear aromatic hydrocarbons on matrix-modified solid substrates. *Analytical Chemistry*, 61, 2328-2330. DOI: 10.1021/ac00195a024.
- 05) A. D. Campiglia, L. M. Perry and J.D. Winefordner*, **1989**. Automatic sampling system employing a nebulizer for solid-surface room-temperature phosphorescence analysis. *Applied Spectroscopy*, 43, 1341-1343. DOI: 10.1366/0003702894204434.
- 04) L. M. Perry, A. D. Campiglia and J. D. Winefordner*, **1989**. Room temperature phosphorescence of anthracene on a pretreated solid substrate. *Analytica Chimica Acta*, 225, 415-420. DOI: 10.1016/S0003-2670(00)84630-9.
- 03) J. J. Laserna, A. D. Campiglia and J. D. Winefordner*, **1988**. Surface-enhanced Raman spectrometry on a silver-coated filter paper substrate. *Analytica Chimica Acta*, 208, 21-30. DOI: 10.1016/S0003-2670(00)80732-1.
- 02) A. D. Campiglia and C. G. de Lima*, **1988**. Utilization of an inorganic phosphor as a reference signal in solid-surface room-temperature phosphorimetry. *Analytical Chemistry*, 60, 2165-2167. DOI: 10.1021/ac00170a039.
- 01) A. D. Campiglia and C. G. de Lima*, **1987**. Room-temperature phosphorimetry of carbaryl in low-background paper substrate. *Analytical Chemistry*, 59, 2822-2827. DOI: 10.1021/ac00150a023.

4.3. Articles Published in Proceedings of Scientific Meetings (Peer Reviewed)

- 02) O.F. Swenson*, D. A. Rogers, F. M. Patterson, A. D. Campiglia, **2002**. Optics for Scientists and Engineers, in *Proceedings of the 2002 ASEE/IEEE Frontiers in Education Conference*, Boston, MA, Nov. 10 2002, Volume 3, pp. S4A.8-S4A.12.
- 01) A. D. Campiglia* and A. J. Bystol, **2002**. Water monitoring of polycyclic aromatic compounds by laser-excited time-resolved Shpol'skii spectrometry with fiber optic probes, in *Advanced Environmental*

Sensing Technology II, Tuan Vo-Dinh, Stephanus Büttgenbach, Editors, Proceedings of SPIE Vol. 4576, 196-206.

4.4. Book Chapters (peer reviewed)

- 04) A. D. Campiglia, H. C. Goicoechea, A. F. T. Moore and W. B. Wilson, **2015**. Exploring the multidimensionality of high-resolution luminescence spectroscopy to generate high-order data for multivariate calibration methods; Chapter 12 in Fundamentals and Analytical Applications of Multiway Calibration, Data Handling in Science and Technology, Volume 29; A. C. Olivieri, G. M. Escandar, H. C. Goicoechea, A. Muñoz de la Peña, Editors; Elsevier, The Netherlands.
- 03) W. H. Lee, X. Guo, D. Guo, A. D. Campiglia, X. Ma and J. Church, **2015**. *In Situ* Polycyclic Aromatic Hydrocarbons (PAHs) Monitoring Sensor, Wastewater Treatment: Occurrence and Fate of Polycyclic Aromatic Hydrocarbons, CRC Press/Taylor & Francis.
- 02) J. S. de Klerk, H. Wang, A. D. Campiglia, C. Gooijer, F. Ariese, **2008**. High Resolution Molecular Spectroscopy in Low-Temperature Crystalline Matrices, Lasers in Chemistry, Probing and Influencing Matter; Maxilian Lackner, Editor; Elsevier, The Netherlands.
- 01) A. D. Campiglia, **2000**. Luminescence in Environmental Analysis, Encyclopedia of Analytical Chemistry: Instrumentation and Applications, Wiley, Chichester, UK.

4.5. Participations and/or Presentations in Professional Meetings, Symposia, and Conferences

The list of participations and/or presentations I have made at scientific meetings has been divided in the following categories: (IV.4.5.1) member of advisory boards, (IV.4.5.2) program section chair, (IV.4.5.3) invited talks, (IV.4.5.4) contributed talks and (IV.4.5.5) poster presentations made by group members.

4.5.1. Participation on Advisory Boards of International Scientific Meetings (peer reviewed)

- 03) *2nd Ibero-American Meeting on Toxicology and Environmental Health (IBAMTOX)*, Ribeirao Preto, Sao Paulo, Brazil, June 17 – 19, 2013.
Participation: *Member of Advisory Board*.
- 02) *International Symposium of Nanotechnology in Environmental Protection and Pollution*, Fort Lauderdale, FL, December 10-12, **2007**. A. D. Campiglia, Abstract Book page 3.
Participation: Member of Advisory Board.
- 01) *The SPIE International Symposium on Environmental and Industrial Sensing, Instrumentation for Air Pollution and Global Atmospheric Monitoring*. Boston, MA, October 28-November 2, **2001**. A. D. Campiglia, Abstract Book, page 30.
Participation: Member of Advisory Board.

4.5.2. Program Section Chair of International Scientific Meetings (peer reviewed)

- 15) *XVII Congresso Brasileiro de Toxicologia (CBTOX)*, Ribeirao Preto, Sao Paulo, Brazil, June 22 – June 25, **2011**. Chair of the Analytical Toxicology symposium.
- 14) The *36th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Louisville, KY, October 18 – 22, **2009**. Applications of Fluorescence Spectroscopy and Related Techniques II. Organizer and Presider: Andres D. Campiglia. Abstract Book p. 66.
- 13) The *36th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Louisville, KY, **2009**. Applications of Fluorescence Spectroscopy and Related Techniques I. Organizer and Presider: Andres D. Campiglia. Abstract Book p. 64.
- 12) The *35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Reno, NV, September 28 – October 2, **2008**. Applications of Fluorescence Spectroscopy and Related Techniques II. Organizer and Presider: Andres D. Campiglia. Abstract Book p. 66.
- 11) The *35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Reno, NV, September 28 – October 2, **2008**. Applications of Fluorescence Spectroscopy and Related Techniques I. Organizer and Presider: Andres D. Campiglia. Abstract Book p. 64.

- 10) *International Symposium on Nanotechnology in Environmental Protection and Pollution*, Fort Lauderdale, FL, December 11-13, **2007**. Section Chair: Toxicity and Exposure. Campiglia A. D. Abstract Book p. 9.
- 09) *International Symposium on Nanotechnology in Environmental Protection and Pollution*, Fort Lauderdale, FL, December 11-13, **2007**. Section Chair: Sector Focus. Campiglia A. D. Abstract Book p. 11.
- 08) *The 34th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Memphis, TN, October 19-24, **2007**. Developments in Luminescence Spectroscopy and Instrumentation. Organizer and Presider: Andres D. Campiglia. Abstract Book, page 69.
- 07) *The 34th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Memphis, TN, October 19-24, **2007**. Applications of Fluorescence Spectroscopy and Related Techniques. Organizer and Presider: Andres D. Campiglia. Abstract Book, page 60.
- 06) *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Orlando, FL, September 24-28, **2006**. Development in Luminescence Spectroscopy and Instrumentation. Organizer and Presider: Andres D. Campiglia. Abstract Book, p. 69.
- 05) *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Orlando, FL, September 24-28, **2006**. Application of Novel Materials for Fluorescence Spectroscopy. Organizer and Presider: Andres D. Campiglia. Abstract Book, p.67.
- 04) *The SPIE International Symposium on Environmental and Industrial Sensing*, Boston, MA, October 28-November 2, **2001**. A. D. Campiglia. Abstract Book page 35. Chair of section Environmental Sensing Systems.
- 03) *32nd Great Lakes Regional Meeting, Fargo, ND, 4-6 June 2000*.
Chair of section Environmental Analytical Chemistry II.
- 02) *The 27th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Nashville, TN, September 24-28, **2000**. A. D. Campiglia. Abstract Book, Program Overview, page 70. Chair of section Molecular Luminescence Spectroscopy.
- 01) *OCLI First Annual Micro-Pac Forum*, OCLI, Santa Rosa, CA, May 11-12, **2000**.
Chair of section Environmental Analysis.

4.5.3. *Invited Talks at International Scientific Meetings (peer reviewed)*

- 17) *9th International Congress of Pharmaceutical Sciences (CIFARP)*, Ribeirao Preto, Sao Paulo, Brazil, November 20 – 23, **2013**. Campiglia A. D. New Trends in Forensic Toxicology.
Participation: 45 min oral presentation.
- 16) *2nd Ibero-American Meeting on Toxicology and Environmental Health (IBAMTOX)*, Ribeirao Preto, Sao Paulo, Brazil, June 17 – 19, **2013**. Campiglia A. D. Analytical Chemistry with Gold Nanoparticles.
Participation: 45 min oral presentation.
- 15) *XIII Brazilian Meeting of Inorganic Contaminants*, Ribeirao Preto, Sao Paulo, Brazil, June 17 – 19, **2013**. Campiglia, A. D. Portable Sensor for Mercury Detection.
Participation: 45 min oral presentation.
- 14) *I Workshop em Toxicologia*, Programa de Pós-graduação em Toxicologia da Faculdade de Ciências Farmacêuticas de Ribeirão Preto da Universidade de São Paulo (FCFRP-USP), Ribeirao Preto, Sao Paulo, Brazil, November 5 – November 9th, **2012**. Campiglia, A. D. Analytical Chemistry with Gold Nanoparticles.
Participation: 50 min oral presentation.
- 13) *I Workshop em Toxicologia*, Programa de Pós-graduação em Toxicologia da Faculdade de Ciências Farmacêuticas de Ribeirão Preto da Universidade de São Paulo (FCFRP-USP), Ribeirao Preto, Sao Paulo, Brazil, November 5 – November 9th, **2012**. Campiglia, A. D. Luminescence Spectroscopy of Carcinogenic Pollutants.
Participation: 50 min oral presentation.
- 12) *XVII Congresso Brasileiro de Toxicologia (CBTOX)*, Ribeirao Preto, Sao Paulo, Brazil, June 22 – June 25, **2011**. Campiglia A. D. Can we find the needle in the haystack?
Participation: 45 min oral presentation.
- 11) *22nd International Symposium on Polycyclic Aromatic Compounds (ISPAC 22)*, Charleston, SC, September 20 – 24th, **2009**. Campiglia A. D. Novel Approach for Determining Polycyclic Aromatic Hydrocarbons (PAH) at the Ultra-Trace Level of Contamination. Abstract book p. 4.

- Participation: 20 min oral presentation.*
- 10)** *7th International Congress of Pharmaceutical Science (CIFARP), Ribeirao Preto, Sao Paulo, Brazil, September 6th – 9th, 2009.* Campiglia A. D. New Approaches and Instrumentation for the Analysis of Compounds with Biological Relevance. Abstract Book p. 12.
Participation: 30 min oral presentation at the symposium entitled “Advanced Sample Preparation Procedures and Instrumentation for the Analysis of Compounds of Biological Relevance”.
- 09)** *7th International Congress of Pharmaceutical Science (CIFARP), Ribeirao Preto, Sao Paulo, Brazil, September 6th – 9th, 2009.* Campiglia A. D. Application of Fluorescence Spectroscopy to Forensic Fiber Examination, Abstract Book p. 13.
Participation: keynote speaker (50 min oral presentation) at the symposium entitled “Innovation and Trends Related to Forensic Sciences”.
- 08)** *1st Brazilian Symposium of Forensic Science, Ribeirao Preto, Sao Paulo, Brazil, December 10th – 13th, 2008.* Campiglia A. D. Fluorescence Line Narrowing spectroscopy for the Analysis of Textile Fibers.
Participation: Keynote speaker, 50 min oral presentation.
- 07)** *American Academy of Forensic Sciences 60th Anniversary Scientific Meeting, Washington, DC, February 19 – 24, 2008.* Campiglia A. D.
Participation: 30 min oral presentation in the General Forensics Research and Development Grantees Meeting, National Institutes of Justice (NIJ).
- 06)** *International Symposium on Nanotechnology in Environmental Protection and Pollution, Fort Lauderdale, FL, December 11-13, 2007.* Novel Approaches for Sensing Environmental Pollutants in the Ultra-trace Level of Contamination. Campiglia, A. D. Abstract Book p. 11.
Participation: Keynote speaker; 45 min presentation.
- 05)** *American Academy of Forensic Sciences 59th Anniversary Scientific Meeting, San Antonio, TX, February 19 – 24, 2007.* Campiglia A. D.
Participation: 30 min oral presentation in the General Forensics Research and Development Grantees Meeting, National Institutes of Justice (NIJ).
- 04)** *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies, Orlando, FL, September 24-28, 2006.* New experimental and instrumentation measuring fluorescence and phosphorescence quantum yields at liquid nitrogen and helium temperature. Campiglia A. D.; Yu S.; Wang H. Abstract Book 599, p. 206.
Participation: 45 minutes presentation.
- 03)** *82nd Annual Florida Meeting and Exposition (FAME), Orlando, FL, May 11-13, 2006.* Advances in High Resolution Luminescence Spectroscopy. Campiglia A. D. Abstract Book 85, p. 36.
Participation: 45 minutes presentation.
- 02)** *III Congreso de Quimica Analitica, Villa de Merlo, San Luis, Argentina, November, 2005.* From Environmental Analysis to Protein Sensing: Pushing the Limits of Multidimensional Luminescence Spectroscopy. Campiglia A. D., Abstract Book CP3.
Participation: Keynote speaker; 45 min presentation.
- 01)** *1st Photochemistry and Bio-photonics Summer School and Conference, Caracas, Venezuela, September, 2005.* New Luminescence Strategies for Environmental Analysis and Textile Fiber Analysis. Campiglia A. D.
Participation: Keynote speaker; 45 min presentation.

4.5.4. Invited Talks at National Scientific Meetings

- 01)** *The 89th Florida Annual Meeting and Exposition (FAME), Tampa, FL, May 9 – 11, 2013.* Campiglia A. D. Fiber Discrimination Based on Fluorescence Excitation Emission Matrices.
Participation: 20 min oral presentation.

4.5.5. Contributed Talks at International Scientific Meetings (peer reviewed)

- 21)** *The 64th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON), Philadelphia, PA, March 17-21, 2013.* Portable Sensor for Mercury Detection. Campiglia A. D., Trieu K., Heider E. C., Moore A. F., Hernandez F. E. Abstract book 180-2; p. 36, preliminary program.

- Participation: Speaker and corresponding author, 20 min presentation.*
- 20) *The 50th Eastern Analytical Symposium & Exposition*, Somerset, NJ, November 14 – 17, **2011**. Application of Fluorescence Spectroscopy to Forensic Fiber Examination. Campiglia A. D., Appalaneni K., Moore A. Abstract book 347, page 23.
Participation: Speaker and corresponding author, 20 min presentation.
- 19) *The 35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies*, Reno, NV, September 28th - October 2nd, **2008**. Evaluation of Chemometric Approaches for the Analysis of Textile Fibers via Room-Temperature Fluorescence Excitation-Emission Matrices. Appalaneni K., Rex M., Goicoechea H., Campiglia A. D. Abstract book 212, p. 119.
Participation: Speaker and corresponding author, 20 min presentation.
- 18) *48th Rocky Mountain Conference on Analytical Chemistry*, Breckenridge, CO, July 23-27, **2006**. Qualitative and Quantitative Analysis of Target Proteins with Polymerized Liposome Vesicles Incorporating Eu(III) Ions. Campiglia, A. D. Abstract Book 176, p. 81.
Participation: Speaker and corresponding author, 20 min presentation.
- 17) *48th Rocky Mountain Conference on Analytical Chemistry*, Breckenridge, CO, July 23-27, **2006**. High Resolution Luminescence Spectroscopy in Environmental Analysis of Organic Pollutants. Campiglia A. D. Abstract Book 165, p. 78.
Participation: Speaker and corresponding author, 20 min presentation.
- 16) *PITTCON 2006*, Orlando, FL, March 12-17, **2006**. Fluorescence Spectroscopy for Forensic Examination of Textile Fiber Impurities. Rex, M; Moore A.; Campiglia, A. D. Abstract Book 2310-2, page 118.
Participation: Speaker and corresponding author, 20 min presentation.
- 15) *The 31st Annual Conference of the Analytical Chemistry & Spectroscopy Societies*, Portland, OR, October 3-7, **2004**. Application of Fluorescence Line Narrowing Spectroscopy to Forensic Fiber Examination. Campiglia* A. D. and Sigman M. Abstract Book 291b, page 129.
Participation: Speaker and corresponding author, 20 min presentation.
- 14) *The 31st Annual Conference of the Analytical Chemistry & Spectroscopy Societies*, Portland, OR, October 3-7, **2004**. Polymerized Liposomes Specifically Fabricated for Protein Sensing. Campiglia* A. D. and Mallik S. Abstract Book 393, page 149.
Participation: Speaker and corresponding author, 20 min presentation.
- 13) *The 29th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Providence, RI, October 13-17, **2002**. Novel Methods and Instrumentation for the Analysis of Polycyclic Aromatic Hydrocarbons in Low Temperature Matrices. A. D. Campiglia and A. J. Bystol, Abstract Book 70, page 47.
Participation: Speaker and corresponding author, 20 min presentation.
- 12) *The 29th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Providence, RI, October 13-17, **2002**. Solid-Liquid Extraction Time-Resolved Fluorescence Line Narrowing for the Analysis of Polycyclic Aromatic Hydrocarbons in Water Samples, A. J. Bystol and A. D. Campiglia, Abstract Book 71, page 47.
Participation: Speaker and corresponding author, 20 min presentation.
- 11) *The SPIE International Symposium on Environmental and Industrial Sensing*, Boston, MA, October 28-November 2, **2001**. Water monitoring of polycyclic aromatic compounds by laser-excited time-resolved Shpol'skii spectrometry with fiber optic probes. A. D Campiglia and A. J. Bystol Abstract Book 4576-31, page 35.
Participation: Speaker and corresponding author, 20 min presentation.
- 10) *The 28th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Detroit, MI, October 7-12, **2001**. Laser-Induced Room-Temperature Fluorescence Detection of Polycyclic Aromatic Hydrocarbons on Solid-Liquid Extraction Membranes. A. D. Campiglia, J. L. Whitcomb, A. J. Bystol. Abstract Book 290, page 167.
Participation: Speaker and corresponding author, 20 min presentation.
- 09) *The 28th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Detroit, MI, October 7-12, **2001**. High-Resolution Laser-Excited Time-Resolved Shpol'skii Spectrometry with Cryogenic Fiber Optic Probes at 4.2 K. A. J. Bystol, T. L. Martin, A. D. Campiglia. Abstract Book 289, page 167.
Participation: Speaker and corresponding author, 20 min presentation.
- 08) *The 28th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Detroit, MI, October 7-12, **2001**. Time -Resolved High Resolution Phosphorescence Spectroscopy of

- Organochlorinated Pollutants in Shpol'skii Matrices with Fiber Optic Probes. A. F. Arruda, T. L. Martin and A. D. Campiglia. Abstract Book 288, page 166.
Participation: Speaker and corresponding author, 20 min presentation.
- 07)** *The SPIE International Symposium on Environmental and Industrial Sensing*, Boston, MA, November 5-8, **2000**. Advances in Low Temperature Emission Spectroscopy. A. D. Campiglia, A. J. Bystol and G. D. Gillispie. Proceedings of SPIE Vol. 4199-08.
Participation: Speaker and corresponding author, 20 min presentation.
- 06)** *The 27th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Nashville, TN, September 24-28, **2000**. Solid-Phase Extraction Room-Temperature Phosphorimetry: A Screening Tool for the Analysis of Polycyclic Aromatic Hydrocarbons, Polychlorinated Biphenyls and Polychlorinated Dibenzofurans in Water Samples. A. D. Campiglia, A. F. Arruda and A. J. Bystol. Abstract Book 467, page 173.
Participation: Speaker and corresponding author, 20 min presentation.
- 05)** *The 27th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Nashville, TN, September 24-28, **2000**. Fiber Optic Luminescence in Shpol'skii Matrices at Liquid Helium Temperature. A. D. Campiglia, A. J. Bystol and G. D. Gillispie. Abstract Book 650, page 210.
Participation: Speaker and corresponding author, 20 min presentation.
- 04)** *42nd Rocky Mountain Conference on Analytical Chemistry*, Broomfield, CO, July 30 - August 3, **2000**. Recent Developments on Solid-Phase Extraction Solid-Matrix Luminescence and Laser-Excited Shpol'skii Spectrometry for the Analysis of Polycyclic Aromatic Hydrocarbons. A. D. Campiglia, A. J. Bystol, A. F. Arruda, J. Parker, T. L. Martin and G. D. Gillispie. Abstract Book 167, page 81.
Participation: Speaker and corresponding author, 20 min presentation.
- 03)** *The 26th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Vancouver, Canada, October **1999**. A New Screening Tool for the Analysis of Organic Pollutants in Water Samples. A. D. Campiglia, A. F. Arruda and A. J. Bystol. Abstract Book 706, pg. 270.
Participation: Speaker and corresponding author, 20 min presentation.
- 02)** *The 25th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Austin, TX, October **1998**. Phosphorimetric Determination of Organic Pollutants on Solid-Phase Extraction Membranes. A. D. Campiglia, A. F. Arruda and E. D. Hagestuen. Abstract Book 600, pg. 202.
Participation: Speaker and corresponding author, 20 min presentation.
- 01)** *The 22nd Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Cincinnati OH, September **1995**. Laser based Room-Temperature Phosphorescence Sensors for Chemical and Biological Analysis. A. D. Campiglia and T. Vo-Dinh. Abstract Book 252, pg. 141.
Participation: Speaker, 20 min presentation.

4.5.6. Contributed Talks at National Scientific Meetings (peer reviewed)

- 02)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Photoluminescence Analysis of Polycyclic Aromatic Compounds in Environmental Samples. A. D. Campiglia. Abstract Book 27, page 24.
Participation: Speaker and corresponding author, 20 min presentation.
- 01)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Improvements Upon Laser Excited Shpol'skii Spectrometry. A. J. Bystol and A. D. Campiglia. Abstract Book 28, page 24.
Participation: Speaker and corresponding author, 20 min presentation.

4.5.7. Corresponding Author of Poster Presentations Made by Group Members at Scientific Meetings

- 72)** *The 67th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Atlanta, GA, March 6 – 10, **2016**. Forensic Analysis of Textile Fibers Exposed to Laundry Detergents Using Fluorescence Excitation-Emission Spectroscopy. N. Mujumdar, E. C. Heider, and A. D. Campiglia. Abstract # 1740-4, p. 61.
- 71)** *The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Atlanta, Georgia, March 6-10, **2016**. Rapid Determination of Endocrine Disrupting Bisphenol A (BPA) in Drinking Water by Solid Phase Nano-Extraction and Room-Temperature Fluorescence

- Spectroscopy. M. Al-Tameemi, B. Alfarhani, J. Seok and A. D Campiglia. Abstract book 1120-22P, p. 45.
- 70) *The 25th International Symposium on Polycyclic Aromatic Compounds (ISPAC)*, Bordeaux, France, September 13-17, **2015**. New Developments on the Extraction and Determination of Polycyclic Aromatic Hydrocarbons in Water Samples. W. B. Wilson and A. D. Campiglia. Paper ID: #P29, p. 33.
- 69) *25th International Symposium on Polycyclic Aromatic Compounds (ISPAC)*, Bordeaux, France, September 13–17, **2015**. Determination of high molecular weight polycyclic aromatic hydrocarbons in high performance liquid chromatography fractions of standard reference material 1597a via solid-phase nanoextraction and laser excited time-resolved Shpol'skii spectroscopy. W. B. Wilson, B. Alfarhani, A. F. T. Moore, C. Bisson, S. A. Wise, A. D. Campiglia. Paper ID: O005, p. 14.
- 68) *14th International Symposium on Biological and Environmental Reference Materials*, National Harbor, MD, October 11–15, **2015**. Determination of high molecular weight polycyclic aromatic hydrocarbons in high performance liquid chromatography fractions of standard reference material 1597a via solid-phase nanoextraction and laser excited time-resolved Shpol'skii spectroscopy. W. B. Wilson, B. Alfarhani, A. F. T. Moore, C. Bisson, S. A. Wise, A. D. Campiglia. Paper ID: #P44, p. 75.
- 67) *The 67th Southeast Regional Meeting of the American Chemical Society (SERMACS)*, Memphis, TN, November 4 – 7, **2015**. Forensic Identification and Differentiation of Visually Indistinguishable Fibers Using Excitation-Emission Fluorescence Microscopy Paired with Multi-Way Chemometric Analysis. N. Mujumdar, E. C. Heider, H. Goicoechea, D. Munoz de la Pena, A. Munoz de la Pena, and A. D. Campiglia. Abstract # 431, p. 86.
- 66) *The 71st SWRM/67th SERMACS*, Memphis, Tennessee, November 4 – 7, **2015**. Solid-phase extraction-77K Laser Excited Time Resolved spectroscopy for the analysis of Benzo[a]pyrene metabolites in urine samples. B.F. Alfarhani, M. Al-Tameemi and A. D. Campiglia. Abstract book 149, p.61.
- 65) *The 71st SWRM/67th SERMACS*, Memphis, Tennessee, November 4 – 7, **2015**. Selective nano-sensing approach for the quantitative analysis of phosphate ions in biological matrixes. A. Fadhel, M. Johnson, A. F. T. Moore, E. Koculi, A. D. Campiglia. Abstract # 150, p. 61.
- 64) *The 248th ACS National Meeting and Exposition*, San Francisco, CA, August 10 – 14, **2014**. Detection of Mercury Tap Water Samples with Gold Nanorods Immobilized on Solid Substrates. K. Trieu, E. Heider, and A.D. Campiglia. Paper ID: 27750.
- 63) *The 248th American Chemical Society (ACS) National Meeting and Exposition*, San Francisco, CA, August 10 – 14, **2014**. Fiber Discrimination Based on Fluorescence Excitation Emission Matrices and Cluster Analysis. N. Mujumdar, A. Moore, E. C. Heider and A. D. Campiglia. Technical Program: ANYL 241.
- 62) *The 248th American Chemical Society National Meeting*, San Francisco, CA, August 10-14, **2014**. Gold Nanorods Immobilized on a Glass Substrate for Mercury Detection in Sea Water Samples. M. Johnson and A. D. Campiglia. Paper ID Anyl242.
- 61) *The 248th American Chemical Society National Meeting and Exposition (ACS)*, San Francisco, CA, August 10 – 14, **2014**. Development of a Green Analytical Method for the Determination of Polycyclic Aromatic Hydrocarbons in River Water Samples. W. B. Wilson, B. Alfarhani, U. Hewitt, M. Miller and A. D. Campiglia. Paper ID 27403.
- 60) *248th American Chemical Society National Meeting and Exposition (ACS)*, San Francisco, CA, August 10-14, **2014**. Analysis of High Molecular Weight Polycyclic Aromatic Hydrocarbon Isomers via Shpol'skii Spectroscopy at Liquid Helium Temperatures. B. Alfarhani, A. F. T. Moore, W. B. Wilson, C. Bisson, and A. D. Campiglia. Technical Program: ANYL 248.
- 59) *The 65th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCO)*, Chicago, IL, March 2-6, **2014**. Low-Temperature Synchronous Fluorescence Spectroscopy with Fiber Optic Probes for the Analysis of High Molecular Weight Polycyclic Aromatic Hydrocarbons. A. F. Moore, F. Barbosa, and A. D. Campiglia. Abstract book 520-11P, p. 44.
- 58) *The 65th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCO)*, Chicago, IL, March 2 – 6, **2014**. Laser Excited Time-Resolved Shpol'skii Spectroscopy for the Analysis of High-molecular Weight Polycyclic Aromatic Hydrocarbon Isomers. B. F. Alfarhani, W.B. Wilson, C. Bisson and A.D. Campiglia. Abstract book 520 – 1P, p. 44.

- 57) *The 65th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Chicago, IL, March 2 – 6, **2014**. Determination of 16 Environmental Protection Agency Polycyclic Aromatic Hydrocarbons in Water Samples via Solid-Phase Nanoextraction and Gas Chromatography – Mass Spectrometry. W.B. Wilson, U. Hewitt, M. Miller and A.D. Campiglia. Abstract number 1400 – 7P, p. 68.
- 56) *The 65th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Chicago, IL, March 2 – 6, **2014**. Gold Nanorods Functionalized Substrates for Surface Plasmon Resonance Detection of Mercury in Flow Injection Analysis. K. Trieu, E.C. Heider and A.D. Campiglia. Abstract number 1400 –2, p. 34.
- 55) *The 64th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Philadelphia, PA, March 17 – 21, **2013**. Characterization of an Instrumental Set-up for Low-Temperature Fluorescence Spectroscopy with Fiber Optic Probes. A.F. Moore and A.D. Campiglia. Abstract number 180 –2, p.34.
- 54) *The 64th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Philadelphia, PA, March 17 – 21, **2013**. Direct Determination of Polycyclic Aromatic Hydrocarbons in Water Samples Using BEA Zeolites and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. W.B. Wilson, A.A. Costa, H. Wang, J.A. Dias, S.C. Dias and A.D. Campiglia. Abstract number 1480 – 3P, p. 66.
- 53) *The 64th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Philadelphia, PA, March 17 – 21, **2013**. Determination of Polycyclic Aromatic Hydrocarbons in Drinking Water Samples via BEA Zeolites and High-Performance Liquid Chromatography. W.B. Wilson, A.A. Costa, H. Wang, J.A. Dias, S.C. Dias and A.D. Campiglia. Abstract number 2750 – 11P, p.96.
- 52) *The 64th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Philadelphia, PA, March 17-21, **2013**. Fast Separation of Monohydroxy Metabolites of Polycyclic Aromatic Hydrocarbons by Capillary Zone Electrophoresis with UV-Vis Detection. G. Knobel and A.D. Campiglia. Abstract number 2490-5P, p.90.
- 51) *The 63rd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11 – 15, **2012**. Effect of Environmental Contaminants on Fluorescence of Forensic Textile Fibers. K. Appalaneni, M. Rex and A.D. Campiglia. Abstract book 2120-4P, p. 71.
- 50) *The 63rd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11 – 15, **2012**. Collection of Fluorescence Data Directly from Textile Fibers via Micro-spectrofluorimetry. A. F. T. Moore, K. Appalaneni, and A. D. Campiglia. Abstract book 1760-3P, p.64.
- 49) *The 63rd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11 – 15, **2012**. Direct Determination of Monohydroxy - Polycyclic Aromatic Hydrocarbons on Octadecyl Membranes via Room Temperature Fluorescence Spectroscopy – Excitation Emission Matrices. K.J. Calimag-Williams, H. Goicoechea and A.D. Campiglia. Abstract Book 1760-2P, p. 64.
- 48) *The 63rd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11-15, **2012**. Determination of Mono-hydroxy Metabolites of Polycyclic Aromatic Hydrocarbons and Their Parent Compounds in Urine by Solid-Phase Extraction and Capillary Zone Electrophoresis. G. Knobel, A. D. Campiglia, Korina Calimag-Williams, Abstract Book 1430-9 P, p.57.
- 47) *The 63rd Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11 - 15, **2012**. Solid-phase Nanoextraction and Laser-excited Time-resolved Shpol'skii Spectroscopy for the Direct Analysis of Co-eluted High-Molecular Weight Polycyclic Aromatic Hydrocarbons in HPLC Fractions. W. B. Wilson and A. D. Campiglia, Abstract Book 1780-12P, page 64.
- 46) *The 63rd Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 11 - 15, **2012**. Determination of High-molecular Weight Polycyclic Aromatic Hydrocarbons in Drinking Water via Solid-phase Nanoextraction and Laser-excited Time-resolved Shpol'skii Spectroscopy. W. B. Wilson and A. D. Campiglia, Abstract Book 1430-8P, page 57.
- 45) *The 50th Annual Eastern Analytical Symposium and Exposition*, Somerset, NJ, November 14 – 17, **2011**. Direct Determination of High Molecular Weight Polycyclic Aromatic Hydrocarbon Isomers in

- Drinking Water Samples via Solid-Phase Nano-Extraction and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. W. B. Wilson and A. D. Campiglia, Abstract Book 439, page 27.
- 44) *The 50th Annual Eastern Analytical Symposium and Exposition*, Somerset, NJ, November 14 – 17, **2011**. Quantitative Extraction of Polycyclic Aromatic Hydrocarbons in Drinking Water Samples using BEA, USY and ZSM-5 Zeolites. W. B. Wilson and A. D. Campiglia, Abstract Book 477, page 29.
- 43) *The 63rd Annual Scientific Meeting of the American Academy of Forensic Science (AAFS)*, Chicago, IL, February 21 – 26, **2011**. Instrumental Set-Up for the Collection of Fluorescence Data Directly from Textile Fibers. Moore, A. F. T., Appalaneni K., Campiglia A. D. Abstract Book A79, p. 102.
- 42) *The 63rd Annual Scientific Meeting of the American Academy of Forensic Science (AAFS)*, Chicago, IL, February 21 – 26, **2011**. Room temperature Fluorescence Spectroscopy as an Analytical Tool for the Forensic Examination of Textile Fibers. Appalaneni K., Moore, A. F. T., Campiglia A. D., Sigman M. Abstract Book A78, p. 61.
- 41) *The 62nd Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Atlanta, GA, March 13 - 18, **2011**. Analysis of Isomers of High-molecular Weight Polycyclic Aromatic Hydrocarbons in Drinking Water via Solid-phase Nanoextraction and Laser-excited Time-resolved Shpol'skii Spectroscopy. Wilson W. B., Wang H. Y., Campiglia, A. D. Abstract Book 2110-6P, p. 94.
- 40) *The 62nd Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Atlanta, GA, March 13-18, **2011**. Gold Nanoparticles Deposited as Pre-concentration Devices for In-capillary Micro-extraction Capillary Electrophoresis: Application to the Urine Analysis of Mono-hydroxy of Polycyclic Aromatic Hydrocarbons. H. Wang, G. Knobel, K. Calimag and A.D. Campiglia, Abstract Book 550-8, p. 55.
- 39) *The 62nd Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Atlanta, GA, March 13 - 18, **2011**. Determination of Polycyclic Aromatic Hydrocarbons in Water Samples via Solid-phase Extraction with BEA Zeolites and High-performance Liquid Chromatography. Wilson W. B., Costa A. A., Wang H. Y., Dias S. C., Dias J. A., Campiglia, A. D. Abstract Book 2110-7P, p. 94.
- 38) *The 61st Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, Feb 28 – March 5, **2010**. Analysis of Mono-Hydroxy Polycyclic Aromatic Hydrocarbons Biomarkers in Urine Samples via High-performance-Liquid Chromatography and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. Wang H. Y., Wilson W. B., Campiglia, A. D. Abstract Book 970-5P, p. 65.
- 37) *The 61st Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, Feb 28 – March 5, **2010**. Analysis of High-Molecular Weight Polycyclic Aromatic Hydrocarbons in Water Samples by Solid-Phase Nanoextraction and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. Wilson W. B., Wang H. Y., Campiglia, A. D. Abstract Book 2420-10P, p. 98.
- 36) *The 61st Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, Feb 28 – March 5, **2010**. Capillary Electrophoresis of Parent Polycyclic Aromatic Hydrocarbons and their Mono-hydroxy Metabolites. Knobel G. and Campiglia A.D. Abstract Book 1290-1P, p. 73.
- 35) *The 36th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Louisville, KY, October 18th – 22nd, **2009**. Asymmetric Least Squares for Fluorescence Background Reduction of Octadecyl Extraction Membranes. Calimag K., Goicoechea H., Wang H., Campiglia A. D. Abstract book 501, p. 171.
- 34) *The 36th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Louisville, KY, October 18th – 22nd, **2009**. Capillary Zone Electrophoresis for the analysis of 1-hydroxynaphthalene, 2-hydroxynaphthalene, 9-hydroxynaphthalene and their parent PAH. Knobel G. and Campiglia A. D. Abstract Book 169, p. 103.
- 33) *The 36th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Louisville, KY, October 18th – 22nd, **2009**. Solid-phase nano-extraction: A novel method to improve the limits of detection for the analysis of PAH in aqueous solutions. Wang H., Wilson W. B., Campiglia A. D. Abstract Book 79, p. 84.
- 32) *Trace Evidence Symposium*, Clearwater, FL, August 2nd – 7th, **2009**. Application of Fluorescence Spectroscopy to forensic fiber examination. Rex M., Venni K., Campiglia A. D., Sigman M. Abstract Book p. 16.

- 31) *The 35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Reno, NV, September 28th - October 2nd, **2008**. Evaluation of chemometric approaches for the analysis of textile fibers via Room-Temperature Fluorescence Excitation-Emission Matrices. Appalane K., Rex M., Goicoechea H. C., Campiglia A. D. Abstract Book 212, p. 119.
- 30) *The 35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Reno, NV, September 28th - October 2nd, **2008**. Solid-surface room-temperature fluorescence determination of biomarkers on solid-phase extraction membranes. Calimag K., Goicoechea H., Campiglia A. D. Abstract Book 459, p. 174.
- 29) *The 35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Reno, NV, September 28th - October 2nd, **2008**. Measuring Dissociation Constants of Mono-hydroxy Polycyclic Aromatic Hydrocarbons via Capillary Zone Electrophoresis, Knobel G. and Campiglia A. D. Abstract book 336, p. 147.
- 28) *The 35th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Reno, NV, September 28th - October 2nd, **2008**. Fluorescence Quenching of Polycyclic Aromatic Hydrocarbons near Gold Nanoparticles. Wang H., Calimag K., Campiglia A. D. Abstract Book 455, p. 173.
- 27) *The 34th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Memphis, TN, October 14-18, **2007**. Room-Temperature Fluorescence Analysis of Dye Extracts for Forensic Fiber Examination. Rex M. and Campiglia, A. D. Abstract Book 491, p. 187.
- 26) *The 34th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Memphis, TN, October 14-18, **2007**. Extraction of Polycyclic Aromatic Hydrocarbons from Water Samples with Gold Nanoparticles. Wang H. and Campiglia A. D. Abstract Book 229, p. 127.
- 25) *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Orlando, FL, September 24-28, **2006**. Separation of Gold Nanorods with Capillary Electrophoresis to Achieve Better Limits of Detection for Mercury in Water. Rex M.; Hernandez E. F. and Campiglia A. D. Abstract Book 191, p. 114.
- 24) *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Orlando, FL, September 24-28, **2006**. De-noising and Baseline Drifting Correction of Electropherograms on Real-Time Bases. Solis A.; Rex M.; Campiglia A. D. and Sojo P. Abstract Book 189, p. 113.
- 23) *The 33rd Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies (FACSS)*, Orlando, FL, September 24-28, **2006**. Choosing the Right Solvent for the Analysis of Polycyclic Aromatic Hydrocarbons Metabolites via Laser-Excited Time-Resolved Shpol'skii Spectroscopy. Yu S.; Wang, H.; Vatsavai K. and Campiglia A. D. Abstract Book 381, p. 157.
- 22) *The 57th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 12 – 17, **2006**. Fluorescence Spectroscopy for Forensic Examination of Textile Fiber Impurities. M. M. Rex, A. Moore, and A. D. Campiglia. Abstract book 2310-2, p. 119.
- 21) *The 57th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 12-17, **2006**. Metal-Enhanced Fluorescence of Polycyclic Aromatic Hydrocarbons in Liquid Aqueous Solutions. Wang H., Yu S.; Campiglia A. D. Abstract Book 970-14P, page 80.
- 20) *The 57th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 12-17, **2006**. A Two-Step Procedure for the Determination of Individual Fluoroquinolones in Environmental Waters at the Parts-per-Trillion Level. Wang H., Campiglia A. D. Abstract Book 970-7P, page 80.
- 19) *The 57th Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON)*, Orlando, FL, March 12-17, **2006**. Capillary Electrophoresis for the Separation of Target Proteins and Template Polymerized Liposome Vesicles. Rex, M.; Solis, A.; Campiglia, A. D. Abstract Book 440-9P, page 63.
- 18) *The 32nd Annual Conference of the Analytical Chemistry & Spectroscopy Societies (FACSS)*, Quebec, Canada, October 9-13, **2005**. Fluorescence Lifetime Enhancement of Organic Chromophores. Hernandez F. E., Yu S., Garcia M., Campiglia A. D. Abstract Book 210, page 115.
- 17) *The 32nd Annual Conference of the Analytical Chemistry & Spectroscopy Societies (FACSS)*, Quebec, Canada, October 9-13, **2005**. Gold Nanorods: A Novel Approach to Improving Limits of Detection

- for Mercury Determination in Aqueous Samples. Hernandez* F. E., Rex M., Campiglia A. D., Abstract Book 249, page 122.
- 16) *The 32nd Annual Conference of the Analytical Chemistry & Spectroscopy Societies (FACSS)*, Quebec, Canada, October 9-13, **2005**. Liposome Sensors as a Way of Improving Protein Analysis in Capillary Electrophoresis. Campiglia* A. D., Rex M., Solis A., Haldar, M., Mallik S., Abstract Book 251, page 123.
 - 15) *The 32nd Annual Conference of the Analytical Chemistry & Spectroscopy Societies (FACSS)*, Quebec, Canada, October 9-13, **2005**. Analytical Potential of Phosphorescence Line Narrowing Spectroscopy. Campiglia* A. D. and S. Yu, Abstract Book 398, page 154.
 - 14) *9th International Conference on Methods and Applications of Fluorescence*, Lisbon, Portugal, September 4-7, **2005**. Solid-Phase Extraction and Fluorimetric determination for the Analysis of Fluoriquinolones in Surface Water. Espinosa-Mansilla A, Muñoz de la Peña A, González Gómez D and Campiglia* A. D. Abstract Book P63, page 121.
 - 13) *226th National Meeting of the American Chemical Society (ACS)*, New York, NY, September 7-11, **2003**. Synthesis of metal-chelating lipids to sensitize lanthanide ions. S. Mallik, B. C. Roy, M. Santos, A. D. Campiglia. Abstract Book Volume 226, pages U103 – U103, Part 2, Meeting Abstract 39-ORG, Sep 2003.
 - 12) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. Chemometrics in Multidimensional High Resolution Luminescence Spectroscopy. H. Goicoechea, S. Yu, A. D. Campiglia*, Abstract Book 286, page 133.
 - 11) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. New Approach for Recording Absorption Spectra of Polycyclic Aromatic Hydrocarbons in Shpol'skii Matrixes at Liquid Nitrogen and Helium Temperatures. A. J. Bystol and A. D. Campiglia*, Abstract Book 484, page 173.
 - 10) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. Instrumentation for Multidimensional Luminescence Spectroscopy in Shpol'skii Matrices at Liquid Nitrogen and Helium Temperatures. A. D. Campiglia*, A. J. Bystol, S. Yu, Abstract Book 525, page 181.
 - 09) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. Luminescence Characteristics of Propanolol and 4-Hydroxypropranolol at Liquid Nitrogen and Liquid Helium Temperatures. M. Santos, A. D. Campiglia*, Abstract Book 527, page 182.
 - 08) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. Laser Excited Time-Resolved Shpol'skii Spectroscopy for the Direct Analysis of Polycyclic Aromatic Hydrocarbons in Soil Samples. S. Yu, H. Goicoechea, A. D. Campiglia*, Abstract Book 529, page 182.
 - 07) *The 30th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Ft. Lauderdale, FL, October 19-23, **2003**. Luminescence Lifetimes of Lanthanide Complexes as Qualitative Tools for Protein Analysis. H. Goicoechea, B. Roy, A. J. Bystol, A. D. Campiglia* and S. Mallik, Abstract Book 503, page 177.
 - 06) *The 29th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Providence, RI, October 13-17, **2002**. Polymerized liposome-Tb System for Carbonic Anhydrase Sensing. M. Santos, A. F. Arruda, B. C. Roy, A. D. Campiglia, S. Mallik, Abstract Book 335, page 146.
 - 05) *The 29th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Providence, RI, October 13-17, **2002**. Fluorescence and Phosphorescence Characteristics of Coumarins and Related Compounds. A. J. Bystol, N. Saetveit, A. D. Campiglia, Abstract Book 333, page 145.
 - 04) *The 29th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Providence, RI, October 13-17, **2002**. Laser-Excited Time-Resolved Shpol'skii Spectroscopy of dibenzo[a,l]pyrene in water samples. S. Yu, A. J. Bystol and A. D. Campiglia, Abstract Book 331, page 145.
 - 03) *221st National Meeting of the American Chemical Society (ACS)*, Chicago, IL, April **2001**. Fabrication of polymerized liposomes for protein sensing. R. G. Keddy, B. C. Roy S. Mallik, A. D. Campiglia. Abstract Book Volume 222, pages U132 – U132, Part 2, Meeting Abstract 550-ORG, August 2001.
 - 02) *221st National Meeting of the American Chemical Society (ACS)*, San Diego, CA, April 1-5, **2001**. Field Extraction Procedure for the Analysis of Polycyclic Aromatic Hydrocarbons in Environmental

- Samples. H. J. Doyen, A. J. Bystol, J. Whitcomb, and A. D. Campiglia. Abstract Book Volume 221, pages U212-U212, Part 1; Meeting Abstract 748-CHED, April 2001.
- 01)** *The 25th Annual Conference of Analytical Chemistry and Spectroscopy Societies (FACSS)*, Austin, TX, October **1998**. Solid State Room Temperature Phosphorescence (SS-RTP) Detection of Polycyclic Aromatic Hydrocarbons (PAHs) on Solid Phase Extraction (SPE) Membranes. E. D. Hagestuen and A. D. Campiglia. Abstract Book 559, pg. 194.

4.5.8. Presentations at National Scientific Meetings

Role: corresponding author in presentation made by research group members (post-doctoral associates, graduate or undergraduate students).

- 19)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8 – 10, **2014**. Non-Destructive Single Textile Fiber Identification With Detergent Pretreatments and Excitation-Emission Spectroscopy. N. Mujumdar, E. C. Heider and A. D. Campiglia. Abstract book p. 25.
- 18)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8 – 10, **2014**. Higher Molecular Weight Polycyclic Aromatic Hydrocarbons: A Challenging analytical task in environmental analysis. B.F. Alfarhani, W.B. Wilson, C.B. Bisson and A. D. Campiglia. Abstract book p.27.
- 17)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8 – 10, **2014**. High-Molecular Weight Polycyclic Aromatic Hydrocarbons: A Challenging Analytical Task in Environmental Analysis. B. F. Alfarhani, W. B. Wilson, C. Bisson and A. D. Campiglia. Abstract book p. 27.
- 16)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8 – 10, **2014**. New Developments on the Extraction and Analysis of Polycyclic Aromatic Hydrocarbons in Environmental Samples. W. B. Wilson, U. Hewitt, M. Miller and A. D. Campiglia. Abstract book p. 18.
- 15)** *90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8-10, **2014**. Coupling of an Optical Fiber Bundle to a Commercial Spectrofluorimeter for the Collection of Fluorescence Data. A. F. T. Moore, K. Appalaneeni, N. Mujumdar, E. C. Heider, F. Barbosa Jr., and A. D. Campiglia. Abstract book p. 22.
- 14)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8 – 10, **2014**. Determination of Mercury in Tap Water Samples Under Flow Conditions Using Immobilized Gold Nanorods. K. Trieu, E. Heider, F. Barbosa, and A.D. Campiglia. Abstract book p. 25.
- 13)** *The 90th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 8-10, **2014**. Separation of Monohydroxy and Tetrahydroxylated Metabolites of Benzo[*a*]pyrene by Capillary Electrophoresis-Fluorescence Microscopy. J. Knorr, W. Neary, A. Schenone, A.D. Campiglia. Abstract book p. 27
- 12)** *The 89th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 9-11, **2013**. Determination of Monohydroxy Metabolites of Polycyclic Aromatic Hydrocarbons via Capillary Electrophoresis for the Analysis of Biological Samples. G. Knobel, J. Knorr, A.D. Campiglia. Abstract book p. 22.
- 11)** *The 89th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 9-11, **2013**. Surface Plasmon Resonance of Gold Nanorods for Sensing Mercury in Water Samples. K. Trieu, E.C. Heider and A.D. Campiglia. Abstract book p. 22.
- 10)** *The 89th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 9 – 11, **2013**. Shpol'skii Spectroscopy Analysis of High-Molecular Weight Polycyclic Aromatic Hydrocarbons in HPLC Fractions. B. F. Alfarhani, W.B. Wilson and A.D. Campiglia. Abstract book1, p. 22.
- 09)** *The 89th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 9-11, **2013**. Shpol'skii Spectroscopy Utilizing an Optical Fiber Bundle Coupled to a Commercial Spectrofluorimeter. A. F. T. Moore, A. D. Campiglia. Abstract book p. 24.
- 08)** *The 89th Florida Annual Meeting and Exposition (FAME)*, Palm Harbor, FL, May 9 – 11, **2013**. Direct Determination of 15 Environmental Protection Agency Polycyclic Aromatic Hydrocarbons in Water

- Samples using BEA zeolites and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. B. Alfarhani, W.B. Wilson and A.D. Campiglia. Abstract book 3, p. 22.
- 07)** *The Annual Fall Meeting for Florida Society of Environmental Analysis*, Palm Beach, FL, October 27 – 29, **2010**. Analysis of High-Molecular Weight Polycyclic Aromatic Hydrocarbons in Water Samples by Solid-Phase nanoextraction and Laser-Excited Time-Resolved Shpol'skii Spectroscopy. Wilson, W. B., Wang, H. Y., and Campiglia, A. D.
- 06)** *82nd Annual Florida Meeting and Exposition (FAME)*, Orlando, FL, May 11-13, **2006**. Sensing Mercury with Gold Nanorods. Rex M; Campiglia A. D. and Hernandez F. E. Abstract Book 117, p. 43.
- 05)** *82nd Annual Florida Meeting and Exposition (FAME)*, Orlando, FL, May 11-13, **2006**. Direct Determination of Dibenzo[*a,l*]pyrene in aqueous samples via Soli-Liquid Extraction Laser Excited Time-Resolved Shpol'skii Spectroscopy (SLE-LETRSS). Yu S. and Campiglia A. D. Abstract Book 116, p. 43.
- 04)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Solid-Phase Extraction and Phosphorimetric Analysis of Polychlorinated Biphenyls in Water Samples. A. F. Arruda and A. D. Campiglia. Abstract Book 218, page 80.
- 03)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Luminescence Characteristics of Polychlorinated Dibenzofurans and Their Application to the Analysis of Environmental Samples. T. L. Martin, A. F. Arruda and A. D. Campiglia. Abstract Book 219, page 80.
- 02)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Solid-Phase Extraction Solid-Matrix Fluorimetric Analysis of Polycyclic Aromatic Hydrocarbons in Water Samples. J. L. Whitcomb, A. J. Bystol and A. D. Campiglia. Abstract Book 226, page 83.
- 01)** *32nd Great Lakes Regional Meeting*, Fargo, ND, 4-6 June **2000**. Polymerized, Fluorescent Liposomes Incorporating Lanthanide Ions. B. C. Roy, S. Mallik and A. D. Campiglia. Abstract Book 241, page 88.

4.6. Seminars Presented at Colleges and/or Universities

- 16)** Department of Chemistry and Environmental Science, New Jersey Institute of Technology, Newark, NJ (March 2016).
- 15)** Biomolecular Analysis and Spectroscopy – Laser Centre VU, Faculty of Sciences at the Vrije Universiteit in Amsterdam, Holland (December 2009).
- 14)** Catedra de Quimica Analitica I, Facultad de Bioquimica y Ciencias Biologicas, Universidad Nacional del Litoral, Santa Fe, Argentina (October 2005).
- 13)** Departamento de Quimica Analitica, Universidad Nacional de Rosario, Santa Fe, Argentina (October 2005).
- 12)** Department of Chemistry, University of Alabama, Tuscaloosa, AL (December 2002).
- 11)** Department of Chemistry, Louisiana State University, Baton Rouge, LA (November 2002).
- 10)** Department of Chemistry, University of Minnesota-Morris, MN (September 2001).
- 09)** Department of Chemistry, St. Cloud State University, MN (September 2001).
- 08)** Department of Chemistry, Moorhead State University, MN (November 2000).
- 07)** Department of Chemistry, Bemidji State University, MN (September 2000).
- 06)** Department of Chemistry, University of South Dakota, SD (September 1999).
- 05)** Department of Chemistry, Augustana College, SD (September 1999).
- 04)** Department of Chemistry, Bismarck State College, ND (October 1998).
- 03)** Department of Chemistry, Minot State University, ND (October 1998).
- 02)** Department of Chemistry, Bemidji State University, MN (September 1998).
- 01)** Department of Chemistry, Augsburg College, Minneapolis, MN (March 1998).

4.7. Research Contracts and Research Grant Awards

4.7.1. External Grant Awards

I have served as the principal investigator (PI) or co-PI for twenty seven research projects funded by state, federal and private sources. Federal agencies include the National Science Foundation (NSF), National Institutes of Health (NIH), Environmental Protection Agency (EPA), National Institute of Justice (NIJ), Department of Energy (DOE) and the US Department of Justice (DOJ).

- 28) Role:** Principal Investigator (PI)
Project Title: Measuring Luminescence from EIE Materials at 77K
Agency: EIE, Inc.
Total Award: \$1,000.00
Award Period: March 24, 2016 – June 28, 2016
Performing Institution: UCF
- 27) Role:** Principal Investigator (PI)
Project Title: A Combined Analytical and Synthetic Approach Based on Line Narrowing Spectroscopy for Specific Isomer Determination of Petroleum Oil Spills.
Agency: Gulf of Mexico Research Initiative
Total Award: \$1,523,285.00
Award Period: January 1, 2016 – December 31, 2019.
Performing Institution: UCF
- 26) Role:** Principal Investigator (PI)
Project Title: Comparison of Microspectrophotometry and Room-Temperature Fluorescence Excitation- Emission Matrix Spectroscopy for Non-Destructive Forensic Fiber Examination.
Agency: National Institute of Justice (NIJ)
Total Award: \$241,257.00
Award Period: October 1, 2011 – September 30, 2014
Performing Institution: UCF
- 25) Role:** Principal Investigator (PI)
Project Title: Field-Deployable, Nano-Sensing Approach for Real-Time Detection of Free Mercury, Speciation and Quantification in Surface Stream Waters and Groundwater Samples at the U.S. Department of Energy Contaminated Sites
Agency: Department of Energy (DOE)
Total Award: \$ 527,507.00
Award Period: June 1, 2010 – May 31, 2014
Performing Institution: UCF
- 24) Role:** Principal Investigator (PI)
Project Title: Application of Fluorescence Line Narrowing Spectroscopy to Forensic Fiber Examination
Agency: National Institute of Justice (NIJ)
Total Award: \$185,476.00
Award Period: June, 2006 – December 2010
Performing Institution: UCF
- 23) Role:** Co-principal Investigator (Co-PI)
Project Title: Physical and Spectral Characterization of Triacetone Triperoxide (TATP)
Agency: NEWTEC, Inc. (subcontract on a Defense Advanced Research Projects Agency Grant)
Total Award: \$146,362.00
Award Period: May 2005 – May 2006
Performing Institution: UCF
- 22) Role:** Principal Investigator (PI)
Project Title: Novel Instrumentation and Experimental for Absorption and Multidimensional Luminescence Spectroscopy at Helium Temperature.

Agency: National Science foundation (NSF)
 Total Award: \$225,000.00
 Award Period: May 2002 –September 2006
 Performing Institution: NDSU/UCF

21) Role: Co-principal Investigator (Co-PI)
Project Title: Development of Chemical Receptors for Proteins
Agency: National Institutes of Health (NIH)
Total Award: \$ 900,000.00
Award Period: August 2002 – August 2006
Performing Institution: NDSU/UCF

20) Role: Co-principal Investigator (Co-PI)
Project Title: Revitalizing Spectrofluorimeters with Cryogenic Fiber Optic Probes, Fluorescence Lifetime Capability, and Tunable Laser Sources
Agency: NSF-SBIR-Phase II with Dakota Technologies, Inc (DTI).
Total Award: \$500,000.00
Award Period: October 2001 – October 2003
Performing Institution: NDSU

19) Role: Principal Investigator (PI)
Project Title: New Chemical Analysis Tools for Aromatic Hydrocarbons
Agency: Environmental Protection Agency (EPA)
Total Award: \$998,361.00
Award Period: September 2001 –August 2003
Performing Institution: NDSU

18) Role: Principal Investigator (PI)
Project Title: Laser-Excited Time-Resolved Shpol'skii Spectrometry for Direct Analysis of Polycyclic Aromatic Hydrocarbons
Agency: National Science foundation (NSF)
Total Award: \$34,324.00
Award Period: August 2001 – August 2003
Performing Institution: NDSU

17) Role: Principal Investigator (PI)
Project Title: Direct Isomer Determination of Toxic Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans in Chromatographic Fractions and Environmental Extracts
Agency: Environmental Protection Agency (EPA)
Total Award: \$30,000.00
Award Period: May 2001 – April 2003
Performing Institution: NDSU

16) Role: Principal Investigator (PI)
Project Title: New Methods to Detect Chlorinated Organic Pollutants in Water
Agency: North Dakota Water Resources Research Institute (ND WRRI)
Total Award: \$11,900.00
Award Period: May 2001 – May 2002
Performing Institution: NDSU

15) Role: Co-principal Investigator (Co-PI)

Project Title: North Dakota Science and Technology Partnerships: A Proposal to the EPSCoR ESG
 Agency: National Science Foundation (NSF)
 Total Award: \$500,000.00
 Award Period: July 2000 – July 2006
 Performing Institution: NDSU

14) Role: Principal Investigator (PI)
 Project Title: Laser-Induced fluorescence of Chlorophyll-a
 Agency: National Aeronautics and Space Administration (NASA)
 Total Award: \$5,000.00
 Award Period: January 2000 – June 2000
 Performing Institution: NDSU

13) Role: Principal Investigator (PI)
 Project Title: Fiber Optic Luminescence Shpol'skii Matrices at Helium Temperature
 Agency: National Science Foundation (NSF)
 Total Award: \$15,000.00
 Award Period: July 2000 – June 2002
 Performing Institution: NDSU

12) Role: Principal Investigator (PI)
 Project Title: Extraction Method for Field Analysis of Benzo(a)pyrene in Soil Samples
 Agency: ND EPSCoR Phase 0 Technology Transfer into Commercialization (TRIC)
 Total Award: \$5,000.00
 Award Period: April 2000 – December 2000
 Performing Institution: NDSU

11) Role: Principal Investigator (PI)
 Project Title: Analysis of Polychlorinated Biphenyls and Polychlorinated Dibenzofurans by Solid-Phase Extraction and Luminescence Spectrometry
 Agency: North Dakota Water Resources Research Institute (ND WRRI)
 Total Award: \$11,250.00
 Award Period: March 2000 – December 2000
 Performing Institution: NDSU

10) Role: Co-principal Investigator (Co-PI)
 Project Title: Research Experience for Undergraduates
 Agency: National Science Foundation (NSF)
 Total Award: \$178,800.00
 Award Period: May 2000 – April 2003
 Performing Institution: NDSU

09) Role: Principal Investigator (PI)
 Project Title: Direct Fluorescence Analysis by Low-Temperature Time-Resolved Excitation Emission Matrices
 Agency: NSF-SBIR-Phase I with Dakota Technologies, Inc. (DTI)
 Total Award: \$30,000.00
 Award Period: June 2000 – December 2000
 Performing Institution: NDSU

08) Role: Principal Investigator (PI)

Project Title: Analysis of PCBs in the Red River by Solid-Phase Extraction Room-Temperature Phosphorimetry
 Agency: North Dakota Water Resources Research Institute (ND WRRI)
 Total Award: \$11,250.00
 Award Period: March 1999 – December 1999
 Performing Institution: NDSU

07) Role: Co-principal Investigator (Co-PI)
 Project Title: Determination of Meat Tenderness by Fluorescence
 Agency: North Dakota State Board of Agricultural Research

Total Award: \$ 23,902.00
 Award Period: January 1999 –January 2000
 Performing Institution: NDSU

06) Role: Principal Investigator (PI)
 Project Title: Solid-Phase Extraction Solid-Matrix Luminescence Analysis
 Agency: ND EPSCoR; Infrastructure Improvement Program (IIP) for Equipment
 Total Award: \$32,000.00
 Award Period: September 1998 – August 2000
 Performing Institution: NDSU

05) Role: Principal Investigator (PI)
 Project Title: Study of Photo-physical Parameters of Polycyclic Aromatic Hydrocarbons Adsorbed on Solid-Phase Extraction Materials
 Agency: National Science Foundation (NSF)
 Total Award: \$33,000.00
 Award Period: September 1998 – August 2000
 Performing Institution: NDSU

04) Role: Principal Investigator (PI)
 Project Title: Development of Phosphorimetric Methods of Analysis for Drugs of Abuse
 Agency: ND EPSCoR NIH IDeA SEED Grants
 Total Award: \$6,000.00
 Award Period: August 1998 – August 1999
 Performing Institution: NDSU

03) Role: Principal Investigator (PI)
 Project Title: Determination of Organic Pollutants by SPE-RTP
 Agency: NSF-EPSCoR
 Total Award: \$4,500.00
 Award Period: May, 1998 - May, 1999
 Performing Institution: NDSU

02) Role: Principal Investigator (PI)
 Project Title: Room-Temperature Phosphorescence of PCBs on Solid-Phase Extraction Membranes
 Agency: NSF-EPSCoR
 Total Award: \$4,500.00
 Award Period: May 1997 – May 1998
 Performing Institution: NDSU

01) Role: Principal Investigator (PI)

Project Title: Solid-Phase Extraction Room Temperature Phosphorimetry Analysis of Organic Pollutants in Environmental Waters
 Agency: NSF-EPSCoR
 Total Award: \$10,000.00
 Award Period: May 1997 – June 1998
 Performing Institution: NDSU

4.7.2. Internal Grant Awards

01) Role: Co-Principal Investigator (Co-PI)
 Project Title: Major Research Equipment – Acquisition of a Liquid Chromatography Mass Spectrometry (LC-MS) Instrument
 Agency: UCF
 Total Award: \$99,996.00
 Award Period: February 14, 2013 – June 30, 2013
 Performing Institution: UCF

4.8. *Additional Research Related Activities*

- Reviewer of several scientific journals, including the following: Analytical Chemistry, Talanta, Applied Spectroscopy, Analytica Chimica Acta, Journal of Agricultural and Food Chemistry, Analytical Biochemistry, Journal of the American Chemical Society, Journal of Fluorescence, Journal of Physical Chemistry.
- Reviewer of the following funding agencies: National Science Foundation (NSF), Research Corporation, Department of Energy (DOE), Petroleum Research Foundation (PRF), etc.
- Reviewer of the following book: "Shpol'skii Spectroscopy and Other Site Selection Methods: Applications in Environmental Analysis, Bioanalytical Chemistry, and Chemical Physics". Edited by C. Gooijer, F. Ariese and J. W. Hofstraat. Wiley-Interscience, N. Y., 2000. Applied Spectroscopy, Volume 55, Number 9, 2001.

4.9. *Description of Advising Activities*

4.9.1. Research Advisor of Undergraduate Students

I have been the research advisor of several undergraduate students. Some of them have pursued graduate studies at UCF or other institutions. The third column of Table 4.9.1 lists the graduate institutions of the undergraduate students I have advised.

Table 4.9.1. Undergraduate Students in Campiglia's Research Group

<i>Name</i>	<i>Period^l</i>	<i>Undergraduate Institution</i>	<i>Graduate Institution</i>
Nathan Grimes	S15 – S16	UCF	Not applicable
W. Neary	S 13 – S 14	UCF	Florida State University
J. Torres	Su 13 – S 14	UCF	Not applicable
D. Mouthon	Su 13 – S 14	UCF	Not applicable
S. Mahammad	Su 13 – S 14	UCF	Not applicable
C. Bisson	Su 12 – Su 13	UCF	Not applicable
B. Abraham	Su 11 – S 12	UCF	University of Delaware
U. Hewitt	Su 11 – F 11	UCF	North Carolina State University
K. Perry	Su 11 – F 12	UCF	Not applicable
A. Toledo	F 10 – Su 11	UCF	Not applicable
A. Ramos	S 10 – Su 10	UCF	University of Oregon
E. Krieger	F 07 – F 09	UCF	Not applicable
A. F. Moore	F 03 – F 05	UCF	UCF

J. Grimland	Su 04 – S 05	UCF	Clemson University
J. Griffin	S 05	Chemistry/UCF	Unknown
H. Doyen ²	Su 00	University of Minnesota-Morris	The University of Kansas
N. Saetveit ²	Su 00	Concordia College	Iowa State University
S. Chan	F 98-S 99	NDSU	Unknown
R. Peterson	F 97-F 99	NDSU	Unknown

¹ Period during which undergraduate research was performed in my lab. F = fall; S = spring; Su = summer. ² Research Experience for Undergraduates (REU) student.

4.9.2. Research Advisor of Graduate Students

Table 4.9.2 provides a comprehensive list of the graduate students I currently guide or I have guided as a research advisor at UCF, NDSU and the University of Brasilia (UnB). The source of employment at the time of graduation is provided for graduated students.

Table 4.9.2. Graduate Students in Campiglia's Research Group

<i>Graduate Student</i>	<i>Degree</i>	<i>Institution</i>	<i>Graduation Date</i>	<i>Employment at the Time of Graduation</i>
H. Hayes	Ph.D.	UCF	In progress	Not applicable
M. Al-Tameemi	Ph.D.	UCF	In progress	Not applicable
M. Johnson	Ph.D.	UCF	In progress	Not applicable
B. Alfarhani	Ph.D.	UCF	In progress	Not applicable
N. Mujumdar	Ph.D.	UCF	In progress	Not applicable
A. Moore	Ph.D.	UCF	Summer 2015	Post-doctoral associate, UCF, FL
J. Jung	M. Sc.	UCF	Summer 2014	Scientist, Army/Republic of Korea
W. Wilson	Ph.D.	UCF	Summer 2014	NIST ²
K. Appalneni	Ph.D.	UCF	Summer 2012	Coca-Cola, Atlanta, GA
K. Calimag	Ph.D.	UCF	Summer 2012	Valencia College; Orlando, FL
G. Knobel	Ph.D.	UCF	Summer 2012	Conicet (Argentina)
H. Wang	Ph.D.	UCF	Summer 2010	Emergent Biosolutions; Lansing, MI
M. Rex	Ph.D.	UCF	Summer 2009	UCF-Chemistry; Orlando, FL
K. Vatsavai	M. Sc.	UCF	Fall 2007	American Scitech International; NJ
S. Yu	Ph.D.	UCF	Fall 2006	Merck; NJ
M. Santos	Ph.D.	UCF	Fall 2006	Merck; NJ
T. Martin	M. Sc.	NDSU	Summer 2001	Dakota Technologies; Fargo, ND
J. Parker	M. Sc.	NDSU	Fall 2001	Unknown
A. Bystol	Ph.D.	NDSU	Fall 2001	Merck; NJ
A. Arruda	Ph.D.	NDSU	Fall 2001	Universidade Federal de Goias; Brazil
E. Hagestuen	Ph.D.	NDSU	Fall 2000	Cargill; Minneapolis, MN
A. Arruda	M.Sc.	UnB ¹	1995	Doctorate at NDSU; Fargo, ND
J. Furtado	M.Sc.	UnB ¹	1995	Unknown
R. Aucelio	M. Sc.	UnB ¹	1994	Doctorate at UF; Gainesville, FL

¹UnB = University of Brasilia, Brasilia, DF, Brazil; ² NIST = National Institute of Standards and Technology.

4.9.3. Participation in Thesis and Dissertation Committees of UCF Students

I am/was the Chair of the advising committees of all the graduate students performing research under my guidance (see Table 4.9.2). Table 4.9.3 lists my participation as a committee member of graduate students advised by other faculty.

Table 4.9.3. Participation in UCF Graduate Committees

<i>Graduate Student</i>	<i>Degree</i>	<i>Graduation Date</i>
Keyton Kalakewich	Ph.D. in Chemistry	In progress
Nanami Kikuchi	Ph.D. in Chemistry	In progress
Dawn Mills	Ph.D. in Chemistry	In progress

Fiona Zullo	Ph.D. in Chemistry	Spring 2016
Aiqun Huang	Ph.D. in Physics	Spring 2016
Ebrahim Ghazvini Zadeh	Ph.D. in Chemistry	Fall 2014
Xiling Yue	Ph.D. in Chemistry	Fall 2014
Adam Woodward	Ph.D. in Chemistry	Fall 2014
Mengyuan Wang	Ph.D. in Chemistry	Fall 2014
Erin Waddell	Ph.D. in Chemistry	Summer 2013
Simon Tang	Ph.D. in Chemistry	---
Candace Kirkland	Ph.D. in Chemistry	Fall 2014
Jessica Frisch	Ph.D. in Chemistry	Summer 2012
Orielyz Flores-Fernandez	Ph.D. in Chemistry	---
Alejandra Flores	Ph.D. in Chemistry	---
Marc Elie	Ph.D. in Chemistry	Fall 2012
Dana-Marie Dennis	Ph.D. in Chemistry	---
Bosung Kim	Ph.D. in Chemistry	Spring 2015*
Balasubramaniam Lingam	Ph.D. in Chemistry	Spring 2015*
Maxwell Bonner	Ph.D. in Chemistry	Fall 2011
Benjamin Pearman	Ph.D. in Chemistry	Fall 2012
William Moreshead	Ph.D. in Chemistry	Fall 2013
Rahul Hegishte	M.Sc. in Industrial Chemistry	Spring 2011
Jennifer Lewis	M.Sc. in Forensic Science	Fall 2011
Mona Mathew	Ph.D. in Chemistry	Fall 2014
Caitlin Rinke	Ph.D. in Chemistry	Summer 2012
Jessica Frisch	Ph.D. in Chemistry	Summer 2012
Katie White	M. Sc. In Forensic Science	Fall 2010
Kelly M. McHugh	M. Sc. in Forensic Science	Spring 2010
Debra Maxwell	Ph.D. in Chemistry	Summer 2012
Maher Qaddoura	Ph.D. in Chemistry	Spring 2011
Marc Elie	Ph.D. in Chemistry	Fall 2012
Erin Saitta	Ph.D. in Chemistry	Fall 2010
Carolina Andrade	Ph.D. in Chemistry	Fall 2010
Gheorghe Luchita	Ph.D. in Chemistry	Summer 2010
Sourangsu Sarkar	Ph.D. in Chemistry	Fall 2010
Carlos Toro	Ph.D. in Chemistry	Summer 2010
Sanchita Biswas	Ph.D. in Chemistry	Spring 2010
Erin Wood	M. Sc. in Industrial Chemistry	Summer 2009
Marisol Garcia	M. Sc. in Industrial Chemistry	Fall 2006
Joseph Castelbuono	M. Sc. in Forensic Science	Fall 2008
Erin McIntee	M. Sc. in Forensic Science	Fall 2008
Mary Williams	M. Sc. in Forensic Science	Spring 2007
Ciceron Yanez	Ph.D. in Chemistry	Fall 2009
Claudia Corredor	Ph.D. in Chemistry	Spring 2007
Stephen Andrasik	Ph.D. in Chemistry	Fall 2007

4.9.4. *Participation in Thesis and Dissertation Committees of Students from Other Institutions*

- Title:** Development and application of a new method of extraction of antibiotics present in chicken meat
M.Sc. candidate: Vinicius Adriano Coelho
Advisor: Prof. Fernando Barbosa Junior
Institution: University of Sao Paulo, Ribeirao Preto, SP, Brazil
Date: July 2014
- Title:** High-Resolution and Time-Resolved Absorption and Fluorescence Studies on Proton Transfer
Ph.D. Candidate: Joost S. De Klerk
Advisor: Prof. C. Gooijer

Institution: Vrije Universiteit, Amsterdam, Holland.

Date: December 2009

5. TEACHING ACTIVITIES

5.1. Courses Taught at UCF

The main core of the analytical chemistry curriculum at UCF consists of two undergraduate courses (CHM 3120 and CHM 4130) and one graduate course (CHM 6710). All undergraduate majors in both Chemistry and Forensic Science are required to take CHM 3120 (Analytical Chemistry) and CHM 4130 (Advanced Analytical Laboratory Techniques). Each undergraduate course is divided in two components, lecture and laboratory. All graduate students enrolled in our programs (M.Sc. in Industrial Chemistry or Ph.D. in Chemistry) are required to take CHM 6710 (Applied Analytical Chemistry). There is no laboratory associated with CHM 6710. A list of the courses I have taught at UCF is presented in the following table along with a brief description of the courses that require face-to-face instruction (lecture).

Table 5. 1. Courses Taught at UCF

Course Number	Course Name	Contact Hours/Week	Type of Course ²
CHM 1020	Concepts in Chemistry	4	Non-majors required
CHM 2045	Chemistry Fundamentals I	4	Majors required
CHM 3120	Analytical Chemistry	3	Majors only required
CHM 3120L	Analytical Chemistry Lab	1	Majors only required
CHM 4130	Analytical Laboratory Techniques	3	Majors only required
CHM 4130L	Analytical Laboratory Techniques Lab	2	Majors only required
CHM 4912	Undergraduate Research Methods	3 ¹	Majors only required
CHM 6710	Applied Analytical Chemistry	3	Majors only required
CHM 6918	Directed Research	3 ¹	Majors only required
CHM 6971	Thesis	3 ¹	Majors only required
CHM 7919	Directed Research	3 ¹	Majors only required
CHM 7980	Dissertation	3 ¹	Majors only required

¹ No lecture required. Minimum of 3 contact hours. Actual amount depends on specific student needs. ² Majors include students from our Chemistry and Forensic Science programs.

CHM 1020 Concepts of Chemistry

This is an introductory course devoted to non-chemistry majors. It is intended as a general education course where the instructor examines chemistry concepts and attempts to develop the solving-problem skills students need to succeed in college courses that require a chemistry background.

CHM 2045 Chemistry Fundamentals I

This is a basic course designed to attend the needs of pre-health professional students, including chemistry and forensic science majors. The topics include basic physical theory of chemical reactivity, atomic structure, chemical bonding, periodicity, stoichiometry, equilibria, thermodynamics and kinetics.

CHM 3120 Analytical Chemistry

This course introduces analytical chemistry to undergraduate majors in Chemistry and Forensic Science. It consists of lectures and labs focused on quantitative aspects of chemical analysis and chemical equilibrium. The topics covered in this course include the following: errors and treatment of analytical data, gravimetric and titrimetric methods of analyses, acid-base equilibrium, complex formation and solubility, extraction methods and thin-layer chromatography. The lab component of this course focuses on the intensive practice of gravimetric and volumetric analysis.

CHM 4130 Advanced Analytical Laboratory Techniques

CHM 4130 is the second course our undergraduates face within the analytical chemistry sequence. Its main objective is to introduce the principles of chemical instrumentation and instrumental analysis. Univariate calibration methods and the statistics involved in the treatment of data, spectroscopy and separations are

thoroughly discussed to provide the students with the necessary tools for successful careers in Chemistry and/or Forensic Science. The lab component of this course requires approximately 10 experiments per semester. I have developed a complete set of experiments compatible with the current objectives of this course. Experiments target the following instructional goals: (a) demonstrating the capabilities and limitations of methods and instrumentation; (b) teaching proper procedures for data acquisition and computation of results; (c) stressing the importance of the chemistry of the sample and how it relates to the analysis; (d) stressing the fundamental principles involved in the instrumental methods; (e) teaching additional considerations for "real-world" samples. Two of the ten labs teach the statistics associated with univariate calibration methods and require heavy computer use. These labs are carried out in the computer facilities of the Computer Science department, which accommodate approximately 25 students per lab session.

CHM 6710 Applied Analytical Chemistry

This course is one of the four core courses in our graduate program. Considering the diverse population of students we accept yearly, the instructor faces the instructional challenge of bringing up to speed students with a weak instrumental background while providing advanced but essential analytical tools for their academic success in our research programs. Because there is no lab associated with this course, illustrating instrumental principles with hands on experiments is not an option. An efficient way to accomplish this instructional goal is to adopt I have called the "LEGO" approach. Instrumental components and principles of spectroscopic phenomena are thoroughly discussed before building the puzzle of instrumental methods of analysis. My lectures engage the audience with questions that help me to evaluate – on the fly – the students' understanding of the topic under discussion. I adjust the content of my lectures accordingly to pursue student's ability to think about scientific facts abstractly, to gain a broad familiarity with the analytical literature, and to develop the capability of connecting the facts with the literature to suggest solutions for current problems.

5.2. Educational Grants

04) Title: Optical, Photonic, and Electrical Materials ACS PRF Summer School

Agency: American Chemical Society/Petroleum Research Foundation, Type H (Training).

Period: May 2005 – August 2006

PI: K. Belfield

Co-PI: A. D. Campiglia

Project Amount: \$31,800.00

Main goal: The objective of the ACS PRF Summer School on Optical, Photonic, and Electronic Materials was to bring to UCF aspiring chemists at relatively early stages of their careers, along with faculty from two-year colleges, for an intensive educational experience in cutting edge materials that are used in a number of emerging technologies.

03) Title: Undergraduate Teaching Equipment

Funding Agency: University of Central Florida

PI: A. D. Campiglia

Co-PI: None

Project Amount: \$20,000

Period: 2005-2006

Main goal: We requested and obtained funds to purchase instrumentation for Atomic Absorption Spectroscopy (AAS) and Atomic Emission Spectroscopy (AES) in liquid samples. The following undergraduate courses are supported by this expenditure: Advanced Analytical Laboratory Technique (CHM 4130L), Physical Chemistry Laboratory (3411L) and Inorganic Chemistry Laboratory (CHM 4610L). The approximate number of students served each year is one hundred and twenty (120).

02) Title: Undergraduate Teaching Equipment

Funding Agency: University of Central Florida

PI: A. D. Campiglia

Co-PI: Dr. F. E. Hernandez and S. M. Kuebler

Project Amount: \$20,000

Period: 2003-2004

Main goal: We requested and obtained funds to purchase instrumentation for measuring fluorescence and Raman phenomena in gas, liquid and solid samples. The following undergraduate courses are supported by this expenditure: Advanced Analytical Laboratory Technique (CHM 4130L), Physical Chemistry Laboratory (3411L) and Inorganic Chemistry Laboratory (CHM 4610L). The approximate number of students served each year is one hundred and twenty (120).

01) Title: Optics for Scientists and Engineers Laboratory Course

Funding Agency: NSF/Track-CCLI-Adaptation and Implementation Program

PI: O. Swenson

Co-PI: A. D. Campiglia, F. M. Patterson, D. A. Rogers

Period: April 2001 – March 2004

Project Amount: \$74,000

Main goal: Our goal was to implement an interdisciplinary course at NDSU targeting a wide cross section of students in computer engineering, electrical engineering, physics, chemistry, mechanical engineering, biology and agricultural engineering. The laboratory equipment purchased with the obtained funds provided upper level undergraduate and graduate students with the necessary “hands on” experience to enable them to successfully apply optics in their respective disciplines.

6. ADMINISTRATIVE DUTIES

6.1. Graduate Coordinator of the Ph.D. in Chemistry and the M. Sc. Industrial Chemistry Programs

I have been the graduate coordinator of the Chemistry Ph.D. and the M. Sc. Industrial Chemistry programs since 2004. Duties I currently perform include the following:

- Recruiting
- Selection of applicants
- Graduate Teaching Assistant (GTA) and tuition waver offers to selected applicants
- Supervising placement tests of incoming graduate students
- Application and grading of Analytical Chemistry placement test
- Orientation of incoming graduate students
- Advisement of first year graduate students
- Graduate course transfers
- Annual assessment report and annual assessment plan report for both the Chemistry Ph.D. and the M. Sc. Industrial Chemistry program

As the graduate coordinator of our program, I supervise all the activities related to the orientation of incoming graduate students. New graduate students arrive at UCF two weeks before classes start. I meet with them on individual bases and answer specific questions they might still have about our program. At this point in time, I have already answered many of their questions via e-mail. At the end of those two weeks, I meet with the entire incoming class for a period of approximately 4 hours. I cover all aspects of our graduate handbook and – based on the results of their proficiency exams – I discuss and assign with each student their first nine credit hours in our program.

The advisement of first year graduate students includes guiding them through their selection of a research advisor. Because this is one of the most important decisions our students make during their graduate experience at UCF, I have devised and optimized a selection procedure that provides both our graduate students and our faculty with a fair shot to a productive relationship. The procedure consists of the main following consecutive steps:

- 1) Graduate students attend informative seminars during the fall semester of their first year at UCF. These are 30min presentations made by our research active faculty on their research projects.
- 2) Graduate students interview five faculty of their choice. Each interviewed faculty signs and dates a department form and returns it to the graduate student at the end of the interview.

- 3) Graduate students complete the form with their 3 advisor choices - i.e. 1st, 2nd and 3rd – and return the form to me. All students must turn in their advisors selection form by the end of the 2nd semester at UCF. Failure to return the form on a timely fashion gives me the authority to select an advisor without their consent. Students are notified in advance of this possibility.
- 4) I request from our faculty their input on the interviewed graduate students. Professors that were interviewed by more than one student should rank their preference. Professors that are not interested in accepting new graduate students in their research groups should notify me with their decisions at this point in time.
- 5) After consulting with the Chair on the availability of resources and taking into consideration the preferences of both parts, I allocate our new students in research groups that have the funds to provide a productive research graduate experience.
- 6) All graduate students will then join their research groups at the beginning of their 3rd semester at UCF.
- 7) One semester is usually sufficient time to find out if our selection was a good fit. So far, there have been only a few cases where I had to re-locate the graduate student into a different research group.

6.2. University, College and Chemistry Department Committees

- Doctoral Fellowships Committee 2009 - 2010.
- Executive Committee & Alumni & Industrial Relations Committee - 2004, 2005, 2006, 2007.
- Facilities & Safety Committee - 2004, 2005.
- Analytical Chemistry Committee - 2004, 2005 (Chair in 2006, 2007).
- Building Committee - 2006, 2007.
- Promotion & Tenure Standards & Criteria - 2006, 2007.
- Biochemistry Tenure-Track Search Committee - Chair - 2006, 2007, 2008.
- Graduate Affairs Committee- Chair- 2004, 2005, 2006, 2007, 2008.
- Instrumentation Committee - Chair - 2004, 2005, 2006, 2007.
- Promotion and Tenure Committee/Chemistry – Member: 2004 – present; Chair: 2010 – 2011, 2012 - present.
- Analytical Chemistry Faculty Search Committee – 2009, 2010, 2011; Chair.
- Promotion and Tenure Committee/College of Sciences- Member: 2011 – 2012.
- Promotion and Tenure Committee/Chemistry – Member: 2004 – present; Chair: 2010; 2012-2013.
- University Senate – Member: 2013 – 2015.
- College of Science Graduate Studies and Research (COS-GS&R) Committee – Member: 2004 – 2014.