

COST Action TD 1407

Workshop on Technology Critical Elements in Ecosystem and Human Health

National Institute of Chemical Physics and Biophysics, Tallinn, Estonia

19-20 April 2018

(updated 04.04.2018)

Program

Wednesday, 18 April

Arrival at Tallinn and Check-in.

Thursday, 19 April

8:30-9:00 Registration

9:00-9:10 Opening. *Urmaz Nagel*

9:10-9:20 Introduction to NOTICE-COST action and Training School. *Antonio Cobelo-García*

Session 1: TCE exposure and bioaccumulation. Chair: Sonja Zimmermann

9:20-9:50 **KEY-NOTE: Experimental setup of TCE exposure experiments: critical considerations for kinetically-hindered elements .** *Antonio Cobelo-García*

9:50-10:10 Electrochemical methods of Pd determination at trace level. *Monika Sadowska*

10:10-10:30 Additional characterization of the Danube sediments in Serbia including some TCEs. *Tatjana Trtić-Petrović*

***** Coffee-Break *****

Session 1: TCE exposure and bioaccumulation. Chair: Kevin Francesconi

11:00-11:20 Milk and dairy products authentication based on their isotopic and elemental profile. *Dana Alina Magdas*

11:20-11:40 Rare earth elements (REE) transport from soil to olive and olive oil. *Nevenka Mikac*

11:40-12:00 Poster flash presentations.

12:00-12:30 **Poster Session.**

***** Lunch-Break *****

Session 1: TCE exposure and bioaccumulation. Chair: Laure Giamberini

13:30-13:50 Time-Series (1991-2014) Trends of Technology-Critical Elements Accumulation in Mussels from an Urban Coastal Area (Vigo Ria, NW Iberian Peninsula). *Patricia Neira del Río*

13:50-14:10 Platinum accumulation in marine organisms – outcomes from an exposure experiment and field observations. *Melina Abdou*

14:10-14:30 Effect of humic substances on the behavior of palladium in water and its bioaccumulation by Zebra mussels. *Noelia Estévez-Calvar*

14:30-14:50 Toxicokinetics of Gd and Gd-Lu mixture in *Daphnia magna*. *Marge Muna*

***** Coffee-Break *****

Session 1: TCE exposure and bioaccumulation. Chair: Antonio Cobelo-García

15:20-15:40 Increasing levels of Technology-Critical Elements (TCE) by mining activities: exposure to living organisms in estuarine sediments. *Carlos Ruiz Cánovas*

15:40-16:00 Are lanthanide mining exploitations a source of environmental toxicity?
Ana Romero Freira

16:00-16:20 Discussion of Session 1: Gaps, future research needs. Chairs: Antonio Cobelo-García, Laure Giamberini, Kevin Francesconi and Sonja Zimmermann

19.00 Dinner.

Friday, 20 April

Session 2: Ecotoxicological effects of TCE. Chair: Sonja Zimmermann

9:00-9:30 KEY-NOTE: New trends in invertebrate ecotoxicological testing applied to nanomaterials. *Arno Gutleb*

9:30-9:50 Environmental risks of nanomaterials, their toxicity and methods of determination. *Beata Godlewska-Żyłkiewicz*

9:50-10:10 Multibiomarker assessment of cross effects of salinity and cerium nanomaterials on the freshwater bivalve *Corbicula fluminea*. *Laure Giamberini*

***** Coffee-Break *****

Session 2: Ecotoxicological effects of TCE. Chair: Laure Giamberini

10:40-11:00 Genome-wide analyses of rare earth elements responsive genes in the eukaryotic model *Saccharomyces cerevisiae*. *Nicolas Grosjean*

11:00-11:20 Molecular and cellular approaches to unravel the effects of rare earth elements in the model bacteria *Escherichia coli*. *Didier Techer*

11:20-11:40 Tissue partitioning and enzymatic responses in white sea bream after exposure and elimination periods to Lanthanum. *Joana Raimundo*

11:40-12:10 Poster Session.

***** Lunch-Break *****

Session 2: Ecotoxicological effects of TCE. Chair: Villem Arouja

13:10-13:30 Toxicity of lanthanides to freshwater microcrustaceans: bottlenecks in extrapolation of laboratory test results. *Irina Blinova*

13:30-13:50 Multi-toxicity of lanthanides to aquatic biota. *Elise Joonas*

13:50-14:10 Discussion of Session 2: Gaps, future research needs.

Chairs: Laure Giamberini, Sonja Zimmermann and Villem Arouja

***** Coffee-Break *****

Session 3: Risk assessment + Human health. Chair: Arno Gutleb

14:40-15:10 KEY-NOTE: What is Toxicological Risk Assessment? *Alberto Mantovani*

15:10-15:30 WEEE informal recycling: global aspects and risk assessment?
Alessandra Cesaro

15:30-15:50 TCEs in Public Health: hazard identification in sub-Saharan Africa
Orish Ebere Orisakwe

15:50-16:10 Overview of the application and health effects on humans of the PGE (Platinum Group Elements). *Zoran Pandilov*

16:10-16:30 Discussion of Session 3: Gaps, future research needs. Chair: Arno Gutleb

16:30-17:00 Poster / Presentation Awards and Closing Discussion.
Chairs: Antonio Cobelo-García and Sonja Zimmermann