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in kemijsko tehnologijo

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VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI / INVITATION TO THE
LECTURE WITHIN DOCTORAL PROGRAMME IN
CHEMICAL SCIENCES

Prof. dr. Mirco Bundschuh

University of Koblenz-Landau

z naslovom / title:

**Nanoparticles in the aquatic environment – any
need to act or all save?**

**v sredo, 9. 3. 2022 ob 15. uri / on
Wednesday, 9. 3. 2022 at 15.00**

preko spletnega orodja Zoom / via Zoom:

<https://uni-lj-si.zoom.us/j/96689147763>

(Meeting ID: 966 8914 7763)

Vljudno vabljeni! | Kindly invited!

Abstract:

Nanoparticles have properties, which makes them interesting for a multitude of industrial applications. Associated with the widespread application of nanoparticles is their often unintended release into the environment. Wastewater treatment plants are thus one significant pathway for these stressors in aquatic ecosystems. Understanding the effects these particles may cause in these ecosystems is a central task of in the research field of ecotoxicology. I will highlight several case studies that address the impact of nanoparticles depending on their properties and interaction with other stressors or environmental factors. For example, semiconductors such as TiO₂ release under UV irradiation reactive oxygen species. Those reactive oxygen species are beneficial (and intended) during advanced water treatment. However, they also increase the ecotoxicological potential of these nanoparticles with consequences for species interactions and ecosystem level processes. Considering the two sides of the same medal are thus essential when developing a comprehensive picture of the benefits and risks of (new) technologies.