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EDUCATION

1990	Post Doctoral Fellowship Oak Ridge National Laboratory
1989	Ph.D. in Analytical Chemistry with a Minor Organic Chemistry North Carolina State University
1983	B.S. in Chemistry University of New Hampshire

Personal statement

I am a Ph.D. analytical chemist and I am a nationally and internationally recognized authority on inorganic analytical chemistry, as well as a scientific and technical expert in speciation and species intact extraction. I provide advisory support to both State and Federal agencies whose responsibility it is to evaluate analytical methodology and set policy based on the limitations of the measurement. In my current position I have responsibility for pursuing analytical excellence and providing expert advice to researchers both within the Institute and to decision makers at the University. I provide programmatic leadership to the laboratory staff, oversight and quality control of analytical data collection and release as well as scientific expertise to the Institute's principal investigators. I am responsible for anticipating future analytical needs of Institute investigators and creating a programmatic response to meet those needs. This includes evaluation of state-of-the-art instrumentation and requires detailed knowledge of current practices as well as creativity in planning and implementation. I also provide expertise professionally, as a consultant, in many areas of analytical chemistry including assays of biological fluids for assessment of potential metal toxicity.

As Acting Executive Director I have created operational policy within a Research Institute of more than 250 people. I also had budget management and fiscal accountability, for an Institute operating budget of more the $2M. I was responsible for budget initiatives within the Institute and supervised departments including: safety, information technology, facilities management and laboratory services. The latter required evaluation of potential implementation of a LIMS. I initiated scientific programs in emergency response to chemical, biological or nuclear terrorism incidents and on engineered foods. As Executive Director, my primary responsibility was to integrate the support services for the Institute's researchers. I also provided direction to 14 professional staff who reported to me directly.

AREAS OF EXPERTISE

My current areas of expertise include: development of new analytical inorganic, organic and organometallic methods for biological and environmental samples; evaluation of new analytical technologies for potential application to environmental health biomonitoring projects; development of quality assurance programs for Institute investigators and providing logistical support for biomonitoring projects. I have initiated programs in analytical mass spectrometry covering all areas from proteins to atoms. I have been responsible for development of programs in assessing bioavailability, metal speciation, small molecule isolation and identification, metabolite profiling and metabolomics. My expertise also includes instrument modification and interface for method optimization.

PROFESSIONAL EXPERIENCE

Executive Director Laboratories, *Environmental and Occupational Health Sciences Institute*, *UMDNJ/Rutgers University, Piscataway, N.J. 2/03 -Present.*
Reporting to the Director, responsible for creation of a fee for service based analytical core facility within the Institute. Generates and administers budgets for laboratory operation and modification expenses of approximately $1.0 M. Creates an organizational structure to all steps in operations of an analytical laboratory including sample tracking, data review quality assurance and billing. Created a proteome analytical mass spectrometer center in conjunction with gel electrophoresis center. Currently assembling a metabolomics facility including; sample preparation schemes, analytical instrumentation, a searchable library, a relational database and multivariate analysis tools. Generates income streams from both internal and external analytical core facility users. Initiates new methods development projects for Institute users and authors research proposals funded for an excess of $200,000 in 2003. Responsible for more than seven faculty staff and student personnel. Organized external presentations for external customers describing analytical capabilities of the facility. Primary interface to multiple external customers including small and medium sized pharmaceutical companies who will use these facilities as their primary source for analytical methods development. Recently negotiated contract for analytical research with a pharmaceutical company including confidentiality and intellectual property agreements. Responsible for startup drug analytical methods development in conjunction with investigators from RU School of Pharmacy. Responsible for QA/QC measures within the facility and have begun to migrate the laboratory to GLP like methods.

Acting Executive Director, *Environmental and Occupational Health Sciences Institute*, *UMDNJ/Rutgers University, Piscataway, N.J. 11/00-2/*03 Reporting to the Director, responsible for initiation and implementation of all administrative activities in $30M research Institute (operating budget ~$2M) dedicated to examining health risks as they relate to environmental contamination. Provided support for the 80 plus faculty, 120 plus students and postdocs and 50 plus staff. Responsible for governance of all aspects of central administration. Had greater than 10 direct reports and responsibility for performance evaluations. Had responsibility for all higher level Institute day to day activities as well as long term planning for operations. Mediated most disputes among faculty and was their primary interface for all external operations functions. Was responsible for all aspects of IT, business, laboratories safety and facilities operations. Reviewed and approved operating expenses, major Institute purchases and building modifications. Principal author for $2M building modification grant from NIH. Created business plan for debt service related to construction costs. Reviewed and approved all architectural drawings and plans for construction of proposed addition. Negotiated a change in the indirect cost return agreement between Laboratory for Cancer Research, EOHSI and Rutgers University. Acted as EOHSI ambassador to University for most events and as its

representative for external meetings, both nationally and internationally. Served as EOHSI representative for University initiatives such as Homeland Security/Defense. Served on committee to asses best direction for concerted University effort in conducting Homeland Security/Defense research projects. Served as project manager for EOHSI initiative in homeland security called Quantum Leap. Project designed to provide real-time risk assessment to health agencies evaluating field data of illness reports against possible threats from chemical, biological and nuclear agents.

Director, NIEHS Center Chemical Analysis Facilities Core, *Environmental and Occupational Health Sciences Institute*, *UMDNJ/Rutgers University, Piscataway, N.J. 1/00-Present.*
Responsible for presentation of facility core activities and report generation during annual review. Responsible for creation and maintenance of sample analysis tracking of facility cores. Interface with all Center members requesting analysis.

Adjunct Associate Professor, Environmental and Occupational Health Division *School of Public Health*, *UMDNJ, Piscataway N.J. 06/02- present*
Direct the research of three former MPH students and one PhD candidate. Share in committee oversight of others.

Member, Graduate Faculty of the Joint Graduate Program in Toxicology, *Earnest Mario School of Pharmacy, Rutgers University,* *Piscataway NJ 06/05-present*
Mentor graduate students. Provide working environment and suitable graduate research projects related to toxicology

Member, Graduate Faculty of Environmental Science, *Cook College, Rutgers University*, *New Brunswick, N.J. 10/95 - Present.*
Primary advisor for two former Ph.D. students and currently directing research for two others. Served on multiple additional advisory committees. Directed the research activities of five post-doctoral fellows and one research associate.

Director of Laboratories and Facilities, *Environmental and Occupational Health Sciences Institute*, *UMDNJ/Rutgers University, Piscataway, N.J. 6/94- 11/00.*
In addition to specific responsibilities described below, was responsible for all building installations, renovations repairs and upgrades. Responsible for direction and coordination of all major building and laboratory construction projects including multiple laboratory and office reconstruction. Interfaced directly with Rutgers Facilities staff. Coordinated the removal and remediation of fiberglass insulation in the building as a series of weekend projects, a $650,000 project. Required the removal of all laboratory and office items and subsequent replacement with minimum disruption (3 days or less). Created or reviewed safety policies in the institute. Created solutions to internal safety issue such as pregnant laboratory workers and implemented new safety protocols for the use of radioactive isotopes not previous used on the university. Serve on internal committees for radiation and chemical safety and on the University's external laboratory safety committee. Acted as Co-PI and Co-I to Institute investigators on grants requiring analytical expertise. Developed assays for the quantification of biologically relevant organic compounds by HPLC/MS or GC/ITMS. Responsible for the development of methods for the detection of metabolites of contaminants in target organ toxicity studies. Responsible for development of new assays for semi-volatile organic chemicals in environmental samples at concentrations far below previous detection limits. Responsible for development of microwave assisted solvent extraction techniques for organic, inorganic and organometallic analytes.

Administrative Director of Laboratories, *Environmental and Occupational Health Sciences Institute*, *UMDNJ/Rutgers University, Piscataway, N.J. 6/92- 6/94* Reporting to the Executive Director was responsible for administration of Analytical center which houses more than $1M worth of chemical instrumentation. Responsible for interface between investigators and research analysts. Responsible for direction of analytical personnel in methods development. Direct research activities of B.A. and M.S. and Ph.D. research analysts. Control and project budget for analytical lab and responsible for cost recovery from analytical center projects. Responsible for evaluation and recommendation of all major Institute instrument purchases. Developed speciation technique for fate and transport studies of metals in the body and the environment. Developed assay for determination of bioavailable fraction of contaminants using synthetic bio fluids. Quality assurance resource for Institute. Acted as quality assurance officer for EPA and NIEHS projects including conducting of field audits. Developed extensive QA protocols for large projects. Acted as a quality assurance resource for institute investigators by reviewing new protocols and providing protocol or standard operating procedure templates for investigators who need to develop a QA document.

Laboratory Manager, *Nestle Quality Assurance Laboratory Elemental and General Chemistry Groups*. *Dublin Ohio 12/90-6/92*
Responsible for supervision of 14 personnel and approval of analysis results for food and cosmetics. Responsible for supervision of more than 200 different wet chemical tests and more than $300, 000 of chemical instrumentation. Produced much of the primary nutritional labeling data used on many of Nestle products. Received funding from internal grant request and purchased an ICP/MS. Designed lab to house ICP/MS with clean room 1000 conditions. Established ICP/MS analysis protocols.

Post Doctoral Fellow, *Oak Ridge National Laboratory*. *Oak Ridge Tennessee 8/89-12/90.*
Research focus: Resonant and resonant enhanced ionization spectroscopy in low pressure environments including thermionic diodes and the Finningan ion trap detector/mass spectrometer. Developed measurement techniques with high power tunable lasers.

Graduate Teaching Assistant, *North Carolina State University*, *Raleigh North Carolina 9/84-8/89*.
Responsible for course development of graduate instrumentation, advanced spectroscopy, electronics and programming courses. Taught part of a graduate level course on atomic spectrometry.

Research Chemist, *Army Corps. of Engineers Cold Regions Research and Engineering Lab (CRREL)* *Hanover New Hampshire 12/83-8/84*
Research focus: Methods development HPLC/GC. Responsible for extraction techniques development for analysis of contaminants in ground water.

Chemist for Consulting Center, *University of New Hampshire,* *Durham New Ham pshire*. 6/83-8/84
Research focus: Methods testing and development of analytical procedures for various industrial applications including assays for the reclamation of acids used in the semi-conductor industry. Required design of elevated temperature inert atmosphere transfer of extremely hazardous chemicals

AWARDS

Virgil Payne Award for Outstanding Chemical Service Achievement 2003

NIH Travel Award Metabolic Profiling Conference 2003
ACS SEED program excellence in participation, 2002
Administrative Excellence 1997-1998
Administrative Excellence 1996-1997
Administrative Excellence 1994-1995
Outstanding Teaching Award 1987-1988

CURRENT RESEARCH GRANTS

Understanding Cellular Damage Related to Chromium's Teratogenic and Mutagenic Properties by Measurement of Intra and Extra Cellular Redox Cycling with Stable Isotope Labels, NIEHS Pilot study, $25,000, P.I.

Determination of Purgable Organic Compounds and Polar Organic Compounds Using Ion Trap Mass Spectrometric Techniques to Com pliment the Dem onstration Project Methods, 2008-2009*,* NJ Department of Environmental Protection $75,000, P. I

Chromatographic Resolution of Stable Isotopes of Chrom ium in Air Particulate, 2007-2009 *,* NJ Department of Environmental Protection, $25,368. Co-I

NIEHS Chemical Analysis Facility Core Operations, 2009-14. NIEHS Center of Excellence ES05022, $492,675 Director of Facility Core

SUMMARY OF COMPLETED RESEARCH PROJECTS

Twenty four additional Research grants as PI or Co-PI totaling more than $4 M from agencies including NSF, DoD, ARI and NJDEP

ADVISORY COMMITTEES

EPA SW-846 Inorganic/Metals Workgroup, 2001-
Rutgers Research/Technical Titles Review Committee 2003-
Picatinny Coordination Planning Committee, 2003-2004
NJDOHSS Biomonitoring Advisory Committee 2002-2003
University Laboratory Safety and Design Committee, 1998-
NJ Future Advisory Committee for the Sustainable Goals and Indicators Process, 1997-1999
Science Advisory Committee for James J. Howard (NOAA) Laboratory, 1994- 1996
NJDEP Pesticide Review Committee, 1995 - 1997

PROFESSIONAL AFFILIATIONS

Editorial Board Journal of Environmental and Public Health 2009 - present
NIEHS Center of Excellence Analytical Facility Core, Director
Society of Research Administrators International
American Chemical Society Monmouth County Section
- Chairman 1994-1995
- Executive Committee 1994-2005
- Councilor 1997- 2000
- Treasurer 2001-2003

Society for Applied Spectroscopy
- Governing Board Councilor at large 2000-2002

OUTSIDE AFFILIATIONS

President Board of Education, Sea Girt School District 2005 – present
Member Board of Education, Sea Girt School District 2004 – 2005
Member Board of Directors Spring Lake Sea Girt Little League 2002-2007
Vice President Sea Girt Education Foundation 2006 - present
President Sea Girt Real Estate Owner Association, 1999-2002
Vice President Sea Girt Real Estate Owner Association, 1996-1999

GRADUATE STUDENT THESIS ADVISOR

Steve Spayd, Dissertation title: Using Biomonitoring Data to Evaluate Arsenic Removal Strategies for Private Wells in the Piedmont Region of NJ, May 2009.

Ruimin Xie, Dissertation title: Speciation of Arsenic And Platinum In Body Fluids Using Liquid Chromatography And Hydride Generation Coupled To Inductively Coupled Plasma Mass Spectrometry; completed January 2007

Robert Stiles, Dissertation title: Extraction Strategies For The Detection Of Semi Volatile Organic Contaminants In Ground And Treated Waters In New Jersey; completed October 2005

Ill Yang, Dissertation title: Applications Of Ion Trap Mass Spectrometer For Semivolatile Organic Pollutant Monitoring In Environmental Samples; completed October 2003

Current Graduate Students

Haiping Wang, Dissertation Project: Understanding Bisphenyl-A Metabolic Processes in Culture and Animals with Mass Spectrometric Methods and Theoretical Mass Modeling

Min Yoon, Dissertation Project: Optimizing HPLC/MS and GC/MS Analytical Techniques for Monitoring Non Regulated Contaminants in Municipal Drinking Water Samples

PREVIOUS POST-DOCTORAL TRAINEES

Robert Stiles *Evaluation of Multiple Analytical Techniques for Hexavalent Chromium*, 2005-2007

John Hunter *Assessing the Bioaccessible Fraction of Tungsten In Particulate Using a Lung Fluid Simulant* 2003-2004

Qiang Tu *Development of Mercury Speciation Measurement Methods for Use as Predictors of Bioavailability,* 2001-2002

Eric Fisher *Development of Speciation Extraction Methods for the Analysis of Mercury Compounds in the Environment*. 1998-2000

Mark Heintz: *Using SFC and Chromatography Coupled with Mass Spectrometry for Speciation of Mercury in Environmental Samples* 1995-1996

PEER REVIEWED PUBLICATIONS and CHAPTERS

1. Merlin, M., Marques-Baptista, Yang, H., Ohman-Strickland, P., Aquina and **Buckley, B.** Evaluating Degradation with fragment formation of Prehospital Succinylcholine by Mass Spectrometry, *Emergency Medicine* accepted for publication

2. Whitehead, Jr. R., Montesano, A., Jayatilaka, N., **Buckley, B.,** Winnik, B., Needham, L. and Barr D., Method for measurement of the quaternary amine compounds paraquat and diquat in human urine using high-performance liquid chromatography-tandem mass spectrometry, *J. Chrom. A.,* accepted for publication.

3. Winnik, B., Barr, D., Thiruchelvam, M., Montesano, A., Richfield E., and **Buckley, B.**, Quantification of Paraquat, MPTP, and MPP+ in Brain Tissue using Microwave Assisted Solvent Extraction (MASE) and High Performance Liquid Chromatography-Mass Spectrometry, *Anal. and Bioanal. Chem*. **395**:195–201, 2009.

4. Richardson, J., **Buckley, B.,** Winnik, B., O`Suilleabhain, P, Diaz-Arrastia, R., German, D., Elevated Pesticide Levels in the Serum of Patients with Parkinson's Disease, *Archives of Neurology,* **66**(7): 870-875, 2009.

5. Prasad,K., Tarasewicz, E., Mathew, J., Ohman Strickland, P., **Buckley, B**., Richardson, J., and Richfield, E., Toxicokinetics and Toxicodynamics of Paraquat Accumulation in Mouse Brain *Experimental Neurology,* 215 2009 358–367

6. Barr D and **Buckley B**. Assessing human exposure to environmental toxicants. In: Encyclopedia of Environmental Health. Jerome Nrigau (ed.). Part 3, chapter 7. In press (INVITED)

7. Riedt, C., **Buckley, B**., Brolin, R., Ambia-Sobhan, H., Rhoads, G., Shapses, S., Blood Lead Levels and Bone Turnover with Weight Reduction In Women, *J Expo Sci Environ Epidemiol. 2009 Jan;19(1):90-6. Epub 2008 Mar 5.*

8. Nagourney, S.J., Wilson,S.A., **Buckley, B**., Kingston, H. M., Yang S-Y and Long, S.E., Development of a NIST Standard Reference Material for Cr(VI) in Contaminated Soil, *J. Anal. At. Spectrom.*, 23, 1550 2008, advanced publication DOI: 10.1039/b808488b.

9. Lee, H. J., Paul, S., Atalla, N., Thomas, P., Lin, J., Yang, I., **Buckley, B**., Lu, G., Zheng, X., Lou, Y-R., Conney, A., Maehr, H., Uskokovic, M. and Suh, N., Gemini Vitamin D Analogs Inhibit Estrogen Receptor Positive and Estrogen Receptor Negative Mammary Tumorigenesis without Hypercalcemic Toxicity, *Cancer Prevention Research*, 1(6), 476-484, 2008.

10. Sang, S., Lee, M.-J.,Yang, I., **Buckley, B**. and Yang, C.S. Human urinary metabolite profile of tea polyphenols analyzed by liquid chromatography/electrospray ionization tandem mass spectrometry with data-dependent acquisition *Rapid Commun. Mass Spectrom*. 2008; 22: 1567–1578

11. Stiles, R.,Yang, I., Lippincott, L., Murphy, E., **Buckley, B**.; Measurement of Drinking Water Contaminants by Solid Phase Microextraction (SPME) Initially Quantified in Source Water Samples by the USGS, *Environ. Sci. and Tech.,* 42 (8): 2976-2981, 2008

12. Petchuay,C., Thoumsang, S., Visuthismajarn, P., Vitayavirasak, B., **Buckley, B**., Hore, P., Borjan, M., and Robson, M., Analytical Method Developed for Measurement of Dialkylphosphate Metabolites in Urine Collected from Children Non-Occupationally Exposed

to Organophosphate Pesticides in an Agricultural Community in Thailand, *Bull. Environ. Contam. Toxicol*, 81:401–405, 2008.

13. Williams, B., Barr, D., Wright, J.M., **Buckley, B.,** Magsumbol, M., Interpretation of Biomonitoring Data in Clinical Medicine and the Exposure Sciences, *Toxicology and Applied Pharmacology,* 2008 May 9. PMID: 18561969*.*

14. Prasad, K., Winnik, B., Thiruchelvam, M., **Buckley, B**., Mirochnitchenko, O. and Richfield, E., Prolonged Toxicokinetics and Toxicodynamics of Paraquat in Mouse Brain, *Environmental Health Perspectives* 115 (10): 1448-1453 2007.

15. Sang, S., Yang, I., **Buckley, B**., Ho, C-T., and Yang, C.S. Autoxidative Quinone Formation In Vitro and Metabolite Formation In Vivo From Tea Polyphenol (-)-Epigallocatechin-3-Gallate: Studied by Real-Time Mass Spectrometry Combined with Tandem Mass Ion Mapping, *Free Radical Biology & Medicine* 43: 362-371, 2007.

16. Xie, R., Johnson, W., Spayd, S., Hall, G. and **Buckley, B**., Determination Of Total Toxic Arsenic Species In Human Urine Using Hydride Generation Inductively Coupled Plasma Mass Spectrometry, *J. Anal. Atomic Spec*., **22,** 553 – 560, 2007.

17. Xie, R., Johnson, W., Rodriguez,, L., Gounder, M., Hall, G. and **Buckley, B**., A Study Of The Interactions Between Carboplatin And Blood Plasma Proteins Using Size Exclusion Chromatography Coupled To Inductively Coupled Plasma Mass Spectrometry, *Anal. and Bioanal. Chem.* **387**:2815–2822, 2007.

18. Stiles, R., Yang, I., Lippincott, R.L., Murphy, E., and **Buckley, B**., Identifying Potential Sources of Background Contaminants Resulting From Solid Phase Extraction and Solid Phase Microextraction, *J. Sep.Sci.,* **30**, 1029 – 1036, 2007.

19. Xie, R., Johnson, W., Spayd, S., Hall, G. and **Buckley, B**., Arsenic Speciation Analysis In Human Urine Using Ion Exchange Chromatography and Inductively Coupled Plasma Mass Spectrometry, *Anal. Chim. Acta*., **578**, 2, 186-194, 2006.

20. Agrawal, S., Winnik, B., **Buckley, B.**, Mi, L., Chung, F.-L., and Cook T., Simultaneous Determination of Sulforaphane and its Major Metabolites from Biological Matrices with Liquid Chromatography-Tandem Mass Spectroscopy, *J. Chrom. B.,* 840, I2, 99-107, 2006.

21. Shalat, S., Solo Gabriele, H., Fleming, L. E., **Buckley, B.** , Black, K., Jimenez, M., Shibata, T., Durbin M., Graygo, J., Stephan, W., Van De Bogart, G., A Pilot Study of Children's Exposure to CCA-Treated Wood from Playground Equipment *Science of the Total Environ.* **367**, 80-88, 2006.

22. Iba, M., Fung, J., Chung, L., Zhao, J., Winnik, B., **Buckley, B**., Chen, L., Zelikoff, J. and Kou, Y., Differential inducibility of rat pulmonary CYP1A1 by cigarette smoke and wood smoke *Mutation Research*, **606,** 1-11, 2006.

23. Thiruchelvam, M., Prokopenko, O., Cory-Slechta, D.A., Richfield, E.K., **Buckley, B**., Mirochnitchenko, O., Overexpression of superoxide dismutase or glutathione peroxidase protects against the paraquat+maneb-induced Parkinson's disease phenotype. *J. Biol. Chem.,* **280,** I 23, 22530–22539, 2005.

24. Yiin, L-M., Millette, J., Vette, A., Ilacqua, V., Quan, C., Gorczynski, J., Kendall, M., and Chen, L., Weisel, C., **Buckley, B.,** Yang, I., and Lioy, P. "Comparisons of the Dust/Smoke Particulate that Settled Inside the Surrounding Buildings and Outside on the Streets of Southern New York City after the Collapse of the World Trade Center, 11 September 2001", *Journal of Air and Waste Management*, **54**: 515-528, 2004.

25. Qian, J. Timko, M., Allen, A., Russell, C., Winnik, B., **Buckley**, **B.,** Steinfeld J., and Tester, J., Solvophobic acceleration of Diels-Alder reactions in supercritical carbon dioxide*. Journal of the American Chemical Society*, v 126, **17**, 5465-5474, 2004.

26. Hg, R., Hubbar, V., Kim, B-R., Chen, C., Winnik, B., **Buckley**, **B.,** Tolias, P., Hart, R., and Kong, A-N T.,In Vivo Pharmacokinetics and Regulation of Gene Expression Profiles by Isothiocyanate Sulforaphane in the Rat, Journal of Pharmacology and Experimental Therapeutics **310,** (1), 263-271, 2004.

27. **Buckley, B.,** Johnson, W., Fischer, E., Tu, Q., .and Heintz, M., Measurement of Heavy Metals in Biological and Environmental Matrices Using Microwave Extraction, Inductively Coupled Plasma Mass Spectrometry and Ion Chromatography for Assessing Potential Risk to Human Health, (Chinese) Journal of Environmental and Occupational Medicine, **20**, *6*, 418-421, 2003.

28. Tu, Q. Johnson Jr., W. and **Buckley, B.** Mercury Speciation Analysis In Soil Samples By Ion Chromatography, Post-Column Cold Vapor Generation And Inductively Coupled Plasma Mass Spectrometry, *J. Anal. Atomic Spectrometry*, **18**: 696-701, 2003.

29. Lioy, P., Weisel C. , Millett J., Eisenreich S., Vallero D., Offenberg J., **Buckley B.,** Turpin B., Zhong M., Cohen M., Prophete C., Yang I. , Stiles R., Chee G. , Johnson W., Alimokhtari S., Weschler C., Chen L., Characterization of the Dust/smoke Aerosol That Settled East of the World Trade Center (WTC) in Lower Manhattan after the Collapse of the WTC September 11, 2001, *Environ. Health Perspec.* 110, 703-714,2002.

30. Strucinski, P., Ludwicki, J., Goralczyk, K., Olszewski, W., Czaja K., **Buckley, B**., Jethon, J., Baranska, J., and Hernik, A., Storage of Persistent Organochlorine Insecticides in Adipose Breast Tissue of Polish Women in 1997-2001, Organohalogen Compounds Vol. 58, 261-264, 2002.

31. Strucinski, P., Ludwicki, J., Goralczyk, K., Wojtyniak, B., Olszewski, W., **Buckley, B.,** Czaja K., Jethon, J., Baranska, J., and Hernik, A., Hexachlorobenzene (HCB) and Total Polychlorinated Biphenyls (3PCBs) in Human Breast Lipids and Breast Cancer Risk in Polish Women Organohalogen Compounds 59, 365-368, 2002.

32. Bonanno, J., Robson, M., Johnson, W. **Buckley, B**. and Modica, M. Lead Exposure at a Covered Outdoor Firing Range. *Bull. Environ. Contam. Toxicol*., 68:315-323, 2002.

33. Li, C., Winnik, B., Lee, M.-J., Meng, X., Lu, H., Sheng, S., **Buckley, B**., Yang, C., Liquid Chromatography/Electrospray Ionization Mass Spectrometry for Analysis of Metabolites of Tea Catechins in Urine. *Research Chem. Tox.* 4: 702-705 2001.

34. Prabhu, S., Lee, M_J., Hu, W-Y., Winnik, B., Yang, I., **Buckley, B.** and Hong, J-Y., Determination of 2- Amino-1-methyl-6-phenylimidazo[4,5-b] pyridine (PhIP) and Its Metabolite 2-Hydroxyamino-PhIP by Liquid Chromatography/Electrospray Ionization-Ion Trap Mass Spectrometery, *Anal. Biochem.*, 298, 306-313, 2001.

35. Ellikson, K., Meeker, R., Gallo, M., **Buckley, B.** and Lioy, P. Oral Bioavailability of Lead and Arsenic from a NIST Standard Reference Material. *Archives of Environmental Contamination and Toxicology*. 40:128-135, 2001.

36. **Buckley, B.,** Ettinger, A., Hore, P. Lioy, P. and Freeman, N. Using Observational Information in Planning and Implementing of Field Studies with Children as Subjects. *J. Exposure Anal. Environ. Epidem.* 10:695-702, 2000.

37. Strucinski, P., Ludwicki, J., Goralczyk, K., Czaja, K., Olszewski, W., Baranska, J., Robson, M. and **Buckley, B.** Organochlorine Pesticides Residues in Human Breast Adipose Tissue in Poland. *Central European Journal of Public Health, Supplement 8*. pp 25-26. July 2000.

38. Li, T-H., Hooper, K., Fischer, E., Laskin, D., **Buckley, B.** and Turpin, B. An Exposure System to Study the Effects of Water-Soluble Gasses on PM-Induced Toxicology. *Inhalation Toxicology*. 12:563-567. 2000.

39. Carlton, A., Turpin, B., Johnson, W., **Buckley, B.,** Simick, M., Eisenreich, S. and Porcja, R. Micro Analysis Methods for Characterization of Personal Aerosol Exposures. *Aerosol Science and Technology*. 31:66-80. 1999.

40. Gurunathan, S., Robson, M., Freeman, N., **Buckley, B**., Roy, A., Meyer, R., Bukowski, J. and Lioy, P. Accumulation of Chlorpyrifos on Residential Surfaces and Toys Accessible to Children. *Environmental Health Perspectives.* 106:9-16. 1998.

41. Hamel, S., **Buckley, B.,** and Lioy, P. Bioaccessibility of Metals in Soils for Different Liquid to Solid Ratios in Synthetic Gastric Fluid. *Environ. Sci. and Tech*. 32:358-362. 1998.

42. Johnson, W., Grover, A.M., Turpin, B. and **Buckley, B.** Measurements in Air and Water at Ambient Concentrations How Low Can We Go? *ICP information Newsletter*. 22*(10*): 758. 1997.

43. **Buckley, B.,** Kaur, R., Park, S., Kim, Y. and Cooper, K., Toxicity Test of Nanji Island Landfille (Soeul, Korea) Leachate Using Japanese Medaka (Oryzias latipes) Embryo Larval Assay, *Bull. Environ. Contam. Toxicol*. 57 -84. 1996.

44. Bukowski J., Robson M., **Buckley B**., Russell D. and Meyer L. Air-levels of volatile organic compounds following indoor application of an emulsifiable concentrate insecticide. *Environmental Science and Technology*. 30:8:2543-2546. 1996.

45. **Buckley, B.,** Heintz, M., Fang, W. and Johnson, W. Mercury Speciation with an IC/ICPMS System: A Marriage of Convenience. *ICP Information Newsletter*. 21(8):635. 1996.

46. **Buckley, B.,** Heintz, M., Fang, W. and Johnson, W. Determination of Isotope Ratios for Individual Mercury Species. *ICP Information Newsletter*. 20(7):224. 1995.

47. **Buckley, B.** and Boss, C., A Tungsten Filament Vaporizer for Sample Introduction into a Direct-Current Plasma, *Appl. Spectrosc.* 44:505. 1990.

48. J. M. Ramsey, J. M., Whitten, W., Goeringer, D. and **B. Buckley, B**., "Collisional and Electric-Field Ionization of Laser-Prepared Rydberg States in an Ion Trap Mass Spectrometer, *Proceedings of the Fifth International Conference on Resonance Ionization Spectroscopy and Its Applications*; Ed. N. Omenetto and J.E. Parks; Institute of Physics: Bristol, UK, Vol. 114, pg. 301-306, (1990)

SUBMITTED MANUSCRIPTS

1. Thiruchelvam, M., Kochar, J., Mehta, H., Prokopenko, O., **Buckley, B**., and Mirochnitchenko, O., Mechanisms Associated With Gender Difference In The Paraquat + Maneb Animal Model Of Parkinson's Disease, submitted to *Neurobiology of Disease.*

2. Whitehead, Jr. R., Montesano, A., Jayatilaka, N., Buckley, B., Winnik, B., Needham, L. and Barr D., Method for measurement of the quaternary amine compounds paraquat and diquat in human urine using high-performance liquid chromatography-tandem mass spectrometry, *submitted J. Chrom. A.*.

3. Sonsalla, P., Wong, L., **Buckley B.** and Winnik B., Zonisamide Alters MPTP Pharmacokinetics And Toxicity In Mice By Mao-B Inhibition, *Journal of Neurochemistry*

MANUSCRIPTS IN REVISION OR PREPARATION

4. **Buckley, B.,** Application and Significance of Toxic Metal Speciation for Biological and Environmental Sample Analysis, Invited Review *J. of Exposure Science Environ. Epi.*

5. Fischer, E., Tu, Q., Nagourney, S., England, R., and **Buckley, B.,** Microwave-Assisted Solvent Extraction for the Quantitative Simultaneous Extraction of Inorganic Mercury and Methylmercury from Soils, submitted to *Analytica Chimica Acta*

6. Domico, L., Yang, I., Buckley, B., Zeevalk, G., Cooper, K., Lipophilicity and Kinetic Stability Of Mancozeb In Mesencephalic Cells, in revision for Toxicological Sciences

PUBLISHED REPORTS

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