

Curriculum Vitae
2005
Kenneth Paul Roberts

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Spouse: Kasia M. Roberts, Ph.D.
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Education

Iowa State University; Ames, IA 2001
Ph.D.; Analytical Chemistry

Southeastern Oklahoma State University (SOSU); Durant, OK 1995
B.Sc.; Chemistry, Occupational Safety and Health minor

Areas of Specialization

- Bioanalytical Chemistry
- Chemical Carcinogenesis
- Nanotechnology—quantum dots
- Laser-Induced Fluorescence / Raman / NSOM / Confocal
- Capillary Electrophoresis / HPLC
- Environmental Chemistry

Professional Experience

8/02 - present, Assistant Professor of Chemistry

7/01 - 8/02, National Center for Toxicological Research—FDA Postdoctoral Research Fellow, Jefferson, Arkansas

8/96 – 5/01, Graduate Research Associate, Iowa State University, Ames, Iowa

8/96 – 12/97, Teaching Assistant, Iowa State University, Ames, Iowa

5/95 – 7/96, Research Technician, Southeastern Oklahoma State University, Durant, Oklahoma

5/95 – 7/96, NMR Technician, Southeastern Oklahoma State University, Durant, Oklahoma

8/89-5/90, 8/93-5/95, Laboratory Instructor, Southeastern Oklahoma State University, Durant, Oklahoma

Professional Associations / Service

Member, Analytical Chemistry Division of the American Chemical Society
Member, Toxicology Division of the American Chemical Society
Member, Environmental Chemistry Division of the American Chemical Society

Honors/Awards

Proctor & Gamble Fellowship for Excellence in Research 1999

A. Publications in Refereed Journals

1. Gujar, A.C., Moye, A. A., Coghill, P. A., Teeter, D.C., Roberts, K.P., and Price, G.L. **Raman Investigation of the SUZ-4 Zeolite**, *Micro.Meso. Materials*, **2005**, 78(2-3), 131.
2. Roberts, K. P., Jankowiak, R., and Small, G. J. **High-Performance Liquid Chromatography Interfaced with Fluorescence Line-Narrowing Spectroscopy for On-line Analysis**, *Analytical Chemistry*, **2001**, 73, 951.
3. Casale, G. P., Singhal, M., Bhattacharya, S., RamaNathan, R., Roberts, K. P., Barbacci, D. C., Zhao, J., Jankowiak, R., Gross, M. L., Cavalieri, E. L., Small, G. J., Rennard, S. I., Mumford, J. L., and Shen, M. **Detection and Quantification of Depurinated Benzo[a]pyrene-Adducted DNA Bases in the Urine of Cigarette Smokers and Women Exposed to Household Coal Smoke**, *Chemical Research in Toxicology*, **2001**, 14(2), 192.
4. Roberts, K. P., Lin, C.-H., Singhal, M., Casale, G., Small, G. J., and Jankowiak, R. **On-line Identification of Depurinating DNA adducts in Human Urine by Capillary Electrophoresis – Fluorescence Line-Narrowing Spectroscopy**, *Electrophoresis—Special Issue, CE in Biomedicine*, **2000**, 21, 799.
5. Jankowiak, R., Roberts, K. P., and Small, G. J. **Invited Review: Fluorescence Line-Narrowing in Chromatography and Electrophoresis**, *Electrophoresis*, **2000**, 21, 1251.
6. Jankowiak, R., Roberts, K. P., Tomasik, P., Sikora, M., Small, G. J., and Schilling, C. H. **Probing the Crystalline Environment of α -Alumina via Luminescence of Metal Ion Impurities: An Optical Method of Ceramic Flaw Detection**, *Materials Science and Engineering A*, **2000**, A281, 45.
7. Roberts, K. P., Lin, C. –H., Jankowiak, R., and Small, G. J. **On-line Identification of Diastereomeric Dibenzo[a,l]pyrene Diol Epoxide Derived Deoxyadenosine Adducts by Capillary Electrophoresis–Fluorescence Line-**

- Narrowing and Non-Line-Narrowing Spectroscopy**, *Journal of Chromatography A*, **1999**, 853, 159.
8. Jankowiak, R., Lin, C. –H., Zamzow, D., Roberts, K. P., Li, K. –M., and Small, G. J. **Spectral and Conformational Analysis of Deoxyadenosine Adducts Derived from Syn- and Anti-Dibenzo[a,l]pyrene Diolepoxides: Fluorescence Studies**, *Chemical Research in Toxicology*, **1999**, 12, 768.
 9. Parent, B. D., Huddleston, J., Keeler, M., Roberts, K. P., Waldroup, A., Abernathy, R., Cooper, W., and Wright, J. R. **An Easily Biotinylated, High Molecular Weight Component of Bovine Skim Milk, Which Binds the Radionuclide ²⁰⁷Bi**, *Proc. Okla. Acad. Sci.*, **1999**, 79, p1.
 10. Wright, J. W., Kiel, J., Holwitt, E., Smith, J. T., Roberts, K. P., Studer, J., McLemore, C., Campbell, K., Russo, B., and Wood, K. **Preliminary Characterization of a Polymer Prepared by Diazotization of 3-Amino-L-tyrosine**, *Polymer Preprints (ACS)*, **1998**, 39, 365.
 11. Russo, V. M., Williamson, J., Roberts, K. P., Wright, J. R., and Maness, N. **¹³C-nmr Spectroscopy to Monitor Sugars in Pith of Internodes of a sh2 Corn at Developmental Stages**, *HortScience*, **1998**, 33, 980.
 12. Maddox, L., Reeves, M., Wood, K., Roberts, K. P., Studer, J., Wetzel, J., Smith, J. T., Whittington, K., Alls, J. L., Parker, J. E., Holwitt, E., Kiel, J. L., and Wright, J. R. **Acoustic Wave Dosimetry Based on Diazotized Luminol Solutions**, *Microchemical Journal*, **1998**, 58, 209.

Manuscripts in Preparation of Completed Work

1. Duncan, C.R., Wisner, R.A., Vasicek, L., Rosche, W.A., and Roberts, K.P. **Intracellular Detection of beta-Galactosidase with Quantum Dots in Escherichia coli**, *Analytical Chemistry*, (to be submitted)
2. Duncan, C.R., Wisner, R.A., Vasicek, L., Rosche, W.A., and Roberts, K.P. **Surface Recognition and Potential Microbial Isolate Typing with Quantum Dots**, *Analytical Chemistry*, (to be submitted)
3. Roberts, K.P, Sobrino, J.A, Payton, J.P., Mason, L.B., and Turesky, R.J. **Accurate Determination of Apurinic/Apyrimidinic Sites in DNA**, *Chemical Research in Toxicology*, (to be submitted)
4. Roberts, K. P., Jankowiak, R., Garcia, V., Schilling, C. H., and Small, G. J. **A Fluorescence Method for Measuring the γ - α Crystalline Transition of Alumina in Industrial Ceramics**, *Materials Science and Engineering A*, (to be submitted).

5. Roberts, K. P., Grubor, N., Gaikwad, N., Bodell, B., Jankowiak, R., and Small, G. J., **Characterization and Identification of DNA Adducts from Activated Tamoxifen: Laser-Induced Fluorescence Studies**, *Chemical Research in Toxicology*, (to be submitted).
6. Roberts, K. P., Jankowiak, R., and Small, G. J., **On-line Identification of Intact, Non-Covalent Photosynthetic Antenna Protein Complexes by Capillary Electrophoresis – Low-Temperature Fluorescence Spectroscopy**, *Journal of Chromatography B*, (to be submitted).