



## Wednesday 23rd May 2018

## CNR Consiglio Nazionale delle Ricerca (Aula Convegni)

12:00

Registration Opens

14:30

Opening Cerimony and Keynotes

Keynote 1

**Dott. Giulia Sagnotti**

*The new European Package on Circular Economy: impact on sludge management*

Keynote 2

**Prof. Helmut Kroiss**

*Nutrient Recovery from Waste Water in the context of a circular economy*

Keynote 3

**Prof. Anicet Blanch**

*Serching for better Microbial Indicators of Pathogens in Sludge Hygienization Processes*

Keynote 4

**Prof. Damien Batstone**

*Title*

Keynote 5

**Prof. Stephen Smith**

*Title*

18:00

Welcome Cocktail

Thursday 24th May 2018

Hotel Massimo d'Azeglio

9:00

Opening Keynote [Sala Risorgimento]

Giuseppe Mininni, IRSA-CNR, Rome  
*Sludge combustion might be a solution?*

Specialist Sessions (20 min presentations including questions)

Room: Sala Umberto I

Topic: Sludge minimization and reuse

Chairs: Prof. XXX and Dr. YYY

Room: Sala D'Azeglio

Topic: Theory and practice in sludge processing

Chairs: Prof. XXX and Dr. YYY

Room: Sala Risorgimento

Topic: Innovative techniques for energy generation

Chairs: : Prof. XXX and Dr. YYY

9:30

Full-scale application of the UTN process to reduce sludge production in wastewater treatment

R. Ferrentino, M. Langone, G. Andreottola

Efficiency of biobased coagulant for the conditioning urban residual wastewater sludge

L. Fraikin, Q. Clermont, T. Salmon, A. Léonard

Energy balance and biodegradability of pre-treatments for waste activated sludge: a literature-based comparison

A. Gonzalez, A.T.W.M. Hendriks, J.B. van Lier, M.K. de Kreuk

9:50

Changing the paradigm of traditional wastewater treatment to reduce sludge production

O. Santoro, T. Pastore, S. Mancini, D. Santoro, R. Curto, M. Prato, E. Righetti, N. Frison, D. Bolzonella

Post-aeration as a tool for the improvement of digested sludge quality

P. Jenicek, B. Satkova, M. Vojtiskova

Energy-efficient pre-treatment of waste activated sludge using a novel ultrasonic flatbed reactor

T. Lippert, J. Bandelin, J.E. Drewes, K. Koch

10:10

Sludge minimization in an integrated structure of municipal economy

M. Cimochoicz-Rybicka, J. Górka

Contribution of Soluble Extracellular Polymeric Substances to Polymer Demand During Conditioning of Anaerobically Digested Sludges

V.H.To, T.V. Nguyen, S. Vigneswaran, H. Bustamante, D. van Rys

Fungal pretreatment to increase biogas production in anaerobic digestion processes of waste activated sludge and organic fraction of municipal solid waste

L. Palli, S. Tilli, A. Scozzafava, R. Gori

10:30

An advanced wastewater treatment system for reducing sludge producing in water line

M. De Sanctis, S. Chimienti, G. Sgaramella, V. Piergrossi, C. Di Iaconi

The effect of flocculant used for basic oxygen furnace (BOF) scrubbing water treatment on the thixotropic behaviour of conditioned sludge in the valuable product recovery process

H-H. Ou and L.-H. Chiang Hsieh

How feedstock characteristics affect performance and stability of anaerobic digestion process: the complex role of pre-treatments

A. Gallipoli, A. Gianico, G. Mininni, D. Montecchio, P. Pagliaccia, C.M. Braguglia

11:00

Coffee Break and Poster Session

**Specialist Sessions (20 min presentations including questions)**

**Room: Sala Umberto I**

**Topic: Sludge minimization and reuse**

*Chairs: Prof. XXX and Dr. YYY*

**Room: Sala D'Azeglio**

**Topic: Theory and practice in sludge processing**

*Chairs: Prof. XXX and Dr. YYY*

**Room: Sala Risorgimento**

**Topic: Innovative techniques for energy generation**

*Chairs: Prof. XXX and Dr. YYY*

11:30 **Direct dewatering after continuous THP creates new opportunities**  
*M. van de Ven, L. Luning, J. Edens*

**The Effect of Ultrasonic Disintegration on the Solar Drying of Sewage Sludge**  
*A.S. Ciggin*

**Watt a waste of Potential: Understanding the role of metabolic rates and temperature in co-substrate selection**  
*C. Macintosh, S. Astals, S. Tait, DJ. Batstone, P.D. Jensen*

11:50 **Effect of EPS on the dewaterability of CAS and MBR sludge**  
*S. Papirio, L. Pontoni, F. Pirozzi, G.*

**Thermo-economic evaluation of combined heat and power generation in wastewater treatment plant to optimize sludge drying**  
*N. De Bortoli, M. Mion, V. Cabbai V., D. Goi*

**Microbial population dynamics in biowaste mesophilic anaerobic digestion: the impact of sewage sludge addition**  
*B. Tonanzi, C.M. Braguglia, A. Gallipoli, A. Gianico, P. Pagliaccia, S. Rossetti*

12:10 **Development of the Cambi SolidStream® downstream anaerobic digestion, increasing biogas production yield and generating a semi-dried final cake**  
*D. Perduca, D. Ferraro, P.J. Nilsen, H. Kleiven*

**Impact of wastewater sludge characteristics on efficiency of its thermal processing**  
*S.M. Rybicki, M. Cimochoicz-Rybicka, T. Żaba*

**Anaerobic co-digestion of grass with sludge for integrated energy production**  
*A.C.S. Da Silva, S. Marques, S.E. Di Berardino*

12:30 **Mine Sludge Waste Recycling as Bio-stimulant for Applications in Anaerobic Wastewater Treatment**  
*R. Shekhar Bose and M. Kumar Tiwari*

**Combining thermal hydrolysis with incineration and downstream thermal processes to optimize energy recovery from sewage sludge**  
*W.P.F Barber, P. Christy*

**The relevance of homoacetogenesis during biomethanation of surplus electricity in anaerobic digesters**  
*L.M. Agneessens, D.M. Ottosen, M.M. Andersen, C.B. Olesen, A. Feilberg, M.V.W. Kofoed*

12:50 **Innovative thermo-chemical pretreatment for sludge reduction and energy recovery**  
*A. Gianico, L. Acebes Tosti, D. Fiorin, A. Gallipoli, D. Montecchio, C.M. Braguglia*

**Enhancement of dewatering and drying behaviour of activated sludge when using PAX coagulant for conditioning**  
*Y.-B. Pambou, L. Fraikin, T. Salmon, A. Léonard*

**Biological biogas upgrading to biomethane: a novel route to be integrated in WWTPs**  
*V. Corbellini and F. Malpei*

13:10 **Modification of sludge characteristics by thermal pretreatment**  
*A. Jiménez-Zarate, B. Weber, I.G. Martínez-Cienfuegos, H.O. Méndez-Acosta*

**Clogging and Freeze-thaw Conditioning of Sand Drying Bed Filters with Biological Sludges**  
*C. Kinsley, K. Kennedy, A. Crolla*

**Evaluation of Thermal Hydrolysis and Incineration of Sludge for Energy Recovery at an Advanced BNR Facility**  
*J. Sandino and P.H. Nielsen*

13:30 **Lunch**

## Thursday 24th May 2018

## Hotel Massimo d'Azeglio

### Specialist Sessions (20 min presentations including questions)

Room: Sala Umberto I

Topic: Sludge minimization and reuse

Chairs: Prof. XXX and Dr. YYY

Room: Sala D'Azeglio

Topic: Emerging problems in sludge utilization in agriculture

Chairs: Prof. XXX and Dr. YYY

Room: Sala Risorgimento

Topic: Innovative techniques for energy generation

Chairs: Prof. XXX and Dr. YYY

15:00 **LIFE ANADRY prototype: start-up for thermophilic dry anaerobic digestion of sewage sludge in small and medium WWTP**  
*L. Pastor, J.E. Sánchez-Ramírez, S. Doñate, E. Aymerich, M. Esteban-Gutiérrez, J. Garcia-Aguirre, R. Romaguera, C. Lardin, E. Mino*

**Energy and material recovery from sludge: monoincineration, a viable alternative to agriculture also in Italy?**  
*T. Vollmeier, A. Castorini, U. Ballabio*

**Evaluation of HRAS/HiCS-DAF as an A-stage in municipal wastewater treatment**  
*F.A. Meerburg, C. Cagnetta, B. Saerens, M. Weemaes, K. Rabaey*

15:20 **From sludge reduction to energy recovery from waste: case study of a breakthrough sludge treatment technology able to achieve outstanding performances**  
*A. Capristo, L. Acebes Tosti, D. Fiorin*

**Anaerobic digestion of chicken manure in the presence of Ciprofloxacin, a fluoroquinolone antibiotic**  
*C. Yangin-Gomec and T. Sapmaz*

**Pilot-scale study of enhanced methane production during anaerobic digestion of waste activated sludge after combination of low thermal (90 °C, 1.5 h) and alkaline (NaOH) pretreatment**  
*G. Campo, A. Cerutti, M. Zanetti, G. Scibilia, E. Lorenzi, B. Ruffino*

15:40 **Pressure-driven electro-dewatering applied for sludge: Economic & environmental life cycle assessment**  
*H. Zhang, S. Visigalli, A. Turolla, P. Gronchi, R. Canziani*

**Unique full-scale configuration of THP combined with thermophilic digestion**  
*L. Luning, M. van de Ven, J. Edens*

16:00 **Coffee Break and Poster Session**

Thursday 24th May 2018

Hotel Massimo d'Azeglio

**Specialist Sessions (20 min presentations including questions)**

**Room: Sala Umberto I**

**Topic: Sludge minimization and reuse**

*Chairs: Prof. XXX and Dr. YYY*

16:15 **Effect of wet oxidation pretreatment on the characteristics of waste activated sludge**  
*M. Malhotra and A. Garg*

16:35 **Selecting sustainable options for sewage sludge use in Latin America: a case study for Panajachel, Guatemala**  
*L. Ferrans, C.T. Avellán, S. Caucci*

17:55 **Biosolids Composting Technology Development and Continued Implementation in Large and Small Communities**  
*T. Williams*

17:15 **Sludge Management with the Pulp and Paper Industry**  
*F. Ometto, A. Karlsson, X. Truong, C. Svedin, J.Ejlertsson*

17:35 **Extracellular polymeric substances (EPS) production using bacterial strains isolated from wastewater activated sludge**  
*Bharti and R.D. Tyagi*

18:00 **Poster Session**

19:00 **Bus transfer to the Old Roman Aqueducts and Social Dinner at Cecilia Metella Restaurant**

**Room: Sala D'Azeglio**

**Topic: Developments in sludge characterization and regulations**

*Chairs: Dr. L. Spinosa*

**Comparing and Contrasting Sludge Management in England and Italy**  
*K. Panter and G. Mininni*

**How to avoid bad data during rheological measurements of highly concentrated sludge at high temperature**  
*M. Mouzaoui, J.C. Baudez, M. Sauceau, P. Arlabosse*

**Re-conceptualizing the sludge management within the Sustainable Development Goal 6.2**  
*L. Spinosa and P. Dosh*

**A statistical approach for estimating the methane yield of Italian municipal sludges from chemical composition: a preliminary study**  
*A. Catenacci, A. Azzellino, F. Malpei*

**Brominated flame retardant levels in treatment plant sludges of Turkey**  
*H. Demirtepe and I. Imamoglu*

**Room: Sala Risorgimento**

**Topic: Innovative techniques for energy generation**

*Chairs: Prof. XXX and Dr. YYY*

**Assessment of Fuel Quality Parameters and Combustion Characteristics of Sewage Sludge Samples from Different Treatment Schemes**  
*O. Atak, A. Atimtay, F.D. Sanin*

**Future-oriented and energy-efficient heat management for sludge digestion: The digester as a heat accumulator**  
*V. Demmelbauer and C. Schaum*

**Sewage sludge filtration employing biomass filter aid with subsequent fuel production via hydrothermal liquefaction**  
*P. Biller, I. Johannsen, L.D.M. Ottosen*

**Supercritical Water Oxidation of Wastewater Sludge Contaminated with p-tert-butylcatechol**  
*Z. Yan, B. Ormeci, Y. Han, J. Zhang*

**Friday 25th May 2018**

**Hotel Massimo d'Azeglio**

**Specialist Sessions (20 min presentations including questions)**

**Room: Sala Umberto I**

**Topic: Monitoring, sensing and modeling**

*Chairs: Prof. XXX and Dr. YYY*

- 9:00 **Economic and environmental analysis of sludge management using a plant-wide approach**  
*R. Gori, C. Lubello, P. Sirini*
- 9:20 **Results of a survey on production and quality of sewage sludge in Italy**  
*G. Mininni, E. Mauro, B. Piccioli, G. Colarullo, F. Brandolini, P. Giacomelli*
- 9:40 **Break even models in order to overcome barriers to implement circular economy in wastewater treatment at Brazilian municipalities**  
*D.L. Rodrigues*
- 10:00 **Sludge treatment optimization using a modeling approach: a case study in Tuscany**  
*I. Ducci, L. Palli, E. Bettazzi, D. Fibbi, E. Coppini, R. Gori*

10:30 **Coffee Break and Poster Session**

**Room: Sala D'Azeglio**

**Topic: Effective management options to reduce adverse environmental effects**

*Chairs: Prof. XXX and Dr. YYY*

- Somatic coliphages as viral indicators in sludge hygienization**  
*J. Martín-Díaz, C. García-Aljaro, M. Pascual-Benito, A.R. Blanch, F. Lucena*
- Future for Composted Sewage Sludge in Greenhouse Horticulture: Phytoextraction of Cadmium & Soil Formation**  
*J.J. Claushuis, C.M. Dias Ferreira, M.G.M. Aarts, V. Geissen*
- Influence of pH on the processes of conditioning and dewatering of sludge containing arsenic**  
*S. E. Garrido, K. García, B. López*
- Can phosphorus recovered from sludge lead to environmentally sustainable products? Illustration with sludge-based phosphate fertilizers**  
*M. Pradel, L. Aissani, J. Villot, J.-C. Baudez, V. Laforest*

**Room: Sala Risorgimento**

**Topic: Innovative techniques to recover valuable products**

*Chairs: Prof. XXX and Dr. YYY*

- A comparison of methods for nutrient recovery from sewage sludge filtrates by struvite precipitation**  
*A. Kokka and E. Diamadopoulos*
- Coupling anammox and struvite for multi-nutrient recovery from digested sludge liquors**  
*S. Johansson, M. Rusalleda, J. Colprim*
- Variation in phosphorus release from different types of waste activated sludge**  
*S.P. Pokhrel, M.W. Milke, R. Bello-Mendoza*
- Recycling carbon, nitrogen and phosphorous from municipal wastewater by combining nutrient recovery and pyrolysis**  
*A. Kainulainen, L. Rossi, C. Gareis, J. Nipuli, S. Reuna, M. Heinonen*

**Specialist Sessions (20 min presentations including questions)**

**Room: Sala Umberto I**

**Topic: Monitoring, sensing and modeling**

*Chairs: Prof. XXX and Dr. YYY*

**Room: Sala D'Azeglio**

**Topic: Effective management options to reduce adverse environmental effects**

*Chairs: Prof. XXX and Dr. YYY*

**Room: Sala Risorgimento**

**Topic: Innovative techniques to recover valuable products**

*Chairs: Prof. XXX and Dr. YYY*

11:00 **Modelling co-digestion of Food Waste and Waste Activated Sludge**  
*D. Montecchio, A. Gallipoli, A. Gianico, C.M. Braguglia*

**Project SLUDGE 4.0: the Tuscany water utilities transition toward a circular economy model for sludge disposal**  
*S. Vitolo, M. Aiello, M. Manobianco, A. Salimbeni, T. Daddi, R. Gori*

**Fresh and saline wastewater valorisation to natural flocculants**  
*V.O. Ajao, H. Bruning, H.H.M. Rijnaarts, H. Temmin*

11:20 **Torque rheology and UV-vis spectrophotometry for monitoring sludge characteristics and optimization of treatment processes**  
*J. Smyth and B. Ormeci*

**A field study to assess the agronomical suitability of a sewage sludge after biological or chemical stabilization**  
*L. Sciubba, L. Cavani, C. Marzadori, C. Ciavatta, P.P Piccari Ricci*

**Exploring the feasibility of co-fermenting waste lipids with primary or waste activated sludge**  
*M. Peces, G. Pozo-Zamora, K. Koch, S. Astals*

11:40 **Comparison of different options of sludge processing for increasing energy recovery in a wastewater treatment plant – the case study of Starogard Gd.**  
*E. Zaborowska, K. Czerwionka, J. Myslinska, J. Makinia*

**Recovery and/or regrowth of microbial indicators in sewage sludge after hygienization treatments**  
*M. Pascual-Benito, C. García-Aljaro, J. Martín-Díaz, A. Blanch, F. Lucena*

**Exploitation of the chemical potential of sewage sludge through Ethanolysis**  
*C. Pastore, L. di Bitonto*

12:00 **Topic: Others**

**Using Waste Activated Sludge in Microbial Fuel Cell to Remove Nitrate from Groundwater**  
*E. Ogun and S.L. Sanin*

**Life cycle cost analysis and greenhouse gas emissions calculation of sewage sludge treatment and energy generation system**  
*K. Oshita, K. Kawabata, M. Takaoka*

**Revalorisation of lipid extracted urban sewage sludge through anaerobic digestion**  
*R. Farhan, A. Fabregat, A. Fortuny, J. Giralt, J. Font, D. Montané, M. Olkiewicz, L. Appels, E. Torrens, C. Bengoa*

12:20 **Cost-based comparison of sludge drying alternatives for biological municipal wastewater treatment plants in Turkey**  
*E.B. Çelebi, E. Calbay, M. Kurt, A. Aksoy, D.S. Sanin*

**The Effectiveness of Sorbent Polymer Composite Membrane for mercury Removal at a Full-Scale Municipal Sludge Incinerator**  
*K.-W. R. Tsang, T. Hartye*

**Polyhydroxyalkanoates (PHA) production from urban biowaste mixture at pilot scale**  
*F. Valentino, S. Piovesan, M. Gottardo, D. Bolzonella, P. Pavan, M. Majone*

12:40 **Sludge dewatering by screw decanter centrifuge : how to assess performances at laboratory scale?**  
*P. Ginisty*

**On the potential environmental benefit of flexible electricity generation from sewage sludge in the UK Water Industry**  
*M. Lafratta, R.B. Thorpe, S.K. Ouki, E. Rus Perez, J. Lee*

**Application of Ingelia HTC technology for sustainable and efficient valorisation of sewage sludge vital elements**  
*M. Aiello, G. Vivarelli, E. Zendri, A. Salimbeni, M. Hernandez, M. Hitzl, M. Manobianco*

13:00 **Lunch**

## Friday 25th May 2018

### Specialist Sessions (20 min presentations including questions)

Room: Sala Risorgimento

Topic: Innovative techniques to recover valuable products

Chairs: Prof. XXX and Dr. YYY

14:00	<b>Extraction of cellulose from industrial paper mill wastewater sludge using ionic liquid</b> <i>M. Aqlan, K. Glińska, E. Torrens, F. Stüber, A. Fabregat, A. Fortuny, J. Giral, J. Font, D. Montané, M. Olkiewicz, C. Bengoa</i>
14:20	<b>A look into the circularity of waste water sludge in Portugal: context, constraints and opportunities</b> <i>Lígia M.C. Pinto and P. Ramísio</i>
14:40	<b>Building &amp; operating a large centralised sludge treatment facility at WWTP Tilburg, Netherlands</b> <i>J.-E. Van Veldhoven, D. Ringoot, W. Driessen</i>
15:00	<b>FAMEs, Estolides and Methyl-10-Hydroxystearate from Sewage scum: a sustainable route to valorise a waste</b> <i>L. di Bitonto, C. Pastore</i>
15:20	<b>Cellulosic material recovery from municipal primary sludge using ionic liquids</b> <i>K. Glińska, A. Fabregat, J. Giral, E. Torrens, F. Stüber, A. Fortuny, D. Montané, J. Font, M. Olkiewicz, C. Bengoa</i>
15:40	<b>Layer-by-layer modified membranes for resource recovery from sewage sludge</b> <i>K. Remmen, L. Paltrinieri, B. Müller, J. Köser, L.C.P.M. de Smet, E.J.R. Sudhölter, T. Wintgens, M. Wessling</i>
16:00	<b>Spectroscopic characterization of extracellular polymeric substances (EPS) recovered from anammox granular waste sludge</b> <i>T. Lotti, E. Carretti, G. Ulivieri, D. Berti, C. Lubello, F. Malpei</i>
16:30	<b>Closing Cerimony</b>
17:00	<b>Departure from Hotel to «The Virgo Aqueduct» (by foot)-only reserved delegates</b>



Thursday 24<sup>th</sup> and Friday 25<sup>th</sup> May 2018  
Hotel Massimo D'Azeglio Conference Center

## Poster Sessions

### Topic: Sludge minimization and reuse

**Co-digestion of sewage sludge with agro-waste to boost biogas production**

*R. Solera and M. Perez*

**Improve methane production from sewage sludge by enzymatic pre-treatments**

*R. Solera, R. Montañés, and M. Perez*

**Sewage sludge compost as fertilizer: First results of the application in vineyard**

*M.R. Albiach, P. Rojo, V. Fajardo, G. Fayos, T. Montoya*

**Influence of flocculation on sludge thickening of a Brazilian Water Treatment Plant**

*Manoel Maraschin, Keila Fernanda Soares Hedlund, Andressa Oliveira Silveira, Elvis Carissimi*

**Evaluation of biosolids from advanced anaerobic digestion: technology improvement and sludge reuse approach**

*M. Venegas, P. Neumann, F. Barriga, and G. Vidal*

**Decolorization of textile wastewater with the use of coagulation sludge**

*L. Kos*

**Agricultural use of sewage sludge in Paraná state, Brazil: a decade of national regulation**

*S. Bittencourt*

**Agricultural use of sewage sludge: a case study of the Paraná state, Brazil**

*S. Bittencourt*

**Assessment of heavy metals pollution of sediments in retention tanks in the urban catchment area - implications for further treatment or reuse**

*N. Nawrot, E. Wojciechowska, W. Szpakowsk*

### Topic: Sludge minimization and reuse

**The current status of urban sewage treatment plant sludge disposal in Taiwan**

*K.C Chang, Y. F. Wang and T. C. Chang*

**The Effect of Land Application of Class A Pelletized Biosolids on Cotton Yield**

*S. Sherchan*

**Integrity of the use of humic substances (HS) as tracers of biological transformation during storage of treated sludge**

*A. Khakbaz, C. Bravo, M. Contin, D. Goi and M. De Nobili*

### Topic: Theory and practice in sludge processing

**Low-temperature disintegration as a pre-treatments step of sewage sludge improving the efficiency of anaerobic digestion**

*A. Remiszewska-Skwarek, A. Łuczkiwicz, B. Wilk, S. Fudala-Książek*

**Cavitation field analysis for higher energy efficiency in substrate pre-treatment by ultrasound**

*Jochen Bandelin, Thomas Lippert, Jörg E. Drewes, Konrad Koch*

**A Chemical-Physical process to reduce the level of potential pollutants in municipal sewage sludge. Upgrading of the fertilizer plant in Cervia (Ra)**

*F. Cella, P.P. Piccari Ricci*

**Sludge management in a circular economy down-under (the Australian experience)**

*M. Laginestra*

### Topic: Effective management options to reduce adverse environmental effects

**Improved Safe Management of Arsenic-rich Waste Generated from Arsenic Removal Plant**

*B. Casentini, S.R. Debbarma, S. Fazi, M. Lazzazzara, A. Gianico, B. Ruj*

**Stabilization of Arsenic Removal Plant Sludge by Mixing in Cement Mortar**

*B.Ruj, S.R.Debbarma, B.Casentini, S.Fazi, A.Gianico*

**Application of sewage sludge as fertilizer for new biomass crops: Effects on the agronomic performance**

*S. Paniagua, M. Otero, R.N. Coimbra, C. Escapa, L.F. Calvo*

**Conversion of paper mill sludge into activated carbons as part of the circular economy concept**

*C.P. Silva, M. Otero, G. Jaria, V.I. Esteves, V. Calisto*

**Optimized multi-residue analysis of veterinary drugs to assess their fate during livestock wastewater treatment**

*S.H. Lee, C.H. Kang, S.M. Cha, H.C. Kim*

**Adaptation of the biomass for reject water treatment in nitrification/denitrification vs. deammonification systems**

*J. Majtacz, P. Kowal H. Al-Hazmi H A. Tuszyńska J. Mąkinia*

**Framework for sustainable management of septage on the island in Croatia**

*J. Margeta*

**Best Available Techniques for Urban Wastewater Treatment Plant : A statistical approach**

*J.Villot, D.Evrard, H.Vaillant, V. Laforest*

**Development of Sludge Disposal System of Samsen Water Treatment Plant, A Case Study: The Metropolitan Waterworks Authority (MWA)**

*S. Heramphakun*

Thursday 24<sup>th</sup> and Friday 25<sup>th</sup> May 2018

Hotel Massimo D'Azeglio Conference Center

## Poster Sessions

### Topic: Innovative techniques to recover valuable products

**Phos4You: a NW Europe Interreg project aiming at recovering phosphorus from wastewater and wastewater sludge**

*L. Fraikin and A. Léonard*

**Biochar adsorption for separation of heavy metals during municipal wastewater treatment**

*I. Sylwan, E. Thorin, J. Zambrano*

**Tertiary treatment of effluent of activated sludge by recycling of alum sludge from the water treatment plant**

*I.R. Soares Chao*

**A Bacillus licheniformis fermentation process for revalorization of Sewage Sludge as soil biostimulant**

*B. Rodríguez-Morgado, P. Caballero, P. Paneque, I. Gómez, M. Tejada, J. Parrado*

**Renewable Energy and Recovered Materials from Waste Urban Sludge: Processes and Assessment**

*A.G. Capodaglio, A. Callegari and P. Hlavinek*

**Torrefaction, Pyrolysis, and Gasification-Thermal Processes for Resource Recovery and Sludge Management**

*J. Brown, A. Jones, S. Mey, E. Butler*

### Topic: Others

**Wastewater Reuse as Environmentally Sound Technology**

*K. Hatiyaldeniya*

**Hexabromocyclododecane (HBCDD) Degradation in Anaerobic Sediments**

*I. Karahan, H. Demirtepe, I. İmamoğlu*

**Enhanced dewatering of municipal sewage sludge by application of advanced-oxidation conditioning and electric field**

*G.C.C. Yang and Y.J. Lin*

### Topic: Monitoring, sensing and modeling

**Assessing the seasonal variability of microbial community in wastewater treatment systems via high-throughput sequencing**

*S. Sherchan*

**Key Performance Indicators to measure performance of thermal treatment technologies for sanitation solutions**

*L. Schoebitz, S. Woolley, A. Weber, J. Hallowell*

**Abundance of Class I integron in two wastewater treatment plants**

*S. Sherchan*

### Topic: Emerging problems in sludge utilization in agriculture

**Pelletization of Municipal Waste Sludge and Forest Biomass Waste for Remediation of Agricultural Fields, Şirnak, Turkey**

*Y. Tosun*

**Investigation of physical properties and microbial activity during a mechanical composting process**

*J. Y. Kim, C. J. Lee, S. W. Cha, S. M. Kang and S. J. Byun*

**Emerging pollutants in Walloon sewage sludge: towards an integrated methodology to evaluate health and environmental impacts of farmland spreading**

*S. Bémelmans, C. Kech, E. Moïs, A. Galloy, C. Fripiat*

### Topic: Developments in sludge characterization and regulations

**Chemical characteristic of water treatment sludge from urban water treatment plant**

*J. Gorka, S.M. Rybicki, M. Cimochoicz Rybicka*

**Towards quality control of feedstocks for biodiesel production: the case of urban sewage sludge**

*C. Kech, A. Galloy, C. Fripiat, D. Garot*

### Topic: Innovative techniques for energy generation

**Characterisation and cleaning of biogas from sewage sludge for biomethane production**

*V. Paolini, F. Petracchini, M. Carnevale, F. Gallucci, M. Perilli, G. Esposito, M. Segreto, L. Galanti Occulti, A. Ianniello, M. Frattoni*

**Role of clarifying agents on the final quality of biomethane from sewage sludge**

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**Integrated concept for sludge pyrolysis in waste water treatment plants for biofuel production and nutrients recovery**

*C. Awais Salman, S. Schwede, H. Li, E. Thorin, J. Yan*

**Optimization and economic assessment of an environment-friendly in situ enzymatic biodiesel production method from urban sewage sludge**

*C. Kech, A. Galloy, C. Fripiat, D. Garot*

**Comparison of high temperature thermal hydrolysis and low-temperature thermal-alkaline pretreatment of waste activated sludge: Solubilisation, anaerobic digestion and biodegradability of filtrate**

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