

## Nanoremediation for Soil and Groundwater Clean-up - Possibilities and Future Trends

## **NanoRem Final Conference**

Frankfurt am Main, Germany, 21st November 2016

The final conference of the EU project NanoRem ("Taking Nanotechnological Remediation Processes from Lab Scale to End User Applications for the Restoration of a Clean Environment", www.nanorem.eu) will take place on 21<sup>st</sup> November 2016, as a preconference to the DECHEMA Symposium.

The conference titled "Nanoremediation for Soil and Groundwater Cleanup – Possibilities and Future Trends" presents the most recent developments and opportunities for soil and groundwater remediation by use of different nanoparticles. Project partners expect an intensive exchange of ideas with remediation practitioners.

Participation in the conference is possible independently from the DECHEMA symposium *Strategien zur Sanierung von Boden & Grundwasser 2016*. However, a participation in both events is most welcome. Please use the online registration www.dechema.de/sanierung16.

NanoRem is a four year project with 29 partners from 13 countries, coordinated by the University of Stuttgart. It has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under Grant Agreement n° 309517.

**Date:** 21<sup>st</sup> November 2016

Venue: DECHEMA, Haus Frankfurt, Theodor-Heuss-Allee 25,

60486 Frankfurt am Main, Germany

**Directions:** <a href="http://dechema.de/en/anfahrt.htm">http://dechema.de/en/anfahrt.htm</a>

**Registration:** www.dechema.de/nanorem2016

**Costs:** 90 € including catering and the NanoRem

final reception



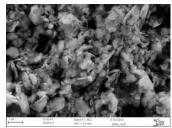
Carbo-Iron®, © A. Künzelmann, UFZ



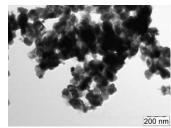
9:30-10:30	Registration
10:30	Welcome - Thomas Track, DECHEMA
	What's behind nanoremediation - technique, particles,
	Chair: Rolf Gerhardt, Project Advisory Group (PAG), DB AG, Germany
10:45	NanoRem in a nutshell  Hans-Peter Koschitzky, VEGAS University of Stuttgart, Germany
11:10	nZVI: design, performance and application possibilities  Miroslav Cernik, Technical University of Liberec, Czech Republic
11:35	non ZVI: design, performance and application possibilities  Katrin Mackenzie, Helmholtz Centre for Environmental Research UFZ Leipzig,  Germany
12:00	Subsurface nanoparticle transport  Thilo Hofmann, University of Vienna, Austria
12:25	Lunch
	Field application of nanoremediation tools and lessons learned from NanoRem
13:30	Chair: Paul Bardos, R3 Ltd, Great Britain
13.30	Large scale experiments: performance, upscaling and lessons learned for application in the field
	Kumiko Miyajima, VEGAS University of Stuttgart, Germany
13:55	Nanoremediation - a consultant's perspective Petr Kvapil, Aquatest, Czech Republic
14:20	Nanoremediation - a site owner's perspective  Pierre Matz, Solvay Belgium
14:45	Where will our nanoparticles go? Numerical modeling of nanoparticles transport  Pauline van Gaans, Deltares, The Netherlands and Tiziana Tosco, Polito, Italy
15:00	Where are our nanoparticles? At site and in-situ monitoring
15.00	Deborah Oughton, Norwegian University of Life Sciences, Norway
15:15	Coffee break
	Continued on next page



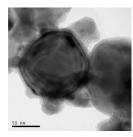
	Operating windows and recommendations from NanoRem  Chair: Hans-Peter Koschitzky, VEGAS University of Stuttgart, Germany
15:45	Generalized guideline for nanoremediation application  Jürgen Braun, VEGAS University of Stuttgart, Germany
16:15	Safe application of nanoremediation  Paul Nathanail, LQM, Land Quality Management Ltd, Great Britain
16:35	<ul> <li>Panel discussion: Possibilities and future trends of nanoremediation</li> <li>Chair: Paul Nathanail, LQM, Great Britain</li> <li>Participants: <ul> <li>Paul Bardos (R3 Environmental Technology Ltd, Great Britain)</li> </ul> </li> <li>Harald Burmeier (ITVA, Ingenieurtechnischer Verband für Altlastenmanagement e.V., Germany)</li> <li>Rolf Gerhardt (Deutsche Bahn AG, Germany)</li> <li>Thomas Held (ARCADIS GmbH, Germany)</li> <li>Dietmar Müller-Grabherr (EEA, Environment Agency Austria and COMMON FORUM, EU)</li> </ul>
17:15	Closing remarks  Hans-Peter Koschitzky, VEGAS University of Stuttgart, Germany
17:20 – 20:00	Poster session and NanoRem final reception



Abrasive Milling nZVI particles, © CTM



nZVI particles, © UPOL



nZVI particles, © UPOL



Milled nZVI particles, © UVR-FIA





































































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