

**Charlita G. Rosal, Environmental Research Scientist, in EPA's National Exposure Research Laboratory**

Exposure Methods and Measurements Division

[Mailing Address](#)

[rosal.charlita@epa.gov](mailto:rosal.charlita@epa.gov)

**Area of Expertise:** My expertise is the development, application, and evaluation of hyphenated techniques for arsenic speciation and analysis of emerging contaminants. Recent research activities include development of LC-MS/MS and GC-MS methods for the analysis of UV filters and parabens in waste and surface waters, and characterization and analysis of nano-metallic compounds (e.g., TiO<sub>2</sub> and ZnO) using capillary electrophoresis with UV or ICPMS detection.

I was responsible for the development and application of GC-MS method for ultra-trace pesticide residues in high-elevation lake waters to determine airborne distributions of these contaminants relative to amphibian populations in the Southern Sierra, California. A portion of my work was focused on the development and application of CE-ICPMS in the analysis of arsenic animal-feed additive, roxarsone, and its transformation products in chicken manure to assess potential impact on agricultural land application. I also did some initial study for a proof-of-concept analysis of organophosphate- and other heteroatom-containing compounds using VD-GC-ICPMS.

**Select Publications:**

Bradford, D. F., E. M. Heithmar, N. G. Tallent-Halsell, G. Momplaisir, C. G. Rosal, K. E. Varner, M. S. Nash, and L. A. Riddick. Temporal Patterns and Sources of Atmospherically Deposited Pesticides in Alpine Lakes of the Sierra Nevada, California, USA. ENVIRONMENTAL SCIENCE & TECHNOLOGY. American Chemical Society, Washington, DC, 44(10):4609-4614, (2010)

View more research publications by [Charlita Rosal](#).

**Education:**

- M.S. in Environmental Analytical Chemistry, University of Nevada, Las Vegas, 1991
- M.S. (ABT) in Chemical/Environmental Engineering, University of the Philippines, 1982
- B.S. in Chemical Engineering, Mindanao State University, Philippines, 1979

**Professional Experience:**

- Environmental Research Scientist, U.S. EPA, NERL, ESD-ECB, 1997-Present
- Environmental Research Scientist, U.S. EPA, NERL, ESD-CMB, 1991-1997
- Nuclear Research Specialist, Philippine Nuclear Research Institute, Philippines, 1980-1982

- Nuclear Technician, Philippine Nuclear Research Institute, Philippines, 1979-1980