

Day 2 June 17(Tuesday), 2014

as of June 10, 2014

9:00-10:20 Room A

Keynote Lectures -METAWATER Session-

Chair: Ralf Kaegi

【Keynote 3】

Electrospun Nanomaterials & Clean Water

Prof. Seeram Ramakrishna

National University of Singapore

【Keynote 4】

Surface affinity as a basis for predicting nanoparticle fate and transformation in complex environments

Prof. Mark Wiesner

Duke University

10:20-10:50

Coffee Break

10:50-12:20 Room A

Chair: Avner Adin

【2A-01】

On the reasons why we are unable to predict settling velocity of a chemical coagulation floc

Beata Gorczyca, Arman Vahedi

University of Manitoba (Canada)

【2A-02】

A novel methodology for the calibration of discrete settling behaviour of activated sludge

Elena Torfs, Faezeh Mahdavi Mazdeh, Giacomo Bellandi,

Ingmar Nopens

Ghent University (Belgium)

【2A-03】

A new approach to improve deep bed filtration modelling in water treatment by considering floc characteristics

Irene Slavik, Wolfgang Uhl

Technische Universität Dresden (Germany)

【2A-04】

Attachment and Detachment of Bacteria in Deep Bed Filtration – Experimental Investigations and Dynamic Modeling

Anisha Goel, Wolfgang Uhl

Technische Universität Dresden (Germany)

12:20-13:40

Lunch

10:50-12:20 Room B

Chair: Jun Ma

【2B-01】

Removal of aqueous nC₆₀ fullerene from water by low pressure membranes

Roberto Floris, Kitty Nijmeijer, Emile Cornelissen

KWR Watercycle Research Institute (The Netherlands)

【2B-02】

Nanoparticle-biofilm interactions at the interface: Importance of surface physicochemical characteristics

Kaoru Ikuma, Andrew S. Madden, Alan W. Decho,

Boris L.T. Lau

University of Massachusetts Amherst (USA)

【2B-03】

Effects of ion uptake on dispersion stability of titanium dioxide nanoparticles in aquatic phase

Chunpeng Zhang, Jenyuk Lohwacharin, Hiroshi Sakai,

Kumiko Oguma, Satoshi Takizawa

The University of Tokyo (Japan)

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13:40-15:10 Room A

Chair: Norihito Tambo

[2A-05]

A mechanistic flocculation model incorporating the fractal properties of settling particles

Nomcebo P. Sithebe, Evans M. N. Chirwa

University of Pretoria (South Africa)

[2A-06]

Coagulation mechanisms during the substitution of inorganic salts with cationic polymers to increase the sludge value

Lelum Duminda Manamperuma,

Harsha Chandima Ratnaweera

University of Life Sciences (Norway)

[2A-07]

Correlations between floc characteristics and drainability properties : how to define a good sludge flocculation ?

Pascal Ginisty, Jeremy Olivier, Jean Vaxelaire,

Vincent Lafitte

IFTS (France)

[2A-08]

Nano- and microparticles and associated pollutants in stormwater runoff: effects of disc filtration with and without flocculent addition

Katrine Nielsen, Andreas Mørch-Madsen,

Peter Steen Mikkelsen, Eva Eriksson

Technical University of Denmark (Denmark)

13:40-15:10 Room B

Chair: Markus Boller

[2B-04]

Distribution and Deposition of Nanoparticles on the Membrane Evaluated by High-Frequency Ultrasound

Kuo-Lun Tung, Yu-Ling Li

National Taiwan University

[2B-05]

Comprehensive understanding of nano-sized particle separation processes using nanoparticle tracking analysis

Desmond F. Lawler, Sungmin Youn, Ijung Kim,

Boris L.T. Lau

University of Texas (USA)

[2B-06]

Minimizing Aeration and Membrane Fouling Simultaneously with Quorum Quenching MBR

Nuwan Asanka Weerasekara, Kwang-Ho Choo,

Chung-Hak Lee

Kyungpook National University (Korea)

15:10-15:40

Coffee Break

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Chair: Arjen van Nieuwenhuijzen

【2A-09】

Confirmation of the correlation between membrane fouling in microfiltration and biopolymer concentrations in various Japanese surface waters

Katsuki Kimura, Ken Tanaka, Yoshimasa Watanabe
Hokkaido University (Japan)

【2A-10】

Cake porosity analysis using 1D-3D fractal dimensions in coagulation - microfiltration of NOM

Gema Sakti Raspati, Torove Leiknes
Norwegian University of Science and Technology (Norway)

【2A-11】

Mechanisms involved in accumulation of carbohydrate and protein in polyvinylidene fluoride (PVDF) membrane

Hiroshi Yamamura, Katsuki Kimura, Yoshimasa Watanabe
Chuo University (Japan)

【2A-12】

Effect of permeate flux and air flowrate on particle deposition in a submerged membrane microfiltration system

M. Pradhan, S. Vigneswaran, Roger Ben Aim
IFTS (France)

15:40-17:20 Room B

Chair: Nigel Graham

【2B-07】

Highly stable and reactive nZVI synthesis with Mg-aminoclay and aging characteristics for practical application

Yuhoon Hwang, Young-Chul Lee, Paul Mines, Yun Suk Huh, Henrik Andersen
Technical University of Denmark (Denmark)

【2B-08】

Optimising particle separation with CFD

Duo Zhang, Harsha Ratnaweera
Norwegian University of Life Sciences (Norway)

【2B-09】

Separation of suspended powdered activated carbon by small diameter hydrocyclones

Sebastian Platz, Mirka Papenheim, Alexandra Garten Cuezva, Jürgen Weschke, Uwe. Menzel
University of Stuttgart (Germany)

【2B-10】

Experimental Study on Non-Woven Filamentous Fibre Micro-filter with High Filtration Speed

Siping Niu, Kisoo Park, Heidi B. Guerra, Youngchul Kim
Hanse University (Korea)

19:00-

Gala Dinner