

Dr Isabella Romer Roche PhD

Research Fellow

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About

Dr Isabella Romer Roche is working with Eva Valsami-Jones in the NanoMILE project. She has wide experience in the synthesis and characterisation of nanoparticles, especially silver, working with a multimethod approach. Her work also includes stability of nanoparticles in environmentally relevant conditions.

Qualifications

- 2013- PhD in Environmental Nanosciences, University of Birmingham, Birmingham, UK
"The ecotoxicological and environmental behaviour and transformations of silver nanoparticles"
- 2007- MSc in Nanomolecular Science – Jacobs University Bremen, Bremen, Germany
- 2003- BSc in Chemistry – Universidad Central de Venezuela, Caracas, Venezuela

Biography

Dr Isabella Romer Roche obtained a BSc in Chemistry from Universidad Central de Venezuela, in 2003. After that, she worked for a food company in Venezuela for 2 years and moved to Germany where she completed a master degree in Nanomolecular Science from Jacobs University in 2007. After two more years of working at Jacobs University as a research associate in the field of polyoxometalates, Dr Romer Roche moved to Birmingham where she obtained a PhD in Environmental Nanosciences "The ecotoxicological and environmental behaviour and transformations of silver nanoparticles" in 2013, working with Jamie R. Lead. She is currently working with Eva Valsami-Jones as a Research Fellow, specifically for the NanoMILE project.

Research

- Environmental fate and behaviour of nanoparticles
- Synthesis and characterisation of nanoparticles
- Synthesis of novel nanomaterials

Publications

Ismail, A. H.; Bassil, B. S.; **Römer, I**; Kortz, U., Mono- and Di-Lanthanide Derivatives of 22-Tungsto-2-antimonate(III), $[\text{Ln}(\text{H}_2\text{O})_4\text{Sb}_2\text{W}_{21}\text{O}_{72}(\text{OH})]^{10-}$ and $[\text{Ln}_2(\text{H}_2\text{O})_8\text{Sb}_2\text{W}_{20}\text{O}_{70}]^{8-}$, *ZAAC*, 2013, 639 (14), 2510-2515.

Römer, I; Gavin A.J.; White T.A.; Merrifield R.C.; Chipman K; Viant M.R.; Lead J.R. The critical importance of defined media conditions in *Daphnia magna* nanotoxicity studies. *Toxicology Letters*. 2013, 223 (1), 103-108.

Baalousha, M; Nur, Y; **Romer, I**; Tejamaya, M; Lead, J.R. Effect of monovalent and divalent cations, anions and fulvic acid on aggregation of citrate coated silver nanoparticles. *Sci. Total Environ.*, 2013, 454-455, 119-131.

Tejamaya, M; **Römer, I**; Merrifield, R. C; Lead, J. R. Stability of citrate, PVP and PEG coated silver nanoparticles in ecotoxicology media, *Environ. Sci. & Tech.* 2012, 46 (13), 7011-7017.

I. Römer, and M.E. Pettitt and J. Lead (2012). Nanoparticles: environmental fate and transport in Encyclopedia of Environmetrics Second Edition, A.-H. El-Shaarawi and W. Piegorsch (eds). John Wiley & Sons Ltd, Chichester, UK, pp. 1701-1707. DOI: 10.1002/9780470057339.vnn110.

M.E. Pettitt, **I. Römer** and J. Lead (2012). Nanoparticles: environmental effects in Encyclopedia of Environmetrics Second Edition, A.-H. El-Shaarawi and W. Piegorsch (eds). John Wiley & Sons Ltd, Chichester, UK, pp. 1707-1712. DOI: 10.1002/9780470057339.vnn130.

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Ismail, A. H.; Bassil, B. S.; **Römer, I**; Redeker, N. C.; Kortz, U., Mono- and Di-Lanthanide Derivatives of 19-Tungsto-2-Arsenate(III) *Z. Naturforsch. B*, 2010, , 2010, 65b, 383 – 389.

Bassil, B. S.; Dickman, M. H.; **Römer, I**; von der Kammer, B.; Kortz, U. The tungstogermanate $[\text{Ce}_{20}\text{Ge}_{10}\text{W}_{100}\text{O}_{376}(\text{OH})_4(\text{H}_2\text{O})_{30}]^{56-}$: A polyoxometalate containing 20 Cerium(III) atoms, *Angew. Chem. Int. Ed.*, 2007, 46, 6192-6195.

