Christina Bennett-Stamper, Physical Scientist in EPA's National Risk Management Research Laboratory

Water Systems Division
Mailing Address

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Areas of Expertise:
The use of microscopy and associated analytical techniques and how they can be applied to EPA research. These techniques have been applied to a variety of research directives including biofilm characterization, nanoparticle research, pipe scale analysis, plastics, cyanobacteria and algal research as well as several collaborative projects with students from a variety of institutions. The instruments I focus on include the following:

- JEOL 6490LV Scanning Electron Microscope
- JEOL 7600FE Field Emission Scanning Electron Microscope
- JEOL 2100 Transmission Electron Microscope
- ZEISS 710 Laser Scanning Confocal Microscope

Select Publications:
Clar, J., W. Platten, E. Baumann, A. Remsen, S. Harmon, C. **Bennett-Stamper**, T. Thomas, and T. Luxton. Dermal transfer and environmental release of CeO2 nanoparticles used as UV inhibitors on outdoor surfaces: Implications for human and environmental health. ENVIRONMENTAL POLLUTION. Elsevier Science Ltd, New York, NY, 714-723, (2018).

Clar, J., X. Li, C. Impellitteri, C. **Bennett-Stamper**, and T. Luxton. Copper Nanoparticle Induced Cytotoxicity to Nitrifying Bacteria in Wastewater Treatment: A Mechanistic Copper Speciation Study by X-ray Absorption Spectroscopy. ENVIRONMENTAL SCIENCE & TECHNOLOGY. American Chemical Society, Washington, DC, 50(17):9105-9113, (2016).

Varughese, E., C. **Bennett-Stamper**, L. Wymer, and J. Yadav. A new in vitro model using small intestinal epithelial cells to enhance infection of Cryptosporidium parvum. JOURNAL OF MICROBIOLOGICAL METHODS. Elsevier Science Ltd, New York, NY, 106(7):47-54, (2014).

Virkutyte, J., S. R. Al-Abed, H. Choi, and C. **Bennett-Stamper**. Distinct Structural Behavior and Transport of TiO2 Nano- and Nanostructured Particles in Sand. M. Adler, F. Grieser, J.B. Li, and D. Prieve (ed.), Colloids and Surfaces A: Physicochemical and Engineering Aspects. Elsevier B.V., Amsterdam, Netherlands, 443:188-194, (2014).

Kou, J., C. **Bennett-Stamper**, and R. S. Varma. Green synthesis of noble nanometals (Au, Pt, Pd) using glycerol under microwave irradiation conditions. ACS Sustainable Chemistry & Engineering. American Chemical Society, Washington, DC, 1(7):810-816, (2013).

Nadagouda, M. N., C. **Bennett-Stamper**, C. White, and D. Lytle. Multifunctional Silver Coated E-33/Iron Oxide Water Filters: Inhibition of Biofilm Growth and Arsenic Removal. RSC Advances. RSC Publishing, Cambridge, UK, 2(10):4198-4204, (2012).

View more research publications by Christina Bennett-Stamper

Education:

- M.S., New Mexico State University, Las Cruces, NM; Biology, 2002
- B.S., New Mexico State University, Las Cruces, NM; Microbiology, 1994
- B.S., New Mexico State University, Las Cruces, NM; Biology, 1994

Professional Experience:

Project Support

- Advanced Materials and Surface Analysis Research Core (AMSARC) - Project Coordinator, including laboratory vision, planning, design, and construction and Contract Officer Representative (COR)
- AMSARC Instrumentation COR
- AMSARC instrumentation capital equipment COR
- Experimental Streams Facility (ESF) Pegasus COR
- ESF Operations Coordinator

Committees and Memberships

- Microscopy Society of America
- Microscopy Society of the Ohio River Valley

Awards and Honors

- EPA-ORD National Honor Award - Science Achievement Award Earth Sciences Characterization Fate and Release of Micronized Copper Carbonate (MCA) Team, 2016
- NRMRL Award Goal 4 - Organization, for the cross-agency collaboration and organization of the Advanced Materials and Surface Analysis Core, 2010