

## EINLADUNG

zum Vortrag  
von

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Department of Environmental Geosciences  
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# Water, Contaminants and Nanotechnology: Threats and Solutions

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**Dienstag, 21. Juni 2016, um 17:30 Uhr**

Ort: Lise-Meitner-Hörsaal, Fakultät für Physik, Universität Wien,  
1090 Wien, Strudlhofgasse 4 / Boltzmannngasse 5, 1. Stock

*Barrierefreier Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum Hintereingang des Hörsaals*

### **Abstract:**

The production and use of engineered nanoparticles (ENPs) inevitably leads to their release into aquatic environments, with the quantities involved expected to increase significantly in the future. Concerns therefore arise over the possibility that ENPs might pose a threat to drinking water supplies. Investigations into the vulnerability of drinking water supplies to ENPs are hampered by the absence of suitable analytical methods that are capable of detecting and quantifying ENPs in complex aqueous matrices. Analytical data concerning the presence of ENPs in drinking water supplies is therefore scarce. The eventual fate of ENPs in the natural environment and in processes that are important for drinking water production are currently being investigated through laboratory based-experiments and modelling. Although the information obtained from these studies may not, as yet, be sufficient to allow comprehensive assessment of the complete life-cycle of ENPs, it does provide a valuable starting point for predicting the relevance of ENPs to drinking water supplies. This talk will address specific problems of water work operations in regard to trace contaminants including nanoparticles. Beside classical hydrogeological approaches including statistical analysis and groundwater modelling, possible threads by nanoparticles from consumer products, their analyses, but also groundwater remediation with engineered nanoparticles will be addressed.

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