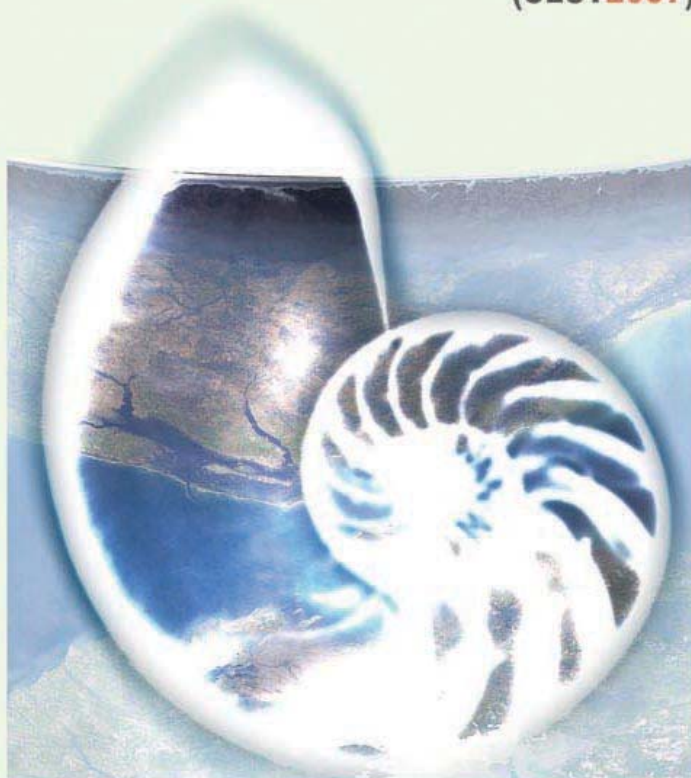


10th INTERNATIONAL
CONFERENCE ON ENVIRONMENTAL
SCIENCE AND TECHNOLOGY
(CEST**2007**)



DRAFT PROGRAMME

5-7
September 2007

Kos Island, Greece

Organised by



Global NEST

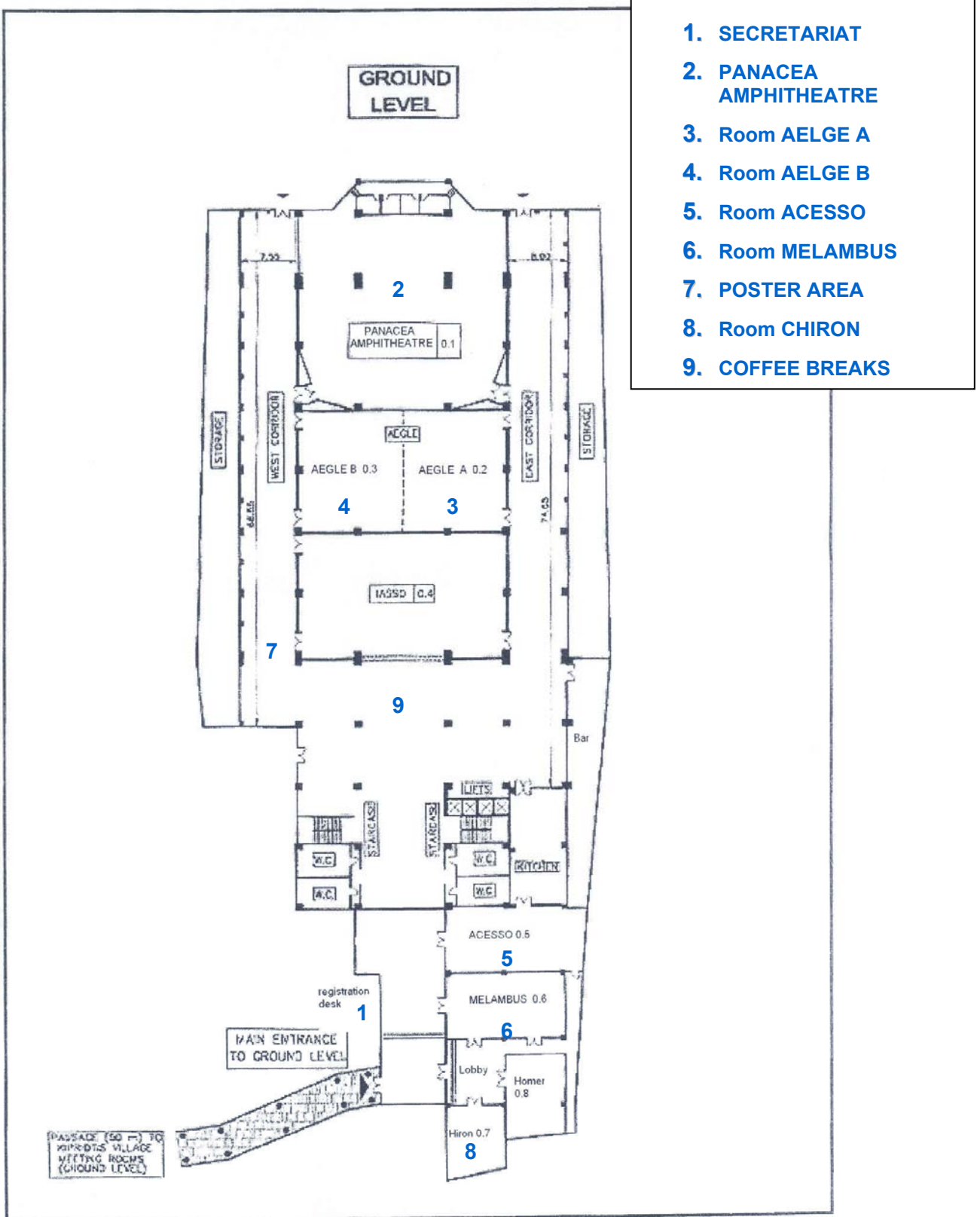
The GLOBAL NETWORK FOR ENVIRONMENTAL SCIENCE
AND TECHNOLOGY (Global Nest)



The DEPARTMENT OF ENVIRONMENTAL STUDIES,
of the UNIVERSITY OF THE AEGEAN

MAP OF CONFERENCE VENUE

Kos International Convention Center (KICC)
Psalidi, Kos island, Dodecanese, Greece



TIMETABLE OF THE CONFERENCE

ORAL PRESENTATIONS

		ROOM				
		A	B	C	D	
THURSDAY 6 SEPTEMBER 2007	MORNING	09:00–11:00	SESSION 1 OPENING Hall PANACEA			
		11:30 – 13:30	SESSION 2 WATER RESOURCES MANAGEMENT (1)	SESSION 3 ADVANCED OXIDATION PROCESSES (1)	SESSION 4 SOLID WASTE MANAGEMENT (1)	SESSION 5 AIR TREATMENT
	AFTERNOON	17:00 – 20:30	SESSION 6 WATER RESOURCES MANAGEMENT (2)	SESSION 7 ADVANCED OXIDATION PROCESSES (2)	SESSION 8 SOLID WASTE MANAGEMENT (2)	SESSION 9 INDOOR – AIR POLLUTION (1)
	MORNING	9:00 – 13:30	SESSION 10 WATER TREATMENT	SESSION 11 INDUSTRIAL WASTEWATERS (1)	SESSION 12 SOIL CONTAMINATION & REMEDIATION (1)	SESSION 13 AIR POLLUTION (2)
	AFTERNOON	17:00 – 20:30	SESSION 14 WATER ANALYSIS	SESSION 15 INDUSTRIAL WASTEWATERS (2) – SLUDGE TREATMENT (1)	SESSION 16 HEALTH & THE ENVIRONMENT	SESSION 17 ECOLOGY
FRIDAY 7 SEPTEMBER 2007	MORNING	9:00 – 13:30	SESSION 18 URBAN WASTE WATER – SLUDGE TREATMENT (2)	SESSION 19 ENVIRONMENTAL SUSTAINABILITY – BUILT ENVIRONMENT	SESSION 20 ENERGY & GLOBAL ENV. CHANGE & GROUNDWATER	SESSION 21 MARINE POLLUTION
	AFTERNOON	18:00 – 20:00	SESSION 22 CLOSING SESSION Hall PANACEA			

POSTER PRESENTATIONS – POSTER AREA

Wednesday 5 September 2007	AFTERNOON	17:30 – 20:30	<p align="center">POSTER SESSION A</p> <p align="center">WATER TREATMENT METHODS WATER RESOURCES MANAGEMENT WATER QUALITY WATER ANALYTICAL METHODS GROUND WATER</p>
Thursday 6 September 2007	MORNING	9:00 – 13:30	<p align="center">POSTER SESSION B</p> <p align="center">URBAN WASTE WATER INDUSTRIAL WASTE WATER ADVANCED OXIDATION PROCESSES SOIL CONTAMINATION & REMEDIATION SLUDGE TREATMENT</p>
	AFTERNOON	17:30 – 20:30	<p align="center">POSTER SESSION C</p> <p align="center">AIR POLLUTION - AIR TREATMENT SOLID WASTE MANAGEMENT ENERGY</p>
Friday 7 September 2007	MORNING	9:00 – 13:30	<p align="center">POSTER SESSION D</p> <p align="center">ENVIRONMENTAL SUSTAINABILITY METEOROLOGY MARINE POLLUTION</p>

WORKSHOPS – ROOM “CHIRON”

Wednesday 5 September 2007	AFTERNOON	17:30 – 20:30	<p align="center">WORKSHOP I</p> <p align="center">CONTROL OF DISINFECTION BY PRODUCTS IN DRINKING WATER AND WASTE WATER FOR REUSE</p>
Thursday 6 September 2007	MORNING	9:00 – 13:30	<p align="center">WORKSHOP II</p> <p align="center">WATER RESOURCES MANAGEMENT: WATER FRAMEWORK DIRECTIVE 2000/60/EC. APPLICATION AND PUBLIC PARTICIPATION IN ANTHEMOUNTAS RIVER BASIN IN GREECE</p>
	AFTERNOON	17:30 – 20:30	<p align="center">WORKSHOP III</p> <p align="center">ASBESTOS WASTE MANAGEMENT</p>
Friday 7 September 2007	MORNING	9:00 – 13:30	<p align="center">WORKSHOP IV</p> <p align="center">E-LEARNING: EMERGING FORMS OF ENVIRONMENTAL EDUCATION DELIVERY WITHIN A EUROPEAN KNOWLEDGE-BASED SOCIETY</p>

ORAL PRESENTATIONS

Session 1 – OPENING

Wednesday 5 September 2007 morning

HALL “PANACEA”

- 9:30 – 11:00 **Andreadakis A.** (chairman of the Conference) – Opening of the Conference - Introductory notes
- 11:00 – 11:30 *Coffee break*

Session 2

WATER RESOURCES MANAGEMENT (1)

Wednesday 5 September 2007 – morning

ROOM “A”

- 11:30 – 11:45 **A.L. Courbis, B. Vayassade, C. Martin and J.F. Didon-Lescot**
Simulation as a decision support for evaluating effects of anthropogenic activities on water resources
- 11:45 – 12:00 **S. Xenarios and K. Bithas**
The double dividend of Water Framework Directive (2000/60/EC) in urban wastewater systems: the case of WWTP Psytallia
- 12:00 – 12:15 **I. Koutiva, C. Makropoulos and N. Voulvoulis**
Administrative challenges in implementing the Water Framework Directive in Greece: stakeholder engagement
- 12:15 – 12:30 **M.O. Tomprou, C. Makropoulos, N. Voulvoulis, E. Gavalakis and A. Andreadakis**
Water Framework Directive: significant pressures and preliminary risk assessment
- 12:30 – 12:45 **J. Liu, A.J.B. Zehnder and H. Yang**
Drops for crops: modelling crop water productivity on a global scale
- 12:45 – 13:00 **V. Ampas and E. Baltas**
The optimum application of furrow irrigation by altering the flow rate of irrigation

Lunch break

Session 3

ADVANCED OXIDATION PROCESSES (1)

Wednesday 5 September 2007 – morning

ROOM “B”

- 11:30 – 11:45 **X. Domenech, N. Ruiz, J.A. Ayllón and J. Peral**
Environmental assessment of some photocatalytic advanced oxidation processes
- 11:45 – 12:00 **M.A. Behnajady, N. Modirshahla, M. Shokri and B. Rad**
Enhancement of photocatalytic activity of TiO₂ by silver doping: photodeposition versus liquid impregnation methods
- 12:00 – 12:15 **I.G. Karali, A.D. Nikolaou, T.D. Lekkas and I. A. Rousias**
Advanced oxidation processes (AOPs) with use of UV/ClO₂ in aqueous solutions of reactive azo dyes and in their effluents
- 12:15 – 12:30 **M. Nisha Priya and K. Palanivelu**
Electrochemical oxidation of reactive dye green HE4BD using solar energy
- 12:30 – 12:45 **N. Laoufi, D.Tassalit and F. Bentahar**
The degradation of phenol in water solution by TiO₂ photocatalysis in a helical reactor
- 12:45 – 13:00 **S. Yu and M. Lee**
Radiolytic decomposition of cephalosporins

Lunch break

Session 4
SOLID WASTE MANAGEMENT (1)

Wednesday 5 September 2007 – morning
ROOM “C”

- 11:30 – 11:45 **A.P. Economopoulos**
Strategic decision making for integrated solid wastes management
- 11:45 – 12:00 **K.E. Lasaridi, K. Abeliotis and A. Rovolis**
Spatial analysis of waste management indicators in Greek Municipalities
- 12:00 – 12:15 **K. Kitis and D.C. Panagiotakopoulos**
The development of a systems model for sustainable source separation schemes of municipal solid waste
- 12:15 – 12:30 **T. Kouseras, A. Karteris and E. Voudrias**
Production and management of solid industrial hazardous waste in the Prefecture of Thessaloniki
- 12:30 – 12:45 **K. Hadjibiros and D. Dermatas**
Irrationality versus efficiency in municipal solid waste management schemes
- 12:45 – 13:00 **K. Kholmatov, D. Khashimova and W. Wu**
Geophysical site investigation of landfills in seismically active region of Tashkent, Uzbekistan

Lunch break

Session 5
AIR TREATMENT

Wednesday 5 September 2007 – morning
ROOM “D”

- 11:30 – 11:45 **R. Jiang, S. B. Huang, A.T. Chow and L.R. Fan**
A new approach for treating nitrogen oxides containing off-gas streams in an aerobic biofilter system
- 11:45 – 12:00 **F. Yazdanbakhsh, A. Soltani and H. Hashemipour**
Investigating effects of gas flow rate and carbon dioxide composition in chemical absorption of carbon dioxide in a packed bed using sodium hydroxide
- 12:00 – 12:15 **N. Potoceanu, A.M. Comsa, N. Gillich, G.R. Gillich and S. Ianici**
Some aspects concerning the evaluation of the pollution degree and the risk elements into section for warm processes
- 12:15 – 12:30 **T. Zarra, V. Naddeo and V. Belgiorno**
Portable gas chromatography-mass spectrometry as a tool for estimating the odour emissions of composting plants in air pollution management
- 12:30 – 12:45 **P. Karageorgos, C. Kotsifaki and N. Kalogerakis**
Use of oxidants for odour control in municipal wastewater treatment plants
- 12:45 – 13:00 **W.W. Zhao, L.Q. Hao, M.Q. Huang, X.Y. Liu, B. Long and W.J. Zhang**
Real-time analysis of aqueous aerosols using aerosol time-of-flight mass spectrometry

Lunch break

Session 6
WATER RESOURCES MANAGEMENT (2)

Wednesday 5 September 2007 – afternoon
ROOM “A”

- 17:30 – 17:45 **A. Somen Joksic and R. Milacic**
Reliable and cost-effective technique for rapid evaluation of dredged areas in coastal lagoons in the Northern Adriatic

- 17:45 – 18:00 **H. Takamanis, N. Demertzidis, G.D. Gikas, A. Gemitzi, I. Boskidis, V.A. Tsihrintzis, C. Petalas and K. Ouzounis**
Quality of irrigation return water and proposals for its reuse in Chryssoupolis plain, Kavala, Greece
- 18:00 – 18:15 **H. Weingartner**
Water supply by qanats. A contribution to water shortage in Mediterranean areas?
- 18:15 – 18:30 **P. Karka, E. Manoli, D.F. Lekkas and D. Assimacopoulos**
A case study on integrated urban water modelling using Aquacycle
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **G.Z. Chalvatzis, E. Manoli and D. Assimacopoulos**
Designing water pricing in the context of WFD implementation: a case study in the river basin of Anthemountas, Greece
- 19:15 – 19:30 **S. Ma, S.C. Kassinos, D. Fatta and E. Akylas**
Modeling the impact of bottom water withdrawal on the dynamics of pesticides in the Kouris Dam (Cyprus)
- 19:30 – 19:45 **C. Ioja, G. Pavelescu, M. Matache, M. Stanculescu and J. Vasilescu**
Water quality changes in the Arges Lower Basin under the influence of the human activities
- 19:45 – 20:00 **C. Sarbu**
Characterization and classification of Romanian and German mineral waters by fuzzy clustering
- 20:00 – 20:15 **M.O. Angelidis, M. Aloupi, A.M. Gavriil, M. Koulousaris and D. Stefanou**
Arsenic distribution in thermal springs and ground water in the drainage basins of the River Sperchios and the island of Lesbos
- 20:15 – 20:30 **A. Stamou, E. Douka, A. Loukatos, M.Tsouma and K. Papapavlou**
Formulation, calibration and verification of a mathematical model for Pinios River, Greece

Session 7
ADVANCED OXIDATION PROCESSES (2)

Wednesday 5 September 2007 – afternoon
ROOM "B"

- 17:30 – 17:45 **F. Ciner**
Color and COD removal from dye containing wastewater by fenton process and coagulation-flocculation
- 17:45 – 18:00 **E. Bizani, K. Fytianos and I. Poulis**
Photocatalytic oxidation of molinate in aqueous solutions
- 18:00 – 18:15 **E. Evgenidou, E. Bizani, C. Christophorides and K. Fytianos**
Heterogeneous photocatalytic treatment of a carbamate, an organophosphorous and a triazine pesticide in aqueous solutions
- 18:15 – 18:30 **E.M. Siedlecka, and P. Stepnowski**
Application of fenton and fenton-like process for the oxidation of MTBE and its by-products in saline waters
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **M. Czerwicka, W. Mroziak, A. Muller, M. Gołębiowski, J. Kumirska, E. Malinski and P. Stepnowski**
Study on degradation products of imidazolium ionic liquids in H₂O₂/UV oxidation system
- 19:15 – 19:30 **I. Stypas, S. Mpousios, E. Chatzisyneon, N.P. Xekoukoulotakis and D. Mantzavinou**
Heterogeneous and homogeneous photocatalytic treatment of wastewaters from black table olives processing
- 19:30 – 19:45 **A.V. Petalas, E. Elia, A.S. Stasinakis and C.P. Halvadakis**
Use of a low-cost agricultural by-product for the adsorption of total phenols contained in olive-mill wastewater

- 19:45 – 20:00 **G. Tziotzios, G. Lyberatos, S. Pavlou and D.V. Vayenas**
Modelling of biological phenol removal in draw-fill reactors using suspended and attached growth olive pulp bacteria
- 20:00 – 20:15 **M. Nikolopoulou and N. Kalogerakis**
Design of a phytoremediation strategy for olive mill wastewater treatment
- 20:15 – 20:30 **F. Ferreira, L. Carvalho, R. Pereira, S.C. Antunes, S.M. Marques, F. Goncalves, A.C. Duarte, T.A.P. Rocha-Santos and A.C. Freitas**
Biological and photo-fenton treatment of olive oil mill wastewater

Session 8

SOLID WASTE MANAGEMENT (2)

Wednesday 5 September 2007 – afternoon

ROOM "B"

- 17:30 – 17:45 **A. Daryabeigi Zand, M.A. Abdul, N. Mehrdadi and A. Baghvand**
A review on current situation of used household batteries and appropriate management policies in Iran
- 17:45 – 18:00 **N. Mihara, K. Soya, D. Kuchar, T. Fukuta, H. Matsuda and T. Iwashita**
Utilization of calcium sulfide derived from waste gypsum for metal recovery from metal-containing wastewater
- 18:00 – 18:15 **B. Kiernan, W. Guo, C. Slater and D. Diamond**
Autonomous monitoring of landfill gas migration at borehole wells on landfill sites using wireless technology
- 18:15 – 18:30 **D. Kuchar, H. Nakada, N. Mihara, S. Osada and H. Matsuda**
Kinetic study of lead volatilization from simulated molten slag in presence of reducing agent of CO/CO₂ gas or graphite
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **A. López-Delgado, C. Pérez, H. Tayibi, N. Carmona, M. Garcia-Heras, M.A. Villegas, F.A. López and F.J. Alguacil**
Valorization of a hazardous waste from secondary aluminium metallurgy as calcium aluminate glasses
- 19:15 – 19:30 **N. Moussiopoulos, A. Papadopoulos, E. Iakovou, H. Achillas, D. Aidonis, D. Anastaselos and G. Baniias**
Construction and demolition waste management: state of the art trends
- 19:30 – 19:45 **J. Figueiredo and M. Mavroulidou**
Reducing tyre waste by using discarded tyre rubber as concrete aggregate
- 19:45 – 20:00 **R.B. Mahar, D. Yue, J. Liu, Y. Zhang and Y. Nie**
Biological pretreatment of municipal solid waste prior to landfilling
- 20:00 – 20:15 **R-L. Hahtala, S. Huuntanen, S. Kajaste, S. Kemppainen, O. Linsio and M.-M. Partti**
WastePrevKit: Tools for Waste Prevention in companies and public administration
- 20:15 – 20:30 **X. Zhao, T.C. Voice, R. Musleh and S. Hashsham**
Use of air injection to address temperature limitations in bioreactor landfill cells under cold-climate locations

Session 9

INDOOR – AIR POLLUTION

Wednesday 5 September 2007 – afternoon

ROOM "C"

- 17:30 – 17:45 **F. Roubani-Kalantzopoulou, T. Agelakopoulou, I. Bassiotis, S. Margariti, V. Siokos and E. Metaxa**
Influence of nitrogen dioxide and acetylene on marbles, ceramics and pigment

- 17:45 – 18:00 **V.D. Assimakopoulos, D. Saraga, C.G. Helmis, O.I. Stathopoulou and C.H. Halios**
An experimental study of the indoor air quality in areas of different use
- 18:00 – 18:15 **C.H. Halios and C.G. Helmis**
Experimental and theoretical study of the main mechanisms that control indoor air quality in an office microenvironment
- 18:15 – 18:30 **D. Saraga, Th. Maggos, J. Michopoulos, C.G. Helmis, J.G. Bartzis and Ch. Vasilakos**
PM₁, PM_{2.5} ionic composition and VOCs concentration in residential environment in Athens, Greece
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **W.A.J. Appelman and H.A.C. Denier van der Gon**
Lead emissions from unleaded road transport fuel combustion as a missing source?
- 19:15 – 19:30 **P. Polymeneas, E. Giannopoulou and C. Pilinis**
On the importance of biogenic emissions in air pollution in the greater Athens area: the episode of Jun 22 & 25, 2003
- 19:30 – 19:45 **K. Papagiannaki, G. Leontarakis and D. Diakoulaki**
Decomposition analysis of CO₂ emissions from road transport in EU15
- 19:45 – 20:00 **M. Kanakidou, N. Mihalopoulos, N. Kalivitis, K. Tsigaridis, G. Kouvarakis, E. Koulouri, E. Gerasopoulos, M. Vrekoussis and S. Myriokefalitakis**
Natural contributions to particulate mater levels over Europe – the experience from Greece

Session 10 WATER TREATMENT

Thursday 6 September 2007 – morning
ROOM "A"

- 9:00 – 9:15 **L. Semerjian, J. Dennis and G. Ayoub**
Occurrence, formation and speciation of trihalomethanes in drinking waters of Lebanon
- 9:15 – 9:30 **L. Rizzo, G. Ricciardi, S. Borrelli and V. Belgiorno**
THMs formation in coagulated/chlorinated surface water: a comparison between conventional and natural organic coagulants
- 9:30 – 9:45 **P. Roccaro, F.G.A. Vagliasindi and G.V. Korshin**
Formation of chlorinated and brominated DBPs in chlorinated surface water from Ancipa Reservoir (Sicily)
- 9:45 – 10:00 **P. Andrzejewski and N. Kulik**
The hazard of N-nitrosamines formation during short chain secondary amines (DMA, MEA and DEA) reactions with catalyzed and non-catalyzed hydrogen peroxide
- 10:00 – 10:15 **N.P. Xekoukoulotakis, D. Mantzavinos and N. Kalogerakis**
Use of advanced oxidation processes for the inactivation of E. coli bacteria water suspensions
- 10:15 – 10:30 **A.I. Zouboulis and P.A. Moussas**
Optimisation and evaluation of the coagulation behaviour of the modified inorganic polymeric coagulant, Polyferric Silicate sulphate (PFSiS)
- 10:30 – 10:45 **A.D. Andreadakis, D. Mamais, I. Vassilakos, G. Nikitopoulos, E.A. Gavalakis, C. Noutsopoulos, A.Tzimas, N. Kalogerakis and M. Charalabaki**
Removal of taste and odour from potable water by Powdered Activated Carbon (PAC)
- 10:45 – 11:00 **K.G. Babi, K.M. Koumenides, A.D. Nikolaou, G. Vassilantonopoulou, F.K. Tzoumerkas, C.A. Makri and T.D. Lekkas**
GAC filter - a multi purpose filter for drinking water treatment
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **V.M. Matsis and H.P. Grigoropoulou**
Interaction of activated carbon and dissolved oxygen

- 11:45 – 12:00 **A.E. Pagana, S.D. Sklari, E.S. Kikkinides and V.T. Zaspalis**
Development and application of nanoporous ceramic membranes in filtration processes
- 12:00 – 12:15 **Y.M. Lee, E.H. Choi and D.S. Rhee**
Enhanced ozonation of humic acid in O₃/GAC hybrid process
- 12:15 – 12:30 **I.A. Vasiliadou and D.V. Vayenas**
Hydrogenotrophic denitrification of drinking water: the effect of the operating mode using packed-bed reactors
- 12:30 – 12:45 **C. Christophoridis, K. Fytianos and A. Zouboulis**
Comparable evaluation of alternative substrates for permeable reactive barriers
- 12:45 – 13:00 **H.K. Karapanagioti, A. Tsitsas, G. Stamatakis and M.G. Stamatakis**
Removal of ammonia from saltwater using lightweight aggregates (LWA) produced with Si-Al-Fe and Si-Ca-rich rocks from Greece
- 13:00 – 13:15 **H.K. Karapanagioti, K. Ioakeimidou, K. Kamaras and N. Roumelis**
Impacts of salinity on PAH sorption onto different sorbents: kinetic studies, compound size, salinity gradient

Lunch break

Session 11
INDUSTRIAL WASTEWATERS (1)

Thursday 6 September 2007 – morning
ROOM "B"

- 9:00 – 9:15 **G. Mezohegyi, C. Bengoa, F. Stuber, J. Font, A. Fortuny and A. Fabregat**
Innovative reactor design for anaerobic decolorization of azo dyes
- 9:15 – 9:30 **N. Kythreotou, M. Monou and D. Fatta**
The impact of piggery slurry addition on mesophilic anaerobic digestion acclimatised to brewery wastewater
- 9:30 – 9:45 **J.P. Li, X.M. Zhan, M.G. Healy, D. Norton and M. Rodgers**
Nutrient removal from slaughterhouse wastewater in an intermittently aerated sequencing batch biofilm reactor
- 9:45 – 10:00 **N. Kythreotou, C. Voscovos and D. Fatta**
The quality of animal wastes originating from intensive pig farming in Cyprus
- 10:00 – 10:15 **P. Christou, E. Tsiotsis and S. Tsonis**
Soluble COD removal in high rate anaerobic treatment of sewage
- 10:15 – 10:30 **A. Belém, A.V. Panteleitchouk, A.C. Duarte, T.A.P. Rocha-Santos and A.C. Freitas**
Treatment of the effluent from a Kraft Bleach Plant with white-rot fungi: *Pleurotus sajor caju* and *Pleurotus ostreatus*
- 10:30 – 10:45 **X.J. Lu, J.H. Chen and D.L. Xi**
Reclamation of printing and dyeing wastewater for process use by a pilot-scale A/O/BAF/Sub-filter technology
- 10:45 – 11:00 **X. Huang**
Degradation of hydrophobic aromatic compounds with lignin peroxidase in reversed micelles
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **J. Vukadinovic-Lazic**
Flocculation effectiveness on the quality of waste waters of the Novi Sad Oil Refinery
- 11:45 – 12:00 **B. Burghoff, J. Schiferli, L. Van Der Ham and A. de Haan**
Treatment of aqueous streams by removal of MTBE with solvent impregnated resins
- 12:00 – 12:15 **M.S. Chauhan and A.K. Dikshit**
Decolourisation of distillery wastewater in India: current status and future trends

- 12:15 – 12:30 **F.J. Alguacil, M. Alonso, A. Lopez-Delgado and F.A. Lopez**
Removal of chromium (VI) using solid-supported liquid membranes
- 12:30 – 12:45 **P.T.M. Ghazvini and S. Ghorbanzadeh Mashkani**
Phytoremediation of aqueous solutions polluted by Cr(VI) and Pb(II) by *Azolla*: a new bioseparation process for wastewater treatment
- 12:45 – 13:00 **R.A. Abdel Rahman, R.A. Abou-Shanab and H. Moawad**
Mercury detoxification using genetic engineered *Nicotiana tabaccum*
- 13:00 – 13:15 **A. Kungolos, P. Samaras, V. Tsiridis, M. Petala and G. Sakellaropoulos**
Toxicity and bioavailability of heavy metals (in single and combined metal solutions) in the presence of humic acids
- 13:15 – 13:30 **M.A. Lopez-Anton, P. Abad-Valle, M. Diaz-Somoano and M. R. Martinez-Tarazona**
Evaluation of the variables that influence mercury capture in solid sorbents
- 13:30 – 13:45 **F. Germirli Babuna, S. Camur, I. Arslan Alaton, O. Okay and G. Iskender**
The application of ozonation for the detoxification and biodegradability improvement of a textile auxiliary: naphthalene sulphonic acid

Lunch break

Session 12
SOIL CONTAMINATION & REMEDIATION

Thursday 6 September 2007 – morning
ROOM "C"

- 9:00 – 9:15 **S.P. Varnavas, D. Boufounos and D. Fafoutis**
An investigation of the potential application of bauxite residue for the improvement of environmental conditions in a marsh environment
- 9:15 – 9:30 **T. Radu, A. Radu, C. McGraw and D. Diamond**
Ion-selective electrodes as simple and inexpensive detectors for soil analysis
- 9:30 – 9:45 **M. Bastounopoulou, D. Gasparatos and C. Haidouti**
Degree of phosphorus saturation in Greek sandy cultivated soils
- 9:45 – 10:00 **A. Papadopoulos, C. Prochaska, F. Papadopoulos, N. Gantidis and E. Metaxa**
Levels of heavy metals in topsoils of Servia Municipality, Western Macedonia, Greece
- 10:00 – 10:15 **P. Crennan**
Dryland salinity
- 10:15 – 10:30 **T. Karachaliou, D. Damigos and D. Kaliampakos**
Risk assessment in heavily contaminated lands
- 10:30 – 10:45 **K. Tyrovola and N.P. Nikolaidis**
Adsorption and release of arsenic from soils in geothermal fields - Stabilization with zero valent iron
- 10:45 – 11:00 **P. Kastanek and F. Kastanek**
Microwave-enhanced thermal desorption of soil contaminated with polyhalogenated biphenyls
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **V.P. Gadepalle, S.K. Ouki and T. Hutchings**
Sustainable remediation of arsenic contaminated soils using amended compost
- 11:45 – 12:00 **D. Dermatas and M. Chrysochoou**
A critical review of Pb-contaminated firing range soil remediation by phosphate addition: treatment performance and environmental sustainability
- 12:00 – 12:15 **L.P. Tan, T.T. Lim and H. Jie**
Mass screening of tropical plants to study their potential as heavy metal phytoremediators
- 12:15 – 12:30 **N.Z. Al-Mutairi and M.S. Al-Mutairi**
Monitoring bioremediation in oil contaminated soils using toxicity analysis

- 12:30 – 12:45 **I. Zawierucha, A. Szewczyk and G. Malina**
Combined enhancement of intrinsic biodegradation in oil-hydrocarbons contaminated soil
- 12:45 – 13:00 **A.R. Procópio, I.S. Melo, L.C. Luchini and W.L. Araujo**
Mineralization of the herbicide 14C-Propanil in soil by *Pseudomonas putida* AF7
- 13:00 – 13:15 **G.A. Icopini, D.T. Long, R.J. Ellis and T.L. Marsh**
Intrinsic remediation of a chromium contaminated wetland by biogeochemical stabilization
- 13:15 – 13:30 **D.W. Harrelson and M. Zakikhani**
Environmental assessment of a site in Hawaii
- 13:30 – 13:45 **D. Dermatas, D.G. Grubb and M. Chrysochoou**
Comparison of the TCLP and sequential extraction test for evaluating lead leachability in firing range soils

Lunch break

Session 13
AIR POLLUTION (2)

Thursday 6 September 2007 – morning
ROOM "D"

- 9:00 – 9:15 **L.G. Hao, Z.Y. Wang, M.Q. Huang, W.W. Zhao, H.Y. Zheng, L. Fang and W.J. Zhang**
Real-time measurement of chemical composition of secondary organic aerosols using aerosol time of flight mass spectrometer
- 9:15 – 9:30 **A. Vlahogianni and P. Kassomenos**
Validation procedures to check one-day ahead prediction of max CO concentration in an urban environment
- 9:30 – 9:45 **E. Tzirakis, G. Karavalakis, L. Mattheou, G. Anastopoulos, F. Zannikos, D. Karonis and S. Stournas**
Exhaust emissions evaluation of used frying oil methyl ester blends in a diesel vehicle operated on a non-legislative driving cycle
- 9:45 – 10:00 **S. Kalligeros, G. Anastopoulos, G. Karavalakis, E. Lois, F. Zannikos, S. Stournas and D. Karonis**
Exhaust emissions of a diesel engine using aviation fuel blends with biodiesel
- 10:00 – 10:15 **A.G. Triantafyllou, S. Zoras, V. Evagelopoulos, S. Garas and C. Diamantopoulos**
DOAS measurements above an urban street canyon in a medium sized city
- 10:15 – 10:30 **N. Moussiopoulos, F. Barmpas and I. Ossanlis**
Numerical study for the potential abatement of air pollution with the use of photocatalytic facade covering materials in London
- 10:30 – 10:45 **E. Terzi, P. Gemenetzi, M. Petrakakis and C. Samara**
Size distribution of ionic components in the urban atmosphere
- 10:45 – 11:00 **K.I. Hoi, K.V. Yuen and K.M. Mok**
Applying kalman filter to forecast short-term air quality in Macau
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **A. Katsaounis**
Electrochemical promotion of catalysis (EPOC): Perspectives for application to gas emissions treatment
- 11:45 – 12:00 **E. Koulouri, G. Grivas, E. Gerasopoulos, A. Chaloulakou, N. Mihalopoulos and N. Spyrellis**
A study of size-segregated particle (PM₁, PM_{2.5}, PM₁₀) concentrations over Greece
- 12:00 – 12:15 **A. Zamba and K. Hadjibiros**
Estimating the ecological footprint of vehicles in the city of Athens
- 12:15 – 12:30 **E.-A. Kalognomou and N. Moussiopoulos**
Integrated assessment of air pollution in Thessaloniki

- 12:30 – 12:45 **E. Tzirakis, F. Zannikos and S. Stournas**
Impact of driving style on fuel consumption and exhaust emissions: defensive and aggressive driving style
- 12:45 – 13:00 **H. Altug, O. Ozden and T. Dogeroglu**
Evaluation of NO_x pollution in Eskisehir urban area (Turkey)
- 13:00 – 13:15 **O. Ozden, H. Altug and T. Dogeroglu**
Evaluation of SO₂ pollution in Eskisehir (Turkey) by using monitoring and emission inventory studies

Lunch break

Session 14 WATER ANALYSIS

**Thursday 6 September 2007 – morning
ROOM "A"**

- 17:30 – 17:45 **C.V. Antoniou, E.E. Koukouraki and E. Diamadopoulos**
Analysis of pharmaceutical compounds and endocrine disruptors in wastewater by means of SPME-GC
- 17:45 – 18:00 **C.I. Kosma, D.A. Lambropoulou and T.A. Albanis**
Determination of pharmaceutical compounds in water samples by solid-phase extraction (SPE) and gas chromatography-mass spectrometry
- 18:00 – 18:15 **M. Mecozzi, F. Moscato, M. Pietroletti, F. Quarto, F. Oteri and A.M. Cicero**
Application of FTIR spectroscopy in environmental studies supported by two dimensional correlation analysis
- 18:15 – 18:30 **A.S. Petsas, M.C. Vagi, M.N. Kostopoulou, M.D. Pavlaki, N.M. Smaragdaki and T.D. Lekkas**
Acute toxicity and persistence of fenthion and dimethoate in the marine environment
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **C.S. Tsoutsi, I.K. Konstantinou and D.G. Hela**
Development and validation of a quantitative method for determination of organophosphorus insecticides in milk by headspace solid phase microextraction combined with gas chromatography-flame photometric detection
- 19:15 – 19:30 **E. Yiantzi and E. Psillakis**
Determination of bisphenol A, nonyl- and octyl-phenol in water samples using a free microdrop preconcentration method
- 19:30 – 19:45 **H.A. Zamani**
Determination of chromium(III) in wastewater samples using potentiometric membrane sensor
- 19:45 – 20:00 **T. Saitoh and M.Hiraide**
Thermo-responsive polymer-mediated extraction for water treatment and analysis
- 20:00 – 20:15 **S.P. Mcelmurry, T.C. Voice and D.T. Long**
Simultaneous quantification of dissolved organic matter fractions and copper complexes using solid phase extraction

Session 15 INDUSTRIAL WASTEWATERS (2) – SLUDGE TREATMENT (1)

**Thursday 6 September 2007 – afternoon
ROOM "B"**

- 17:30 – 17:45 **E. Manousaki, J. Kadukova and N. Kalogerakis**
Excretion of metals by the leaves of plants: a new approach to the phytoremediation of sites contaminated with heavy metals

- 17:45 – 18:00 **F. Mohellebi and R. Yous**
Biosorption of binary mixture of cadmium (II) and nickel (II) ions by a bacterial non living streptomyces rimosus biomass
- 18:00 – 18:15 **A.G. Vlyssides, E.M.P. Barampouti and S.T. Mai**
Size distribution of anaerobic granular sludge
- 18:15 – 18:30 **K. Cedzynska**
Comparison of the leachability of heavy metals from sewage sludge, its ashes and their solidified product
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **E.N. Papavasiliopoulos, G. Tavoularis and E. Baltas**
Beneficial reuse of sludge in Greece
- 19:15 – 19:30 **G. Tavoularis**
Hazard assesement of biological sludge produced in Psitalia-Attica WWTP

Session 16
HEALTH AND THE ENVIRONMENT

Thursday 6 September 2007 – afternoon
ROOM "C"

- 17:30 – 17:45 **M.M. Politis, C. Pilinis and T.D. Lekkas**
Ultrafine Particles (UFP) and Health Effects. Dangerous. Like no other PM? Review and Analysis
- 17:45 – 18:00 **E. Rossi, J. Aorvari, B. Backman, R. Makela-Kurto, K. Loukola-Ruskeeniemi, T. Ruskeeniemi and K. Vaajasaari**
Regional health risk assessment of natural and anthropogenic arsenic; case study in Pirkanmaa, Finland
- 18:00 – 18:15 **P.T. Nastos, A.G. Paliatsos and K.N. Priftis**
Cross spectrum analysis between childhood asthma admissions and ambient air pollutants, at Athens, Greece
- 18:15 – 18:30 **L. Guo, J.O. Lewis and J.P. McLaughlin**
Impact on the indoor air quality of using fireplace as accessorial heating source in Irish residences
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **O. Cavoura, A. Katsiri, N. Katsiris and D. Dalbokova**
An environmental health information system - assessment of the situation in Greece
- 19:15 – 19:30 **C. Tourkolias, D. Diakoulaki, S. Mirasgentis and G. Mavrotas**
Public health effects from energy use in the industrial sector
- 19:30 – 19:45 **D.T. Long and T.C. Voice**
Studying the etiology of endemic diseases through exposure analysis: the Balkan endemic nephropathy example
- 19:45 – 20:00 **O.I. Kalantzi and P.A. Siskos**
Polybrominated diphenyl ethers in humans - sources and exposure

Session 17
ECOLOGY

Thursday 6 September 2007 – afternoon
ROOM "D"

- 17:30 – 17:45 **B. Down, D. Press and M. Los Huertos**
Agricultural nonpoint source pollution policy: the case of California's Central Coast

- 17:45 – 18:00 **L. Chapel, S. Martin and G. Deffuant**
Lake eutrophication: using resilience evaluation to compute sustainable policies
- 18:00 – 18:15 **T. Yabuki**
Analysis of the energy efficiency of photosynthesis in terms of entropy
- 18:15 – 18:30 **P. Panayotidis, K. Tsiamis and M. Salomidi**
Ecological quality of coastal waters: a case study in Saronikos Gulf (Attica, Greece)
- 18:30 – 19:00 *Coffee break*
- 19:00 – 19:15 **G. Gkafas, V. Podiadis, K. Tsigenopoulos, B. Reid, E. Karpouzli, G. Verriopoulos, Z. Mamuris, A. Magoulas and A. Exadactylos**
Genetic polymorphism and population structure of the striped dolphin, *Stenella coeruleoalba*, and the common dolphin, *Delphinus delphis*, within the ACCOBAMS area
- 19:15 – 19:30 **E.G. Papazoglou**
Effects of toxic cadmium application on sugar beet
- 19:30 – 19:45 **A. Hatzopoulou, J. Stefanou and S. Gerasimou**
A system approach of the protection of traditional settlements: natural and cultural environment
- 19:45 – 20:00 **M.R.A. Campos**
Are there bigger fish to fry in the Philippines?
- 20:00 – 20:15 **E. Sturchio, P. Boccia, M. Zanellato, R. Mancinelli, E. Campiglia and A. Cavalieri**
Evaluation of genotoxic effect of lavender (*Lavandula spp.*) essential oil
- 20:15 – 20:30 **M. Zupancic, M. Zupancic Justin, T. Griessler Bulc, D. Vrhovsek, P. Bukovec and V.S. Selih**
Presentation of the project "Sustainable rehabilitation of the landfill site-LIMNOTOP" and results of three years monitoring period

Session 18

URBAN WASTEWATER – SLUDGE TREATMENT (2)

Friday 7 September 2007 – morning

ROOM "A"

- 9:00 – 9:15 **D. Petruzzelli, G. Boghetich, M. Petrella, A. Petrella, E. Ranieri and V. Petruzzelli**
Carbon and nitrogen removal at a large wastewater treatment plant
- 9:15 – 9:30 **L-M. Yuan, D-I. Xi, Y.Q. Zhang, C-Y. Zhang, Y. Ding and Y-L. Ga**
Biological nutrient removal using an alternating of anoxic and anaerobic membrane bioreactor (AAAM) process
- 9:30 – 9:45 **M. Kornaros, C. Marazioti and G. Lyberatos**
Optimization of biological nitrogen removal in a CSTR-cascade system
- 9:45 – 10:00 **J. Fillos, K. Ramalingam, R. Jezek, A. Deur and K. Beckann**
Specific denitrification rates with alternative external sources of organic carbon
- 10:00 – 10:15 **M.A. Massoud, J.A. Nasr and A. Tarhini**
Feasibility of decentralized wastewater management in rural areas: the case of Lebanon
- 10:15 – 10:30 **D. Fidaros, C. Baxevanou, A. Zagoritis, P.-E. Mpiska and N. Vlachos**
Numerical simulation of flow and transport phenomena in an urban wastewater chlorination tank
- 10:30 – 10:45 **S. Yannopoulos, S. Basbas and I. Giannopoulou**
Stormwater runoff and the environment in the interurban road network: policy trends and perspectives
- 10:45 – 11:00 **W.J. Gong, F. Li and D.L. Xi**
Destruction of acrylic acid production wastewater by supercritical water oxidation in transpiring wall reactor
- 11:00 – 11:30 *Coffee break*

- 11:30 – 11:45 **H. Hildebrand, K. Mackenzie and F.-D. Kopinke**
Novel nano-catalysts for wastewater treatment
- 11:45 – 12:00 **A.S. Stasinakis, G. Gatidou, N.S. Thomaidis, D. Mamais and T.D. Lekkas**
An integrated approach for the investigation of occurrence, fate and toxicity of endocrine disrupting chemicals in wastewater treatment systems
- 12:00 – 12:15 **M. Charalabaki, E. Psillakis and N. Kalogerakis**
Toxicity assessment of common chemicals found in the untreated influent of the WWTP at the Industrial Zone of Heraklion-Crete
- 12:15 – 12:30 **D. Mamais, E. Kalaitzi and A. Andreadakis**
Foaming control in activated sludge treatment plants by polyaluminium chloride addition
- 12:30 – 12:45 **V.I. Diamantis, A. Aivasidis and E. Pavlidou**
Effect of organic loading rate on anaerobic granular sludge characteristics
- 12:45 – 13:00 **E. Athanasoulia, P. Melidis and A. Aivasidis**
Characterization of enhanced anaerobic degradation of digested sludge mixtures after thermo-chemical and enzymatic treatment
- 13:00 – 13:15 **J.M. Sanchez, J.M. Murillo, J. Otero, F. Plaza and G. Garralon**
Thermal valorisation of dried sewage sludge through gasification
- 13:15 – 13:30 **Y. Qi, K.B. Thapa and A.F.A. Hoadley**
Investigation of the role of lignite in sewage sludge dewatering process
- 13:30 – 13:45 **I. Chitzi, P. Melidis, C. Akrotos, J.N.E. Papaspyros and V.A. Tsihrintzis**
Study of activated sludge dewatering in pilot-scale reed-planted SDB's

Snacks

Session 19 ENVIRONMENTAL SUSTAINABILITY

***Friday 7 September 2007 – morning
ROOM “ B”***

- 9:00 – 9:15 **J. Eyles, K. Wilson and J. Messina**
Physical and social dimensions of environmental concern in Hamilton, Ontario
- 9:15 – 9:30 **A. Angelis**
A methodological framework for the uncovering and control of private environmental profit
- 9:30 – 9:45 **F. Sun, J. Chen, Q. Tong and S. Zeng**
Application of a model-based HACCP system to disinfection by-products control in a conventional waterworks
- 9:45 – 10:00 **C. Koroneos, A. Dompros and M. Loizidou**
Life Cycle Assessment of an office building in Greece
- 10:00 – 10:15 **N. Moussiopoulos, H. Achillas and C. Koroneos**
Promoting alternative end of life management of electrical and electronic equipment
- 10:15 – 10:30 **Y.A. Phillis, V. Kouloumpis and V.S. Kouikoglou**
SAFE: A method for assessing sustainability and its application to sustainable decision-making
- 10:30 – 10:45 **G.F. Sargentis, K. Bartsioka, N. Symeonidis and K. Hadjibiros**
Evaluation method regarding the effect of building design in the context of sustainable development
- 10:45 – 11:00 **E.A. Polychronaki, A.C. Douma, Th. Dantsis, C. Giourga and A. Loumou**
Energy analysis as an indicator of agricultural sustainability: the case of Western Macedonia and Epirus, Greece
- 11:00 – 11:30 *Coffee break*

- 11:30 – 11:45 **M. Bakali and P. Chatzimpiros**
The influence of property in the city's sustainable development
- 11:45 – 12:00 **P.D. Panagiotakopoulos and P.W. Jowitt**
Sustainability concepts and tools: a cybernetic approach
- 12:00 – 12:15 **Z. Mallios, A. Papageorgiou, D. Latinopoulos and P. Latinopoulos**
Spatial hedonic pricing models for the valuation of irrigation water
- 12:15 – 12:30 **M. Meo, R. Nairn, J. Laguros and M.D. Zaman**
Innovation and application of environmental technologies: strategies, progress and prospects in Oklahoma
- 12:30 – 12:45 **B. Cheeseman, M. Mavroulidou, G.G. Maidment, M. Smith and N. Pottern**
Developing an in-situ post-construction quality control methodology to ensure better efficiency of buildings
- 12:45 – 13:00 **S. Wanphen, K. Nagano and M. Nakamura**
Study on moderation of roof surface temperature by application of porous materials
- 13:00 – 13:15 **J. Giannatsis and V. Dedoussis**
Environmental conscious manufacturing: the case of additive-rapid fabrication technologies

Snacks

Session 20
ENERGY & GLOBAL ENV. CHANGE & GROUNDWATER

Friday 7 September 2007 – morning
ROOM "C"

- 9:00 – 9:15 **A. Kallionaki, K. Kormas and N. Kalogerakis**
Anaerobic oxidation of methane in mud volcanoes in Eastern Mediterranean Sea
- 9:15 – 9:30 **D. Marinakis, N. Varotsis and M. Lazaridis**
Effect of gas hydrate stability on climatic change. The case of "Anaximander" mud volcanoes
- 9:30 – 9:45 **E. Kyritsis, G. Papadakis, D. Petouni and S. Kyritsis**
Building renewable and hybrid energy supply scenarios for Morocco, Tunisia, Jordan and Lebanon
- 9:45 – 10:00 **T.E. Lilas, N.V. Nikitakos, A.A. Vatistas, A.G. Maglara, K.E. Lila, E.E. Antoniou and C.E. Syrseloudis**
Floating autonomous environmental friendly and efficient desalination unit
- 10:00 – 10:15 **A.A. Zabaniotou, V.K. Skoulou and O.A. Ioannidou**
Thermal treatment of energy crop residues: alternatives for energy and materials production
- 10:15 – 10:30 **D.Y. Koseoglu, N. Dizge and B. Keskinler**
Immobilized *Thermomyces lanuginosus* lipase for biodiesel production from soybean oil
- 10:30 – 10:45 **I. Ntaikou, H.N. Gavala and G. Lyberatos**
Kinetics of hydrogen production during growth of the bacterium *ruminococcus albus* on sweet sorghum extract
- 10:45 – 11:00 **G. Antonopoulou, H.N. Gavala, I.V. Skiadas and G. Lyberatos**
Biofuels generation from sweet sorghum biomass
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **S. Murata and A. Niwa**
Investigation to biodiesel production: reaction of vegetable oil with wet ethanol
- 11:45 – 12:00 **A.N. Stavrakas, A.N. Fatsikostas, D.K. Liguras and X.E. Verykios**
Novel catalyst development for hydrogen production via steam reforming of conventional and environmentally friendly energy sources

- 12:00 – 12:15 **A. Szewczyk, I. Zawierucha and G. Malina**
The effect of various carbon sources on stimulating bioprecipitation of heavy metals in the saturated zone
- 12:15 – 12:30 **M.P. Papadopoulou, E.A. Varouchakis and G.P. Karatzas**
A study of the complex karstification phenomenon in nature: an analysis of the flow in a fractured medium in Crete
- 12:30 – 12:45 **K. Mackenzie, A. Schierz, A. Georgi and F.-D. Kopinke**
Colloidal activated carbon and carbo-iron – Novel materials for in-situ groundwater treatment

Snacks

Session 21 WARINE POLLUTION

Friday 7 September 2007 – morning
ROOM "D"

- 9:00 – 9:15 **K. Topouzelis, O. Muellenhoff, G. Ferraro and D. Tarchi**
Satellite mapping of oil spills in the East Mediterranean Sea
- 9:15 – 9:30 **W. Elshorbagy**
Fate transport of organic pollutants in the coastal water of United Arab Emirates
- 9:30 – 9:45 **A. Katsiri, M. Pantazidou, I. Damikouka, Ch. Kontogiorgi and A. Tringali**
Physicochemical and toxicological characterization of marine sediments
- 9:45 – 10:00 **G. Karras, D. Barelos, A. Karra, G. Patakioutas, G. Gizas and T. Albanis**
Occurrence of pesticide persistence in Amvrakikos Gulf - N.W. Greece
- 10:00 – 10:15 **M. Kostopoulou, A. Mylona, A. Nikolaou, G. Lofrano, S. Meric and V. Belgiorno**
Determination of polycyclic aromatic hydrocarbons in the harbor sediments of Mytilene, Greece
- 10:15 – 10:30 **I. Primpas, G. Tsirtsis and M. Karydis**
Quantitative assessment of eutrophication: a proposed multivariate index
- 10:30 – 10:45 **M. Vousdoukas, O. Andreadis, G. Adamakis, A.F. Velegrakis, E. Pasakalidou and G. Kokolatos**
Severely eroding Eressos beach (Lesvos Island) and possible dam implications
- 10:45 – 11:00 **D. Ioannidis and Th.V. Karambas**
"Soft" shore protection methods: beach drain system
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 **C. Tzimopoulos and L.G. Mpallas**
Extrapolating rainfall data using fuzzy rule-based modeling
- 11:45 – 12:00 **A. Bartzokas, E.D. Colyvas and S.T. Loizou**
On the intra-annual variation of sea surface temperature on global scale
- 12:00 – 12:15 **D. Panagoulia, A. Bárdossy and G. Lourmas**
Multivariate stochastic downscaling models for generating precipitation and temperature scenarios of climate change based on atmospheric circulation
- 12:15 – 12:30 **G. Sgouros and C. G. Helmis**
On the estimation of mixing height under sea breeze conditions in the Messogia Plain of Attica, Greece
- 12:30 – 12:45 **T. Nitis, G. Tsegas, G. Korres, I. Douros and N. Moussiopoulos**
Influence of sea surface temperature variation on basic mesoscale flows over coastal areas
- 12:45 – 13:00 **C. Papathanasiou, E. Safiolea, Y. Kalogiros and M. Mimikou**
Comparative analysis of rain gauge and radar precipitation estimates in the Attiki area
- 13:00 – 13:15 **Ch. Oikonomou, H.A. Flocas, M. Hatzaki, D.N. Asimakopoulos and C. Giannakopoulos**
Future changes in the occurrence of extreme precipitation events in Eastern Mediterranean

Snacks

Session 22
CLOSING SESSION

Friday 7 September 2007 – morning
ROOM “PANACEA”

18:00 – 20:00 Chairman’s conclusions - Closure

21:30 Official Dinner

POSTER PRESENTATIONS

Wednesday 5 September 2007 – afternoon

**A. WATER TREATMENT METHODS
WATER RESOURCES MANAGEMENT
WATER QUALITY
WATER ANALYTICAL METHODS
GROUND WATER**

- | | | |
|-----|---|------------------|
| A1 | E. Farmaki, C. Avagianos, E. Lytras, L. Kousouris and Ph. Tzoumerkas
Validation of an ETAA's method for the determination of cadmium in natural and potable water: a case study | WTR ¹ |
| A2 | V.M. Matsis and E.C. Nikolaou
Cadmium in drinking water coolers | WTR |
| A3 | N. Papadakis, P. Tsoumbaris, G. Sargiotis, P. Georgianos and K. Nikolaou
Hygienic evaluation of the water supply and sewerage systems in Evros Prefecture, Greece | WTR |
| A4 | A. Papaioannou, P. Plageras, E. Dovriki, A. Minas, V. Krikelis, A.G. Paliatsos, P.Th. Nastos and S. Mpeltsios
Assessment and monitoring the quality of drinking water in the context of public health | WTR |
| A5 | D.S. Ramteke, R. Onkar, D. Pakhide and S. Sahasrabudhe
Assessment of fluoride in ground water, food and soil and its association with risk to health | WTR |
| A6 | S.A. Samios, E.M. Smeti, L.P. Kousouris, P.C. Tzoumerkas, A.D. Nikolaou, S.K. Golfopoulos and T.D. Lekkas
Statistical analysis of trihalomethanes in treated-water tanks: seasonality, local variability and correlations | WTR |
| A7 | G. Stavroulakis and K.S. Zoannou
Compliance of the label and the quality of table and mineral commercial bottled drinking water | WTR |
| A8 | N.C. Thanasoulis, T.S. Kaloudis, L.P. Kousouris and P.K. Tzoumerkas
Immunochemical water analysis: state of the art procedures in the organic micropollutant laboratory of the Athens Water Supply and Sewerage Company, Greece | WTR |
| A9 | D. Voutsas, M. Biterna, L. Antonoglou, A. Arditoglou and E. Lazou
Arsenic removal from waters by zero valent iron: influence of physicochemical parameters | WTR |
| A10 | A. Zhu, F. Long, W. Zhu and J-D. Ma
The influences of magnetic pretreatment on water softening with NF membranes | WTR |
| A11 | Fu Chun
Integrated water basin management in Mountain-River-Lake (MRL) Region in Jiangxi, China | WRM ² |
| A12 | N. Kalantari, M.R. Rahimi and M. Shebaneh
In-channel water harvesting structures for artificial recharge, Kheran alluvial aquifer in the Southwest of Iran | WRM |

¹ WTR: Water Treatment

² WRM: Water Resources Management

A13	V. Kanakoudis, S. Tsitsifli and A. Kallia A review of the WFD 2000/60 implementation progress in the EU member states	WRM
A14	P. Kerkides, K. Soulis, E. Psomiadis and P. Giannouloupoulos Water resources conditions assessment in Greece and their role in desertification	WRM
A14	K. Mitreski and A. Naumoski Empirical model of the Lake Prespa	WRM
A16	F.C. Pergantis and A.F. Perganti An approach for water management of the "Psalidi" coastal wetland in the island of Kos	WRM
A17	F. Pliakas, A. Kallioras, I. Diamantis and I. Giougis Seawater intrusion in a coastal phreatic aquifer of Kavala Prefecture, Northern Greece	WRM
A18	I. Boskidis, G.K. Sylaios, C. Petalas, V. Pisinaras, G.D. Gikas, K. Moutsopoulos, A. Gemitzi and V.A. Tsihrintzis Water quantity and quality monitoring of Nestos River, North-Eastern Greece	WQ ³
A19	G. Gatidou and N.S. Thomaidis Single and joint toxicity of two antifouling biocides, their main metabolites and copper using phytoplanktonic bioassays	WQ
A20	D.G. Hadjimitsis, L. Toullos and C.R.I. Clayton Contributions of satellite remote sensing to analysis of spatial and temporal variability of water quality in inland water bodies	WQ
A21	A.K. Papafilippaki, M.E. Kotti and G.G. Stavroulakis Seasonal variations in dissolved heavy metals in the Keritis River, Chania, Greece	WQ
A22	E.M. Smeti, L.P. Kousouris, P.C. Tzoumerkas and S.K. Golfinopoulos Trend analysis and variability of microbiological parameters of the Mornos Reservoir (Greece)	WQ
A23	E.G. Amvrazi and T.A. Albanis Processing factors for selected pesticides persist on olives in different virgin olive oil extraction systems	WAM ⁴
A24	V.I. Boti, V.A. Sakkas and T.A. Albanis Measurement uncertainty arising from trueness of the analysis of two endocrine disruptors and their metabolites in environmental samples: Part II: solid phase extraction from environmental natural waters	WAM
A25	H. Chen and Y. Zhang The prospect of the Immuno-PCR in polybrominated biphenyls detection in environment	WAM
A26	P.G. Dracopoulos, A. Chandrinou, C. Doumas, C. Nomicos, S. Poulos, I. Thanos and V. Zervakis An inexpensive transmittance and fluorescence meter	WAM
A27	M.D. Hernando, D. Lambropoulou, I. Konstantinou, M.J. Martínez Bueno, D. Gabrielides, A.R. Fernández-Alba and T. Albanis Passive sampling techniques for monitoring organic contaminants in aquaculture environment	WAM
A28	G.I. Kalampoki, D.A. Lambropoulou and T.A. Albanis Multi-residue screening of pesticide residues in surface waters of Kalamas river	WAM

³ WQ: Water Quality

⁴ WAM: Water Analytical Methods

(N.W. Greece) by solid-phase extraction followed by GC-MS analysis

A29	K.V. Karametsi, D.A. Lambropoulou and T.A. Albanis Solid-phase microextraction and GAS chromatography with electron capture detection for multiresidue determination of pesticides in waters	WAM
A30	E. Kastanaki, N.P. Nikolaidis and E. Psillakis Hollow fibre liquid phase microextraction of selected organochloride pesticides	WAM
A31	P. Stepnowski, W. Mroziak, J. Niechajewski, A. Markowska and E. Malinski Analysis of environmental fate and quantitative methods for determination of ionic liquids	WAM
A32	I.V. Zioris, D.A. Lambropoulou, T.G. Danis, D.T. Karagiozoglou and T.A. Albanis Determination of pesticide residues in river water of Aliakmonas and in fresh peaches produced in the region of Imathia (Greece)	WAM
A33	N. Mehrdadi, A. Daryabeigi Zand, A.A. Matloubi and A. Baghvand An investigation of sources of environmental pollution and its impact on groundwater quality in Mazandaran province, north of Iran	GW ⁵
A34	P. Rahbari, A.M. Liaghat and M. Afsharasl Simulation and evaluation of nitrate transport to the groundwater using LEACHMN and DRAINMOD-N	GW

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**B. URBAN WASTE WATER
INDUSTRIAL WASTE WATER
ADVANCED OXIDATION PROCESSES
SOIL CONTAMINATION & REMEDIATION
SLUDGE TREATMENT**

B1	M. Gratziou, M. Chalatsi and M. Tsalkatidou Waste stabilization ponds in North Greece	UWW ⁶
B2	D.G. Hatzis, P.A. Paraskevas and S. Basilarios Operation evaluation of the wastewater treatment plant of Mytilene, Lesvos – Greece	UWW
B3	C.A. Kambanellas and S.C. Kambanellas Recycling of grey water in Cyprus	UWW
B4	L. Kos, K. Michalska and J. Perkowski Fenton's reaction as an alternative to coagulation in treatment of wastewater with high detergent content	UWW
B5	S. Mimis and P. Gaganis Vertical flow constructed wetlands for wastewater treatment: a pilot scale study	UWW
B6	K. Ramalingam, J. Fillos, S. Xanthos, M. Gong, A. Deur and K. Beckmann Predicting SS removal performance in rectangular final settling tanks (FSTs) using 3-dimensional CFD model	UWW
B7	Z. Salem, L. Toumi, Y. Kechroud and K. Allia Evaluation of hospital wastewaters pollution and treatment recommendations	UWW
B8	H. Selcuk, V. Naddeo, L. Rizzo and V. Belgiorio	UWW

⁵ GW: Groundwater

⁶ UWW: Urban Waste Water

	Advanced treatment by ozonation and sonolysis for domestic wastewater reuse	
B9	M. Fang and W. Li The molecular biology identification of a hydrolyzed polyacrylamide (HPAM) degrading bacteria strain H5 and biodegradation product analysis	IWW ⁷
B10	I.H. Farooqi, F. Basheer and T. Ahmad Studies on biodegradation of phenols and m cresols by upflow anaerobic sludge blanket and aerobic sequential batch reactor	IWW
B11	J. Ma, F. Long, A. Zhu and Y. Liu Degradation of LAS wastewater with immobilized <i>Corynebacterium jeikeium</i> GZ6	IWW
B12	M. Casarci, D. De Angelis, L. Grana and A. Spadoni Applicability of submerged membrane for on-site reuse of textile dyehouse wastewater	IWW
B13	A. Hamitouche, T. Berrama and Z. Bendjama Adsorption of para-chlorophenol on an activated carbon from apricot stones: equilibrium and kinetic studies	IWW
B14	W. Li, M. Fang and Y. Jie Effect of polymer oil drive process in Daqing Oil Field on the microorganism community in oil deposit system	IWW
B15	T.M. Qaisrani and W.M. Samhaber Flux enhancement by air dispersion in cross-flow microfiltration of a fine colloidal system through spiral wound module	IWW
B16	D. Hamane and Z. Bendjama Utilisation of eucalyptus sawdust as an adsorbent for removal of lead from aqueous solution	IWW
B17	S.K. Pali, S.S. Konar, A. Mukherjee and T.K. Das Removal of Cadmium ion by cadmium resistant mutant of <i>Aspergillus niger</i> from water	IWW
B18	N.S. Rathore, A. Leopold, A. Fortuny, M.T. Coll, A.K. Pabby and A.M. Sastre Extraction and permeation studies of Cd(II) using CYANEX-923	IWW
B19	F. Ciner and S.K. Akal Solmaz Decolorization of reactive dye containing wastewater using fenton, fenton-like and chemical coagulation	AOP ⁸
B20	T. Fukuta, S. Agari, D. Kuchar, M. Kubota, M.S. Onyango, H. Matsuda, L. Huang and K. Yagishita Decomposition characteristics of copper and zinc cyanide complexes by wet oxidation at low temperatures	AOP
B21	A.R. Rahmani Investigation of photocatalytic degradation of phenol by UV/TiO ₂ process	AOP
B22	V.A. Sakkas, K. Shibata, Y. Yamaguchi, S. Sugawara and T. Albanis Aquatic photodegradation study of zink pyrithione: degradation kinetics and byproduct identification	AOP
B23	I. Sanchez, X. Bernat, F. Stuber, J. Font, A. Fortuny, A.I Fabregat and C. Bengoa Phenol oxidation promoted by chelated iron: degradation pathway	AOP
B24	T. Velegraki and D. Mantzavinos A study on the removal of benzoic acid using advanced oxidation processes	AOP

⁷ IWW: Industrial Waste Water

⁸ AOP: Advances Oxidation Processes

B25	T. Mimides, M. Mitselou, M. Balaska and E. Kotsaki Phytoremediation of polluted soils from petroleum hydrocarbons	SOIL ⁹
B26	D. Jahani, H.R. Peyrowan, M. Mokhtari, N. Sharafi, M. Karimpour Reihan Assessment of erodability indices of marls in the south east of Tehran (Iran)	SOIL
B27	W. Liu, J. Moriizumi, H. Yamazawa and T. Iida Partitioning source of soil carbon dioxide in a forest area by specific activities of ¹⁴ C and carbon isotopic compositions	SOIL
B28	W. Mroziak, J. Nischtauser, A. Markowska, M. Golebiowski, J. Kumirska, G. Czerwicka, E. Malinski and P. Stepnowski Investigation of sorption mechanism of ionic liquids onto selected natural soils	SOIL
B29	K.G. Serelis, E.G. Papazoglou and V.D. Tsatiris Effects of contaminated water on soil specific surface area: a leaching column experiment	SOIL
B30	L.I. Tsikritzis, M. Fotakis, E.I. Amanatidou and R.L. Tsikritzi Naturally occurring radionuclides of soil around the coal mines of West Macedonia, Greece	SOIL
B31	J.A. Radaideh and B.Y. Ammary The influence of sludge stabilization on its dewaterability conventional sand drying beds	ST ¹⁰
B32	B. Radjaram and R. Saravanane Anaerobic stabilization and biomass conversion of transformed intermediates of anti-biotic pharmaceuticals waste sludge	ST

Thursday 6 September 2007 – afternoon

**C. AIR POLLUTION
AIR TREATMENT
SOLID WASTE MANAGEMENT
ENERGY**

C1	C. Schreiner, Al. Trandabat, M. Branzila and R. Ciobanu Environmental measurement center based on remote instrumentation	AIR ¹¹
C2	G.R. Gillich, F.C. Berinde, N. Potoceanu, C.M. Gruescu, G. Samoilescu and C.P. Chioncel Considerations regarding pollution with noise and vibration due to industrial sources	AIR
C3	R. Alkama, S. Adjabi, F. Abbaci and K. Mouaci Atmospheric pollution from industrial and automobile source emissions in the region of Bejaia	AIR
C4	S.W. Chang, K.M. Mok and K.V. Yuen Association of PM ₁₀ pollution episodes with the meteorological conditions in Macau	AIR
C5	D.G. Hadjimitsis, L. Toullos and C.R.I. Clayton Satellite image processing for aerosol optical thickness mapping: overview of the "Spatial-aerosol" code	AIR
C6	E.A. Maraziotis, L.L. Sarotis and C.E. Marazioti	AIR

⁹ SOIL: Soil Contamination - Remediation

¹⁰ ST: Sludge Treatment

¹¹ AIR: Air Pollution

	An analysis of inhalable (PM ₁₀) and fine particles (PM _{2.5}) concentration levels in urban area of Patras, Greece	
C7	K. Nikolaou, H. Tsarsitalidis and N. Papadakis Traffic and air pollution temporal evolution in the city of Serres, Greece	AIR
C8	A.P. Sharma and B.D.Tripathi Magnetic mapping of fly-ash pollution and heavy metals around a point source in dry tropical environment	AIR
C9	G. Valarini, I.S. Melo, M.J. Valarini and P.J. Valarini Leaf yeasts as bioindicators of air pollution in Southeastern Brazil	AIR
C10	Y. Yang, X. Li, Y.L. Li, M. Tan, W. Lu, G. Zhang and Y. Li Platinum concentrations in urban airborne particles from Shanghai, China	AIR
C11	Yuanxum Zhang, Yuanmao Zhang, D. Li, H. Wai, Y. Wang, G. Zhang, Y. Li and Y. Zeng Study of air pollution source by combined technique of ACCU and PIXE	AIR
C12	M. Fouskas, M-I. Manousakas, V. Koykouliou and H. Papaefthymiou Indoor radon measurements in Megalopolis – Southern Greece	AIR
C13	A.H. Ismail and Z.A. Hussyin Study of seasonal variations of radon levels and its risks inside different schools in Iraqi Kurdistan region for the first time	AIR
C14	L.I.B. Silva, T.A.P. Rocha-Santos and A.C. Duarte In-situ sensing of volatile organic compounds in indoor atmosphere and confined areas of industrial environments	AIR
C15	T. Fujita, A. Yokoi, T. Kawano, M. Kubota, H. Matsuda, H. Liwei and K. Ushiroebisu Decomposition characteristics of Cl, F- containing persistent gases by non-thermal plasma	AIR –T ¹²
C16	M. Tsitsiriki, O. Bereketidou, H. Latsios and M.A. Goula System design and cost estimations for Nox selective catalytic reduction (SCR) on coal-fired boilers	AIR –T
C17	D.S. Achilias, A. Giannoulis and G.Z. Papageorgiou Recycling of polymers from packaging materials using the dissolution-precipitation technique: advantages and limitations	SWM ¹³
C28	K.S. Al-Shallash and M.M. Shereif Healthcare waste management in Saudi Arabia. A case study	SWM
C19	M. Bekatorou, M. Kanellaki, I.M. Banat and P. Nigam Animal feed production by solid state fermentation of brewer's spent grains and malt spent rootlets with <i>Aspergillus Awamori</i> , <i>A. Oryzae</i> and <i>Phanerochaete Chrysosporium</i>	SWM
C20	L.O. Enekwechi and E.O. Longe Influence of hydrogeological barriers on migration pattern of leachates in municipal landfills	SWM
C21	M. Ikwu and I.V. Usino Urban solid wastes as a major public health disaster in Nigeria	SWM
C22	F. Mohellebi and C.E. Chitour Characterization and regeneration of waste insulating lubricant	SWM
C23	M. Paraschiv, M. Tazerout and R. Kuncser	SWM

¹² AIR-T: Air Treatment

¹³ SWM: Solid Waste Management

	Thermolysis of plastic waste and composites – a method for energy valorising and/or reinforced materials recycling	
C24	G. Radonjic and M. Makarovic Added-value of recycled mixed plastics through interfacial modification: effects of processing conditions on final properties of modified mixed plastics wastes	SWM
C25	G. Siavalas, S. Zilakou, S. Kalaitzidis, A. Chatziapostolou, A Bouzinos and K. Christanis Trace element leachability from lignite and combustion by-products under certain pH conditions	SWM
C26	B. Voncina and M. Pintar Textile waste recycling	SWM
C27	M. Barmina, A. Desnickis, M. Gedrovics and M. Zake Co-firing of renewable with fossil fuel for the cleaner heat energy production	ENER ¹⁴
C28	M. Barmina, A. Desnickis and M. Zake Electric field effect on the wood biomass co-fire and the formation of polluting emissions	ENER
C29	M. Gonzalez-Martinez and C. Clemente-Jul Biomass heating system for a building	ENER
C30	M. Paraschiv and M. Tazerout Non-conventional fuels from palm oil	ENER

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**D. ENVIRONMENTAL SUSTAINABILITY
METEOROLOGY
MARINE POLLUTION
ECOLOGY**

D1	P. Chatzimpiros, G. Lagos and G.-F. Sargentis Man and City. Myth and Vision	ENV-S ¹⁵
D2	B. Kourmpanis, K. Moustakas, A. Papadopoulos, M. Stylianou and M. Loizidou Selection of the optimum scheme for the management of construction and demolition waste in Cyprus with the help of multi-criteria analysis	ENV-S
D3	M. Loizidou, C. Koroneos, D. Chardas, A. Bourka, T. Palekithrytis, D. Fatta and L. Chrysostomou Sustainable construction in public and private works through IPP approach - the SUSCON project	ENV-S
D4	B. Maghsoudlou Kamali Strategic Environmental assessment of Iran's industrial development policies through strategic factors analysis method (SWOT)	ENV-S
D5	M. Mandaraka and M. Kornoutou Contents and structure of corporate social responsibility (CSR) reports published in Greece	ENV-S
D6	P. Roudgarmi, N. Khorasani, M. Monavari and J. Nouri	ENV-S

¹⁴ ENER: Energy

¹⁵ ENV-S: Environmental Sustainability

	Environmental impact evaluation by spatial multi-criteria evaluation technique	
D7	D. Sanopoulos and N. Duic Development of environmental guidelines for the region of Western Balkans - WEB-ENV project results	ENV-S
D8	A. Skouloudis, F. Kourmousis and K. Evangelinos Development of an evaluation methodology for sustainability reports using international standards on reporting	ENV-S
D9	A. Mavrakis, S. Dasaklis, G. Theoharatos and A. Tasopoulos The evolution of a strong atmospheric disturbance over the Aegean Sea and the associated meteorological parameters, described by satellite data and GIS	MET ¹⁶
D10	M.H. Mobin, S. Mohsen Mirhosseini and M. Heydari GIS-based analysis of beginning, end, and the length of the rainy season along arid and semi-arid climates of central parts of Iran (Gavkhooni basin)	MET
D11	K. Philippopoulos, G. Karvounis and D. Deligiorgi Meteorological representivity analysis and modeling the atmospheric dispersion of a power plant plume	MET
D12	A. Ounnar, N. Chekir, J. Arrar and F. Bentahar Experimental investigations of the jet behaviour into fluidised bed for biological depollution of coastal sand	MAR ¹⁷
D13	K.G. Rados, Y.G. Perivolaris, A. Vougiouka, K. Venezis, G. Karalis and A. Zervos Application of a mesoscale weather prediction model for short-term forecasting of power production of wind farms in complex terrain - Test case: island of Crete	MAR
D14	L. Shashua-Bar, P. Hasapis, K. Chronopoulos, Y. Tzamir, R. Sebba, A. Kazana, M. Hoffman and I. Tsiros Strategic modeling of the urban canopy layer microclimate: preliminary simulation results for urban street canyons with trees in Athens, Greece	MAR
D15	A. Mavrakis, S. Dasaklis and A. Christides A. Study of the characteristics of the Thriassion Plain streams and their contribution to the degradation of the marine environment of the Elefsis Gulf	MAR
D16	S. Poulos, G. Alexandrakis, A. Karditsa and P. Drakopoulos Heavy metal investigation, as pollutant indicators, in bottom sediments, in the harbours Heraklion and Alexandroupolis (Aegean Sea, Greece)	MAR
D17	N.M. Fyllas, H. Metohianakis, N. Xypteras and P.G. Dimitrakopoulos Study of the regeneration density in East Mediterranean pine forests (<i>Pinus brutia</i> Ten.) of different succession stage defined by last fire event	ECO ¹⁸
D18	T. Mimides and E. Kotsaki The key role of wetlands in addressing the global groundwater crisis. A review	ECO
D19	A. Pantera, I. Raftoyannis and A.M. Papadopoulos Fir decline as a result of nutrient imbalance: preliminary results	ECO
D20	A. Papadopoulos, Y. Raftoyannis and A. Pantera Fir decline in Greece: a dendroclimatological approach	ECO
D21	N.G. Akinshina and A.A. Azizov Urban greenery monitoring for sustainable urban management	ECO
D22	Z.S. Andreopoulou, A.K. Kokkinakis and T. Pavlidis Sustainable environmental management of running waters ecosystems with a	ECO

¹⁶ MET: Meteorology

¹⁷ MAR: Marine Pollution

¹⁸ ECO: Ecology

	database application	
D23	A.T. Gallis Evaluation of the damage by insect Marchalina Hellenica (Genn.) in Easterh Attica, Greece. Conclusions for the sustainable management of forests ecosystems	ECO
D24	I. Gatsis, S. Koukoulas, A. Vafeiadis and K. Gkoltsiou A rule-based approach for mapping and monitoring of land cover changes in Lesvos (E. Greece), with emphasis in deforestation and olive groves abandonment	ECO
D25	A.A. Hedayati, M. Yavari, M. Bahmani, M. Alizadeh and T. Bagheri Examination reciprocal relationship of blood profile in Great sturgeon (Huso huso) cultured in brackish water condition	ECO
D26	Z. Herseczki and G. Marton Glycerol-based eco-technologies using environmentally benign chemicals	ECO
D27	A. Iatrou and K. Abeliotis Land use impact assessment based on life cycle assessment in protected aeras of ecological network Natura 2000	ECO
D28	M. Karimpour Reihan and F. Amiraslani The evolution of a specified ecosystem in a semi-arid climate (Case study: Razan basin, Iran)	ECO
D29	A.K. Kokkinakis and Z.S. Andreopoulou Decision support for sustainable fishery management in lake ecosystems using production models of commercial fish species	ECO
D30	N. Mashhadi and F. Amiraslani The study of sand sources in order to rehabilitate of desertified ecosystem (Case study: Khartooran Erg, Iran)	ECO
D31	L. Wang, F. Ma and Y. Yang Water status in the replacement of zonic stipa baicalensis by azononic Leymus chinesis in the Songnen Plains of China	ECO
D32	G.C. Zalidis, N.G. Silleos, T.K. Alexandridis, E. Lazaridou, A. Chantzariidou and K. Nikolaou Deriving indicators for monitoring European Ramsar wetlands using Earth Observation: The case study of Delta Axios-Loudias-Aliakmonas, Greece	ECO