

# DR. RALF KAEGI, CURRICULUM VITAE

## Address

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## Education

2000 Ph.D., Institute for Mineralogy and Petrology, ETH Zürich  
1996 Diploma (M.S.), Earth Sciences at University of Basel  
1990 Matura (College), Type (C) (Mathematics), Switzerland

## Employment History

Feb 06 – today Research Scientist, Head of the Particle Laboratory at the Eawag.  
Feb 01 – Feb. 06 Research scientist at Empa (Swiss Federal Institute for Materials Science and Testing)  
Oct 96 – Dec 00 Graduate Research Assistant, Institute for Mineralogy and Petrology, ETH Zürich

## Research Interests

- Fate and transformation of nanoparticles in urban wastewater systems
- Development of new analytical methods for nanoparticle detection
- Characterization of the structure of environmental colloids and particles using microscopic and spectroscopic methods

## Affiliation with professional societies

Swiss Society for Optics and Microscopy (SSOM), International Water Association (IWA), Society of Environmental Toxicology and Chemistry (SETAC)

## Management Committee:

- Member of the management committee of the IWA specialist group: 'Nano and water, Nanotechnology for the water sector' (2009 – present, Chair: 2012 – 2014)
- Chair of the Norman WG4: 'Engineered nanoparticles in the environment' (2012 – present)
- Swiss delegate in the management committee of COST action ES1205: 'Engineered Nanomaterials - from wastewater Treatment & StormwatEr to Rivers? (ENTER)' (2012 – present).
- Chair of the Cost action ES1205, WG2: Behavior of engineered nanoparticles in the environment. (2012 – present)

## **Conference and workshop (WS) organization (2013 – 2015)**

### **2015**

- Session 'Leaving the comfort zone. The challenge of measuring nanoparticles in complex matrices.', SETAC Barcelona, 2015, Co-convener
- Session 04e: 'The Biogeochemistry of Rare Earth Elements and Other Critical Metals: From Exotic Trace Elements to Emerging Inorganic Contaminants', Goldschmidt, Prague, 08.2015, Co-convener

### **2014**

- COST workshop: 'Release of nanomaterials from landfills', eawag, 11.2014 (organizer)
- Session 'Detection and characterisation of nanomaterials in complex aqueous matrices', SETAC Basel, 2014 (Co-convener)
- Nanoworkshop (WWC, Lissabon): 'Nano and Water: Applications, Implications and Analytical Needs), 09.2014, organizer

### **2013**

- IWA Symposium on Environmental Nanotech., Nanjing, China, 2013 (program committee)
- 8<sup>th</sup> International Conference on the Environmental Effects of Nanoparticles and Nanomaterials. Aix en Provence, France, 2013 (scientific committee)
- Micropol & Ecohazard Conference, Zürich, CH, 2013 (organization committee).
- Session 18I: Environmental Application of Engineered Nanomaterials: Benefits and Risks, Goldschmidt Conference, Florence, Italy, 2013 (Co-convener)

### **Short courses:**

- NanoDefine (FP7) workshop (Vienna, A): 'Electron Microscopy - principal, field of application related to NM analysis, advantages and disadvantages' , 04.2015
- InterNano Spring school (Landau, D): Short course on 'Electron Microscopy', 03.2014 (4h)
- Brazilian Congress of Chemical Engineering (Florianópolis, Br): 'Detection and analysis of Nanoparticles in complex matrices', 10.2014 (6h)
- COST Short course (Santiago di Compostela, Spain): 'Detection of engineered Nanoparticles in complex matrices', 11.2014 (4h)

### **Selected invited lectures:**

- Detection and Quantification of Engineered Nanoparticles in Environmental Matrices, Wasserchemisches und -technologisches Kolloquium, 01.10.2014, Karlsruhe, D
- Transformations silver nanoparticles in urban wastewater systems, InterNano Conference, 11.03-13.03.2014, Landau, D
- Transformation of Ag-NP in urban waste- and surface waters, Goldschmidt Conference, 08.6-13.06.2014, Sacramento, USA
- Nanomaterials in the aquatic environment. BNASS – Transspec conference, 31.08 – 04.09.2014, Aberdeen, UK
- 12.03.2015: Silver Nanoparticles in the urban environment: From the emission to the incineration, University of Innsbruck, Research Institute for Limnology

### **Reviewing activities:**

- Environmental Science and Technology, Aquatic Sciences, Geochimica et Cosmochimica Acta, Current Nanoscience, Water Resources Research, Chemosphere, Journal of Environmental Management, Geophysical Research Letters, Environmental Pollution, Journal of Microscopy, ACS Nano, Environmental Nano
- Guest Editor, Water Research Special Issue on 'Nanotechnology in the Water Sector', 2012
- Guest Editor, Chem. Eng. and Processing: Process Intensification, SI: COBEQ 2014.