



## Final Programme

 ${\it Under\ the\ auspices\ of:}$ 







Prince Sultan Bin Abdulaziz International Prize for Water

Recognizing Innovation

# Invitation for 6th 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 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 7<sup>th</sup> up to the 12<sup>th</sup> 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 9<sup>th</sup> 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 (9<sup>th</sup> 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 (9<sup>th</sup> 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 5<sup>th</sup> of September SESSION B - on Friday 6<sup>th</sup> of September SESSION C - on Saturday 7<sup>th</sup> 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**

University of the Aegean
13<sup>th</sup> International Conference on Environmental
Science and Technology (CEST2013)
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GR 114 72 Athens, Greece

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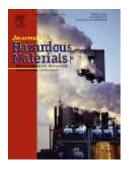


#### **SUPPORTING JOURNALS**

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

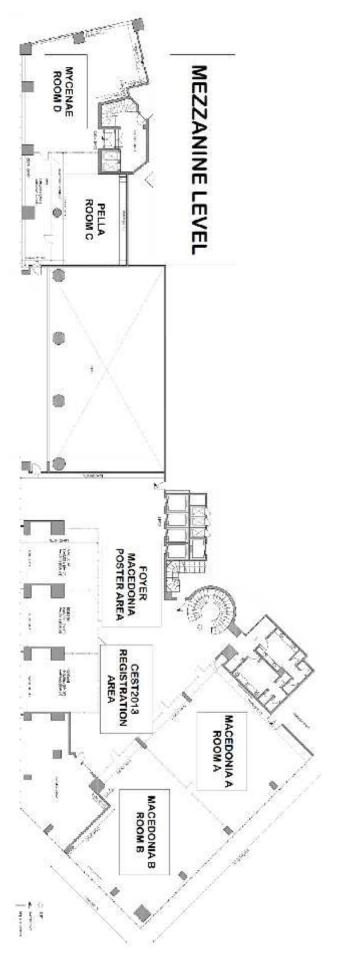


Desalination and
Water Treatment
Science and
Engineering
Publisher: Desalination
Publications



Waste Management & Research Publisher: SAGE Journals





9 <sup>th</sup> Floor	Mezzanine	Level
Coffee break area Poster area WiFi Pool - conference dinner	CEST Secretariat Poster area Coffee & lunch break area WiFi	Facilities
(E) Athens view	<ul><li>(A) Macedonia A</li><li>(B) Macedonia B</li><li>(C) Pella</li><li>(D) Mycenea</li></ul>	Rooms



SATURDAY 7 SEPTEMBER 2013					THURSDAY 5 SEPTEMBER 2013							
	16.00 - 17.30	69:03 ÷ 13:30	16:00	0 - 19:45	99:00	1+:00	16 00 - 19:45	11;+5 - 13:30	06.00			
	SESSION 27 ENVIRONMENTAL PLANWING, MANAGEMENT & POLICIES (2)	SESSION 22 ENVIRONMENTAL PLANNING, MANAGEMENI 8 POLICIES (1)	INDROLOGY	SESSION 17 CATCHMENT	MANAGEMENT	SESSION 12 HYDROLOGY &	SESSION 7 DROUGHT AND WATER SCARITY	SESSION 2 WATER QUALITY		Þ		
SESSION 32 CLOSING SESSION Macedonia Hall	SESSION 28 WASTEWATER TREATMENT (3)	SESSION 23 WASTEWATER TREATMENT (2)	SESSION 18.2 WASTEWATER TRENTMENT II.	MODELLING WITH WATER CONTROL IN WATER WATER WATER TOTAL TOTA	WATER TREATMENT	SESSION 13 INNOVATIONS IN CHEMICALS &	SESSION 8 SOLID WASTE MANAGEMENT	SESSION 3 ORGANIC & JNDUSTHIAL SOLLD WASTE MANAGEMENT		В		
	SESSION 29 HEXAVALENT CHONDING IN THE GEOENATION VEN- GOCURRENCE & REMEDIATION (2)	SESSION 24 HEXAVALENT CHROMING IN THE GEOENCRONMENT: OCCURRENCE & REPEDIATION (1)	ENVIRONMENT	SESSION 19 HEALTH AND	MANAGEMENT	2% 86		SESSION 1 OPENING Macedonia Hall	ROOM	C	ROOM	8
MEET.1	SESSION 30 A:R PCLLUTION (3)	SESSION 25 CLIMATE CHANGE & ENVIRONMENTAL DYNAMICS		SESSION 20	AIR POLLUTION 15.2	SESSION 15.1 ECOLOGY & ECOSYSTEMS MANAGEMENT (2)	SESSION 10 CLEAN ENERGY 8. SUSTAINABILITY (2)	SESSION 5 (LLEAN ENEKSY & SUSTAINABILITY (1)		D		CONFERENCE TIMETABLE
MEETING OF THE HELLENIC WATER ASSOCIATION (in Greek)	SESSION 31 BIOMONITORING	SESSION 26 ADVANCED OXIDATION PROCESSES (AOPs)	SESSION 21 EMERGING FOLLUTANTS (4)		FOLLUTANTS (3)	SESSION 16 EMERGING	SESSION 11  CMERGING POLLUTANTS (2)	SESSION 6 EMERGING POLLUTANTS (1)		п		BLE
WASTEVIATER TREATMENT	BICP CUITORING CLIMATE CHANGE & ENVIRONMENTAL DYNAMICS ENVIRONMENTAL PLANNING, MANAGEMENT & FOR ICIES	MARINE ENVIRONMENT & CCASTAL MANAGEMENT	EMERGING FOLLUTANTS (9" Hoor) HEALTH AND THE ENVIRONMENT JANUALIONS IN CHEMICALS BOOCESSES FOR WATER TREATMENT	COLOGY AME CODSYSTEMS	POSITE SESSION 2 NATER RESOURCES MANASEMENT	RENEDIATION WATER QUALITY	CLEAN ENERGY & SUSTAINABILITY SOLID WASTE MANAGEMENT SOL CONTAMINATION &			DOCTED AREA		



#### **PREVIOUS CEST CONFERENCES**

1<sup>st</sup> Conference on Environmental Science and Technology, CEST1989 September 1989, Mytilene, Lesvos, Greece

**2**<sup>nd</sup> **Conference on Environmental Science and Technology, CEST1991** 2-5 September 1991, Molyvos, Lesvos, Greece

**3<sup>rd</sup> 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

5<sup>th</sup> Conference on Environmental Science and Technology, CEST1997 1-4 September 1997, Molyvos, Lesvos, Greece

**6<sup>th</sup> Conference on Environmental Science and Technology, CEST1999** 30 August-2 September 1999, Pythagorion, Samos, Greece

**7<sup>th</sup> Conference on Environmental Science and Technology, CEST2001** 3-6 September 2001, Hermoupolis, Syros

-6 September 2001, Hermoupolis, Syros

**8**<sup>th</sup> Conference on Environmental Science and Technology, CEST2003 8-10 September 2003, Lemnos Island Greece

covered by ISI Proceedings

covered by ISI Proceedings

**9**<sup>th</sup> Conference on Environmental Science and Technology, CEST2005 1-3 September 2005, Rhodes Island, Greece covered by ISI Proceedings

**10**<sup>th</sup> Conference on Environmental Science and Technology, CEST2007 5-7 September 2007, Cos Island, Greece

covered by ISI Proceedings

11<sup>th</sup> Conference on Environmental Science and Technology, CEST2009 3-5 September 2009, Chania, Crete, Greece

covered by ISI Proceedings

12<sup>th</sup> 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**

	Sessi	ion	1 –	OP	ΈN	IING
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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: Occurence 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: Gidarakos E., Xenidis A.

Chairs: Gidarako	is E., Xeniais 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] <b>Hahladakis J., Maragkos K. and Gidarakos E.</b> Heavy metals in parts of waste cellular phones. Are the RoHS directive compliance regulations met?
12:15 – 12:30	[458] <b>Tzanakos K., Mimilidou A., Anastasiadou K., Stratakis A. and Gidarakos E.</b> Synthesis and heavy metal immobilization behaviors of medical waste ash based geopolymer
12:30 – 12:45	[490] <b>Cruz-Bournazou M.N., Kielhorn E., Ertem F.C., Neubauer P. and Junne S.</b> Multiposition monitoring for improved biogas production based on biowaste utilization
12:45 – 13:00	[528] <b>Dareioti M.A., Vgenis T.T., Vavouraki A.I. and Kornaros M.</b> Assessment of methane production from typical western Greece agro-industrial wastes
13.00 – 13.15	[838] Ponko M. Wilk R. Gorecka H. Choinacka K. and Gorecki H.

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 latrou 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	s G., San Miguel G.
11:45 – 12:00	[196] <b>Stergiopoulou A., Stergiopoulos V. and Kalkani E.</b> 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 <sub>2</sub> , TiO <sub>2</sub> 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 (9<sup>th</sup> 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

_,,,,,	[55-]					
	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 biologica 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] <b>Nikolaou A., Giannis A. and Gidarakos E.</b> 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.					
13.13 13.30	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: Kostarelo	os 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					

[636] **Antoniou K., Panagiotakis I., Mamais D. and Pantazidou M.** Hydrogen addition for reductive dechlorination of trichloroethylene

local partial least square regression approach

[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

[361] Abeliotis K., Lasaridi K., Chroni C. and Zorpas A.A.

16:15 - 16:30

16:30 - 16:45



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., Gidarakos 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 Gidarakos E.

Partitioning and ecological risk assessment of heavy metals in surficial sea and lake sediments

18:45 – 19:00 [116] **loakeimidis 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 emsissions 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.
	Infrastracture 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 purolysis bio-oil/biomethanol blends with plastic polymers
18:30 – 18:45	[460] Rincón S.L., Gómez A.G., and Aragonez M.P.
	Pyrolysis of sewage sludge from the wastewater treatment plant in Bogotá (Colombia)
18:45 – 19:00	[464] Dodos G.S., Stamatiou G. and Zannikos F.
	Biodiesel production from lunaria oil (L. Annua)
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 (9<sup>th</sup> 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 TiO<sub>2</sub> based nanomaterials

17:00 – 17:15 [270] Kolodziejska 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] <b>Tsihrintzis V.A. and Baltas E.</b> Sizing of rainwater harvesting tank for in-house water supply
13:15 – 13:30	[749] <b>Bozan C. S., Korosparti J., Pasztor L. and Palfai I.</b> 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] <b>Murad A.A., Mahmoud S., Arman H., Baker H., Al Bloushi K. and Gabr A.</b> 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

bioregeneration of the saturated carbon

Friday 6 September 2013 - morning

**ROOM B - MACEDONIA B** 

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

Chairs: Jiang J-Q	., Stasinakis A. S.
9:00 – 9:15	[331] <b>Jiang J-Q., Durai H.B.P., Winzenbacher R. and Petri M.</b> 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] <b>Tarpagkou R., Pantokratoras A. and Papadakis N.</b> 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] <b>Ubaldini S., Luptakova A., Macingova E., Fornari P. and Pizzichemi P.</b> Innovative biohydrometallurgical processes for decontamination of acid mine drainage
10:00 – 10:15	[385] <b>Kaprara E., Simeonidis K., Zouboulis A.I. and Mitrakas M.</b> Evaluation of current treatment technologies for Cr(VI) removal from water sources at sub-ppb levels
10:15 – 10:30	[621] <b>Roccaro P., Lombardo G. and Vagliasindi F.G.A.</b> Removal of hydrocarbons from hypersaline water by adsorption on GAC and offline



10:30 – 10:45	Defluoridation of water by nature and acidic washer bonechar
10:45 – 11:00	[329] Zarpelon 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] <b>Jiang J-Q.</b> 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] <b>Bilardi S., Calabrò P.S. and Moraci N.</b> Simultaneous removal of Cu <sup>II</sup> , Ni <sup>II</sup> , and Zn <sup>II</sup> 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 <i>Myriophyllum spicatum</i> 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., Vousdoukas 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 IG.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- $\delta$ -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] Prabhaharan 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., Achillas 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<sub>2.5</sub> in urban environment (Athens, Greece)

12:45 – 13:00 [342] **Afzali S. and Chaloulakou A.** 

Measurements of PM<sub>10</sub> 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] Xagoraraki 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 remova 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] Mutiyarm 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 Hrissanthou 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 10 LIE	ALTH AND ENVIRONMENT
	aber 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 Gidarakos 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.

17:00 – 17:15 [549] Kermenidou M., Voudrias E. and Kostantoula A.

respiratory tract

Composition and production rate of cytostatic pharmaceutical waste from Theagenio cancer hospital in Thessaloniki, Greece

Effect of Sahara dust events on the deposited fraction of atmospheric aerosol in the

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 SiO<sub>2</sub>, HFO<sub>2</sub> 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



18:30 - 18:45

activated carbon

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 - EMI	ERGING POLLUTANTS (4)
-	ber 2013 – afternoon
	NS VIEW (9 <sup>th</sup> FLOOR) n H., Noutsopoulos C.
16:00 – 16:15	[708] Antoniou M.G., Hey G., Vega S.R., Spiliotopoulou A., Fick J., Tysklind M.,
10.00 10.15	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] latrou 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 <i>Lemna minor</i>
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 TiO <sub>2</sub> /UV-A photocatalytic oxidation
18:15 – 18:30	[174] Olmez-Hanci T., Arslan-Alaton I., Dursun D. and Genc B.
	UV-C, $S_2O_8^2$ -/UV-C and $H_2O_2$ /UV-C treatment of aqueous bisphenol-A. Results in different acute toxicity patterns

[641] Noutsopoulos C., Katsigiannis A., Mantziaras J., Gioldasi M. and Katsiri A.

Removal of anti-inflammatory drugs and endocrine disrupting chemicals by granular



18:45 – 19:00 [314] Maszkowska J., Kolodziejska M., Bialk-Bielinska A., Mrozik 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 ecodevelopment

9:30 – 9:45 [495] **Salata K.D. and Yiannakou A.** 

Spatial planning for adaptating 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, Lesvos 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] <b>Koumparou D.</b> 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 ${\rm CO}_2$ 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] <b>Voulvoulis N.</b> 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.

Chairs: beigiorni	b 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 <i>Escherichia coli</i> 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.



Is Lemna minor a candidate plant for phytoremediation? Observations on the eff metals and industrial pollutants on the Small Duckweed	ect of
11:45 – 12:00 [295] <b>Scannapieco D., Naddeo V. and Belgiorno V.</b> 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. van der Bruggen B.  The feasibility of a hybrid system consisting of a pellet reactor and electrodialys reverse osmosis concentrate treatment	<b>and</b> is for
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 region	pilot
12:30 – 12:45 [589] <b>Alleyne A.A., Xanthos S., Tang H. and Ramalingam K.</b> Real-life configuration stirred tanks: A computational investigation using CFD	
12:45 – 13:00 [554] <b>Koliopoulos G., Sklivaniotis M. and Gikas P.</b> 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] <b>Dokou Z., Karatzas G.P., Nikolaidis N.P. and Kalogerakis N.</b> 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 Scoullos M.
10:00 – 10:15	Chromium occurence in Greece: distribution, sources and environmental fate  [746] <b>Dermatas D., Panagiotakis I., Vatseris C., Xenidis A., Papasiopi N., Mpouras T., Theologou E., Vaxevanidou K. and Chyrsochoou M.</b> 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] <b>Kabengi N.</b> .	Chrysochoou M	Inheston C a	nd Tulloch I
11.00 - 11.13	13321 Nabeliel IV.	. Chir vsochood ivi	JUHISLUH C. a	na runoch 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 CO<sub>2</sub> 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

	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)
	OVANCED OXIDATION PROCESSES (AOPs)
-	tember 2013 – morning ENS VIEW (9 <sup>th</sup> FLOOR)
	las 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 $\text{TiO}_2$ and carbon nanotubes
9:15 – 9:30	[95] Maleki A., Daraei H., Mohseni-Bandpei A., Zandsalimi Y., Alaei L. and Mahvi A.H.

[396] Nastos P.T, Bleta A.G. and Matsangouras I.T.

Hybrid ozonation-microfiltration system for the treatment of surface water

[232] Szymanska K., Zouboulis A.I., Zamboulis D. and Samaras P.

A., Kiriakidis G. and Mantzavinos D.

disinfection purposes

Study of efficiency and energy consumption of synthesized nano-ZnO Sono-catalyst

[825] Venieri D., Fraggedaki A., Kostadima M., Chatzisymeon E., Binas V., Zachopoulos

Investigation of Mn and Co-doped TiO<sub>2</sub> semiconductors for solar photocatalytic

9:30 - 9:45

9:45 - 10:00



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 CO<sub>2</sub> 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 dietarty 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 ( <i>M. galloprovincialis</i> ) and clams ( <i>C. chione</i> ) 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 <i>Pinus brutia</i> 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 <i>Bryophyllum daigremontianum</i>
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 (9 <sup>th</sup> 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.	ENERG <sup>1</sup>
	Investigation of composites properties prepared by using hemp hurds and alternative binders	
A2	[463] Dal' Acqua N., Machado G., Giovanela M. and Crespo J.S.	ENERG
	Incorporation of gold nanoparticles in multilayers of weak polyelectrolytes for hydrogen production	
А3	[248] Dimitrakopoulos A.	ENERG
	Ability to produce bioenergy from <i>Oryzopsis miliacea</i>	
A4	[457] Faria A.C.R., Menezes F.D., Milani R., Gonçalves R.V., Pereira M., Giovanela M., Machado G. and Crespo J.S.	ENERG
	Assembly and characterization of nanostructures photosensitizers for generating hydrogen by water splitting	
A5	[133] Funez Guerra C., Montes Ponce De Leon M. and Clemente-Jul C.	ENERG
	Comparison of hydrogen applications for storage and energy vector	
A6	[155] Garate M.P. and Guridi P.M.	ENERG
	A comparison of the economic savings between thermal solar systems and thermal insulation improvements for social housing in Chile	
Α7	[151] Guerrero F. and Clemente-Jul C.	ENERG
	Key factors to develop a common methodology towards an appropriate energy mix for electricity generation	
A8	[360] Karonis D. and Chilari D.	ENERG
	A comparison between of sodium methoxide and sodium hydroxide catalysts for ethyl esters production	
A9	[530] Milenkova S., Stefanov B. and Pelovski Y.	ENERG
	New energy saving composite ceramic materials	
A10	[138] Papadopoulos E. and Synolakis C.	ENERG
	Developing wave energy in Mediterranean Sea: PEST Analysis and examination of other non-technological barriers to the implementation and sustainable development of wave energy	
A11	[473] Apaydin O. and Erdem O.	SOLID <sup>2</sup>
	Recycling studies at university campuses	
A12	[328] Carli L.N., Giovanela M., Teixeira C.E. and Crespo J.S.	SOLID

<sup>&</sup>lt;sup>1</sup> ENERG: Clean energy and sustainability <sup>2</sup> SOLID: Solid waste management



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

<sup>3</sup> 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] Saggoo M.I.S. and Ghupta R.	SOIL
	Accumulation of heavy metals in soils and wheat plant ( <i>Triticum vulgare</i> 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.	$WQ^4$
	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 Papaeftymiou H.	WQ
	Metals determination in Glafkos river water and natural radionuclides in Glafkos estuary sediments (Patras, Greece)	

<sup>&</sup>lt;sup>4</sup> 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., WQ Iliakis S., Karageorgis A.P., Poulos S.E. and Triantafyllou M. 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) [39] Nounou H.A., Ali S.M., Shalaby M.A. and Asala R.G. WQ A43 The threats of microbial contamination and total dissolved solids in drinking water of Riyadh's rural regions, Saudi Arabia [176] Postolachi L., Rusu V. and Lupascu T. A44 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.  Virtual water versus real water allocation in inter-basin water transfer	WRM <sup>5</sup>
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)	
В3	[111] Giordano R., van der Keur P., van Bers C., Portoghese 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

<sup>&</sup>lt;sup>5</sup> WRM: Water resources management

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Hydrological drought in Tafna basin- Algeria [139] Ntoanidis L.I. and Mimikou M.A. B5 WRM Intercomparison of the lumped versus semi-distributed HEC - HMS hydrological model in the Kalamas river basin В6 [172] Pliakas F., Kallioras A., Mimidis K., Diamantis I., Schuth C. and Deli Ibrahim M. WRM Groundwater recharge using a soil aquifer treatment (SAT) system at the eastern Nestos river delta, NE Greece B7 [626] Sikder M. **WRM** Potential of rainwater harvesting in Dhaka city В8 [160] Wan Q. Z. WRM Study and application of emergency water dispatching of Jialing river  $\mathsf{AIR}^6$ В9 [759] Agber T. and Iorgirim S.M. Assessment of air quality around Dangote cement company, Tse-kucha, Gboko, Benue State, Nigeria **B10** [525] Apostolopoulou K. and Varnavas S. AIR An investigation of the air quality above Patras, Greece port in relation to the arrival and departure schedule of the ships B11 [194] Bereketidou O.A., Charisiou N.D. and Goula M.A. AIR Simultaneous removal of NO<sub>x</sub> and SO<sub>2</sub> over copper oxide catalysts supported on silica and rice husk ash **B12** [408] Grigoratos T., Samara K., Samaras Z. and Rose K. AIR SOF emissions and redox activity from modern diesel passenger vehicles operated on biodiesel **B13** [124] Karanasios K., Xanthopoulou G., Vekinis G. and Zoumpoulakis L. AIR Combustion synthesis catalysts for reforming greenhouse gases **B14** [403] Mazou E., Efthimiadou A., Tsiros I.X., Tseliou A. and Alvertos N. AIR Air temperature prediction using recurrent neural models with embedded time delays [388] Nisantzi A., Mamouri R.E., Akylas E. and Hadjimitsis D.G. AIR **B15** Synergetic use of active and passive remote sensing instruments for the seasonal variance of aerosols over Cyprus **B16** [438] Papazachou N. and Samara C. AIR Determination of organic and inorganic anions in atmospheric particulate matter and

Pollution index and air ion variation in winter season at urban station Sangli (16° 52'

<sup>6</sup> AIR: Air pollution

[24] Pawar S.D.

N, 74° 36' E) India

B17

dust deposited on monuments

AIR



B18	[353] Tseliou A., Tsiros I.X., Nikolopoulou M., Psiloglou V. and Lykoudis S.  Aspects of (human) thermal preferences in the urban outdoor environment of	AIR
	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 Djebar M.R.	ECO <sup>7</sup>
	Contribution to the study of the impact of a fertilizer commonly used in Algeria (NPK) on germination and respiratory metabolism of <i>Triticum durum</i>	
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 <i>Haplophyllum tuberculatum</i> 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 <i>Artemisia herba-alba</i> and <i>Oudneya africana</i> 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 rhyzosphere 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.	EMERG 8
	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	

 $<sup>^{\</sup>rm 7}$  ECO: Ecology and ecosystems management  $^{\rm 8}$  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] Kobothekra 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. Extraction methods of two benzimidazoles from environmental samples	EMERG
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 $\beta$ -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	



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	HEALTH
D43	Nazmara Sh.	HEALTH
	Arsenic, cadmium and lead content in polished white rice ( <i>Oryza sativa</i> L.) in Ghaemshahr city (North of IRAN)	
B44	[378] Mouzaki-Paxinou A.C., Foudoulakis M. and Arapis G.	HEALTH
	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	
B45	[211] Al-Rawajfeh A.E., Al-Hawamdeh S., Al-Hawamdeh S. and Al-Dharaba'a S.	$WT^{10}$
	Defluoridation of water by natural materials: is it adsorption?	
B46	[170] Belaib F., Meniai A-H and S.Arris	WT
	Study of elimination of methyl orange from aqueous solutions by natural and commercial adsorbents	
B47	[524] Brozou E., Ioannou Z., Antoniadis V. and Dimirkou A.	WT
	Adsorption of hexavalent chromium from aqueous solutions onto modified zeolites	
B48	[536] Ghizellaoui S. and Semineras H.	WT
	Use of chronoamperometry for the inhibition of scaling in hard waters	
B49	[483] Holub M., Balintova M. and Pavlikova P.	WT
	Removal of metal ions from acidic solutions using peat-A low cost sorbent	
B50	[134] Karasavvidis Ch., Ioannou Z. and Dimirkou A.	WT
	Removal of methylene blue from aqueous solutions using modified zeolite and activated carbon under semi-batch and batch operations	
B51	[523] Matijasevic Lj., Dejanovic I. and Vuckovic A.	WT
	Synthesis of cooling water network in a petroleum refinery	
B52	[643] Mellahi D., Baassou Z., Abdou I and Gheid A.	WT
	Optimization of conventional water treatment systems for the removal of dissolved organic matter and THM: Kodiat Mdaouar dam (Batna, Algeria)	
B53	[191] Najib N. and Christodoulatos C.	WT
	Phosphate removal from aqueous solution using a quaternized electrospun cellulose nanofiber as an anion exchange resin	
B54	[468] Najib N., Christodoulatos C., Wazne M. and Jagupilla S.	WT
	Removal of high concentrations of phosphate from aqueous solution using aragonite	
B55	[422] Nastas R., Rusu V. and Lupascu T.	WT
	Removal of hydrogen sulphide from sulphurous ground waters	

<sup>&</sup>lt;sup>9</sup> HEALTH: Health the environment <sup>10</sup> WT: Innovations in chemicals and processes for water treatment



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 <sub>2</sub> on Pd-Cu supported catalysts: mechanistic studies	WT
B59	[182] Vosoughi M., Mahvi A.H., Alimohammadi M., Nasseri 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 <sup>11</sup>
B61	[333] Alexopoulos J.D., Vassilakis Emm, Dilalos S. and Zaloumi E.	MAR
	Quantification of human impact on natural evolution processes at a coastal zone, adjacent to an active fault	
B62	[683] Bozkurt E., Eliri O. and Kesiktas M.	MAR
	Analysis of heavy metals in seawater samples collected from beaches of Asian side of Istanbul	
B63	[62] Efstathiou M. and Pashalidis I.	MAR
	Adsorption of trivalent lanthanides and actinides by marine sediments	
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.	MAR
	Towards technology of algal extracts production	

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

#### [70] Bahmani P., Ghahramani E. and Maleki A. C1

AOPs<sup>12</sup>

Application of Fenton oxidation process for degradation of Reactive Black 5 in aqueous system

<sup>&</sup>lt;sup>11</sup> MAR: Marine environment and coastal management <sup>12</sup> AOP'S: Advanced Oxidation Processes



C2	[64] Kos L., Sojka-Ledakowicz J., Zylla R., Michalska K. and Perkowski J.	AOPs
	Decomposition of azo dye Direct Red 23 in the Fenton process in the presence of iron oxide nanopowder	
<b>C</b> 3	[519] Kosma C.I., Lambropoulou D.A. and Albanis T.A.	AOPs
	Application of response surface methodology (RSM) in the optimization of photocatalytic degradation of Trimethoprim	
C4	[619] Pantelidou N., Theologides C., Olympiou G.G., Savva P.G. and Costa C.N.  In situ formation of hydrogen peroxide for the catalytic removal of pharmaceutical compouds in wastewater using hydrogen in excess of oxygen/air	AOPs
<b>C</b> 5	[514] Petsas A.S., Vagi M.C., Kostopoulou M.N. and Lekkas T.D.	AOPs
	Photocatalytic degradation of the organophosphorus pesticide fenthion in aqueous suspensions of ${\sf TiO_2}$ under UV irradiation	
<b>C</b> 6	[560] Wittine O., Maduna -Valkaj K. and Zrncevic S.	AOPs
	Hydrogen peroxide promoted CWAO of phenol over Cu/13X catalyst	
<b>C7</b>	[747] Nafea E.M.A. and Younis A.M.	BIO <sup>13</sup>
	Heavy metals and nutritional composition of some naturally growing aquatic macrophytes of Northern Egyptian lakes	
C8	[338] Petsas A.S., Vagi M.C., Pavlaki M.D., Smaragdaki N.M., Kostopoulou M.N. and Lekkas T.D.	BIO
	Toxic effects of azinphos methyl and azinphos ethyl on growth and chlorophyll pigments production of marine unicellular microalgae <i>Tetraselmis suecica</i>	
<b>C</b> 9	[335] Tsigaridas K., Sawidis T., Monokrousos N., Sivropoulou A. and Diamadopoulos E.	BIO
	Lichens as indicators of heavy metal pollution around a coal-fired power station in W. Macedonia, Greece	
C10	[149] Zikos C., Evangelou A., Karachaliou CE., Gourma G., Blouchos P., Moschopoulou G., Yialouris C., Griffiths J., Johnson G., Petrou P., Kakabakos S., Kintzios S. and Livaniou E.	BIO
	Commercially available benzimidazole derivatives as immunizing haptens for the development of a polyclonal antibody recognizing the fungicide carbendazim	
C11	[22] Aneni T.I., Aisagbonhi C.I., Iloba B.N. and Ogbebor C.O. Influence of weather factors on seasonal population dynamics of Coelaenomenodera	CLIM <sup>14</sup>
	elaeidis (Coleoptera – Chrysomelidae) and its natural enemies in NIFOR, Nigeria	
C12	[836] Fytianos G.K., Knuutila H. and Svendsen H.F.	CLIM
	CO <sub>2</sub> capture from exhaust gases and natural gas sweetening at NTNU	

<sup>13</sup> BIO: Biomonitoring
14 CLIM: Climate change and Environmental Dynamics



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

<sup>&</sup>lt;sup>15</sup> PLAN: Environmental Planning, Management and Policies



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

<sup>&</sup>lt;sup>16</sup> WASTE: Wastewater treatment



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