



CEST 2013

**13th International Conference on
Environmental Science and Technology (CEST2013)**

5-7 September 2013, Athens, Greece

**organized by: Global Network for Environmental
Science and Technology (Global NEST)**



Final Programme

Under the auspices of:





Prince Sultan Bin Abdulaziz
International Prize for Water

Recognizing Innovation

**Invitation for
Nominations** **6th
Award (2014)**

Nominations open online
until 31 December 2013



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GENERAL INFORMATION

About CEST series

The International Conference on Environmental Science and Technology is one of the worldwide leading environmental conferences. This biennial conference brings together engineers, scientists, researchers, students, managers and other professionals in order to address and discuss emerging environmental issues. The conference is supported by the multi-disciplinary Global NEST (Network of Environmental Science and Technology); an international scientific movement that has been successfully developing for the last 24 years with members from more than 60 countries. The success of this conference reflects the critical environmental topics that are discussed as well as the quality of the presented papers. All the papers that are selected for either oral or poster presentation undergo a review process. As a result of the improving quality of the selected papers in previous conferences, the proceedings of the 7th up to the 12th CEST have been included in databases, such as Science Citation Index (ISI), Scopus, Chemical Abstracts, ASFA and SRCosmos.

Venue

The Conference will take place in Athens, Greece, at the Conference Centre of Divani Caravel Hotel, between 5 - 7 September 2013.

Conference language

The official conference language is English.

Registration fees

The registration fees include the Book of Abstracts, the Conference Proceedings, lunches, beverages, coffees and the official conference dinner.

Authors/Participants 450 € (before 15/7/13)

500 € (after 15/7/13)

Students 300 €

During the Conference, payments of registration fees can be made by cash or credit card at the Secretariat Desk.

Official receipts and invoices can be collected from the Secretariat Desk by pre-registered participants who haven't received them by mail. For on-site payments, authors are informed that the invoices will be posted to the address indicated during registration.

Liability

The Conference fees do not include provisions for the insurance of participants or their accompanying guests against personal injuries, sickness, theft or property damage. Participants are advised to arrange for any insurance they consider necessary. Neither the Conference Organising Committee, nor Scientific and Programme Committee Members assume any responsibility for loss, injury, or damage to persons or belongings, whatever their cause may be.

Programme

CEST2013 Scientific Programme includes 35 sessions, running in 5 parallel rooms, with 312 oral and 158 poster presentations. The conference sessions cover 21 unique scientific topics. The up-to-date programme of each session is posted every morning in front of the respective room or in the respective poster area.

Internet – WiFi

Free WLAN Access is provided in all Conference Rooms (both at Mezzanine Level and 9th Floor).



Refreshments, Lunch & Official Dinner

- **Coffee Breaks** are scheduled from Thursday to Saturday, 11:00 – 11:30 and 17:30 – 18:00 at the foyer of MACEDONIA (Mezzanine level) and in Athens View Room (9th Floor).
- **Lunch Breaks** are scheduled for Thursday and Friday, 14:00 at the foyer of MACEDONIA (Mezzanine level)
- **Conference Dinner** is scheduled for Saturday evening, 21:00 at the pool area (9th Floor).

Conference Hours

- **Registration** at the foyer of MACEDONIA (Mezzanine Level)
Wednesday – 4 September 19:00-21:00.
Thursday – Saturday 8:00 – 20:00
- **Oral and Poster Sessions**
Thursday – Saturday 9:00 – 20:00
Detailed information can be found in the sessions' programme.

Guidelines

Oral presentations

All authors are kindly asked to get to the Conference Rooms 30 minutes before the sessions in order to upload and check their presentations. A lecture room assistant will be available to provide any help.

Duration for oral presentations

15 mins including questions and discussion.

Projection means

Each room will be equipped with:

- An LCD projector and a laptop.

The computers are equipped with Windows XP or later version and Microsoft Office 2010 (Word, Excel, Power Point).

Only USB flash drive can be used.

Speakers who would like to use a special software should contact the Secretariat, at least an hour before the session.

Poster presentations

There are three poster sessions scheduled during CEST2013:

SESSION A - on Thursday 5th of September

SESSION B - on Friday 6th of September

SESSION C - on Saturday 7th of September

The posters' size should be

65 cm wide and 80 cm high – (approx. 8 A4 pages).

For attaching your poster, panels will be at your disposal. Please use the panel that corresponds to your paper_id.

Material for the installation of your poster will be available at the Secretariat desk.

Authors must be available at their display for questions from the participants and discussion regarding their poster.

CONFERENCE SECRETARIAT

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SUPPORTING JOURNALS

A number of presented papers will be considered for inclusion in special issues of the following journals after the peer review process:



Global NEST Journal
Publisher: Global NEST



Journal of Hazardous Materials
Publisher: Elsevier



Chemosphere
Publisher: Elsevier



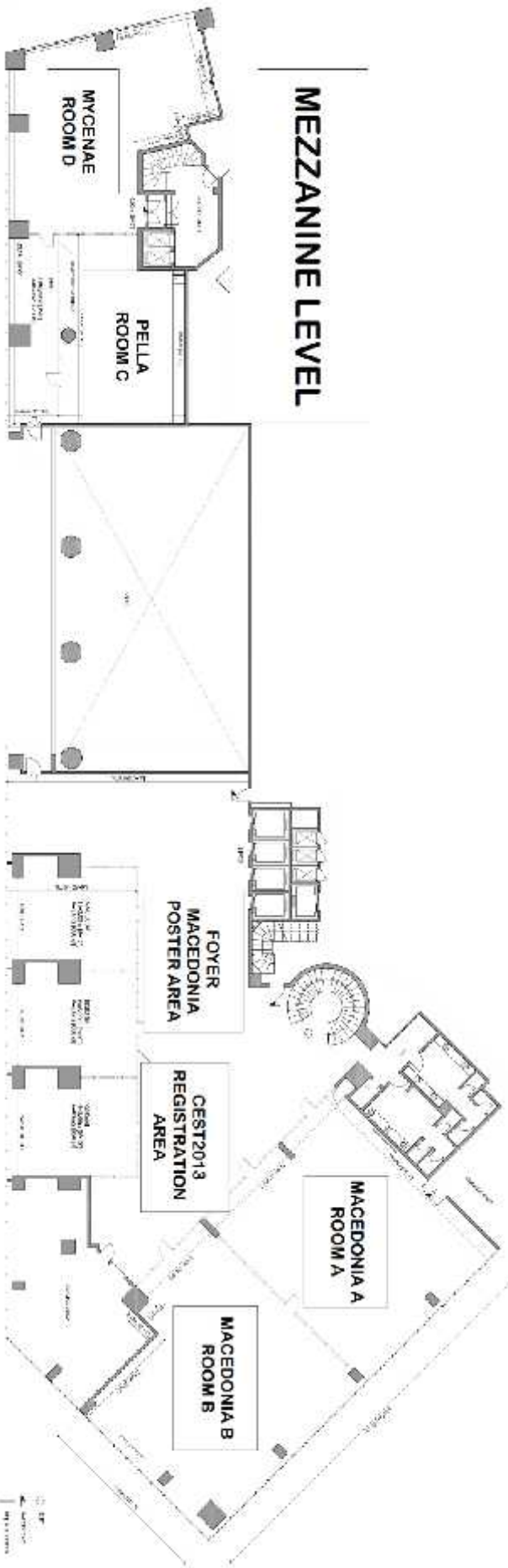
European Water
Publisher: E.W. Publications



Desalination and Water Treatment Science and Engineering
Publisher: Desalination Publications



Waste Management & Research
Publisher: SAGE Journals



Level	Facilities	Rooms
Mezzanine	CEST Secretariat Poster area Coffee & lunch break area WiFi	(A) Macedonia A (B) Macedonia B (C) Pella (D) Mycenaea
9 th Floor	Coffee break area Poster area WiFi Pool - conference dinner	(E) Athens view

CEST 2013 CONFERENCE TIMETABLE						
ROOM						
A	B	C	D	E		
SESSION 1 OPENING Metecora Hall						
SESSION 2 WATER QUALITY	SESSION 3 ORGANIC & INDUSTRIAL SOLID WASTE MANAGEMENT	SESSION 4 SOIL CONTAMINATION & REMEDIATION (1)	SESSION 5 CLEAN ENERGY & SUSTAINABILITY (1)	SESSION 6 EMERGING POLLUTANTS (1)		
SESSION 7 DROUGHT AND WATER SCARCITY	SESSION 8 SOLID WASTE MANAGEMENT	SESSION 9.1 SOIL CONTAMINATION & REMEDIATION (2) SESSION 9.2 ECOLOGICAL AND ECOSYSTEMS MANAGEMENT (1)	SESSION 10 CLEAN ENERGY & SUSTAINABILITY (2)	SESSION 11 EMERGING POLLUTANTS (2)		
SESSION 12 HYDROLOGY & WATER RESOURCES MANAGEMENT	SESSION 13 INNOVATIONS IN CHEMICALS & PROCESSES FOR WATER TREATMENT	SESSION 14 MARINE ENVIRONMENT AND COASTAL MANAGEMENT	SESSION 15.1 ECOLOGY & ECOSYSTEMS MANAGEMENT (2) SESSION 15.2 AIR POLLUTION (1)	SESSION 16 EMERGING POLLUTANTS (3)		
SESSION 17 CATCHMENT HYDROLOGY	SESSION 18.1 MODELING AND AUTOMATIC CONTROL IN WATER TREATMENT SESSION 18.2 WASTEWATER TREATMENT II	SESSION 19 HEALTH AND ENVIRONMENT	SESSION 20 AIR POLLUTION (2)	SESSION 21 EMERGING POLLUTANTS (4)		
SESSION 22 ENVIRONMENTAL PLANNING, MANAGEMENT & POLICIES (1)	SESSION 23 WASTEWATER TREATMENT (2)	SESSION 24 HEXAVALENT CHROMIUM IN THE GENEVA ENVIRONMENT: OCCURRENCE & REMEDIATION (1)	SESSION 25 CLIMATE CHANGE & ENVIRONMENTAL DYNAMICS	SESSION 26 ADVANCED OXIDATION PROCESSES (AOPs)		
SESSION 27 ENVIRONMENTAL PLANNING, MANAGEMENT & POLICIES (2)	SESSION 28 WASTEWATER TREATMENT (3)	SESSION 29 HEXAVALENT CHROMIUM IN THE GENEVA ENVIRONMENT: OCCURRENCE & REMEDIATION (2)	SESSION 30 AIR POLLUTION (3)	SESSION 31 BIOMONITORING		
16:00 - 17:30	09:00 - 13:30	16:00 - 19:45	09:00 - 14:00	16:00 - 19:45	11:45 - 13:30	09:00 - 11:15
THURSDAY 5 SEPTEMBER 2013						
FRIDAY 6 SEPTEMBER 2013						
SATURDAY 7 SEPTEMBER 2013						
SESSION 32 CLOSING SESSION Metecora Hall					MEETING OF THE HELLENIC WATER ASSOCIATION (in Greek)	
POSTER AREA						
POSTER SESSION 1 CLEAN ENERGY & SUSTAINABILITY SOLID WASTE MANAGEMENT SOIL CONTAMINATION & REMEDIATION WATER QUALITY						
POSTER SESSION 2 WATER RESOURCES MANAGEMENT AIR POLLUTION ECOLOGY AND ECOSYSTEMS MANAGEMENT EMERGING POLLUTANTS (6 th hour) HEALTH AND THE ENVIRONMENT INNOVATIONS IN CHEMICALS PROCESSES FOR WATER TREATMENT MARINE ENVIRONMENT & COASTAL MANAGEMENT						
POSTER SESSION 3 ADVANCED OXIDATION PROCESSES (AOPs) BIOMONITORING CLIMATE CHANGE & ENVIRONMENTAL DYNAMICS ENVIRONMENTAL PLANNING, MANAGEMENT & POLICIES WASTEWATER TREATMENT						

PREVIOUS CEST CONFERENCES

- 1st Conference on Environmental Science and Technology, CEST1989**
September 1989, Mytilene, Lesvos, Greece
- 2nd Conference on Environmental Science and Technology, CEST1991**
2-5 September 1991, Molyvos, Lesvos, Greece
- 3rd Conference on Environmental Science and Technology, CEST1993**
6-9 September 1993, Molyvos Lesvos, Greece
- 4th Conference on Environmental Science and Technology, CEST1995**
4-7 September 1995, Molyvos, Lesvos, Greece
- 5th Conference on Environmental Science and Technology, CEST1997**
1-4 September 1997, Molyvos, Lesvos, Greece
- 6th Conference on Environmental Science and Technology, CEST1999**
30 August-2 September 1999, Pythagorion, Samos, Greece
- 7th Conference on Environmental Science and Technology, CEST2001**
3-6 September 2001, Hermoupolis, Syros covered by ISI Proceedings
- 8th Conference on Environmental Science and Technology, CEST2003**
8-10 September 2003, Lemnos Island Greece covered by ISI Proceedings
- 9th Conference on Environmental Science and Technology, CEST2005**
1-3 September 2005, Rhodes Island, Greece covered by ISI Proceedings
- 10th Conference on Environmental Science and Technology, CEST2007**
5-7 September 2007, Cos Island, Greece covered by ISI Proceedings
- 11th Conference on Environmental Science and Technology, CEST2009**
3-5 September 2009, Chania, Crete, Greece covered by ISI Proceedings
- 12th Conference on Environmental Science and Technology, CEST2011**
8-10 September 2011, Rhodes Island, Greece covered by ISI Proceedings

Conference proceedings

ISSN Series Number: 1106 – 5516

Full text for all previous Conferences available at www.srcosmos.gr

DETAILED PROGRAMME

ORAL PRESENTATIONS

Session 1 – OPENING

Thursday 5 September 2013 - morning

MACEDONIA HALL

Chairs: **Helmis C.G., Lekkas T.D., Belgiorno V.**

9:00 – 9:15 Welcome

9:15 – 09:45 [694] **Kannan K. and Ma J.**

Novel halogenated hydrocarbons in environmental samples and associated human exposures in e-waste recycling facilities in China

09:45 – 10:15 [841] **van Lanen H.A.J.**

Drought and water scarcity

10:15 – 10:45 [840] **Kannen A.**

Increasing use intensity in marine areas - current developments, new perspectives and challenges for marine planning and management

10:45 – 11:15 **Abdulmalek A. Al Alsheikh**

Prince Sultan Bin Abdulaziz International Prize for Water - Recognizing Innovation

Coffee break

Session 2 - WATER QUALITY

Thursday 5 September 2013 - morning

ROOM A - MACEDONIA A

Chairs: **Golfinopoulos S., Andrzejewski P.**

11:45 – 12:00 [197] **Ashekuzzaman S.M. and Jiang J-Q.**

Preparation and evaluation of layered double hydroxides (LDHs) for phosphate removal

12:00 – 12:15 [206] **Byrne P., Zhang H., Heathwaite L., Binley A., Ullah S., Kaeser D., Heppell K., Lansdown K. and Trimmer M.**

Passive pore water sampling provides evidence of suppression of hyporheic exchange and nitrate transformation in a groundwater-fed river

12:15 – 12:30 [332] **Andrzejewski P., Nikolaou A., Golfinopoulos S. and Garcia-Consuegra L.U.**

Precursors of NDMA and THMs: Occurrence in raw water

12:30 – 12:45 [839] **Babi K.G., Koumenides K.M., Makri C.A., Nikolaou A.D. and Lekkas T.D.**

THMs and HAAs formation under real conditions in chlorinated drinking water of Athens, Greece

12:45 – 13:00 [392] **Cleary J., Cogan D., Phelan T. and Diamond D.**

Microfluidic analyser for pH in water and wastewater

- 13:00 – 13:15 [413] **Yilmaz N., Ozyigit I.I., Demir G. and Yalcin I.E.**
Determination of phytoplankton density, some nutrients and heavy metals in the surface water of Riva stream; one of the water resources of Istanbul, Turkey

Lunch Break

Session 3 - ORGANIC AND INDUSTRIAL SOLID WASTE MANAGEMENT

Thursday 5 September 2013 - morning

ROOM B - MACEDONIA B

Chairs: **Gidakos E., Xenidis A.**

- 11:45 – 12:00 [094] **Kolokolova O.N., Levi T. and Pang S.**
Torrefaction and pyrolysis of biomass waste in continuous reactors
- 12:00 – 12:15 [259] **Hahladakis J., Maragkos K. and Gidakos E.**
Heavy metals in parts of waste cellular phones. Are the RoHS directive compliance regulations met?
- 12:15 – 12:30 [458] **Tzanakos K., Mimilidou A., Anastasiadou K., Stratakis A. and Gidakos E.**
Synthesis and heavy metal immobilization behaviors of medical waste ash based geopolymer
- 12:30 – 12:45 [490] **Cruz-Bournazou M.N., Kielhorn E., Ertem F.C., Neubauer P. and Junne S.**
Multiposition monitoring for improved biogas production based on biowaste utilization
- 12:45 – 13:00 [528] **Dareioti M.A., Vgenis T.T., Vavouraki A.I. and Kornaros M.**
Assessment of methane production from typical western Greece agro-industrial wastes
- 13:00 – 13:15 [838] **Popko M., Wilk R., Gorecka H., Chojnacka K. and Gorecki H.**
New NKSMg fertilizer from feather hydrolysate: Pot experiments
- 13:15 – 13:30 [603] **Ceaser M.A.**
Lighting the future for mercury waste disposal

Lunch Break

Session 4 - SOIL CONTAMINATION AND REMEDIATION (1)

Thursday 5 September 2013 - morning

ROOM C - PELLA

Chairs: **Papasiopi N., Dermatas D.**

- 11:45 – 12:00 [815] **Theologou E., Panagiotakis I., Dermatas D., Chrysochoou M. and Toskos T.**
Remediation technologies for hexavalent chromium contaminated aquifers
- 12:00 – 12:15 [455] **Papadopoulos A., Papadopoulos F., Tziachris P., Metaxa I. and Iatrou M.**
Specific agricultural soil management with the use of new technologies

- 12:15 – 12:30 [308] **Lortzie K., Stylianou M. and Kostarelos K.**
Assessment of environmental pollution at the abandoned gold-silver enrichment plant in Mitsero, Cyprus
- 12:30 – 12:45 [51] **Benzagouta M.S.**
Investigation on surface and subsurface fluid migration: Environmental Impact
- 12:45 – 13:00 [440] **Bacchetta G., Cappai G., Carucci A. and Tamburini E.**
Use of native plants for the remediation of abandoned mine sites in Mediterranean semiarid environments
- 13:00 – 13:15 [129] **Binsadiq A.R.H.**
Fungal biodegradation of diesel by *Ulocladium atrum*
- 13:15 – 13:30 [568] **Kandris K., Antoniou K., Pantazidou M. and Mamais D.**
Modelling trichloroethene metabolic reductive dechlorination by a mixed anaerobic culture at non-limiting electron donor concentrations

Lunch Break

Session 5 - CLEAN ENERGY AND SUSTAINABILITY (1)

Thursday 5 September 2013 - morning

ROOM D - MYCENAE

Chairs: Lyberatos G., San Miguel G.

- 11:45 – 12:00 [196] **Stergiopoulou A., Stergiopoulos V. and Kalkani E.**
Contributions to the study of hydrodynamic behaviour of innovative archimedean screw turbines recovering the hydropotential of watercourses and of coastal currents
- 12:00 – 12:15 [49] **Lelaki A., Soulios V., Vagiona D. and Koutitas G.**
Towards energy independence in the city of Veria, Greece
- 12:15 – 12:30 [195] **Anagnostou C., Papamastoraki-Augoustaki D. and Vagiona D.**
Moving towards to energy self-sufficiency: the case study of Chania (Crete - Greece)
- 12:30 – 12:45 [85] **Alexandropoulou M., Antonopoulou G. and Lyberatos G.**
Fermentative hydrogen production from food-industry wastes
- 12:45 – 13:00 [126] **Dounavis A., Ntaikou I. and Lyberatos G.**
Biohydrogen production from crude glycerol using immobilized acidogenic cultures: effect of substrate concentration on conversion efficiency and yields
- 13:00 – 13:15 [15] **Melouki M., Adnane M., Hamzaoui S. and Chaumont D.**
Realization and characterization of thin films SnO_2 , TiO_2 for solar cell Gratzel type
- 13:15 – 13:30 [147] **Gaidajis G. and Angelakoglou K.**
Carbon footprint and energy assessment of a medium sized municipality in Greece

Lunch Break

Session 6 - EMERGING POLLUTANTS (1)**Thursday 5 September 2013 – morning****ROOM E – ATHENS VIEW (9th FLOOR)****Chairs: Hollender J., Thomaidis N.S.**

- 11:45 – 12:15 **Invited speaker [818] Hollender J.**
Fate of polar micropollutants in conventional and advanced wastewater treatment: from target to non-target LC-HRMS/MS screening
- 12:15 – 12:30 [706] **Vergeynst L., van Langenhove H., Joos P. and Demeestere K.**
Target quantification of pharmaceuticals in surface water by large-volume injection liquid chromatography and time-of-flight mass spectrometry: challenges, practical solutions and applicability
- 12:30 – 12:45 [693] **Weiss J., Baginska E., Lutterbeck C., Bolek R., Boireau V., Roig B. and Lamoree M.**
Formation of stable transformation products of pharmaceuticals in the water treatment cycle
- 12:45 – 13:00 [718] **Rostkowski P., Haglund P., Dye C. and Schlabach M.**
Non-target screening of environmental samples by Low and High Resolution Time of Flight Mass Spectrometry (TOF-MS)
- 13:00 – 13:15 [689] **Borova V.L., Pistos C. and Thomaidis N.S.**
Determination and occurrence of new designer drugs in wastewater samples by LC-(QqQ)MS/MS

*Lunch Break***Session 7 - DROUGHT AND WATER SCARCITY****Thursday 5 September 2013 – afternoon****ROOM A - MACEDONIA A****Chairs: van Lanen H.A.J., Loukas A.**

- 16:00 – 16:15 [83] **Stana O. and Halbac-Cotoara-Zamfir R.**
An analysis of water scarcity phenomenons and water demands for agricultural areas from western part of Romania using different programs
- 16:15 – 16:30 [144] **Susnik J., Vamvakeridou-Lyroudia L.S., Savic D.A. and Kapelan Z.**
Integrated systems modelling of the water-agricultural sector in Rosetta, Egypt: planning for future water shortages
- 16:30 – 16:45 [167] **Gain A.K. and Giupponi C.**
A dynamic assessment of water scarcity risk and climate change adaptation in the lower Brahmaputra river basin
- 16:45 – 17:00 [255] **De Stefano L., Urquijo J., Kampragkou E. and Assimacopoulos D.**
Lessons learnt from the analysis of past drought management practices in selected european regions: experience to guide future policies

- 17:00 – 17:15 [269] **van Loon A.F. and van Lanen H.A.J.**
How to distinguish between drought and water scarcity? Use an observation-modelling framework!
- 17:15 – 17:30 [304] **Verbeiren B., Huysmans M., Tychon B., Jacquemin I., Canters F., Vanderhaegen S., Engelen G., Poelmans L., De Becker P., Tsakiris G., Vangelis H. and Batelaan O.**
Drought-related vulnerability and risk assessment of groundwater resources under temperate conditions
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [318] **Longobardi A. and Villani P.**
Water resources management in scarcity conditions: FDC variability analysis implication on environmental streamflow requirements
- 18:15 – 18:30 [381] **Zhao L., Lu A., Wu J., Hayes M., Tang Z. and He B.**
The impact of meteorological drought on streamflow in the Jinghe River Basin of China
- 18:30 – 18:45 [445] **Magno R., Angeli L., Chiesi M., Pasqui M., Rocchi L. and Zabini F.**
Development of a system for monitoring and forecasting drought events over Tuscany region
- 18:45 – 19:00 [555] **Karavitis C.A., Alexandris S.G., Fassouli V.P., Stamatakos D.V., Vasilakou C.G., Tsesmelis D.E. and Skondras N.A.**
Assessment of meteorological drought statistics and patterns in central Greece
- 19:00 – 19:15 [644] **Vasiliades L. and Loukas A.**
An operational drought monitoring system using spatial interpolation methods for Pinios river basin, Greece

Session 8 - SOLID WASTE MANAGEMENT

Thursday 5 September 2013 – afternoon

ROOM B - MACEDONIA B

Chairs: **Lasaridi K., Komilis D., Dermatas D., Abeliotis K.**

- 16:00 – 16:15 [842] **Lekkas T.D., Razis Y. and Komis L.**
Trends in recycling
- 16:15 – 16:30 [826] **Dimitriou G. and Papadopoulou M.P.**
Map pollution in an uncontrolled solid waste dumpsite: The impacts of a metro infrastructure facility in the improvement of soil and water resources
- 16:30 – 16:45 [363] **Lasaridi K., Chroni C., Zorpas A.A., and Abeliotis K.**
Waste prevention: From concept to practice
- 16:45 – 17:00 [499] **Zorpas A.A., Lasaridi K., Voukkali I., Abeliotis K., Loizia P., Fitiri L., Trisokka V., Chroni C., Fanou K., Pyrilli D., Goumenou P. and Georgiou A.**
Development of waste prevention campaign in the Waste Framework Directive from Paralimni Municipality which based in the Eastern region of Cyprus

- 17:00 – 17:15 [361] **Abeliotis K., Lasaridi K., Chroni C. and Zorpas A.A.**
Environmental assessment of waste prevention activities
- 17:15 – 17:30 [130] **Grimes S.M. and Lateef H.**
Recovery of chondroitin sulphate and hyaluronic acid from simulated scallop gut waste using ionic liquid methodology.
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [231] **Evangelou A., Kotsiari E., Gerassimidou S., Mavrakis N. and Komilis D.**
Monitoring the performance of two municipal solid waste mechanical and biological pretreatment facilities in Greece
- 18:15 – 18:30 [238] **Liogkas V. and Komilis D.**
Full cost accounting of municipal solid waste management facilities in Greece
- 18:30 – 18:45 [498] **Zorpas A.A., Lasaridi K., Abeliotis K., Voukkali I., Loizia P., Fitiri L., Trisokka V., Chroni C., Fanou K., Pyrilli D., Goumenou P. and Georgiou A.**
Municipal solid waste compositional analysis from a municipality in Cyprus regarding the waste framework directive; development of a waste minimization plan.
- 18:45 – 19:00 [358] **Mancini I.M., Masi S., Zirpoli P., Amodeo C. and Caniani D.**
Modelling of aerobic reactors for landfill methane oxidation
- 19:00 – 19:15 [512] **Nikolaou A., Giannis A. and Gidarakos E.**
Bioreactor landfill application for sequential aerobic-anaerobic treatment of municipal solid waste
- 19:15 – 19:30 [587] **Rada E.C., Ragazzi M. and Bugna S.**
Odorous impact from composting plant: biofilter versus RTO
- 19:30 – 19:45 [761] **Vavva C., Voutsas E. and Tassios D.**
Environmental management of fly ash produced from the incineration of municipal solid waste

Session 9.1 - SOIL CONTAMINATION AND REMEDIATION (2)**Thursday 5 September 2013 – afternoon****ROOM C - PELLA****Chairs: Kostarelos K., Panagiotakis I.**

- 16:00 – 16:15 [340] **Lukman S., Essa M.H., Mu'azu N.D. and Bukhari A.**
Coupled electrokinetics-adsorption technique for simultaneous removal of heavy metals and organics from saline-sodic soil
- 16:15 – 16:30 [636] **Antoniou K., Panagiotakis I., Mamais D. and Pantazidou M.**
Hydrogen addition for reductive dechlorination of trichloroethylene
- 16:30 – 16:45 [735] **Nocita M., Stevens A., Toth G., van Wesemael B. and Montanarella L.**
Prediction of soil organic carbon content by spectroscopy at European scale using a local partial least square regression approach

- 16:45 – 17:00 [677] **Haynes R.J. and Liu Y-Y.**
Effects of irrigation of dairy factory effluent onto land on soil properties
- 17:00 – 17:15 [50] **Aytekin M. and Akcanca F.**
Hydraulic conductivity of lime stabilized sand-bentonite mixtures for sanitary liners
- 17:30 – 18:00 *Coffee break*

Session 9.2 - ECOLOGY AND ECOSYSTEMS MANAGEMENT (1)**Thursday 5 September 2013 – afternoon****ROOM C - PELLA****Chairs: Varnavas S.P., Gidakos E.**

- 18:00 – 18:15 [209] **Georgopoulou I.A., Kalivas D.P. and Petropoulos G.P.**
Urban vegetation cover extraction from hyperspectral remote sensing imagery and GIS-based spatial analysis techniques: The case of Athens, Greece
- 18:15 – 18:30 [251] **Papavasileiou V., Xanthakou P., Tzaberis N., Matzanos D., Papadomarkakis I. and Nikolarea E.**
Natural resources management and sustainable development
- 18:30 – 18:45 [257] **Hahladakis J., Smaragdaki E., Vasilaki G. and Gidakos E.**
Partitioning and ecological risk assessment of heavy metals in surficial sea and lake sediments
- 18:45 – 19:00 [116] **Ioakeimidis S. and Kaimaris D.**
Observation of the changes and the degradation of the forests after the fire with the use of remote sensing and GIS: Study of the suburban forest of Seich-Sou, Thessaloniki, Greece
- 19:00 – 19:15 [679] **Laspidou C.S.**
Grey water footprint of crops and crop-derived products: analysis of weaknesses and sensitivity in calculation method
- 19:15 – 19:30 [389] **Franceschini S. and Pansera M.**
Efficiency vs. conservation? Competing framings and the future of the lighting industry

Session 10 - CLEAN ENERGY AND SUSTAINABILITY (2)**Thursday 5 September 2013 – afternoon****ROOM D - MYCENAE****Chairs: San Miguel G., Rincón S.L, Petrakopoulou F.**

- 16:00 – 16:15 [653] **Carotenuto C., Di Natale F., D'Addio L., Lancia A., Szudyga M., Krupa A., Jaworek A., Gregory D., Jackson M., Volpe P., Cimino S., Lisi L., Beleca R., Mannivannan N., Abbod M. and Balachandran W.**
A new retrofit system for the control of atmospheric emissions of marine diesel engines

- 16:15 – 16:30 [288] **Kondili E., Papapostolou C., Pantemi G. and Kaldellis J.K.**
Energy and environmental education in Greek secondary education: Highlights, prospects and expectations
- 16:30 – 16:45 [322] **Tsioptsia H. and Stergiadou A.**
Infrastructure works and geometrical declinations of them based on the requirements of the law in wind farm
- 16:45 – 17:00 [344] **Marquardt J.**
Transition towards sustainable energy systems: The role of development cooperation in a multi-level environment
- 17:00 – 17:15 [356] **Cesaro A., Velten S., Belgiorno V. and Kuchta K.**
Ultrasonic pretreatment of DDGS for anaerobic digestion
- 17:15 – 17:30 [426] **Corona B. and San Miguel G.**
Environmental assessment of concentrating solar power (CSP) technology using LCA
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [436] **Sanginés P., San Miguel G. and Dominguez M.P.**
Slow pyrolysis of olive stones in a rotary kiln: Characterization of solid, gas and condensable products
- 18:15 – 18:30 [443] **Naranjo S., San Miguel G. and Sanz F.**
Compatibility of fast pyrolysis bio-oil/biomethanol blends with plastic polymers
- 18:30 – 18:45 [460] **Rincón S.L., Gómez A.G., and Aragonéz M.P.**
Pyrolysis of sewage sludge from the wastewater treatment plant in Bogotá (Colombia)
- 18:45 – 19:00 [464] **Dodos G.S., Stamatou G. and Zannikos F.**
Biodiesel production from lunaria oil (*L. Annu*)
- 19:00 – 19:15 [521] **Basarir A. and Arman H.**
Sustainable development and environmental Kuznets curve in GCC Countries
- 19:15 – 19:30 [277] **Ghiasvand Ghaisy F.F., Hosseini S.J.F. and Soltani Z.**
Investigating the role of solar energy to protecting and revitalization of pastures in dry region

Session 11 - EMERGING POLLUTANTS (2)**Thursday 5 September 2013 – afternoon
ROOM E – ATHENS VIEW (9th FLOOR)****Chairs: Tsipi D., Stasinakis A.**

- 16:00 – 16:15 [27] **Botitsi H., Garbis S. and Tsipi D.**
Occurrence and fate of pharmaceuticals and their metabolites in aquatic environment by combination NanoESI-QqTOF-MS/MS and LC-MS/MS

- 16:15 – 16:30 [717] **Gago-Ferrero P., Demeestere K, Díaz-Cruz M.S. and Barceló D.**
Effect of process parameters and identification of intermediate products during advanced oxidation of benzophenone-3 in water
- 16:30 – 16:45 [703] **van Doorslaer X., Demeestere K., Heynderickx P.M., Caussyn M., van Langenhove M., Devlieghere F., Vermeulen A. and Dewulf J.**
Photocatalytic degradation of the antibiotic moxifloxacin: a deeper look at the degradation products and residual antibacterial activity
- 16:45 – 17:00 [446] **Fotiou T., Triantis T.M., Kaloudis T. and Hiskia A.**
Photocatalytic degradation of cylindrospermopsin under UV-A, solar and visible light in the presence of TiO₂ based nanomaterials
- 17:00 – 17:15 [270] **Kolodziejaska M., Maszkowska J., Bialk-Bielinska A., Kumirska J. and Stepnowski P.**
A comprehensive approach to the determination of six veterinary pharmaceuticals in environmental samples
- 17:15 – 17:30 [272] **Caban M., Mioduszewska K., Lukaszewicz P., Stepnowski P., Kwiatkowski M. and Kumirska J.**
Dimetris (dimethyl(3,3,3-trifluoropropyl)silyldiethylamine) – a new silylating agent for determination of drugs residues in environmental samples
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [656] **Mazioti E.A., Stasinakis A.S. and Thomaidis N.S.**
Biodegradation and sorption of benzotriazoles and benzothiazoles in activated sludge systems
- 18:15 – 18:30 [676] **Kasiotis M.K., Papadi-Psyllou A., Emmanouil C., Anastasiadou P., Okay O. and Machera K.**
Bivalves organic pollution along eastern Mediterranean coasts
- 18:30 – 18:45 [640] **Chavan M., Thacker N., Tarar J. L. and Gandhi K.**
Monitoring the water quality for organochlorine pesticides in the area of intensive agriculture activity of Nagpur district, India.

Session 12 - HYDROLOGY AND WATER RESOURCES MANAGEMENT**Friday 6 September 2013 – morning****ROOM A - MACEDONIA A****Chairs: Baltas E., Tsihrintzis V.A**

- 9:00 – 9:15 [109] **Ruffino B., Fiore S., Cedrino A., Giacosa D., Meucci L. and Genon G.**
Tracer studies at a full-scale lagoon used as pre-treatment facility for a water treatment plant

- 9:15 – 9:30 [142] **Chondrogiannis S., Tzimopoulos C. and Evangelides C.**
Optimizing the pressurized irrigation networks using fuzzy linear and dynamic programming
- 9:30 – 9:45 [143] **Tzimopoulos C., Zormpa D. and Evangelides C.**
Multiple criteria decision making using Vikor method. Application in irrigation networks in the Thessaloniki plain
- 9:45 – 10:00 [189] **Tzimopoulos C., Balioti V. and Evangelides C.**
Fuzzy multi-criteria decision making method for dam selection
- 10:00 – 10:15 [192] **Siarkos I., Kakoudakis K. and Latinopoulos D.**
Modelling the groundwater flow for estimating the pumping cost of irrigation in the aquifer of N. Moudania, Greece
- 10:15 – 10:30 [215] **Papatriantafyllou E. and Makropoulos C.**
Developing roadmaps for the sustainable management of the urban water cycle: the case of WW reuse in Athens
- 10:30 – 10:45 [217] **Tsoukalas I. and Makropoulos C.**
Hydrosystem optimization with the use of evolutionary algorithms: the case of Nestos river
- 10:45 – 11:00 [302] **Lavers A.**
Criteria for achieving integrated water resource management: A critical review.
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 [372] **Poulos S.E., Alexopoulos I., Dassenakis M., Kotsopoulos S., Lazogiannis K., Matiatos I., Paraskevopoulou V., Sifnioti D.E., Ghionis G., Alexiou I. and Panagopoulos A.**
An investigation of the impact of the climate change on River deltas: Case study: The delta of R. Pinios (Thessaly, Greece) – Concept and preliminary results on surface water environmental state
- 11:45 – 12:00 [341] **Keramaris E., Pechlivanidis G.I., Pechlivanidis I.G. and Samaras G.A.**
The impact of lateral walls on the velocity profile in an open channel using the PIV method
- 12:00 – 12:15 [382] **Susnik J., Vamvakeridou-Lyroudia L.S., Gebert N., Kloos J., Renaud F., La Jeunesse I., Mabrouk B., Savic D.A., Kapelan Z., Ludwig R., Fischer G., Roson R. and Zografos C.**
Interdisciplinary assessment of water-related climate change impacts on the lower Nile river, Egypt: Lessons from three complementary projects
- 12:15 – 12:30 [710] **Wei Y., Vannier R.G., Robinson A.M., Geisy J.P., Kannan K., Bradley P.W., Voice T.C. and Long D.T.**
Regional analysis of temporal trends of concentrations of polychlorinated biphenyl in lake sediments

- 12:30 – 12:45 [581] **Gkinidi P., Tzimopoulos C., Yannopoulos S. and Evangelides C.**
Water resources management in the watershed Koronia using fuzzy linear programming
- 12:45 – 13:00 [645] **Loukas A., Zagoriti K., Mylopoylos N., Vasiliades L. and Sidiropoulos P.**
Lake Karla aquifer's response to climate variability and change and human intervention
- 13:00 – 13:15 [652] **Tsihrintzis V.A. and Baltas E.**
Sizing of rainwater harvesting tank for in-house water supply
- 13:15 – 13:30 [749] **Bozan C. S., Korospartis J., Pasztor L. and Palfai I.**
Excess water hazard mapping on the South Great Hungarian Plain
- 13:30 - 13:45 [488] **Butts M.B., Buontempo C., Lørup J.K., Williams K., Mathison C., Riegels N.D., Jessen O.Z., Glennie P., McSweeney C., Wilson M., Jones R. and Seid A. H.**
Developing a regional methodology for climate adaptation in the Nile basin
- 13:45 – 14:00 [105] **Murad A.A., Mahmoud S., Arman H., Baker H., Al Bloushi K. and Gabr A.**
Hydrogeological investigation for delineating drillings sites for artificial recharge wells to aquifer for groundwater sustainability along Wadi Al Ain in the United Arab Emirates

Lunch Break

Session 13 - INNOVATIONS IN CHEMICALS AND PROCESSES FOR WATER TREATMENT

Friday 6 September 2013 – morning

ROOM B - MACEDONIA B

Chairs: Jiang J-Q., Stasinakis A. S.

- 9:00 – 9:15 [331] **Jiang J-Q., Durai H.B.P., Winzenbacher R. and Petri M.**
Drinking water treatment by in-situ generated ferrate (VI)
- 9:15 – 9:30 [65] **Bakr A.A. and Makled W.A.**
New pretreatment media-filtration for SWRO membranes of desalination plants
- 9:30 – 9:45 [75] **Tarpagkou R., Pantokratoras A. and Papadakis N.**
The influence on the flow field and performance of a sedimentation tank for potable water treatment due to low (winter) and high (summer) temperatures
- 9:45 – 10:00 [275] **Ubal dini S., Luptakova A., Macingova E., Fornari P. and Pizzichemi P.**
Innovative biohydrometallurgical processes for decontamination of acid mine drainage
- 10:00 – 10:15 [385] **Kaprara E., Simeonidis K., Zouboulis A.I. and Mitrakas M.**
Evaluation of current treatment technologies for Cr(VI) removal from water sources at sub-ppb levels
- 10:15 – 10:30 [621] **Roccaro P., Lombardo G. and Vagliasindi F.G.A.**
Removal of hydrocarbons from hypersaline water by adsorption on GAC and offline bioregeneration of the saturated carbon

- 10:30 – 10:45 [810] **Rocha S.D.F., Ribeiro M.V., Santos A.L.A., Silva L. and Borba R. P.**
Defluoridation of water by nature and acidic washer bonechar
- 10:45 – 11:00 [329] **Zarpon F., Galiotto D., Carli L.N., Crespo J.S. and Giovanela M.**
Thin films of PAH/PAA decorated with silver nanoparticles as a potential bactericidal agents in the microbiological treatment of industrial wastewater
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 [733] **Jiang J-Q.**
Removal of emerging micro pollutants by Ferrate (VI)
- 11:45 – 12:00 [729] **Idowu I.A., Atherton W. and Al Khaddar R.**
The fate and transportation of Mecoprop-p from leachate on water quality across North West England
- 12:00 – 12:15 [280] **Demadis K.D. and Preari M.**
“Green” scale inhibitors in water treatment processes: The case of silica scale inhibition
- 12:15 – 12:30 [508] **Bilardi S., Calabrò P.S. and Moraci N.**
Simultaneous removal of Cu^{II}, Ni^{II}, and Zn^{II} by a granular mixture of ZVI and Pumice in column systems
- 12:30 – 12:45 [226] **Yan C. Z. and Xue P. Y.**
Copper accumulation, tolerance and release by a submerged aquatic plant *Myriophyllum spicatum* L.
- 12:45 – 13:00 [362] **Lee D.E., Kweon J.H., Lee K.Y. and Park K.Y.**
Effects of fine particles on performance of enhanced backwash for fouling reduction in anaerobic membrane bioreactors
- 13:00 – 13:15 [622] **Roccaro P. and Vagliasindi F.G.A.**
Coprecipitation of vanadium in natural water with iron (hydr)oxides
- 13:15 - 13:30 [281] **Koo C.H., Mohammad A.W., Suja F. and Meor Talib M.Z.**
Comparison of nanofiltration and reverse osmosis membranes performance subject to crossflow velocity effect during filtration of humic acids
- 13:30 – 13:45 [202] **Angelakis A.N.**
Evolution of rainwater harvesting and use in Crete, Hellas through the Millennia

Lunch Break

Session 14 - MARINE ENVIRONMENT AND COASTAL MANAGEMENT

Friday 6 September 2013 – morning

ROOM C - PELLA

Chairs: Karydis M., Stamou A.I.

- 9:00 – 9:15 [820] **Papoutsoglou E. S.**
Environmental technology of fish farming

- 9:15 – 9:30 [61] **Karydis M.**
Design, variable selection and data analysis in environmental marine monitoring
- 9:30 – 9:45 [84] **Zakikhani M., Harrelson D.W., Kissane J. A., Allis M.K., Kolber J. and Tom J. G.**
Management software for protection of the Great Lakes coastal navigation areas
- 9:45 – 10:00 [300] **Ovezikoglou P., Ladakis M., Paraskevopoulou V. and Dassenakis M.**
Assessing the effectiveness of the management of the national marine park of Alonisos in North Sporades islands
- 10:00 – 10:15 [301] **Ladakis M., Botsou F., Rousselaki E., Ovezikoglou V., Petrocheilou M. and Dassenakis M.**
Levels and distribution of heavy metals and TOC in the surface sediments of the bay of Souda
- 10:15 – 10:30 [417] **Nastos P.T., Sifnioti D.E., Poulos S.E. and Soukissian T.H.**
Seasonal synoptic composite means of the surface vector wind speed associated with high sea waves in the Eastern Mediterranean
- 10:30 – 10:45 [472] **Petsas A., Vagi M., Nikolaou A.D. and Kostopoulou M.**
Trends in the analysis of pollutant transformation products in the marine environment
- 10:45 – 11:00 [520] **Monemvasioti K. and Tsoukala V.K.**
A sustainable management of Zakynthos marine national park, using environmental indicators analysis
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 [632] **Nikiforakis I.K., Christodoulou G.C. and Stamou A.I.**
Spreading of vertical dense jets on a sloping bottom: Concentration measurements
- 11:45 – 12:00 [700] **Stamou A.I., Otay E.N., Tsoukala V.K., Copty N., Karakoc F.T., Christodoulou G., Papadopoulos A., Papadonikolaki G. and Altan Y.C.**
Risk assessment of oil spill accidents. Part 1: presentation of the methodology
- 12:00 – 12:15 [827] **Otay E.N., Stamou A.I., Altan Y.C., Papadonikolaki G., Copty N., Christodoulou G., Karakoc F.T., Tsoukala V.K., Koutsoyiannis D. and Papadopoulos A.**
Risk assessment of oil spill accidents. Part 2: Application to Saronikos gulf and Izmir bay
- 12:15 – 12:30 [819] **Velegrakis A.F., Monioudi I.N., Poulos S.E., Lekkas D.F., Hatzopoulos J.N., Hasiotis Th., Karambas Th., Kontogianni A., Vousedoukas M.I., Andreadis O., Rigos A., Tsekouras G., Psarros F., Ghionis G., Karditsa A., Chatzipavlis A., Anastasiadis S., Kokkoris G, Petrakis S., Tsimplis M.N., Peduzzi P. and Collins M.B.**
Physical and economic impacts of sea level changes on the island beaches of the Aegean Archipelago (ISLA); concepts and preliminary results
- 12:30 – 12:45 [807] **Stamou I.-G.A. and Konovessis D.**
A computational decision-making tool based on life cycle cost analysis for reduced air emissions from ships

- 12:45 – 13:00 [828] **Kaimaris D. and Papanikolaou N.**
Change detection in the physical lake shoreline through diachronic remote sensing data and GIS techniques: The case study of lake Orestiada, Kastoria, Greece
- 13:00 – 13:15 [45] **Freije A.**
Heavy metals, trace elements and petroleum hydrocarbons pollutions in the Arabian Gulf: Review

Lunch Break

Session 15.1 - ECOLOGY AND ECOSYSTEMS MANAGEMENT (2)

Friday 6 September 2013 – morning

ROOM D - MYCENAE

Chairs: Hadjibiros K., Laspidou C.S.

- 9:00 – 9:15 [337] **Fragogeorgi G., Tsikou D., Aivalakis G., Flemetakis E., Chronopoulou-Sereli K., Tsiros J. and Katinakis P.**
Environmental stresses and plant tolerance. The role of ornithine- δ -aminotransferase in durum wheat plants
- 9:15 – 9:30 [539] **Karaberou G., Varnavas S.P., Carter J. and Parker A.**
Iron, nickel and chromium in *Abies cephalonica* foliage needles in relation to bauxitic limestone substrate
- 9:30 – 9:45 [123] **Koumelis I., Ntaikou I., Iatridi Z., Kamilari M., Tsitsilianis C. and Lyberatos G.**
Production of polyhydroxyalkanoates from mixed microbial consortia derived from soil: Effect of nitrogen limitation on microbial shift and properties of recovered polyesters
- 9:45 – 10:00 [680] **Hadjibiros K.**
Human ecology: Are its predictions reliable?
- 10:00 – 10:15 [830] **Saeid A. and Chojnacka K.**
Biosorption of microelements by *Chlorella kessleri* in multielemental system
- 10:15 – 10:30 [831] **Michalak I., Marycz K. and Chojnacka K.**
Using SEM-EDX and ICP-OES to investigate elemental composition of green macroalga *Vaucheria sessilis*
- 10:30 – 10:45 [832] **Darecki A., Saeid A., and Chojnacka K.**
Biosorption of microelements by *Spirulina*: towards technology of mineral feed supplements
- 10:45 – 11:00 [350] **Prabhakaran R., Rueda-Puente E.O., Borboa-Flores J., Rosas-Burgos E.C., Cárdenas-López J.L., Ortega-García J. and Barrón-Hoyos J.M.**
Salt tolerance enhancement of tepary bean seedlings (*Phaseolus acutifolius*) inoculated with halotolerant endophytic bacteria
- 11:00 – 11:30 Coffee break

Session 15.2 - AIR POLLUTION (1)**Friday 6 September 2013 – morning****ROOM D - MYCENAE****Chairs: Helmis C.G., Kassomenos P.**

- 11:30 – 11:45 [764] **Helmis C.G. and Sgouros G.**
On the physical processes that influence the development of the marine low-level jet
- 11:45 – 12:00 [88] **Vlachokostas Ch., Banias G., Athanasiadis A., Akylas V., Achilles Ch. and Moussiopoulos N.**
A software for assessing personal exposure in urban areas based on combined dose and exposure indicators
- 12:00 – 12:15 [122] **Ballesteros R., Hernández J.J. and Guillén-Flores J.**
Speciation of particulate-associated PAH emissions in a diesel single- cylinder engine using a HPLC-UVD method
- 12:15 – 12:30 [158] **Krestou A., Triantafyllou A.G., Garas S., Tsekouras V. and Diamantopoulos C.**
Design, construction and testing of a laboratory chamber for dust generation and sampling
- 12:30 – 12:45 [164] **Remoundaki E., Mantas E., Theodosi C., Kassomenos P. and Mihalopoulos N.**
Secondary inorganic versus carbonaceous fraction and mass closure of PM_{2.5} in urban environment (Athens, Greece)
- 12:45 – 13:00 [342] **Afzali S. and Chaloulakou A.**
Measurements of PM₁₀ levels in an Athens suburb: Contribution of household activities to personal exposure
- 13:00 – 13:15 [405] **Rizou D, Flocas H.A., Bartzokas A. and Helmis C.G.**
On the link between Indian summer monsoon and the Etesian pattern over the Aegean sea
- 13:15 - 13:30 [20] **Pawar S.D.**
Air ion variation with respect to meteorological parameters at rural station Ramanandnagar (17° 4' N 74° 25' E) India

*Lunch Break***Session 16 - EMERGING POLLUTANTS (3)****Friday 6 September 2013 – morning****ROOM E – ATHENS VIEW (9th FLOOR)****Chairs: Kannan K., Thomaidis N.**

- 9:00 – 9:30 **Invited speaker [673] Jacob de Boer**
Triscresylphosphate and related compounds in airplanes: possible effects on nervous systems of flight crew members

- 9:30 – 9:45 [722] **Wang Y. and Tam N.F.Y.**
Effects of a congener of polybrominated diphenyl ethers (BDE-47) on the growth of two mangrove plant species, their uptake, translocation and biotransformation
- 9:45 – 10:00 [376] **Schroeder P., Huber C. and Bartha B.**
Insight in the metabolism of diclofenac in plants - P 450 mediated hydroxylation is followed by glucosyl transfer reactions
- 10:00 – 10:15 [618] **Costopoulou D., Vassiliadou I., Zafeiraki E. and Leondiadis L.**
Exposure to the persistent perfluorinated compounds PFCs in Greece
- 10:15 – 10:30 [704] **Xagorarakis I.**
Fate of viruses in wastewater utilities
- 10:30 – 10:45 [633] **Brieudes V., Lardy-Fontan S., Lavison G., Lalere B., Vaslin-Reimann S. and Budzinski B.**
Multi-residue analyses for the determination of psychotropic substances in surface water: study case in the Paris area
- 11:00 – 11:30 *Coffee break*
- 11:30 – 11:45 [688] **Borova V.L., Dasenaki M.E., Maragou N.C., Alygyzakis N., Stasinakis A.S., Thomaidis N.S. and Lekkas T.D.**
Trends in use of pharmaceuticals, controlled psychoactive and illicit drugs as revealed from the influents' analysis of WWTP of Athens, Greece
- 11:45 – 12:00 [754] **Asimakopoulos A.G., Kannan K. and Thomaidis N.S.**
Benzotriazoles and benzothiazoles in a WWTP in Greece: occurrence, and removal efficiencies
- 12:00 – 12:15 [390] **Nannou Ch., Kosma Ch.I. and Albanis T.A.**
Analysis of trace levels of pharmaceutical compounds in surface waters in the region of Epirus (Greece)
- 12:15 – 12:30 [286] **Borecka M., Siedlewicz G., Bialk-Bielinska A., Kumirska J., Pazdro K. and Stepnowski P.**
Occurrence of pharmaceutical residues in the coastal area of the southern Baltic sea
- 12:30 – 12:45 [624] **Estevez E., Cabrera M.D.C., Fernandez-Vera J.R., Molina-Diaz A., Robles-Molina J. and Palacios-Diaz M.P.**
Temporal evolution of emerging contaminants, priority substances and heavy metals most frequently detected in reclaimed water and groundwater of a volcanic aquifer
- 12:45 – 13.00 [574] **Candela L., Vadillo I. and Tamoh K.**
Treated wastewater reuse for aquifer recharge. A three years monitoring of selected pharmaceuticals in injected water and wells
- 13:00 – 13.15 [732] **Mutyarm P.K. and Mittal A.K.**
Occurrence and removal of selected pharmaceutical active compounds (PhACs) in a sewage treatment plant in Delhi, India

Session 17 - CATCHMENT HYDROLOGY**Friday 6 September 2013 – afternoon****ROOM A - MACEDONIA A****Chairs: Lekkas D.F., Pechlivanidis I.G.**

- 16:00 – 16:15 [177] **Soulis K.X., Dercas N. and Papadaki Ch.**
Effects of forest roads on the hydrological response of a small scale mountain watershed in Greece
- 16:15 – 16:30 [205] **Pechlivanidis I.G., Anastasiadis S. and Lekkas D.F.**
Development of a semi-distributed hydrological model toolbox to predict runoff response in the ungauged catchment of Mornos, Greece
- 16:30 – 16:45 [646] **Gkilimanakis E., Vasiliades L. and Loukas A.**
Identification of uncertainty in hydrological modelling using several model structures, optimisation algorithms and objective functions in a cypriot watershed
- 16:45 – 17:00 [566] **Moraetis D., Giannakis G., Efstathiou D., Nikolaidis N.P., van Gaans P., Verheul M., Adrianaki M. and Bernasconi S.**
Hydro-chemical characterization of white mountain Karstic water at Koiliaris river CZO.
- 17:00 – 17:15 [245] **Polatidou M., Tsirtsis G. and Gaganis P.**
Assessing nutrient dynamics in a small eastern mediterranean watershed
- 17:15 – 17:30 [629] **Khaertdinova E. and Longobardi A.**
Modeling evapotranspiration during inter-storm periods in a mediterranean climate area
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [511] **Koutsoyiannis S., Angelidis P. and Hrisanthou V.**
Interaction between sediment transport and flood flow: The case of Kompsatos river basin, Greece
- 18:15 – 18:30 [330] **Papathanasiou C., Makropoulos C., Baltas E. and Mimikou M.**
The hydrological observatory of Athens: a state-of-the-art network for the assessment of the hydrometeorological regime of Attica
- 18:30 – 18:45 [465] **Gassman P.W., Panagopoulos Y., Srinivasan R., White M.J., Jha M.K., Arnold J.G., Campbell T.D., Richardson J., Rabotyagov S., Valcu A.M., Kling C.L., Turner R.E., Moskal M.L. and Rabalais N.**
The development of SWAT modeling systems for large corn belt river basins part 1: Description of modeling system components
- 18:45 – 19:00 [466] **Panagopoulos Y., Gassman P.W., Kling C.L., Campbell T.D., Jha M.K., Srinivasan R., White M.J. and Arnold J.G.**
The development of SWAT modelling systems for large corn belt river basins part 2: Model performance and evaluation

- 19:00 – 19:15 [753] **Andersson J.C.M., Pechlivanidis I.G., Gustafsson D., Donnelly C. and Arheimer B.**
Key factors for improving large-scale hydrological model performance
- 19:15 – 19:30 [550] **Khorsandi N., Nikkami D. and Mahdian M.H.**
Comparison of spatial variability of fuzzy and non-fuzzy rainfall erosivity data in Oromieh Lake Basin, Iran
- 19:30 – 19:45 [148] **Mohamed M.**
Development of a water budget model for groundwater sustainability in the Arid Eastern Abu Dhabi Emirate

Session 18.1 - MODELLING AND AUTO CONTROL IN WATER TREATMENT

Friday 6 September 2013 – afternoon

ROOM B - MACEDONIA B

Chairs: Jiang J-Q., Stamou A.I.

- 16:00 – 16:15 [193] **Siarkos I., Kouvaritaki D., Charcharidou A. and Theodossiou N.**
Modelling the effect of agricultural activities on groundwater quality in the aquifer of N. Moudania, Greece
- 16:15 – 16:30 [127] **Fytianos G.K. and Katsifarakis K.L.**
Correlation and prediction of chemical parameters in ground water of the municipality of Thermi using SPSS, G.I.S. and artificial neural networks
- 16:30 – 16:45 [701] **Gkesouli A., Stamou A.I., Xanthaki M. and Georgiadis S.**
Validation of a CFD model in rectangular settling tanks
- 16:45 – 17:00 [400] **Cogan D., Cleary J., Phelan T. and Diamond D.**
Next generation autonomous chemical sensors for environmental monitoring
- 17:00 – 17:15 [21] **Fuladipanah M. and Jafarinia R.**
Application of Fourier amplitude sensitivity test on dispersion coefficient
- 17:30 – 18:00 *Coffee break*

Session 18.2 - WASTEWATER TREATMENT (1)

Friday 6 September 2013 – afternoon

ROOM B - MACEDONIA B

Chairs: Weigand H., Ragazzi M.

- 18:00 – 18:15 [595] **Brück F. and Weigand H.**
Behaviour and fate of geogenic arsenic during landfill leachate treatment
- 18:15 – 18:30 [669] **D'Acunto B., Esposito G., Frunzo L., Mattei M.R. and Pirozzi F.**
Mathematical modeling of the competition between sulfate reducing, acetoclastic and methanogenic bacteria within multispecies biofilms

- 18:30 – 18:45 [725] **Deng D., Chen H.X. and Tam N.F.Y.**
Isolation of microalgae tolerant to polybrominated diphenyl ethers (PBDEs) from wastewater treatment plants and their removal ability
- 18:45 – 19:00 [748] **Nguyen V.H. and Nguyen T.P.**
Treatment of fishery wastewater by sequencing batch moving bed biofilm reactor (SBMBBR)
- 19:00 – 19:15 [781] **Abdel-Kader A., Aljefry M.H. and Eladawy S.M.**
Studying the effects of alum, lime and ferric chloride on the treatment efficiency of rotating biological contactors plant
- 19:15 – 19:30 [113] **Jain A. and Khambete A.**
Role of strong oxidants in reducing COD: case study at common effluent treatment plant Vapi, Guj., India

Session 19 - HEALTH AND ENVIRONMENT

Friday 6 September 2013 – afternoon

ROOM C - PELLA

Chairs: Long D.T., Voice T.C.

- 16:00 – 16:15 [200] **Giannadaki D., Pozzer A. and Lelieveld J.**
Modeled global effects of airborne desert dust on air quality and premature mortality
- 16:15 – 16:30 [204] **Blouchos P., Moschopoulou G., Kintzios S., Glezakos T., Ferentinos C., Yialouris C., Livaniou E., Zikos C., Kakabakos S.E., Petrou P.S., Johns G. and Griffith J.**
FOODSCAN: A novel and automated biosensor platform for pesticide residue detection
- 16:30 – 16:45 [354] **Mimilidou A., Tzanakos K., Anastasiadou K. and Gidaracos E.**
Influence of NaOH solution on the synthesis of hospital waste fly ash geopolymer
- 16:45 – 17:00 [506] **Gini M.I., Kotzamanoglou A., Helmis C., Pilou M., Housiadas C. and Eleftheriadis K.**
Effect of Sahara dust events on the deposited fraction of atmospheric aerosol in the respiratory tract
- 17:00 – 17:15 [549] **Kermenidou M., Voudrias E. and Kostantoula A.**
Composition and production rate of cytostatic pharmaceutical waste from Theagenio cancer hospital in Thessaloniki, Greece
- 17:15 – 17:30 [600] **Adams M.D., Kelly R.M.D., De Luca P.F., Corr D. and Kanaroglou P.S.**
Air quality health index mapping: A data driven modelling approach
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [707] **Tangtong C., Qiao L., Long D.T. and Voice T.C.**
Fate and transport properties of aristolochic acids as potential exposure agents responsible for Balkan endemic nephropathy

- 18:15 – 18:30 [776] **Vlachou A., Bourikas K., Bekatorou A., Anninos C., Paplas A. and Symeopoulos B.**
Probiotics as potential checking agents against contamination in the food chain. The case of uranium and *Saccharomyces boulardii*
- 18:30 – 18:45 [780] **Sazakli E., Villanueva C.M. and Leotsinidis M.**
“Hexavalent chromium in drinking water; effects on human health”: design of an epidemiological study
- 18:45 – 19:00 [119] **Awad O.M., El-Fiki S.A., Abou-Shanab R.A.I., Hassanin N.M.A. and Abd El Rahman R.**
Influence of exposure to pesticides on liver enzymes and cholinesterase levels in male agriculture workers
- 19:00 – 19:15 [614] **Sponza Dt., Oztekin R. and Erdincmer N.**
Evaluation of toxicity of SiO₂, HFO₂ and fullerene in standardized acute toxicity tests
- 19:15 – 19:30 [219] **Azizifar M., Salimi M., Naddafi K. and Jabbari H.**
A survey on the effect of nanosilver paint on reducing the level of fungal contamination in hospitals

Session 20 - AIR POLLUTION (2)

Friday 6 September 2013 – afternoon

ROOM D - MYCENAE

Chairs: Flocas H., Kotroni V., Katsafados P.

- 16:00 – 16:15 [424] **Varlas G., Katsafados P. and Papadopoulos A.**
The synoptic and dynamical characteristics of the hurricane Sandy
- 16:15 – 16:30 [459] **Collins F., McNamara E., Fay C., Nardi Pinto C., Xavier Costa E.J. and Diamond D.**
Autonomous remote gas sensing: web-based monitoring of greenhouse gases
- 16:30 – 16:45 [461] **Cheristanidis S., Habilomatis G., Diapouli E. and Chaloulakou A.**
PM mass, number concentration and EC surrogate measurements in an Athens residential area. Impact of relative sources and activities
- 16:45 – 17:00 [467] **Papadopoulos A., Katsafados P., Kalogirou S. and Soukissian T.**
Wind and solar irradiance gridded data to support assessment of renewable energy resources in Greece
- 17:00 – 17:15 [489] **Tzirakis E.G. and Zannikos F.E.**
On-road real driving and road gradient data processing methodologies to form driving cycle complete dynamometer tests
- 17:15 – 17:30 [510] **Kotsenos A., Kondili E., Paliatsos A.G. and Kaldellis J.K.**
Comparative evaluation of the air quality indexes. Application for the greater Athens area
- 17:30 – 18:00 *Coffee break*

- 18:00 – 18:15 [513] **Matthaios V., Triantafyllou A.G. and Albanis T.**
Performance and verification of a downscaling approach for meteorology and land use, using a mesoscale model in a complex terrain industrial area in Greece
- 18:15 – 18:30 [515] **Kotroni V., Lagouvardos K. and Lykoudis S.**
High-resolution model-based wind atlas for Greece
- 18:30 – 18:45 [540] **Kostopoulos V.E. and Helmis C.G.**
Experimental study of the surface marine atmospheric boundary layer over Aegean Sea, Greece
- 18:45 – 19:00 [572] **Arvani B., Pierce R.B., Teggi S., Bigi A. and Ghermandi G.**
Implementation of IMAPP/IDEA-I over the Po Valley region, northern Italy, for air quality monitoring and forecasting

Session 21 - EMERGING POLLUTANTS (4)

Friday 6 September 2013 – afternoon

ROOM E – ATHENS VIEW (9th FLOOR)

Chairs: Andersen H., Noutsopoulos C.

- 16:00 – 16:15 [708] **Antoniou M.G., Hey G., Vega S.R., Spiliotopoulou A., Fick J., Tysklind M., Jansen J.C. and Andersen H.R.**
Variability in required ozone doses for removing pharmaceuticals from wastewater effluents
- 16:15 – 16:30 [616] **Muz M., Ak S., Komesli O.T. and Gokcay C.F.**
EDC removal in a lab-scale pre-anaerobic SBR unit
- 16:30 – 16:45 [657] **Iatrou E., Salatas A., Symsaris I. I., Stasinakis A. and Thomaidis N.S.**
Fate and removal of antimicrobial compounds in lab-scale planted reactors using duckweed *Lemna minor*
- 16:45 – 17:00 [672] **Noutsopoulos C., Mamais D., Thomaidis N.S., Koumaki E., Nika M., Bletsou A. and Stasinakis A.S.**
Removal of emerging pollutants through wastewater disinfection
- 17:30 – 18:00 *Coffee break*
- 18:00 – 18:15 [264] **Kabdasli I., Ecer C., Olmez-Hanci T. and Tunay O.**
Treatment of aqueous alcohol ethoxylates solution by TiO₂/UV-A photocatalytic oxidation
- 18:15 – 18:30 [174] **Olmez-Hanci T., Arslan-Alaton I., Dursun D. and Genc B.**
UV-C, S₂O₈²⁻/UV-C and H₂O₂/UV-C treatment of aqueous bisphenol-A. Results in different acute toxicity patterns
- 18:30 – 18:45 [641] **Noutsopoulos C., Katsigiannis A., Mantziaras J., Gioldasi M. and Katsiri A.**
Removal of anti-inflammatory drugs and endocrine disrupting chemicals by granular activated carbon

- 18:45 – 19:00 [314] **Maszkowska J., Kolodziejska M., Bialk-Bielinska A., Mroziak W., Kumirska J., Stepnowski P., Krüger O. and Kalbe U.**
Column and batch tests of sulfonamides leaching from different types of soil

Session 22 - ENVIRONMENTAL PLANNING, MANAGEMENT AND POLICIES (1)**Saturday 7 September 2013 – morning****ROOM A - MACEDONIA A****Chairs: Yiannakou A., Voulvoulis N.**

- 9:00 – 9:15 [276] **Moutsiakis E.**
Streamlining the sustainability approach: Spatial systems and governance (re-) arrangement
- 9:15 – 9:30 [223] **Gemenetzi G.**
Improving urban metabolism through spatial planning: a methodology of eco-development
- 9:30 – 9:45 [495] **Salata K.D. and Yiannakou A.**
Spatial planning for adapting compact urban areas to climate change: issues raised from a case study in the city of Thessaloniki
- 9:45 – 10:00 [82] **Retsilidou O.N. and Hatzopoulos J.N.**
Modelling of urban land use and assessment of future urban expansion: Application in the municipality of Mytilene, Lesbos island, Greece
- 10:00 – 10:15 [18] **Exarchou E. and Klonari A.**
A pre-study on the use of web 2.0 social networking technologies in geographical and environmental learning for sustainability of Greek secondary students
- 10:15 – 10:30 [321] **Koroneos C., Konstantzos G., Moustakas K., Malamis D. and Loizidou M.**
Integrated product policy and the product impact model (PIM)
- 10:30 – 11:00 *Coffee break*
- 11:00 – 11:15 [357] **Sdrali D., Goussia-Rizou M., Galanos S. and Abeliotis K.**
Corporate social responsibility and internal orientations to the company's employees. A case study of Greek companies
- 11:15 – 11:30 [287] **Kondili E., Papapostolou C., Balaska A., Aggelakopoulos J., Papagiakomos A. and Kaldellis J.K.**
Environmental performance improvement and environmental management systems (EMS) in universities. Special focus in the TEI of Piraeus Campus
- 11:30 – 11:45 [227] **Markaki M., Mirasgedis S., Belegri-Roboli A. and Sarafidis Y.**
The environmental impact of clean energy investments on the Greek economy: an input-output analysis (2010-2020)
- 11:45 – 12:00 [305] **Venables R.**
The positive influence of CEEQUAL (the sustainability assessment, rating and awards scheme) on planning, design, delivery and management of civil engineering projects

- 12:00 – 12:15 [161] **Koumparou D.**
The role of natural resources and the social capital in EU's growth strategy- Europe 2020
- 12:15 – 12:30 [690] **Papaioannou D. and Lema E.**
Analyzing the scope of forcing market based measures to address shipping CO₂ emissions
- 12:30 – 12:45 [518] **Anastasiou C., Middleton N., Grafias P., Panayi A., Larkou A. and Georgiou E.**
Use of a public perceptions study to assist policy making for reclaimed water reuse
- 12:45 – 13:00 [833] **Voulvoulis N.**
Towards sustainability: a systems perspective in dealing with water challenges

Session 23 - WASTEWATER TREATMENT (2)**Saturday 7 September 2013 – morning****ROOM B - MACEDONIA B****Chairs: Belgiorno V., Lyberatos G.**

- 9:00 – 9:15 [451] **Ferreira Esmi C., Schrive L., Barre Y., Palmeri J. and Deratani A.**
A new environmentally friendly process for removing heavy metals from wastewater
- 9:15 – 9:30 [401] **Akhigbe L.O., Ouki S.K. and Saroj D.P.**
Removal of *Escherichia coli* and heavy metals from wastewater using silver-modified clinoptilolite
- 9:30 – 9:45 [562] **Giuliani S., Zarra T., Naddeo V. and Belgiorno V.**
A novel tool for control of odour emissions in wastewater treatment plant
- 9:45 – 10:00 [229] **Ramalingam K., Fillos J., Mehrdad M., Shapiro I., Deur A. and Beckmann K.**
Anammox: A sustainable process to remove nitrogen from reject water generated by the anaerobic digestion process
- 10:00 – 10:15 [485] **Malamis S., Katsou E., Di Fabio S., Frison N., Noutsopoulos C. and Fatone F.**
Anammox start-up using low activity inoculum to treat low-strength UASB effluent
- 10:15 – 10:30 [347] **Shen L., Guan Y. and Wu G.**
Effect of heterotrophic activities on nitrous oxide emission during nitrification under different aeration rates
- 10:30 – 11:00 *Coffee break*
- 11:00 – 11:15 [450] **Milia S., Perra M., Muntoni A. and Carucci A.**
Partial nitritation of nitrogen rich refinery wastewater (sour water) with different IC/N molar ratios
- 11:15 – 11:30 [573] **Galanopoulos C., Leotsinidis M. and Lyberatos G.**
Assessment of the plant role and modeling for a free water surface constructed wetlands wastewater treatment system

- 11:30 – 11:45 [365] **Schröder P., Wenzel M., Bulba D. and Debus R.**
Is *Lemna minor* a candidate plant for phytoremediation? Observations on the effect of metals and industrial pollutants on the Small Duckweed
- 11:45 – 12:00 [295] **Scannapieco D., Naddeo V. and Belgiorno V.**
Control of fouling in MBRs through nanospheres addition
- 12:00 – 12:15 [375] **Tran A.T.K., Zhang Y., Jullok N., Meesschaert B., Pinoy L. and van der Bruggen B.**
The feasibility of a hybrid system consisting of a pellet reactor and electro dialysis for reverse osmosis concentrate treatment
- 12:15 – 12:30 [586] **Ragazzi M., Rada E.C. and Ferrentino R.**
Analysis of real scale experiences of novel sewage sludge treatments in an Italian pilot region
- 12:30 – 12:45 [589] **Alleyne A.A., Xanthos S., Tang H. and Ramalingam K.**
Real-life configuration stirred tanks: A computational investigation using CFD
- 12:45 – 13:00 [554] **Koliopoulos G., Sklivaniotis M. and Gikas P.**
Fine mesh sieving of raw municipal wastewater for TSS and COD removal

Session 24 - HEXAVALENT CHROMIUM IN THE GEOENVIRONMENT: OCCURRENCE AND REMEDIATION (1)

Saturday 7 September 2013 – morning

ROOM C - PELLA

Chairs: Di Palma L., Weigand H., Vayenas D.V., Dermatas D.

- 9:00 – 9:15 [605] **Dokou Z., Karatzas G.P., Nikolaidis N.P. and Kalogerakis N.**
Mapping of chromium in the greater area of Asopos river basin
- 9:15 – 9:30 [745] **Panagiotakis I., Dermatas D., Vatseris C., Chyrsochoou M., Papasiopi N., Xenidis A., Theologou E., Mpouras T. and Sakellariou L.**
Investigation of chromium sources in the groundwater of Thiva industrialized area
- 9:30 – 9:45 [612] **Lilli M.A., Moraetis D., Nikolaidis N.P., Karatzas G.P. and Kalogerakis N.**
Characterization and mobility of hexavalent chromium in soils and sediments
- 9:45 – 10:00 [617] **Paraskevopoulou V., Botsou F., Dassenakis M. and Scoullou M.**
Chromium occurrence in Greece: distribution, sources and environmental fate
- 10:00 – 10:15 [746] **Dermatas D., Panagiotakis I., Vatseris C., Xenidis A., Papasiopi N., Mpouras T., Theologou E., Vaxevanidou K. and Chyrsochoou M.**
Investigation of origin of the hexavalent chromium in a Greek ophiolitic aquifer
- 10:15 – 10:30 [522] **Panagopoulos J., Karagiannis A., Kollias K., Xenidis A. and Papassiopi N.**
Investigation of potential soil contamination with Cr and Ni in four metal finishing facilities at Asopos industrial area
- 10:30 – 11:00 *Coffee break*

- 11:00 – 11:15 [552] **Kabengi N., Chrysochoou M., Johnston C. and Tulloch J.**
Elucidating mechanisms of chromate complexation on iron oxides surfaces using flow calorimetry and infrared spectroscopy
- 11:15 – 11:30 [650] **Di Natale F., Erto A., Lancia A. and Musmarra D.**
Equilibrium and kinetic study on chromium adsorption onto activated carbon in water
- 11:30 – 11:45 [687] **Chrysochoou M., Machesky M. and Johnston C.P.**
A new surface complexation model for chromate adsorption on ferrihydrite
- 11:45 – 12:00 [299] **Di Palma L., D' Onofri R., Gueye M.T. and Petrucci E.**
Experimental assessment of chromium immobilization in contaminated soil by in situ chemical reduction
- 12:00 – 12:15 [742] **Mystrioti C., Papassiopi N., Xenidis A., Dermatas D. and Chrysochoou M.**
Column study for the evaluation of the transport properties of polyphenol-coated nano iron
- 12:15 – 12:30 [611] **Weigand H., Müller R. and Marb C.**
In-situ reduction of Cr(VI) in a contaminated aquifer assessed by lab-scale column tests and a field trial

Session 25 - CLIMATE CHANGE AND ENVIRONMENTAL DYNAMICS**Saturday 7 September 2013 – morning****ROOM D - MYCENAE****Chairs: Nastos P.T., Deligiorgi D.**

- 9:00 – 9:15 [73] **Hall P.H., Coles N.A. and Hipsey M.R.**
Adaption of synoptic characterisation methodologies as a short-to-medium term climate analytical and forecasting tool
- 9:15 – 9:30 [125] **Kokoni S. and Skea J.**
Consumption-based and life-cycle emissions accounting: Strengths and weaknesses in supporting climate policy
- 9:30 – 9:45 [247] **Charalampopoulos I., Tsiros I., Chronopoulou-Sereli A. and Matzarakis A.**
A numerical model-based method for estimating wind speed regime in outdoor and semi-outdoor sites in the urban environment
- 9:45 – 10:00 [368] **Llamas B., Mazadiego L.F., Elio J., Ortega M.F. and Grandia F.**
Systematic approach for the selection of monitoring technologies in CO₂ geological storage projects. Application of multicriteria decision making
- 10:00 – 10:15 [369] **Ortega M.F., Rincones M., Elío J., Gutierrez Del Olmo J., Nisi B., Mazadiego L.F., Iglesias L., Vaselli O., Grandia F., Garcia R. and De La Vega R.**
Gas monitoring methodology and application to CCS projects as defined by atmospheric and remote sensing survey in the natural analogue of Campo de Calatrava

- 10:15 – 10:30 [396] **Nastos P.T, Bleta A.G. and Matsangouras I.T.**
The development of Fohn winds due to Saharan dust outbreaks and the associated human thermal bioclimatic conditions in Crete island, Greece
- 10:30 – 11:00 *Coffee break*
- 11:00 – 11:15 [427] **Spyridi D., Vlachokostas Ch., Moussiopoulos N. and Sioutas C.**
Evaluation of measures to address climate change using multicriteria analysis
- 11:15 – 11:30 [432] **Nastos P.T., Kambezidis H.D. and Demetriou D.**
Solar dimming/brightening within the Mediterranean
- 11:30 – 11:45 [470] **Vasileiou P., Philippopoulos K., Yiannikopoulou I., Adamantiadou C. and Deligiorgi D.**
Statistical assessment of extreme climate indices of air temperature over eastern Greek islands and Cyprus
- 11:45 – 12:00 [541] **Hutton B., Horan E. and Norrish M.**
Landfill, compost or incineration? Finding the best method to reduce greenhouse gas emissions from organic waste in mediterranean climates
- 12:00 – 12:15 [261] **Kaminari M., Flocas H.A., Kouroutzoglou J., Tsanis I.K., Koutroulis A.G. and Simmonds I.**
Vertical structure of synoptic scale cyclones causing flood events in the island of Crete
- 12:15 – 12:30 [179] **Ullah Khan S., Hasan M.U. and Alghafari Y.**
Temperature and precipitation fluctuation of Madinah-Al-Munawara, Kingdom of Saudi Arabia (1959-2011)

Session 26 - ADVANCED OXIDATION PROCESSES (AOPs)**Saturday 7 September 2013 – morning****ROOM E - ATHENS VIEW (9th FLOOR)****Chairs: Karabelas A.J., Falaras P., Mantzavinos D.**

- 9:00 – 9:15 [320] **Miranda S.M., Vilar V.J.P., Faria J.L., Silva A.M.T., Romanos G.Em., Likodimos V., Steriotis T.A., Katsaros F.K., Stefanopoulos K.L. and Falaras P.**
Structural and photocatalytic properties of hybrids consisting of TiO₂ and carbon nanotubes
- 9:15 – 9:30 [95] **Maleki A., Daraei H., Mohseni-Bandpei A., Zandsalimi Y., Alaei L. and Mahvi A.H.**
Study of efficiency and energy consumption of synthesized nano-ZnO Sono-catalyst
- 9:30 – 9:45 [825] **Venieri D., Fraggadaki A., Kostadima M., Chatzisyneon E., Binas V., Zachopoulos A., Kiriakidis G. and Mantzavinos D.**
Investigation of Mn and Co-doped TiO₂ semiconductors for solar photocatalytic disinfection purposes
- 9:45 – 10:00 [232] **Szymanska K., Zouboulis A.I., Zamboulis D. and Samaras P.**
Hybrid ozonation-microfiltration system for the treatment of surface water

- 10:00 – 10:15 [319] **Athanasekou C.P., Moustakas N.G., Katsaros F.K., Kontos A.G., Romanos G.E., Morales-Torres S., Pastrana-Martínez L.M., Faria J.L., Figueiredo J.L., Silva A.M.T., Fernández-Rodríguez C., Dona-Rodríguez J.M. and Falaras P.**
Ceramic membranes in hybrid photocatalysis/ultrafiltration processes
- 10:15 – 10:30 [816] **Sarasidis V.C., Patsios S.I., Plakas K.V. and Karabelas A.J.**
A hybrid photocatalysis – ultrafiltration continuous process for degradation and removal of refractory organic pollutants from water
- 10:30 – 11:00 *Coffee break*
- 11:00 – 11:15 [38] **Stergiopoulos D., Dermentzis K., Giannakoudakis P. and Sotiropoulos S.**
Electrochemical decolorization and removal of indigo carmine textile dye from wastewater
- 11:15 – 11:30 [475] **Apaydin O.**
Reduction of COD in wastewater from an textile industry by electro-Fenton process
- 11:30 – 11:45 [664] **Mousset E., Huguenot D., van Hullebusch E.D., Oturan N., Guibaud G., Esposito G. and Oturan M.A.**
A new integrated approach to remove PAHs from highly contaminated soil: soil washing combined to electro-Fenton process and possible post-biological treatment
- 11:45 – 12:00 [817] **Plakas K.V., Karabelas A.J., Sklari S.D. and Zaspalis V.T.**
Efficient degradation of recalcitrant pharmaceuticals by a novel electro-Fenton system: The case of diclofenac

Session 27 - ENVIRONMENTAL PLANNING, MANAGEMENT AND POLICIES (2)**Saturday 7 September 2013 – afternoon****ROOM A - MACEDONIA A****Chairs: Assimacopoulos D., Hadjibiros K., Bithas K.**

- 16:00 – 16:15 [681] **Makrogianni S. and Hadjibiros K.**
Interdisciplinarity in environmental research: an analysis based on scientific publications
- 16:15 – 16:30 [294] **Feneri A-M., Vagiona D. and Karanikolas N.**
Measuring quality of life (QoL) in urban environment: an integrated approach
- 16:30 – 16:45 [48] **Kalimeris P. and Bithas K.**
Economic growth towards a dematerialization regime? A reassessment of global material intensity
- 16:45 – 17:00 [602] **Kyriakopoulou N., Kanaroglou P. and Photis Y.**
Mathematical characterization of congestion based on speed distribution: A case study of greater Toronto and Hamilton area, Ontario, Canada
- 17:00 – 17:15 [501] **Zorpas A.A., Inglezakis V. and Voukkali I.**
Indicators for sustainable destination development in the frame work of sustainable tourism

17:15 – 17:30 [516] **Eleftheriadis K., Diapouli E., Samara C., Kungolos A., Progiou A. and Lazaridis M.**
Development of a cost efficient policy tool for the reduction of atmospheric particulate matter in Greek urban centres

17:30 – 18:00 *Coffee break*

Session 28 - WASTEWATER TREATMENT (3)

Saturday 7 September 2013 – afternoon

ROOM B - MACEDONIA B

Chairs: Stasinakis A.S., Venieri D.

16:00 – 16:15 [606] **Babatsouli P., Fodelianakis S., Venieri D., Dialynas M., Koukaras M. and Kalogerakis N.**

Evaluation of a compact system (AdvanTex) for saline wastewater treatment

16:15 – 16:30 [639] **Ittisupornrat S., Tobino T., An K.J. and Yamamoto K.**

Treatment performance, microbial activity and community dynamics in inclined plate membrane bioreactors for municipal wastewater treatment under different sludge retention time

16:30 – 16:45 [649] **Kotzapetros A.D., Paraskevas P.A. and Stasinakis A.S.**

Sensitivity analysis of a modern automatic control system for the activated sludge process in wastewater treatment

16:45 – 17:00 [654] **Gikas G.D., Tsihrintzis V.A. and Papachristos C.G.**

Economic and environmental evaluation of stabilization pond systems for wastewater treatment

17:30 – 18:00 *Coffee break*

Session 29 - HEXAVALENT CHROMIUM IN THE GEOENVIRONMENT: OCCURRENCE AND REMEDIATION (2)

Saturday 7 September 2013 – afternoon

ROOM C - PELLA

Chairs: Mamais D., Chrysochoou M.

16:00 – 16:15 [659] **Mamais D., Noutsopoulos C., Kavallari I., Nyktari E. and Kaldis A.**

Biological groundwater treatment for total and hexavalent chromium removal

16:15 – 16:30 [183] **Michailides M.K., Tekerlekopoulou A.G., Akratos C.S. and Vayenas D.V.**

Biological Cr(VI) reduction

16:30 – 16:45 [613] **Lilli M.A., Nikolaidis N.P., Karatzas G.P., Kalogerakis N. and Mueller M.**

Mitigation measures for chromium-VI contaminated groundwater and soil using zero valent iron technologies

16:45 – 17:00 [604] **Manousaki E., Dimitroula E., Nikolaidis N.P., Karatzas G.P. and Kalogerakis N.**

Mitigation measures for chromium-VI contaminated groundwater and soil using a phytoextraction pilot

- 17:00 – 17:15 [214] **Mimides T.M. and Koilakos D.I.**
Uptake of hexavalent chromium and nickel by plants, the Beotia (Greece) case
- 17:15 – 17:30 [135] **Sultana M., Michailides M.K., Akratos C.S., Tekerlekopoulou A.G. and Vayenas D.V.**
Effect of hydraulic residence time on Cr(VI) removal using constructed wetlands
- 17:30 – 18:00 *Coffee break*

Session 30 - AIR POLLUTION (3)

Saturday 7 September 2013 – afternoon

ROOM D - MYCENAE

Chairs: Kanaroglou P., Biskos G.

- 16:00 – 16:15 [597] **Di Nardo A., Santonastaso G. F., Bortone. D., Di Natale M. and Musmarra I.**
A fuzzy early warning system to mitigate the odorous substances emitted from a waste landfill
- 16:15 – 16:30 [599] **Adams M.D. and Kanaroglou P.S.**
Optimized monitor reduction for an industrial air pollution monitoring network
- 16:30 – 16:45 [601] **Papargyri E., Kanaroglou P. and Photis Y.**
Assessing the potential contribution of electric vehicles in traffic related pollution reduction in Hamilton, Ontario, Canada
- 16:45 – 17:00 [665] **Kotrikla A.M., Dimou K., Korras – Carraca M. and Biskos G.**
Air quality modelling in the city of Mytilene, Greece
- 17:00 – 17:15 [698] **Yan Y., Zhang Z., Zhang L. and Ju S.**
Hollow Fiber Membrane Absorption of CO₂ in the Flue Gas
- 17:30 – 18:00 *Coffee break*

Session 31 - BIOMONITORING

Saturday 7 September 2013 – afternoon

ROOM E - ATHENS VIEW (9th FLOOR)

Chairs: Petreas M., Kalantzi O.I.

- 16:00 – 16:30 **Invited speaker [695] Ma W. and Kannan K.**
Analysis of polyfluoroalkyl substances and bisphenol A in dried blood spots by liquid chromatography tandem mass spectrometry
- 16:30 – 16:45 [821] **Darnerud P.O., Bjermo H., Cantillana T., Glynn A., Lindroos A.K., Nalsen C., Barregard L., and Jonsson B.A.G.**
Biomonitoring of toxic compounds and associations with dietary and life-style factors in a Swedish population-based study in adults

- 16:45 – 17:00 [755] **Asimakopoulos A.G., Thomaidis N.S. and Kannan K.**
Benzotriazoles and benzothiazoles in human urine: Method development, occurrence, human exposures, and biotransformation
- 17:00 – 17:15 [476] **Chalkiadaki O., Lydakis-Simantiris N. and Dassenakis M.**
Lead accumulation and metallothionein induction in different tissues of mussels (*M. galloprovincialis*) and clams (*C. chione*) exposed to various Pb concentrations
- 17:15 – 17:30 [423] **Yalcin I.E., Demir G., Ozyigit I.I., Dogan I. and Yarci C.**
Determination of metal deposition and its effects on mineral nutrient uptake status of *Pinus brutia* Ten. for assessment of pollution impact in its habitat-Istanbul
- 17:30 – 17:45 [492] **Ozyigit I.I., Yilmaz S., Dogan I., Sakcali M.S., Kekec G., Demir G. and Severoglu Z.**
Cadmium-induced physiological and genotoxic alterations in *Bryophyllum daigremontianum*
- 17:30 – 18:00 *Coffee break*

Session 32 – CLOSING SESSION**Saturday 7 September 2013 - afternoon****MACEDONIA HALL****Chairs: Lekkas D.F., Thomaidis N.S., San Miguel G.**

- 18:00 – 18:30 Global NEST Journal presentation
- 18:30 – 18:45 CEST2013 Review
- 19:00 – 21:00 Meeting of the Hellenic Water Association (in greek) in Room E- Athens View (9th floor)
- 21:00 Dinner**

POSTER PRESENTATIONS
Thursday 5 September 2013
A. CLEAN ENERGY AND SUSTAINABILITY – SOLID WASTE MANAGEMENT – SOIL CONTAMINATION AND REMEDIATION – WATER QUALITY

- | | | |
|-----|---|--------------------|
| A1 | [420] Cigasova J., Stevulova N., Terpakova E., Junak J. and Sicakova A.
Investigation of composites properties prepared by using hemp hurds and alternative binders | ENERG ¹ |
| A2 | [463] Dal' Acqua N., Machado G., Giovanela M. and Crespo J.S.
Incorporation of gold nanoparticles in multilayers of weak polyelectrolytes for hydrogen production | ENERG |
| A3 | [248] Dimitrakopoulos A.
Ability to produce bioenergy from <i>Oryzopsis miliacea</i> | ENERG |
| A4 | [457] Faria A.C.R., Menezes F.D., Milani R., Gonçalves R.V., Pereira M., Giovanela M., Machado G. and Crespo J.S.
Assembly and characterization of nanostructures photosensitizers for generating hydrogen by water splitting | ENERG |
| A5 | [133] Funez Guerra C., Montes Ponce De Leon M. and Clemente-Jul C.
Comparison of hydrogen applications for storage and energy vector | ENERG |
| A6 | [155] Garate M.P. and Guridi P.M.
A comparison of the economic savings between thermal solar systems and thermal insulation improvements for social housing in Chile | ENERG |
| A7 | [151] Guerrero F. and Clemente-Jul C.
Key factors to develop a common methodology towards an appropriate energy mix for electricity generation | ENERG |
| A8 | [360] Karonis D. and Chilari D.
A comparison between of sodium methoxide and sodium hydroxide catalysts for ethyl esters production | ENERG |
| A9 | [530] Milenkova S., Stefanov B. and Pelovski Y.
New energy saving composite ceramic materials | ENERG |
| A10 | [138] Papadopoulos E. and Synolakis C.
Developing wave energy in Mediterranean Sea: PEST Analysis and examination of other non-technological barriers to the implementation and sustainable development of wave energy | ENERG |
| A11 | [473] Apaydin O. and Erdem O.
Recycling studies at university campuses | SOLID ² |
| A12 | [328] Carli L.N., Giovanela M., Teixeira C.E. and Crespo J.S. | SOLID |

¹ ENER: Clean energy and sustainability

² SOLID: Solid waste management

	Environmental evaluation of a recycling process of vulcanized SBR industrial waste	
A13	[782] Chaudhary D. and Saxena S. Role of informal recycling in e-waste management	SOLID
A14	[431] Estokova A., Kovalcikova M. and Sicakova A. Leaching of calcium and silicon from cement composites in sulphate environment	SOLID
A15	[96] Hosseini S.S., Mahvi A.H. and Hosseini S.A. Estimation of green house gas emission from landfills: Application to the Hamedan landfill site (Iran, Hamedan)	SOLID
A16	[336] Mavroulidou M., Boulouki G. and Unsworth C. Incorporating waste paper sludge ash as partial cement replacement in concrete	SOLID
A17	[542] Paraskevas P.A. Olive mill wastewater management in Greece: Perspectives in the light of the new Greek legislation	SOLID
A18	[310] Petrucci E., Scarsella M., De Filippis P. and Di Palma L. Tetrachloroethene recovery and toxicity reduction of spent powders from dry cleaning process	SOLID
A19	[537] Vilgerts J., Timma L. and Blumberga D. A methodology for quantification of hazardous waste flows: Case study for the Baltic states (Estonia, Latvia, Lithuania)	SOLID
A20	[635] Adiloglu S. and Saglam M.T. Phytoremediation of chrome (Cr) pollution in agricultural areas with canola (<i>Brassica napus</i> L.) plant growing	SOIL ³
A21	[634] Adiloglu S. and Saglam M.T. Removal of lead (Pb) pollution in agricultural areas by phytoremediation method with the use of canola (<i>Brassica napus</i> L.) plant	SOIL
A22	[103] Boudaghi Malidareh H., Mahvi A.H., Yunesian M., Alimohammadi M. and Nazmara Sh. Effect of fertilizer application on paddy soil heavy metal concentration and groundwater in North of Iran	SOIL
A23	[517] Cabarkapa Z., Mavroulidou M. and Gunn M.J. Use of numerical modelling to optimise laboratory testing design for the measurement of the soil water retention curve	SOIL
A24	[371] Davidova T. and David V. Testing the GSSHA model for purposes of soil erosion measurements with use of outdoor rainfall simulator	SOIL
A25	[763] Deshmukh K.K. Impact of irrigation on the chemistry of soils from Sangamner area, Ahmednagar	SOIL

³ SOIL: Soil contamination and remediation

- district, Maharashtra, India
- A26 [569] **Dobocan C.A., Popescu D., Culea E. and Topa V.** SOIL
Analysis of the zeolite volcanic tuffs from Cluj county, Romania
- A27 [563] **Dobocan C.A., Popescu D., Culea E. and Topa V.** SOIL
Exploring the main quarries zeolite volcanic tuffs from Cluj county, Romania
- A28 [491] **Estokova A., Palascakova L. and Kovalcikova M.** SOIL
Hexavalent chromium leaching from cements and cement composites
- A29 [578] **Gerginova M.G., Peneva N.M., Krumova E.T. and Alexieva Z.A.** SOIL
Biodegradation ability of fungal strains isolated from Antarctica towards PAH
- A30 [430] **Sabir M., Raza S., Rehman M.Z., Ahmad H.R., Hakeem K.R. and Murtaza G.** SOIL
Site-specific K recommendations for rice productivity and to reduce excessive use of fertilizers
- A31 [720] **Saggio M.I.S. and Ghupta R.** SOIL
Accumulation of heavy metals in soils and wheat plant (*Triticum vulgare* L.), irrigated with tannery industry effluents in Jalandhar district Punjab
- A32 [34] **Zhang Z. and Rengel Z.** SOIL
Preliminary investigation of arsenic and copper in plants and tailings at Telfer gold mine
- A33 [480] **Balintova M., Singovszka E. and Vodicka R.** WQ⁴
Analysis of correlation between water flow and pH in the Smolnik creek affected by acid mine drainage
- A34 [235] **Balli N. and Leghouchi E.** WQ
The water quality of boreholes Nile river watershed (Jijel, Algeria)
- A35 [593] **Davolos D. and Pietrangeli B.** WQ
A DNA sequence-based and bioinformatic study on freshwater arsenic resistant bacteria
- A36 [737] **Grahovac N., Suturovic Z., Kondić-Spika A., Sekulic P., Lazić S., Sunjka D. and Jaksic S.** WQ
Analytical method validation for the determination of sulfonylurea herbicides in water samples by solid-phase extraction and HPLC with diode-array detection
- A37 [674] **Boudaghi Malidareh H, Alinezhad A., Boudaghi Malidareh P, Mahvi A.H. and Namavar S** WQ
Survey of fluoride level in underground water sources and Urban water distribution network in Qaemshahr city (North of IRAN) from 2006 to 2012
- A38 [173] **Isari E., Makrigiannakis M., Soupioni M. and Papaefthymiou H.** WQ
Metals determination in Glafkos river water and natural radionuclides in Glafkos estuary sediments (Patras, Greece)

⁴ WQ: Water quality

- A39 [416] **Kapsi M.G., Tsoutsi C.S. and Albanis T.A.** WQ
Application of solid-phase extraction in the monitoring of priority pesticides in the Louros river (N.W. Greece)
- A40 [419] **Kapsimalis V., Gkoregia A.A., Panagiotopoulos I., Hatzianestis I., Kaberi H., Iliakis S., Karageorgis A.P., Poulos S.E. and Triantafyllou M.** WQ
Physicochemical characterization and quality status of the surface sediments of south Euboean gulf, Greece
- A41 [670] **Lazic S., Sunjka D., Milovanovic I., Jovanov P. and Grahovac N.** WQ
Determination of pesticide residues in drainage water
- A42 [658] **Mellahi D., Abdou I., Baassou Z. and Gheid A.** WQ
Chlorine consumption modeling and trihalomethane formation potential: Kodiat Mdaouar dam (Batna, Algeria)
- A43 [39] **Nounou H.A., Ali S.M., Shalaby M.A. and Asala R.G.** WQ
The threats of microbial contamination and total dissolved solids in drinking water of Riyadh's rural regions, Saudi Arabia
- A44 [176] **Postolachi L., Rusu V. and Lupascu T.** WQ
Effects of bottom sediments re-suspension on phosphorus forms in the Prut river (Moldova)
- A45 [327] **Zkeri E., Aloupi M. and Gaganis P.** WQ
Natural occurrence of arsenic in groundwater, Lesvos island, Greece

Friday 6 September 2013**B. WATER RESOURCES MANAGEMENT – AIR POLLUTION – ECOLOGY AND ECOSYSTEMS MANAGEMENT – EMERGING POLLUTANTS – HEALTH AND ENVIRONMENT – INNOVATIONS IN CHEMICAL AND PROCESSES FOR WATER TREATMENT – MARINE ENVIRONMENT AND COASTAL MANAGEMENT**

- B1 [282] **Dehghan Manshadi H.R., Ardestani M. and Niksokhan M.H.** WRM⁵
Virtual water versus real water allocation in inter-basin water transfer
- B2 [106] **Gabr A.M., El-Mahmoudi A.S. and Baker H.A.** WRM
Studying the Quaternary aquifer at Al Jaww plain by ERT method, Al Ain, United Arab Emirates (UAE)
- B3 [111] **Giordano R., van der Keur P., van Bers C., Portoghesi I., Henriksen H.J. and Hare M.** WRM
Capacity development in drought risk reduction and adaptation: Findings of the catalyst think tank as illustrated by the Puglia region of Southern Italy
- B4 [32] **Meddi M., Toumi S. and Mehaiguene M.** WRM

⁵ WRM: Water resources management

Hydrological drought in Tafna basin- Algeria

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| B5 | [139] Ntoanidis L.I. and Mimikou M.A.
Intercomparison of the lumped versus semi-distributed HEC - HMS hydrological model in the Kalamas river basin | WRM |
| B6 | [172] Pliakas F., Kallioras A., Mimidis K., Diamantis I., Schuth C. and Deli Ibrahim M.
Groundwater recharge using a soil aquifer treatment (SAT) system at the eastern Nestos river delta, NE Greece | WRM |
| B7 | [626] Sikder M.
Potential of rainwater harvesting in Dhaka city | WRM |
| B8 | [160] Wan Q. Z.
Study and application of emergency water dispatching of Jialing river | WRM |
| B9 | [759] Agber T. and Iorgirim S.M.
Assessment of air quality around Dangote cement company, Tse-kucha, Gboko, Benue State, Nigeria | AIR ⁶ |
| B10 | [525] Apostolopoulou K. and Varnavas S.
An investigation of the air quality above Patras, Greece port in relation to the arrival and departure schedule of the ships | AIR |
| B11 | [194] Bereketidou O.A., Charisiou N.D. and Goula M.A.
Simultaneous removal of NO _x and SO ₂ over copper oxide catalysts supported on silica and rice husk ash | AIR |
| B12 | [408] Grigoratos T., Samara K., Samaras Z. and Rose K.
SOF emissions and redox activity from modern diesel passenger vehicles operated on biodiesel | AIR |
| B13 | [124] Karanasios K., Xanthopoulou G., Vekinis G. and Zoumpoulakis L.
Combustion synthesis catalysts for reforming greenhouse gases | AIR |
| B14 | [403] Mazou E., Efthimiadou A., Tsiros I.X., Tseliou A. and Alvertos N.
Air temperature prediction using recurrent neural models with embedded time delays | AIR |
| B15 | [388] Nisantzi A., Mamouri R.E., Akylas E. and Hadjimitsis D.G.
Synergetic use of active and passive remote sensing instruments for the seasonal variance of aerosols over Cyprus | AIR |
| B16 | [438] Papazachou N. and Samara C.
Determination of organic and inorganic anions in atmospheric particulate matter and dust deposited on monuments | AIR |
| B17 | [24] Pawar S.D.
Pollution index and air ion variation in winter season at urban station Sangli (16° 52' N, 74° 36' E) India | AIR |

⁶ AIR: Air pollution

- B18 **[353] Tseliou A., Tsiros I.X., Nikolopoulou M., Psiloglou V. and Lykoudis S.** AIR
 Aspects of (human) thermal preferences in the urban outdoor environment of Athens: A preliminary study
- B19 **[384] Vilcekova S., Estokova A. and Pilipova M.** AIR
 Study of indoor air quality in selected office building
- B20 **[46] Bouchelaghem S. and Djebbar M.R.** ECO⁷
 Contribution to the study of the impact of a fertilizer commonly used in Algeria (NPK) on germination and respiratory metabolism of *Triticum durum*
- B21 **[325] Drougelidis F. and Stergiadou A.** ECO
 Design study and sustainable development of using forest constructions in a recreation park at Taxiarchi
- B22 **[58] El-Darier S.M., Marzouk R.I. and Khattab K.A.** ECO
 Differential allelopathic effect of nine *Haplophyllum tuberculatum* growth forms through germination bioassay
- B23 **[92] Nesrine S., El-Darier S.M. and El-Taher H.M.** ECO
 The effect of soil in the allelopathic potential of *Artemisia herba-alba* and *Oudneya africana* crude powder on growth of weeds
- B24 **[638] Pantera A., Papadopoulos A., Pantera M. and Papaspyropoulos K.** ECO
 Socioeconomic dimension of oak forests: understanding local people perceptions with emphasis on children
- B25 **[283] Rueda-Puente E.O., Renganathan P., Farmohammadi S., Moghaddam A. and Zakeri O.** ECO
 Plant growth promoting bacteria associated to salicornia rhizosphere in Bandar Abbas, Iran
- B26 **[486] Salami O.A. and Ande O.T.** ECO
 Multicriteria decision rule for evaluating physical vulnerability of selected areas to forest degradation in Ogun state, Nigeria
- B27 **[671] Salman J.M. and Nassar A.J.** ECO
 Variation of some physico-chemical parameters and biodiversity of gastropods species in Euphrates river, Iraq
- B28 **[153] Antunes M., Esteves V.I., Guegan R., Crespo J.S., Fernandes A.N. and Giovanela M.** EMERG₈
 Removal of diclofenac sodium from aqueous solution by isabel grape bagasse
- B29 **[843] Arvaniti O.S., Andersen H.R., Hwang Y.H., Antoniou M.G., Gatidou G.M., Thomaidis N.S. and Stasinakis A.S.** EMERG
 Removal of perfluorinated compounds from water with activated carbon and redox treatments

⁷ ECO: Ecology and ecosystems management

⁸ EMERG: Emerging pollutants

- B30 **[237] Bialk-Bielinska A., Maszkowska J., Kolodziejska M., Steudte S., Kumirska J., Stepnowski P. and Stolte S.** EMERG
Aquatic toxicity of four selected veterinary drugs commonly applied in fish farming and animal husbandry
- B31 **[285] Borecka M., Siedlewicz G., Bialk-Bielinska A., Kumirska J., Pazdro K. and Stepnowski P.** EMERG
Trace analysis of pharmaceutical in sediments from the Polish coastal zone
- B32 **[691] Borova V. L., Chrisochou E.M., Dasenaki M.E., Alygyzakis N., Tsaganou G. and Thomaidis N.S.** EMERG
Determination of pharmaceuticals, controlled psychoactive and illicit drugs and their metabolites in sewage sludge of the WWTP of Athens
- B33 **[661] Corada-Fernandez C., Lara-Martin P.A., Jiménez-Martinez J., Candela L. and Gonzalez-Mazo E.** EMERG
Presence of emerging contaminants in the vadose zone of two aquifers systems in Jerez de la Frontera area (SW, Spain)
- B34 **[561] Ella A.B., Ella F.A. and Effiong M.U.** EMERG
The effects of glyphosate herbicide on some soil organisms in selected areas of Okpokwu, Benue state, Nigeria
- B35 **[750] Harju M., Herzke D., Katsoyiannis A., Borgen A., Sagerup K. and Gabrielsen G.W.** EMERG
Perfluorinated alkyl substances, chloroparaffins and BFRs in soil, sediments and terrestrial/marine biota in Norway and the Arctic
- B36 **[453] Kobothehra V.S., Boti V.I. and Albanis T.A.** EMERG
High resolution separation and accurate mass confirmation of 12 pesticides by LC-hybrid LTQ orbitrap MS
- B37 **[274] Kolodziejska M., Maszkowska J., Bialk-Bielinska A., Stepnowski P. and Kumirska J.** EMERG
Determination of metronidazole residues in water and sediment samples
- B38 **[271] Kolodziejska M., Maszkowska J., Fabianska A., Kumirska J. and Stepnowski P.** EMERG
Extraction methods of two benzimidazoles from environmental samples
- B39 **[253] Lofrano G., Bisogno G., Carotenuto M. and Nikolaou A.** EMERG
Determination of OTCs in marine sediments: analytical methods and environmental concerns
- B40 **[315] Maszkowska J., Kolodziejska M., Bialk-Bielinska A., Fabianska A., Mrozik W., Kumirska J. and Stepnowski P.** EMERG
Sorption of β -blockers to natural soils
- B41 **[349] Zhang X., Zhang D., Lin L., Yan C.** EMERG
Occurrence and risks of pharmaceuticals, personal care products and endocrine disruptors in Jiulongjiang river, South China

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|-----|---|------------------|
| B42 | [56] Akroum S.
Antibacterial and acute toxicity effects of some plants extracts | HEALTH
9 |
| B43 | [102] Boudaghi Malidareh H., Mahvi A.H., Yunesian M., Alimohammadi M. and Nazmara Sh.
Arsenic, cadmium and lead content in polished white rice (<i>Oryza sativa</i> L.) in Ghaemshahr city (North of IRAN) | HEALTH |
| B44 | [378] Mouzaki-Paxinou A.C., Foudoulakis M. and Arapis G.
The use of the biomarkers chlorophylls and carotenoids, for the interpretation of the effects in <i>Lemna minor</i> after exposure of two herbicides with different mode of action | HEALTH |
| B45 | [211] Al-Rawajfeh A.E., Al-Hawamdeh S., Al-Hawamdeh S. and Al-Dharaba'a S.
Defluoridation of water by natural materials: is it adsorption? | WT ¹⁰ |
| B46 | [170] Belaib F., Meniai A-H and S.Arris
Study of elimination of methyl orange from aqueous solutions by natural and commercial adsorbents | WT |
| B47 | [524] Brozou E., Ioannou Z., Antoniadis V. and Dimirkou A.
Adsorption of hexavalent chromium from aqueous solutions onto modified zeolites | WT |
| B48 | [536] Ghizellaoui S. and Semineras H.
Use of chronoamperometry for the inhibition of scaling in hard waters | WT |
| B49 | [483] Holub M., Balintova M. and Pavlikova P.
Removal of metal ions from acidic solutions using peat-A low cost sorbent | WT |
| B50 | [134] Karasavvidis Ch., Ioannou Z. and Dimirkou A.
Removal of methylene blue from aqueous solutions using modified zeolite and activated carbon under semi-batch and batch operations | WT |
| B51 | [523] Matijasevic Lj., Dejanovic I. and Vuckovic A.
Synthesis of cooling water network in a petroleum refinery | WT |
| B52 | [643] Mellahi D., Baassou Z., Abdou I and Gheid A.
Optimization of conventional water treatment systems for the removal of dissolved organic matter and THM: Kodiac Mdaouar dam (Batna, Algeria) | WT |
| B53 | [191] Najib N. and Christodoulatos C.
Phosphate removal from aqueous solution using a quaternized electrospun cellulose nanofiber as an anion exchange resin | WT |
| B54 | [468] Najib N., Christodoulatos C., Wazne M. and Jagupilla S.
Removal of high concentrations of phosphate from aqueous solution using aragonite | WT |
| B55 | [422] Nastas R., Rusu V. and Lupascu T.
Removal of hydrogen sulphide from sulphurous ground waters | WT |

⁹ HEALTH: Health the environment

¹⁰ WT: Innovations in chemicals and processes for water treatment

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| B56 | [547] Nujic M., Kalajdic B. and Habuda-Stanic M.
Nitrate in shallow groundwater source in a rural area and its removal | WT |
| B57 | [279] Preari M. and Demadis K.D.
The use of environmentally-friendly and “green” polyethylene glycol additives for silica scale inhibition and control in industrial water flow systems | WT |
| B58 | [570] Theologides C.P., Constantinou B.K., Olympiou G.G., Savva P.G. and Costa C.N.
Catalytic denitrification of water with H ₂ on Pd-Cu supported catalysts: mechanistic studies | WT |
| B59 | [182] Vosoughi M., Mahvi A.H., Alimohammadi M., Nasserli S. and Nabizadeh R.
Removal of humic acid by cetylpyridinium bromide modified zeolite from aqueous solution | WT |
| B60 | [265] Akan J.C., Abdulrahman F.I. and Kolo B.G.
Organochlorine and organophosphorus pesticide residues in fish samples from lake Chad, Baga, North Eastern Nigeria | MAR ¹¹ |
| B61 | [333] Alexopoulos J.D., Vassilakis Emm., Dilalos S. and Zaloumi E.
Quantification of human impact on natural evolution processes at a coastal zone, adjacent to an active fault | MAR |
| B62 | [683] Bozkurt E., Eliri O. and Kesiktas M.
Analysis of heavy metals in seawater samples collected from beaches of Asian side of Istanbul | MAR |
| B63 | [62] Efstathiou M. and Pashalidis I.
Adsorption of trivalent lanthanides and actinides by marine sediments | MAR |
| B64 | [366] Poulos S.E., Koukounari I.N., Dassenakis M., Dounas C.G. and Paraskevopoulou V.
Sedimentological and environmental investigation of the sea bed sediments of the Heraklion gulf (Crete) | MAR |
| B65 | [837] Wilk R., Gorecki H. and Chojnacka K.
Towards technology of algal extracts production | MAR |

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C. ADVANCED OXIDATION PROCESSES (AOPs) – BIOMONITORING – CLIMATE CHANGE AND ENVIRONMENTAL DYNAMICS – ENVIRONMENTAL PLANNING, MANAGEMENT AND POLICIES – WASTEWATER TREATMENT

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| C1 | [70] Bahmani P., Ghahramani E. and Maleki A.
Application of Fenton oxidation process for degradation of Reactive Black 5 in aqueous system | AOPs ¹² |
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¹¹ MAR: Marine environment and coastal management

¹² AOP'S: Advanced Oxidation Processes

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| C2 | [64] Kos L., Sojka-Ledakowicz J., Zylla R., Michalska K. and Perkowski J.
Decomposition of azo dye Direct Red 23 in the Fenton process in the presence of iron oxide nanopowder | AOPs |
| C3 | [519] Kosma C.I., Lambropoulou D.A. and Albanis T.A.
Application of response surface methodology (RSM) in the optimization of photocatalytic degradation of Trimethoprim | AOPs |
| C4 | [619] Pantelidou N., Theologides C., Olympiou G.G., Savva P.G. and Costa C.N.
<i>In situ</i> formation of hydrogen peroxide for the catalytic removal of pharmaceutical compounds in wastewater using hydrogen in excess of oxygen/air | AOPs |
| C5 | [514] Petsas A.S., Vagi M.C., Kostopoulou M.N. and Lekkas T.D.
Photocatalytic degradation of the organophosphorus pesticide fenthion in aqueous suspensions of TiO ₂ under UV irradiation | AOPs |
| C6 | [560] Wittine O., Maduna -Valkaj K. and Zrnecvic S.
Hydrogen peroxide promoted CWAO of phenol over Cu/13X catalyst | AOPs |
| C7 | [747] Nafea E.M.A. and Younis A.M.
Heavy metals and nutritional composition of some naturally growing aquatic macrophytes of Northern Egyptian lakes | BIO ¹³ |
| C8 | [338] Petsas A.S., Vagi M.C., Pavlaki M.D., Smaragdaki N.M., Kostopoulou M.N. and Lekkas T.D.
Toxic effects of azinphos methyl and azinphos ethyl on growth and chlorophyll pigments production of marine unicellular microalgae <i>Tetraselmis suecica</i> | BIO |
| C9 | [335] Tsigaridas K., Sawidis T., Monokrousos N., Sivropoulou A. and Diamadopoulos E.
Lichens as indicators of heavy metal pollution around a coal-fired power station in W. Macedonia, Greece | BIO |
| C10 | [149] Zikos C., Evangelou A., Karachaliou C.-E., Gourma G., Blouchos P., Moschopoulou G., Yialouris C., Griffiths J., Johnson G., Petrou P., Kakabakos S., Kintzios S. and Livaniou E.
Commercially available benzimidazole derivatives as immunizing haptens for the development of a polyclonal antibody recognizing the fungicide carbendazim | BIO |
| C11 | [22] Aneni T.I., Aisagbonhi C.I., Iloba B.N. and Ogbebor C.O.
Influence of weather factors on seasonal population dynamics of <i>Coelaenomenodera elaeidis</i> (Coleoptera – Chrysomelidae) and its natural enemies in NIFOR, Nigeria | CLIM ¹⁴ |
| C12 | [836] Fytianos G.K., Knuutila H. and Svendsen H.F.
CO ₂ capture from exhaust gases and natural gas sweetening at NTNU | CLIM |

¹³ BIO: Biomonitoring

¹⁴ CLIM: Climate change and Environmental Dynamics

C13	[184] Giannaros T.M., Melas D. and Ziomas I. Performance evaluation of a mesoscale modeling system for wind resource assessment	CLIM
C14	[425] Konsoula Z., Tsangari H., Christou S., Georgiou K., Ioannou K., Kleanthous S., Pashiardis S., Pavlou P. and Yamasaki E.N. Impact of thermal stress on public health in Cyprus	CLIM
C15	[326] Sindosi O.A., Bartzokas A., Kotroni V. and Lagouvardos K. Investigation for a possible influence of Ioannina and Metsovo lakes (Epirus, NW Greece), on precipitation, during the warm period of the year	CLIM
C16	[571] Stana O. and Halbac-Cotoara-Zamfir R. Climatic changes impact on water-table levels in W Romania	CLIM
C17	[30] Akpan M., Olufemi B. and Offiong M.O. Noise pollution assessment of furniture industries in Adamawa State, Nigeria	PLAN ¹⁵
C18	[359] Anelli S., Bellotti M., Saponaro S., Sezenna E. and Trozzi A. Prioritization of contaminated sites in the Lombardy region (Italy): The development of a relative risk assessment procedure	PLAN
C19	[387] Antoniou G.P. Reuse of the vernacular communal rainwater cisterns & fountains. The case of Amorgos, Cyclades	PLAN
C20	[370] David V. and Davidova T. Present state analysis of extinct ponds areas as a basis for its future use optimisation	PLAN
C21	[86] España-Pérez K. and González-García C. Environmental management: New actors and strategies	PLAN
C22	[53] Mohamed M.M. and Maraqa M. Assessment of environmental engineering education in the United Arab Emirates	PLAN
C23	[137] Nouri J., Abdi N., Arian Asl A., Mohseni M., Moeeni M. and Abooshahab Z. Application of failure mode and effect analysis in risk assessment of mining plan	PLAN
C24	[66] Pietrucha-Urbanik K. and Valis D. Application of fuzzy logic for failure risk assessment in water supply system management	PLAN
C25	[441] Roukounakis N., Retalis A. and Petrakis M. Improving airport noise model accuracy with the combined use of statistical methods and on-site measurements: The case of Athens International Airport	PLAN
C26	[67] Tchorzewska-Cieslak B. Bayesian model of urban water safety management	PLAN

¹⁵ PLAN: Environmental Planning, Management and Policies

C27	[479] Vilcekova S., Culakova M. and Kridlova-Burdova E. Evaluation of environmental indicators of building materials and results implementation to building environmental assessment system	PLAN
C28	[731] Wang M.-C. The value relevance on environmental information disclosures: Evidence from Taiwanese listed firms	PLAN
C29	[47] Abdel-Kader A.M. Assessment of an MBR system for segregated household wastewater by using simulation mathematical model	WASTE ¹⁶
C30	[107] Carrillo-Abad J., García-Gabaldón M., Ortega E. and Pérez-Herranz V. Electrochemical recovery of the zinc present in the spent pickling baths coming from the hot dip galvanizing industry by means of the use of two different membranes	WASTE
C31	[266] Daraei H., Maleki A., Shahmoradi B., Razee S. and Ghobadi N. Electrocoagulation efficiency and energy consumption probing by artificial intelligent approaches	WASTE
C32	[159] Gelain L., Crespo J.S. and Giovanela M. Isabel grape bagasse as a potential biosorbent of zinc in the effluents treatment	WASTE
C33	[180] Hassaine-Sadi F., Chelouaou S., Graiche M. and Boudaa A. Treatment and valorization of heavy metals from wastewater by solvent extraction using di-2-ethylhexylphosphoric acid (D2EHPA)	WASTE
C34	[190] Jaafari J., Mesdaghinia A., Nabizadeh R., Farrokhi M., and Mahvi A.H. Investigation of anaerobic fluidized bed reactor/aerobic moving bed bio reactor (AFBR/MMBR) system for treatment of currant wastewater	WASTE
C35	[752] Kowalska I. Investigation of pressure-driven membrane processes for regeneration of detergent cleaning solutions	WASTE
C36	[692] Ladeira A.C.Q. and Sicupira L.C. Application of ion exchange resins to recover uranium from acid mine drainage	WASTE
C37	[456] Lovatel R.H., Neves R.M., Crespo J.S., Carli L.N. and Giovanela M. Use of montmorillonite-alginate hybrids decorated with silver nanoparticles in industrial wastewater treatment for reuse	WASTE
C38	[289] Maalim M.K, Mgana S.M., Mbuligwe S.E., Kassenga G.R. and Mohamed S.M. Treatment of tropical domestic wastewater by UASB reactor inoculated with effective microorganisms consortium - COD and suspended solids removal	WASTE
C39	[505] Maleki A., Daraei H., Khodaei F., Aghdam K.B., Rezaee R. and Mahvi A.H. Simple production of potato waste based sorbent, color removal efficiency and experimental parameters influences probing by using novel Taguchi-ANN-GA method	WASTE

¹⁶ WASTE: Wastewater treatment

- C40 [68] **Maleki A., Shahmoradi B., Daraei H., Mahvi A.H., Bahmani P. and Rezaee R.** WASTE
Potential of natural and acid modified clinoptilolite for adsorption of azo dye in aqueous environment
- C41 [108] **Martí-Calatayud M.C., García-Gabaldón M., Ortega E. and Pérez-Herranz V.** WASTE
Treatment of industrial wastewaters containing multivalent metals by means of electro-dialytic techniques
- C42 [757] **Mosslhy D., Abdel-Kader A., Elbarqi W. and Mostafa M.** WASTE
Treatment of food industrial wastewater by using anaerobic baffled reactor (ABR)
- C43 [16] **Hilal N.M., Ahmed I.A. and El-Sayed R.E.** WASTE
Activated and non – activated date pits adsorbent for the removal of copper (II) and cadmium (II) from wastewater
- C44 [625] **Sikder M., Hasanuzzaman M. and Rahman M.M.** WASTE
Water quality modeling for BOD and COD control strategies for the Buriganga river of Bangladesh
- C45 [297] **Wang C.P., Gao Z.Y., Zhao S., Sheng S.X. and Wang K.J.** WASTE
Behavior of heavy metals in full-scale sludge incineration by spray drying-rotary kiln process
- C46 [590] **Xanthos S., Ramalingam K., Beckmann K., Deur A. and Fillos J.** WASTE
Final settling tank CFD modeling: Realizing the potential of waste water treatment modeling
- C47 [497] **Yousefi Z., Mohseni A., Mahvi A.H., Dianati R.A., Malaki A., Mohamadpur R.A. and Ghahramani E.** WASTE
Survey of efficiency sequence batch reactor (SBR) in reactive yellow3 dye removal of industrial textile