



PROGRAM

OF

FOURTH INTERNATIONAL SYMPOSIUM

ON GREEN CHEMISTRY FOR ENVIRONMENT, HEALTH AND

DEVELOPMENT

Kos Imperial Hotel, Kos Island, Greece
September 24th-26th, 2014

Organized by:

Society of Ecotoxicology & Environmental Safety (SECOTOX),

German Research Centre for Environmental Health

and

Department of Planning and Regional Development, School of Engineering
University of Thessaly, Greece

In collaboration with:

Dept. of Chemistry, Aristotle University of Thessaloniki

Dept. Of Food Technology, T.E.I. of Thessaloniki

and

Hellenic Green Chemistry Network

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WEDNESDAY
SEPTEMBER, 24

09:00-11:00 Opening – Registration

9:30 – 10:20 Opening remarks by the organizers – greetings by officials
CHAIRS: A. Kungolos, P. Samaras and K.-W.Schramm

10:20 – 10:30 Introduction to "Sustainable Chemistry and Pharmacy" journal
Professor K. Kümmerer

10:30 – 11:20 Cradle to Cradle – Leaving a big and positive footprint
Keynote lecture: T. Janssen/N.S. Griefahn

11:20 – 11:30 Discussion

ORAL PRESENTATIONS

WEDNESDAY SEPTEMBER 24	
11:30-12:00	<i>COFFEE BREAK</i>
	Industry, Environment and Health CHAIRS: V. Karayannis, K.-W. Schramm
12:00-12:15	Selection of indicators for assessing the environmental sustainability of industrial facilities and processes <i>K. Angelakoglou, G. Gaidajis</i>
12:15-12:30	Management - Collection and transportation of hazardous waste in relation to the implementation of Directive 2010/75/EU on industrial emissions (integrated prevention and pollution control) and the Framework Directive on waste 2008/98/EC <i>V. Tryfona, A. Kungolos, S. Panagopoulos, P. Dimakos, E-A. Panagopoulou</i>
12:30-12:45	Investigation of lignite ash microstructure coated with Titanium Dioxide (TiO ₂) <i>E. Katsika, A. Moutsatsou, V. Karayannis, A. Ntziouni</i>
12:45-13:00	Development of a simple and fast method for the determination of the major metal elements in four dry herbal extracts by Flame atomic absorption spectrometry (FAAS) <i>G. Pavlidis, H. Karasali, N. Fokialakis, N. Aligiannis</i>
13:00-13:15	Behaviour of colloidal gold nanoparticles in high ionic strength media <i>A. Barreto, T. Trindade, M. Oliveira, A.M.V.M. Soares</i>
13:15-13.30	The development of a Collaborative Environmental Modeling System for the communication between models UTHBAL/UTHRL and PCLake <i>K. Kokkinos, N. Mellios, D. Kofinas, C. Laspidou, A. Loukas, N. Mylopoulos</i>
13:30-13:45	Moving from mere quantification to meaningful evaluation of environmental sustainability indicators in industry <i>K. Angelakoglou, G. Gaidajis</i>
14.00-17:00	<i>MID-DAY BREAK</i>
	Environmental Benign Processes and Products CHAIRS: D. Achillias, G. Gaidajis
17:00-17:15	Fabrication of thermosensitive poly[N-isopropylacrylamide] based nanofibrous mat by electrospinning using a green solvent <i>A. Saithongdee, P. Varanusupakul, A. Imyim</i>
17:15-17:30	Biosorption of copper ions using extracted pectin <i>Kh. Youcef Ettoumi, Y. Zouambia, M. Krea, N. Moulai-Mostefa</i>
17:30-17:45	Studies on obtaining of anticorrosive pigments <i>K. Łuczka, B. Grzmil, K. Kowalczyk</i>
17:45-18:00	Alkylene-siloxane polymers from Biorenewable diols: synthesis, microstructure and thermal properties <i>E. Sahmetlioglu, E. Gokturk, S.A. Miller</i>
18.00-18.15	Comparative evaluation of two silica coating processes for eliminating acid generation from pyritic wastes <i>K. Kollias, E. Mylona, N. Papassiopi and A. Xenidis</i>
18:15-19.05	<i>POSTER PRESENTATIONS (A01-A10)</i>

WEDNESDAY SEPTEMBER 24	
20:00	<i>WELCOMING RECEPTION</i>

**THURSDAY
SEPTEMBER, 25**

09:30-10:20 The end of the pipes end - Benign by Design as an important building block for a sustainable water resources management of the future
Keynote lecture: Professor K. Kümmeler

10:20 – 10:30 Discussion

ORAL PRESENTATIONS

THURSDAY, SEPTEMBER 25	
	Life Cycle Assessment and Relevant Management Issues CHAIRS: K. Aravossis, T. Janssen
10:30-10:45	Port environmental regulatory framework <i>G. Palantzas, A. Naniopoulos, C. Koutitas</i>
10:45-11:00	Technoeconomic evaluation of energy efficiency retrofits in commercial shipping; a bulk carrier case study application <i>A. Tserekas-Zafeirakis, K. Aravossis, G. Gougoulidis, Y. Pavlopoulou</i>
11:00-10:15	Life Cycle Assessment of Food Waste Home Composting <i>K. Abeliotis, K. Lasaridi, C. Chroni, C. Karatzas</i>
11:30-12:00	<i>COFFEE BREAK</i>
	Development and Identification of Novel Green Technologies, Products and Perspectives CHAIRS: K. Kümmeler, N.S. Griefahn
12:00-12:15	Recycling of lignite highly-calcareous fly ash into building bricks <i>V. Karayannis, X. Spiliotis, P. Samaras, N. Koukouzas, K. Ntampegliotis, A. Domopoulou, K. Gudulas, G. Papapolymerou</i>
12:15-12:30	Synergic effect of bovine hair hydrolysate and sulfited lignins on leather retanning <i>V. Moreira, A. Crispim, V. Silva, J. Ferreira, L. Carita, F. Crispim</i>
12:30-12:45	Production of alginate by <i>Azotobacter vinelandii</i> from alternative carbon sources

THURSDAY, SEPTEMBER 25	
	Ç. Moral
12:45-13:00	Study of vegetable extracts effect on wet-white leather <i>D. Martins, A. Crispim, G. Pinto, V. Silva, L. Duarte, F. Crispim, T. Cruz, E. Beghini</i>
13:00-13:15	Assessment of Alternative Synthetic Pathways- A Survey of Mass- and Energy Balance <i>M. Eissen, K.- W. Schramm, D. Lenoir</i>
13:15-13:30	Application of biodegradable polymers in the preparation of controlled/slow release fertilizers <i>A. Smorowska, K. Lubkowski</i>
13:30-13:45	Production of biobased fuels and lubricants from pomace olive oil <i>G.S. Dodos and F. Zannikos</i>
14.00-17:00	<i>MID-DAY BREAK</i>
	Waste Management Solutions CHAIRS: A.Kungolos, H. Karapanagioti
17:00-17:15	Nanowastes and Environment: A New Waste Management Approach <i>M. Ozkaleli, A. Erdem</i>
17:15-17:30	Photo-enhancement of activated sludge for molasses wastewater treatment <i>C. Tsiptsias, S. Mahgoub, N. Prinos, A. Deligiannis, P. Samaras</i>
17:30-17:45	Contribution to the management of steel industry scrap-soil <i>X. Spiliotis, K. Ntampegiotis, D. Kasiteropoulou, V. Karayannis, G. Papapolymerou</i>
17:45-18:00	Study of Extracellular Polymeric Substances (EPS) during biological treatment of diluted real molasses wastewater and co-treatment with Light-Emitting Diode (LED) light. <i>D. C. Banti, M. Lachani, C. Tsiptsias, P. Samaras, M. Mitrakas</i>
18:00-18:15	Ecotoxicological assays as a tool for risk assessment of water and wastewater samples <i>A. Kungolos, C.Emmanouil, E. Oikonomou, A. Guitonas</i>
18:15-18:30	Abating whey organic load through ethanol and lactic acid production by kefir <i>M. Soupioni, K. Vlachou, A. Psarologou, A. Bekatorou</i>
18:30-18:45	Sorbent biochar characteristics produced from agro-industrial waste <i>K. N. Fotopoulou, I. D. Manariotis, H.K. Karapanagioti</i>
18:45-19:00	Investigation of industrial residues as coagulants in wastewater treatment <i>A. Domopoulou, K. Gudulas, E. Papastergiadis, N. Koukouzas, V. Karayannis, P. Samaras</i>
19.00-19.40	<i>POSTER PRESENTATIONS (B01-B08)</i>
20.30-21.00	<i>SECOTOX annual assembly</i>
21:00	<i>BANQUET</i>

FRIDAY, SEPTEMBER, 26	
	Toxicology and Ecotoxicology of Green Chemicals, Products and Processes CHAIRS: P.Samaras, P.Ziegler
09:30-9.45	In vitro and in silico strategies to avoid, reduce and refine the use of animals in the assessment of acute oral toxicity <i>J. Burton, P. Prieto, R. Graepel, M. Whelan, A. Worth</i>
9.45-10:00	Why not try duckweed? <i>P. Ziegler, K.-J. Appenroth</i>
10:00-10:15	Quality of biochar produced from pyrolysis of pecan shells and sawdust. Adsorption/desorption potential and potential toxicity <i>D. Zaharaki, G. Bartzas, G. Kaliakatsou, K. Komnitsas</i>
10:15-10:30	Environmental Risks of Biomass Ashes Application in Soils <i>M. Freire, H. Lopes, L. Tarelho</i>
10:30-10:45	Enzymatic synthesis, persistence and dioxin-like toxicity of bromo- and chlorocarbazoles <i>J. Mumbo, D. Lenoir, B. Henkelmann, R. Schroll, J.C. Munch, K.-W. Schramm</i>
10.45-11.00	In silico modelling of the acute effects of psychoactive substances –caffeine, ethanol and nicotine case studies <i>M. Gajewska, A. Worth, C. Urani, H. Briesen, K.-W. Schramm</i>
<i>END OF THE SYMPOSIUM</i>	

POSTER PRESENTATIONS

WEDNESDAY, SEPTEMBER 24			
A01	Gasification of cork particles in a fluidized bed reactor, a preliminary study <i>J. Teixeira, A. Almeida, A. Ribeiro, I. B. Pereira, P. Neto, R. Pilão</i>	A06	The Dehalogenation of Chiral N-(ortho-Halobenzylidene) tert-Butanesulfinamides <i>D. Lu, Z. Li, L. Zhu, Q. Zeng</i>
A02	Gypsum Scale Inhibition by Chemical Additives: Structure/Function Relationships <i>E. Tzagkaraki, A. Melissourgaki, L.J. Andermann Jr., M. Broecher, K.D. Demadis</i>	A07	Biodegradation of poly(3-hydroxy butyrate)/organomodified montmorillonite nanocomposite materials <i>E. Panayotidou, A. Baklavaridis, P. Mitlianga, C. Konidaris, I. Zuburtikudis, D. S. Achilias</i>
A03	Green synthesis of 4(3H)-quinazolinones using air as oxidant <i>H. Wei, D. Qiu, A. Kipruto Chelashaw, Q. Zeng</i>	A08	Aldehyde contamination of water and alcoholic beverages stored in poly(ethylene terephthalate) bottles <i>M. D. Ioannidou, G. Samouris, D. S. Achilias</i>
A04	Application of Oxazolidine in wet-white tanning <i>V.Silva, A. Crispim, G. Pinto</i>	A09	Suitability of Vermicompost, which is obtained by Domestic Solid Waste, to Plants <i>R. Özdemir, E. Elmaslar Özbaş, N. Sivri</i>
A05	Synthesis of N-heteroaryl amino acids via palladium-catalyzed C-N coupling reaction <i>Z. Li, D. Lu, Y. Liu, A. Kipruto Chelashaw, Q. Zeng</i>	A10	Green synthesis of 2-arylquinazolinones via copper-catalyzed domino reaction of arylmethylamines and isotoic acid <i>Y. Zhou, H. Wei, Y. Chen, Q. Zeng</i>

POSTER PRESENTATIONS

THURSDAY, SEPTEMBER 25			
B01	<p>Pollution biomarkers in harbor crabs (<i>Liocarcinus depurator</i>) from a metal contaminated area in North Evoikos gulf, Greece. <i>D. Kaparou, C. Tsangaris, L. Bordbar, G. Karris</i></p>	B06	<p>Social acceptance as a prerequisite for the environment, green energy and sustainable development <i>E. Lakioti, P. Samaras, A. Domopoulou, K. Gudulas, V. Karayannis</i></p>
B02	<p>Sensitivity evaluation of algal test procedure to detect the toxicity of volatile compounds in groundwaters. <i>M. Mingazzini, M. T. Palumbo</i></p>	B07	<p>Application of Micro-FTIR mapping to PM characterization <i>V. Librando, Z. Minniti, M. Pappalardo</i></p>
B03	<p>Effects of emerging contaminants (nanoparticles and pharmaceuticals) on neurotransmission and biotransformation in marine organisms – An in vitro approach <i>L.G. Luis, A. Barreto, T. Trindade, M. Oliveira, A.M.V.M. Soares</i></p>	B08	<p>Economic aspects of desulphurization in Large Combustion Plants: The case of Greece <i>A. Sikalidis</i></p>
B04	<p>Measurement of the environmental sustainability of concrete composites in terms of its corrosion durability <i>M.Kovalčíková, A. Eštoková, A. Luptáková</i></p>	B09	<p>The impact of antioxidant additives on the oxidation stability of biodiesels (FAME) <i>E.-S. Schoretsaniti, A. Deligiannis, G. Anastopoulos, F. Zannikos</i></p>
B05	<p>Measuring operators' wellbeing in real working environment <i>E. Giagloglou, S. Goikovic, C. Tsiafis, A. Petruni, P. Mijovic, I. Gligorijevic, I. Macuzic, P. Todorovic</i></p>		