

CRETE 2010

*2nd International
Conference on
Hazardous and Industrial
Waste Management*

**DRAFT
CONFERENCE
PROGRAM**

*5-8 October 2008
Chania, Crete,
Greece*

Organized by:

Technical University of Crete (GR)

University of Padua (IT)

Hamburg University of Technology (DE)

IWWG –

International Waste Working Group

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GREAT SPONSOR



Polyeco S.A. is the unique fully licensed industry in Greece in the field of waste management and valorization. Its vision is to become a global reference in managing all kind of wastes by giving baseline in terms of waste services. Its mission is to combine the high level technical expertise with the effective contribution to sustainable development. This ambition is backed by asserting the values of professionalism, partnership and research for the benefit of the community. POLYECO is the leader industry in Greece providing Integrated Management Services of hazardous and non-hazardous industrial waste.

GOLDEN SPONSOR



Hellenic Petroleum holds a strong position in the international energy sector, mainly in SE Europe and is the largest industrial and commercial company in Greece. The main current business activities are: Refining & Marketing of petroleum products (R&M), Petrochemicals/Chemicals, Oil & Gas Exploration & Production (E&P), Power Generation Production and Trading and Natural Gas. In the R&M sector the Group holds the three of the four refineries in Greece and operates 1.262 retail stations.

CENTRAL SPONSORS



Athens Hospital Wastes Incinerator has been in operation since 2002. Since February 2007, when the international tender was completed, the Joint Venture HELECTOR S.A.- PANTECHNIKI S.A.- ARSI S.A is responsible the operation and maintenance of the Plant. The above Joint Venture in collaboration with Environmental Protection Engineering S.A., has established APOTEFROTIRAS S.A. for the purpose of operation and maintenance of the Plant.



Environmental Protection Engineering S.A. was established in Piraeus in 1977. By continuously investing in research and development and implementation of new technologies, EPE S.A. is one of the major companies in the field of environmental protection, offering a variety of services and products in the marine and industrial field. Institutions such as the Athens Academy, the Hellenic Marine Environment Protection Association (HELMPEPA) and the Chamber of Commerce of Piraeus recognize EPE's demonstrated capability and responsibility, as well as the quality of its services and its social contribution.

SPONSOR



ZYGOS publishing company was established in 1986 based in Thessaloniki. It mainly publishes academic books. Its publication production counts about 150 book titles, with a subject selection covering a wide range of academic fields.

PRESENTATION

CRETE 2010 Conference aims at the establishment of an international meeting of scientists and practitioners, that work in the field of hazardous and industrial waste management and treatment and have valuable knowledge and experience, which can be exchanged and readily available to professional communities worldwide. The 2nd International Conference on Hazardous and Industrial Waste Management includes oral presentations, special workshops and sessions, as well as poster presentations focusing on the main controversial aspects of hazardous and industrial waste management and treatment.

Selection of papers and session destination are based on several factors, including scientific quality of the paper, relevance of the topic, nature of the paper (case study, preliminary work, conceptual work, design, etc.), specificity of the topic and novelty.

All papers are organized and published on a CD-ROM, according to the session order. In addition, a book has been printed with the extended executive summaries of the conference papers, in order to allow a better attendance of the different sessions. Last minute changes in the conference program may have resulted unconformity with the printed book of executive summaries.

Selected papers, presented (orally or as a poster) during CRETE 2010 Conference, will be published in a Special Issue of the Journal of Hazardous Materials, Global NEST Journal and also in Waste Management.

During the closing ceremony, awards will be given to the three best posters, as evaluated by a three member committee. The full papers of these presentations will be published in one of the aforementioned Special Issues and take a prize of 1.000, 500 and 300 euros, respectively.



Background and goals

Future waste management programs must be put into practice in conjunction with sound policies that restrict the use of fossil fuels and natural resources and contribute to the reduction of emissions into the environment. Such a strategy should be based in a sound scientific basis, without ideology, politics or financial interests. It should be implemented on a world-wide basis and not limited to industrialized countries. To achieve this goal, existing waste management options must be evaluated for implementation, new strategies must be formulated and new, innovative solutions have to be found.

Based on this need, the IWWG (International Waste Working Group) was established in 2002, not to contrast or to compete with existing professional organizations but to set up a network with existing national and international organizations with similar goals.

The IWWG aims to provide an intellectual platform to encourage and support integrated and sustainable waste management and to promote practical scientific development in the field.

In order to achieve these goals Task Groups on the following topics are currently active: Sustainable Landfilling; Landfill Aeration; Landfill Gas Emissions to the Atmosphere (CLEAR); Management of MSWI Residues (PHOENIX);

Developing Countries; Compost Quality (HumOr); Leaching Tests; Law and Waste; Hydrogen Production; Landfill Modeling; Thermal Treatments; Industrial Waste Management; Hospital Waste.

The activities of the Task Groups will provide the opportunity to fully exploit the tremendous amount of knowledge and experience that has been accumulated so far.

For further information and for joining:

www.iwwg.eu

info@iwwg.eu

16:00 – 20:00

Registration

16:00 – 19:00 IWWG TASK GROUP
MEETING:
INDUSTRIAL WASTE
MANAGEMENT
Room – Grand Imperial

Chairman: E. Gidakos (GR)

20:00 – 23:00

Welcome Drink

(Pool Bar – MINOA PALACE)

8:30 – 9:00

Registration

9:00 – 10:00 OPENING CEREMONY –
WELCOME ADDRESSES
Room - Grand Imperial

Chairmen: E. Gidakos, R. Cossu, R. Stegmann

10:00 – 11:00 INVITED SPEAKERS

Room – Grand Imperial

Thomas Rummeler

Federal Ministry for the Environment, Natural
Conservation and Nuclear Safety (Germany)

*“Circular economy and resource efficiency - a
challenge for hazardous and industrial waste
management”*

Hartmut Grassl

Max Planck Institute for Meteorology in Hamburg
(Germany)

*“Hazardous waste management and global
climate change”*

Discussion

11:00 – 11:30 Coffee Break

11:30 – 13:00 *Room – Imperial I*
SESSION A1: HAZARDOUS AND
INDUSTRIAL WASTE
REGULATIONS AND
CONTROL

Chairmen:

Butti L. (Italy)
*General criteria for classification of waste
containing hydrocarbons: the Italian case*

Fischer C. (Denmark)
*Data availability on transboundary shipments of
waste based on the European Waste List*

Hegemann M., Becker C., Koß K.-D., Oberdörfer
M. (Germany)
*Online-control of hazardous waste transports on
the road with IPA-KON*

Striegel K.-H., Becker C., Bousselmi Y., Merdassi
M., Pfaff-Simoneit W. (Tunisia)
*Implementation of the national hazardous waste
information system in Tunisia*

Stevanović Čarapina H., Bogdanovic M., Mihajlov
A., Kasanin-Grubin M., Žugić-Drakulic N.
(Serbia)
*Local environmental health indicators: focus on
hazardous waste practice and governance*

Discussion

11:30 – 13:00 *Room – Imperial II*
SESSION B1: HAZARDOUS AND
INDUSTRIAL WASTE
TREATMENT I

Chairmen:

Velasco Trejo J.A., Ramírez Islas M.E.,
Hernández S., Revah S., Schmidt W. (Mexico)
*Treatment of chromite ore processing residue
using sodium sulfide*

Katsou E., Malamis S., Tzanoudaki M.,
Haralambous K.J., Loizidou M. (Greece)
*Regeneration of zeolite loaded with lead and zinc
after wastewater treatment*

Patel H., Pandey S. (India)
*Evaluation of physical stability and leachability of
chemical sludge from textile wastewater treatment
plants stabilized / solidified using portland
pozzolana cement (PPC)*

Stepanović M., Vlahović M., Jovanić J. (Serbia)
*Optimization of the inorganic adsorbents content
for the used oil emulsion treatment at the Djerdap
damn*

Nehrenheim E., Odlare M., Mutere O. (Sweden)
*Treatment of TNT contaminated sludge by using a
pilot scale bioreactor*

Lancellotti L., Kamseu E., Barbieri L., Leonelli C.
(Italy)
*Geopolymers as matrix for hazardous wastes
inertization*

Discussion

11:30 – 13:00 Room – Grand Imperial

SPECIAL SESSION 1:

ΑΞΙΟΛΟΓΗΣΗ ΚΑΙ ΑΠΟΚΑΤΑΣΤΑΣΗ
ΑΝΕΞΕΛΕΓΚΤΩΝ ΡΥΠΙΑΣΜΕΝΩΝ ΧΩΡΩΝ /
ΕΓΚΑΤΑΣΤΑΣΕΩΝ – EVALUATION AND
RESTORATION OF UNCONTROLLABLE
CONTAMINATED SITES / FACILITIES (IN
GREEK ONLY)

Chairmen:

V. Stoilopoulos (GR)

Hellenic Ministry of Environment, Energy and
Climate Change

M. Aivalioti - Technical University of Crete (GR)

E. Gidarakos - Technical University of Crete (GR)

- Κατάρτιση καταλόγου εν δυνάμει ρυπογόνων
δραστηριοτήτων (Organization of potential
contaminating activities list)

- Διαδικασία χαρακτηρισμού ρυπασμένων χώρων
– στάδια εντοπισμού (Contaminated sites
characterization process – spotting stages)

- Πλαίσιο για τη λήψη απόφασης στη διαχείριση
ρυπασμένων χώρων και εφαρμογή μέτρων
αποκατάστασης (Decision making framework for
contaminated sites management and remediation
measures application)

- Τεχνολογίες αποκατάστασης ακόρεστων και
κορεσμένων εδαφών (Saturated and unsaturated
soils restoration technologies)

- Μετέπειτα φροντίδα (Aftercare)

Συζήτηση (Discussion)

13:00 – 15:00 Lunch Break

15:00 – 15:30 Poster Session

15:30 – 16:00 INVITED SPEAKER

Room – Grand Imperial

Nicolas Moussiopoulos

Aristotle University of Thessaloniki (Greece)

*“Integrated end-of-life management of electrical
and electronic equipment”*

Discussion

16:00 – 17:30

Room – Imperial I

**SESSION A2: WASTE / CONTAMINATED
SITES CHARACTERIZATION**

Chairmen:

Bussian B.M., Furtmann K., Vanhoof C., Cleven
R.F.M.J. (Germany)

*Chemical characterization from waste by
screening techniques - rapid and reliable or quick
and dirty?*

Jordanopoulos-Kisser M. (Austria)

*Testing programme for characterization of waste -
overview of European standards for sampling,
sample preparation and analysis of waste*

Holschbach-Bussian K., Vanhoof C., Furtmann_K.
(Germany)

*Applicability of handheld XRF systems for waste
characterization*

Stanisavljević N., Vujić G., Batinić B., Ubavin D., Kovačević S. (Serbia)

Material flow analysis as a basis for hazardous waste management in tranzicion economies - power company distribution case study

Marzocchini M., Tatàno F., Moretti M., Antinori C., Orisili S. (Italy)

Proposal and application of a regional methodology of comparative risk assessment for contaminated sites

Discussion

16:00 – 17:30 **Room – Grand Imperial**
SESSION B2: HAZARDOUS AND INDUSTRIAL WASTE TREATMENT II

Chairmen:

Lorber K.E., Antrekowitsch H. (Austria)
Treatment and disposal of residues from aluminum dross recovery

Lievens P., Verbinnen B., Bollaert P., Alderweireldt N., Mertens G., Elsen J., Vandecasteele C. (Belgium)
Study of solidification of flue gas cleaning residue from industrial waste incineration in a fluidized bed incinerator

Pensaert S., De Puydt S. (Belgium)
Remediation of the acid tar lagoons in the port of Ghent

Moraci N., Calabro P., Bilardi S. (Italy)
Efficiency of zero valent iron/ pumice granular mixture in simultaneous removal of copper and nickel

Velegraki T., Tsantaki E., Mantzavinos D., Katsaounis A. (Greece)
Electrochemical degradation of textile effluents by anodic oxidation on boron doped diamond

Kosma C. I., Lambropoulou D. A., Albanis T. A. (Greece)
Occurrence and removal of pharmaceutically active compounds in wastewaters in Greece

Discussion

16:00 – 17:30 **Room – Imperial II**
WORKSHOP 1: WEEE

Chairmen:

Bigum M., Brogaard L. (Denmark)
LCA modelling of metal recovery from 1 tonne high grade WEEE

Salhofer S., Tesar M. (Austria)
Removal of components containing hazardous substances from small WEEE in Austria

Rotter V.S., Siebel M., Janz A., Bilitewski B. (Germany)
Effect of the removal of hazardous substances from WEEE on emissions of treatment and recycling

Lolos G., Lolos T., Tsombanidis C., Raptis C.
(Greece)

Production of waste electric and electronic equipment (WEEE) in Greece and the environmental burden per WEEE category

Radfar M., Novin A., Mousaei R., Harati H. (Iran)
Management of computer wastes in Iran and world

Discussion

16:00 – 17:30 Room – Imperial III
SPECIAL COURSE 1:
ORGANIZATION OF HAZARDOUS WASTE
MANAGEMENT

Chairman:

G. Rettenberger (DE)
Technical University of Trier

- Estimation of quantity and quality of the waste and sources
- Development of the necessary plants for treating the waste
- Permission and control
- Organization private or public
- Necessary public frame for institution and laws
- Examples

Discussion

17:30 – 18:00 Coffee Break

18:00 – 19:30 Room – Grand Imperial
**SESSION A3: INDUSTRIAL WASTE
MANAGEMENT PRACTICES**

Chairmen:

Stamatis V., Seferlis S., Kamenopoulou V.,
Potiriadis C., Koukouliou V., Kehagia K., Dagli
C., Georgiadis S., Camarinopoulos L. (Greece)
*Decommissioning a phosphoric acid production
plant: a radiological protection case study*

Curan A., Williams I.D. (UK)
*A zero waste vision for industrial networks in
Europe*

Pertl A., Obersteiner G., Scherhauser S., Den Boer
J. (Austria)
*Ecological and economic assessment of formal
versus informal waste management strategies - a
case study*

Nassour A., Majanny A., Kamoun M., Nelles M.
(Germany)
*Actual and future concept of waste management
the industrial city Alsheikh Najjar of Aleppo*

Panagopoulos J., Karayannis A., Floros N.,
Kassomenos P. (Greece)
*Integrated industrial hazardous waste
management plan - results of a full scale industrial
application in the Asopos basin area*

Lolos Th., Raptis C., Lolos G., Tsombanidis C.,
Fragkakakis P. (Greece)
*The waste oil management plan of Cyprus
Republic: technical and financial aspects of the
proposed strategy*

Saltabaş F., Yildiz Ş., Kiriş A., Yenilmez E.,
Tombul B. (Turkey)
Hazardous waste management: Istanbul case

Discussion

18:00 – 19:30 Room – Imperial I
SESSION B3: LANDFILLING ISSUES I

Chairmen:

Christensen T.C, Vendrup M., Van Ermen S.
(Denmark)
*Removing Sb, Mo, Se, U and Ba from wastewater
and leachate*

Aguilar M., Boheme T. (Spain)
*Technological hybrid to purify high load waste
water (leachates)*

Šír M., Podhola M., Patočka T., Honzajková Z.,
Kocurek P., Kubal M., Kuraš M. (Czech Republic)
*Treatment of hazardous waste landfill leachate
using reverse osmosis*

Chalvatzaki E., Lazaridis M. (Greece)
*Estimation of greenhouse gaseous emissions from
municipal solid waste landfills in Greece*

Discussion

18:00 – 19:30 Room – Imperial II
**WORKSHOP 2: MICROWAVES AND WASTE
MANAGEMENT**

Chairmen:

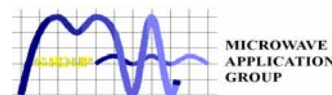
Gherardi G. (Italy)
*Microwaves technology and waste management at
ENEA: a 2 decades story*

Leonelli C. (Italy)
*Rapid waste vitrification with MW and RF
techniques*

Kingman S. (UK)
*Microwave technology for remediation of
contaminated drill cuttings and pyrolysis of
municipal wastes*

Barba A.A., D' Amore M., Acierno D. (Italy)
*Use of microwaves for in-situ removal of pollutant
compounds from solid matrices*

Discussion



8:30 – 9:00
Registration

9:00 – 10:30 INVITED SPEAKERS
Room – Grand Imperial

Rainer Stegmann
Technical University of Hamburg (Germany)
“Release of landfills from aftercare”

Bernd Bilitewski
Technical University of Dresden (Germany)
“Why is the incineration of industrial waste
necessity of a successful recycling society?”

Discussion

10:30 – 11:30 Coffee Break

11:00 – 13:00 **Room – Imperial II**
SESSION A4: THERMAL PROCESSES

Chairmen:

Luciano A., Viotti P., Mancini G. (Italy)
*Car fluff disposal: atmospheric effluent analysis in
a full scale experiment of thermo-valorization
process*

Hoffmann G., Bilitewski B., Schramm K.-W.
(Germany)
*Shredder residues- characterization and
combustion in a fluidized bed*

Karamanov A. (Bulgaria)
*Sintered iron-rich glass ceramics from harmful
industrial residues: summary*

Pandelova M., Stanev I., Henkelmann B., Lenoir
D., Schramm K.-W. (Germany)
*Inhibition of PCDD/F and PCB formation in
combustion of wood and hospital waste*

Wils A., Calmano W., Dettmann P., Kaltschmitt
M., Ecke H. (Germany)
*Reduction of fuel side costs due to biomass co-
combustion*

Discussion

11:00 – 13:00 **Room – Imperial I**
SESSION B4: LANDFILLING ISSUES II

Chairmen:

Bachiri K., Bodenhagen A. (Germany)
*Sustainable landfill – case study on solar landfill
covers*

Cossu R., Lai T., Pivnenko K. (Italy)
*Waste washing pre-treatment of municipal and
special waste*

Ritzkowski M., Stegmann R. (Germany)
*Landfill aeration in the framework of climate
protection*

Dall'Ara A., Bonoli A., Marroni V., Ferri F., Billi L., Grilli S., Modarelli G., Sangiorgi S. (Italy)
Assessment of an innovative low impact bioremediation technology in reducing explosion risk related to biogas presence in dump

Discussion

11:00 – 13:00 **Room – Imperial III**
WORKSHOP 3: AGRO-INDUSTRIAL WASTE
MANAGEMENT

Chairmen:

T.A.D. Albanis (Greece)
Pesticide concentration levels and ecological risk assessment in natural surface waters and sediments of Greece

Pizzichini M., Russo C., Pizzichini D., Vitagliano M. (Italy)
New olive mill wastewater process to eliminate the environmental load and to recover several fine chemicals as poliphenols and purified water

Chroni C., Kyriacou A., Lasaridi K. (Greece)
Interpreting respiration activity and microbial counts as stability indicators during composting of various organic wastes

Georgeaud V., Diamand A., Coste M., Grange D. (France)
Selective electro-reduction of nitrate to nitrogen with boron-doped diamond cathode: pilot scale tests on agro-industrial wastewater

Chroni C., Kyriacou A., Lasaridi K. (Greece)
Valorization of a co-composting process: mixtures of sludge derived from non alcoholic beverage production industry

Discussion

11:00 – 13:00 **Room – Grand Imperial**
SPECIAL SESSION 2:
ΙΑΤΡΙΚΑ ΑΠΟΒΛΗΤΑ –
MEDICAL WASTE (IN GREEK ONLY)

Chairmen:

E. Voudrias (GR)
Democritus University of Thrace
E. Gidarakos (GR)
Technical University of Crete

- Παραγωγή ιατρικών αποβλήτων (Medical waste production)

- Συλλογή, αποθήκευση και μεταφορά (Collection, storage and transfer)

- Μέθοδοι επεξεργασία: αδρανοποίηση, χημική εξουδετέρωση, αποστείρωση (Treatment methods: inactivation, chemical neutralization, sterilization)

- Κλίβανοι αποτέφρωσης και εκτίμηση περιβαλλοντικών επιπτώσεων (Incinerators and environmental impact assessment)

- Μολυσματικά απόβλητα και κίνδυνοι (Infectious waste and hazards)

Συζήτηση (Discussion)

13:00 – 15:00 Lunch Break

15:00 – 15:30 Poster Session

15:30 – 16:00 INVITED SPEAKER
Room – Grand Imperial

Raffaello Cossu

University of Padua (Italy)

“Sustainable landfilling of industrial waste”

Discussion

16:00 – 17:30 Room – Grand Imperial
SESSION A5: COMBUSTION RESIDUES I

Chairmen:

Krüger O., Kalbe U., Berger W., Simon F.-G.,
Lopez Meza S. (Germany)

*Leaching experiments on the release of heavy
metals and PAH from C&D waste and MSWI
bottom ashes*

Van Caneghem J., Vermeulen I., Block C., Van
Brecht A., Wauters G., Vandecasteele C.
(Belgium)

*Destruction and formation of PCDD/Fs in
fluidized bed combustor co-incinerating
automotive shredder residue with refuse derived
fuel and wastewater treatment sludge*

De Boom A., De Lavene M., Degrez M., Pierre C.,
Staquet S. (Belgium)

*A one-month characterization campaign of
electrostatic precipitator fly ashes from municipal
solid waste incinerator*

Grosso M., Rigamonti L., Biganzoli L., Schiona G.
(Italy)

*Metals recovery from incineration bottom ashes:
future opportunities in Italy*

Barbosa R., Lapa N., Boavida D., Lopes H.,
Mendes B., Gulyurtlu I. (Portugal)

*Chemical and ecotoxicological properties of ashes
produced in the co-combustion of coal and sewage
sludge*

Discussion

16:00 – 17:30 Room –Imperial I
SESSION B5: INDUSTRIAL WASTEWATER
TREATMENT

Chairmen:

Mantzavinos D. (Greece)

*AOPs for water treatment: Dos and Don'ts for
process integration*

Mousa I., El-Rakshy N. (Egypt)

*Paints industry wastewater treatment through
biological aerated filtering technology, case study*

Pellera F., Giannis A., K. Anastasiadou, D.
Kalderis, d. Pentari, Gidakos E. (Greece)
*Adsorption of Cu(II) ions from aqueous solutions
using biochar prepared from agricultural by-
products*

Kastanek F., Sobek J., Solcova O., Hajek M.
(Czech Republic)

Dehalogenation of polyhalogenated compounds dissolved in organic solvents with the help of AOPs in a two phase solvent - water system under the influence of ultrasound

Kalmykova Y., Perez-Holberg J., Abbas Z., Steenari B-M. (Sweden)

Utilization of paper industry waste in contaminated water treatment

Discussion

16:00 – 17:30 **Room – Imperial II**
SESSION CI: HAZARDOUS AND INDUSTRIAL WASTE RECYCLING I

Chairmen:

Menad D. (France)

Utilization of organic part contained in auto shredder residues as reducing agent in blast furnace

Ioannides Th. (Greece)

Waste tire treatment - an alternative of tires, fly ash and marble dust as construction materials

Selivanovskaya S., Galitskaya P., Kuritsin I., Gumerova R. (Russia)

Beneficial utilization of composted sewage sludge: effects on biomass and activity of microbial community of halpic greyzem

Quaranta N., Caligaris M., López H., Unsen M., Lalla N. (Argentina)

Ceramic materials production as a promising route for recycling metallurgical wastes

Kouloumpis V., Tsoutsos Th., Konstantopoulos G. (Greece)

Life cycle assessment and costing of a detached house in Crete

Discussion

16:00 – 17:30 **Room – Imperial III**

SPECIAL COURSE 2:

STATISTICAL MODEL BUILDING FOR INDUSTRIAL POLLUTION CONTROL AND HAZARDOUS WASTE MANAGEMENT

Chairmen:

P. Mac Berthouex

University of Wisconsin – Madison (USA)

L.C. Brown

Tufts University (USA)

- Methods for building mechanistic and empirical statistical models

- Experiments design

- Fitting of mechanistic or empirical models to experimental data

- Diagnosing the goodness of fit of mode

- Assessment of precision parameters

Discussion

17:30 – 18:00 Coffee Break

18:00 – 19:30 **Room – Grand Imperial**
SESSION A6: COMBUSTION RESIDUES II

Chairmen:

Cappai G., Cara S., Muntoni A., Piredda M. (Italy)
Application of accelerated carbonation of MSWI fly ash for metal immobilization and CO₂ sequestration

Moustakas K., Mavropoulos A., Haralambous K.J., Loizidou M. (Greece)
Leaching properties of slag generated by the operation of gasification / vitrification unit for waste treatment

Bernardo M.M., Lapa N., Gonçalves M., Barbosa R., Mendes B., Pinto F. (Portugal)
Characterization of chars produced in the co-pyrolysis of different wastes: decontamination study

Ahmed A.T., Khalid H.A., Allen R., Ward C. (UK)
Influence of treatment on the release and mobility of soluble constituents of incinerator bottom ash waste

Hu Y.Y., Zhou B., Chen D.Z., Li J.Y. (China)
Hydrothermal treatment of municipal solid waste incineration fly ash

Matsouka V., Konsolakis M., I.V. Yentekakis (Greece)

Novel electropositively – promoted catalytic materials for efficient nitrogen oxide emission control: a drifts – aided study on the role of promoter

Discussion

18:00 – 19:30 **Room – Imperial I**
SESSION B6: ASBESTOS

Chairmen:

Dimitriou A., Theodosis Ch., Lymperis A. (Greece)
Tearing down of 1,150 tones of asbestos at the Faliron power station and desposing it abroad

Pelizza S., Alessio C., Kalamaras G., Peila D., Testa C., Carlucci P. (Italy)
Excavation of a tunnel in an asbestos-bearing rock mass - use of an underground cavern for storing the contaminated muck

Axiotis D., Anastasiadou K., Kalderis D., Gidarakos E. (Greece)
Hydrothermal conversion of chrysotile asbestos using supercritical steam

Anastasiadou K., Gidarakos E., Lancellotti I., Leonelli C. (Greece)
Hydrothermal treatment of chrysotile asbestos and its recycling in refractory composition

Discussion

18:00 – 19:30 **Room – Imperial II**

**SESSION C2: HAZARDOUS AND
INDUSTRIAL WASTE
RECYCLING II**

Chairmen:

Mitrakas M., Bakaloulis A., Gkinis K. (Greece)
*Aluminum anodizing sludge as a potential As(V)
adsorbent*

Gaillot O., McCormack I. (Ireland)
*Depollution and shredder trial on end of life
vehicles*

Falciglia P.P., Vagliasindi F.G.A. (Italy)
*Effects of lead contamination level on the
performance of cement - fly ash based stabilization
/ solidification treated polluted soils*

Mäkelä M., Watkins G., Dahl O., Nurmesniemi H.,
Pöykiö R. (Finland)
*Pulp and paper industry solid residues in forest
soil amendment*

Discussion

8:30 – 9:00

Registration

9:00 – 10:30 **INVITED SPEAKERS**

Room – Grand Imperial

Gerhard Rettenberger

Ingenieurgruppe RUK (Germany)

*“The production of RDF from waste using
biological drying systems”*

Hans Van der Sloot

Energy Resource Centre of Netherlands (The
Netherlands)

*“Potential of new characterization leaching tools
and associated modeling tools in assessing
hazardous properties of wastes”*

Discussion

10:30 – 11:00 Coffee Break

11:00 – 13:00 **Room – Grand Imperial**

**SESSION A7: CONTAMINATED
GROUNDWATER**

Chairmen:

Melnikov N., Amosov P., Novozhilova N. (Russia)
*The influence of radiation hazardous materials
module orientation and dimensions of the level of
underground water contamination*

Papapetridis K., Paleologos E. (Greece)
Stochastic modeling of subsurface pollution in 2-D heterogeneous aquifers and detection probability for linear configuration of monitoring wells

Moraci N., Calabro P.S., Suraci P. (Italy)
Estimate of the optimum weight ration in zero-valent iron - pumice granular mixtures used in permeable reactive barriers for the remediation of nickel contaminated groundwater

Iordanopoulos-Kisser M., Zorzi M., Luschin G. (Austria)
Innovative remediation by funnel and gate system of the mineral oil contaminated site "Tuttendorfer Breite" in Austria

Aivalioti M., P. Papoulias, Gidarakos E. (Greece)
Use of diatomite as a potential filling material of a permeable reactive barrier filling material designed to treat BTEX, MTBE and TAME contaminated aquifers

Nehrenheim E., Odlare M. (Sweden)
Treatment of explosives contaminated water by using pine bark in a batch process - potentials and kinetics

Kabiersch G., Rajäsärkkä J., Ullrich R., Tuomela M., Hofrichter M., Hatakka A., Steffen K. (Finland)
Treatment of bisphenol A with litter-decomposing fungi results in removal of estrogenic activity

Discussion

11:00 – 13:00 Room – Imperial I
SESSION B7: TOXICITY

Chairmen:

Drolc A. (Slovenia)
Development of methodology for assuring comparable results of toxicity testing

Ribé V., Odlare M., Nehrenheim E., Berglind R. (Sweden)
Hazard screening by chemical analysis and ecotoxicity bioassays of sediment, ground and surface water sampled from a fire pond and the surrounding area at an explosives destruction site

Weltens R., Maes J. (Belgium)
DISCRISET: biotests for classification of waste - step 2 screening

Galitskaya P., Selivanovskaya S., Chursina M., Odemchuk G. (Russia)
Toxicity estimation of hazardous wastes

Marescalco P.A.C., Zanetti M. (Italy)
Impact of the contamination due to chlorinated solvents and chromium VI on the human receptors resident near an industrial area

Discussion

11:00 – 13:00 Room – Imperial II
SESSION C3: HOSPITAL WASTE

Chairmen:

Hoffmann M., Schrubert K. (Germany)
Waste management methods in hospitals of tertiary level - waste accumulation and disposal structure for medical waste at the Jena university hospital, Germany

Mahnik M., Horinek G. (Austria)
Problems and solutions disposing liquid waste from human medicine

Komilis D., Katsafaros N., Vasilopoulos P. (Greece)
Hazardous medical waste production rates in Greece: case studies from medical facilities in Attica and from a small insular hospital

Papadopoulos D., Bouboukas G., Galenianou O., Katsoulis A., Kouloumoundras S., Verganelakis K. (Greece)
Athens hazardous medical waste incinerator. Latest modification and compliance with the new European and national legislation

Scherhauser S., Obersteiner G., Lechner P. (Austria)
Comparability of infectious hospital waste to residual waste and industrial waste

Discussion

13:00 – 15:00 Lunch Break

15:00 – 15:30 Poster Session

15:30 – 16:00 INVITED SPEAKER
Room – Grand Imperial

Jorge Gardea - Torresdey
University of Texas at El-Paso (USA)
“Biotransformation of nanoparticles in the environment: Is it a hazard?”

16:00 – 17:30 **Room – Grand Imperial**
SESSION A8: CONTAMINATED SOIL

Chairmen:

Syngouna V.I., Chrysikopoulos C.V. (Greece)
Effect of aquatic chemistry on virus sorption onto clays

Pensaert S., Pomphrey G., Mosca D. (Belgium)
Soil treatment centre at the site of a large international sports event in 2010, London, UK

Moraetis D., Nikolaidis N.P., Karatzas G., Kalogerakis N., Winkel L. (Greece)
Geochemical evidences of geogenic origin of chromium in Oropos plain Attica

Zilic-Fiser S., Dvorsak S. (Slovenia)
The model of an effective public communication in remediation of acid tar dump: case of Pesniski Dvor

Mueller J., Przepiora A., Petounis D. (USA)
*Immobilization of arsenic and other heavy metals
in groundwater using EHC-M®*

Polychronopoulou E., Tiniakos D., Tsilemou A.,
Kavouri S., Angeli M. (Greece)
*Sustainable development in hazardous waste
management – a case study in the island of Lesbos*

Discussion

16:00 – 17:30 **Room – Imperial I**
SESSION B8: WASTE TO ENERGY
CONCEPTS

Chairmen:

Bilitewski B. (Germany)
*Waste management plan for the implementation of
the thermal treatment of waste*

Vermeulen I., Block C., Dewulf W.,
Vandecasteele C. (Belgium)
*Energetic valorization of automotive shredder
residue by co-incineration in a fluidized bed
combustor*

Gikas P., Noll S.A., Stedman K., Tchobanoglous
G. (Greece)
*The characterization and testing of wastewater
fine screen gross solids for suitability as a
gasification feedstock*

Pico D., Kaineder A., Bartl A. (Austria)
Wind power plants - waste recycling

Zarkadas I.S., Pilidis G.A. (Greece)
*Anaerobic digestion of agricultural manures and
olive mill wastewater: the effects of co-digestion in
biogas production and organic load reduction*

Discussion

16:00 – 17:30 **Room – Imperial II**
WORKSHOP 4: HOW TO GET PUBLISHED

Chairman: Gardea – Torresdey J. (USA)

1. Journal information
2. Preparation of properly formatted scientific
articles

Discussion

17:30 – 18:00 Coffee Break

18:00 – 19:30 CLOSING SESSION
Room – Grand Imperial

10:00 -
Excursions (to be announced)

INVITED SPEAKER

Evangelos Gidakos
Technical University of Crete (Greece)
*“Controversial issues in industrial waste
management practices”*

ROUND TABLE DISCUSSION

H. Grassl – R. Cossu –
B. Bilitewski – G. Rettenberger

Energy in the Future: the role of waste

POSTER AWARDS

21:00 - ... Gala Dinner

POSTERS

Pöykiö R., Rönkkömäki H., Nurmesniemi H., Merisalu E., Perämäki P., Keiski R.L. (Finland)
Extractability of heavy metals in fly ash by artificial sweat and gastric fluids

Pöykiö R., Nurmesniemi H., Watkins G., Keiski R.L., Dahl O. (Finland)
Total and leachable heavy metal concentrations in bottom ash from a power plant (246 MW) at a Finnish pulp and paper mill complex

Ilarionov R., Koleva M., Shopov N., Simeov I. (Bulgaria)
Non-contact ultrasound identification of waste plastics by wavelet symptoms' spaces generating

Tzanakos K., Giannis A., Gidakos E. (Greece)
Effect of leachate recirculation rate in solid waste bioreactors

Pozzi P., Taurino R., Zanasi T., Lancellotti I. (Italy)
Characterization of polymer fractions from municipal and industrial wastes for mechanical recycling

Sirotková D., Kulovaná M., Vosáhlová S., Hofman J., Kočí V., Záleská M. (Czech Republic)
Novelization of Czech approaches to ecotoxicity evaluation of hazardous wastes

Bonifazi G., Giancontieri V., Serranti S. (Italy)
Airborne dust characterization resulting from nuclear concrete structures cutting

Kousaiti A., Anastasiadou K., Papoulias P., Aivalioti M., Gidakos E. (Greece)
Asbestos treated waste as an adsorption material for petroleum contaminants

Avsar E., Toroz I., Hanedar A., Uslu E. (Turkey)
Investigation of the usability of automotive industry chemical wastewater treatment sludge as an additive to brick raw material in terms of firing process stack gas emissions

Omer A. (Sudan)
An overview on the development of integrated bioenergy devices for improvement of quality of life of poor people

Pöykiö R., Nurmesniemi H., Keiski R.L. (Finland)
Management of solid process wastes at an integrated pulp and paper mill complex

Stoeberl M., Russ W. (Germany)
Fermentative production of n-butanol using waste products from the food industry

Furlani E., Tonello G., Maschio S. (Italy)
Recycling of steel slag in mortar production - influence of superplasticizer additions

Acchar W., Paranhos R.J.S., Segadães A.M., Mello-Castanho S.R.H. (Brazil)
Using sugar cane bagasse ash in the fabrication of ceramic tiles

Chusov A., Fedorov M., Negulyaeva E. (Russia)
Experience of hazardous waste minimization in morphological composition of municipal solid waste (St.Petersburg, Russia)

Karamanova E., Karamanov A., Andreola F., Barbieri L., Lancellotti I, Schabbach L.M. (Bulgaria)

Sintering study of new ceramic materials based on incinerator secondary raw material and refractory clay

Grilli Cicilioni A., Castellani S., Bargagli R., Carnevale L., Capannoli R., Moschini L., Bracalari M. (Italy)

Assessment of environmental behaviour of steel making Linz Donawitz slag

Gholami M., Dehgan A., Farzadkia M., Mobedi I. (Iran)

Performance evaluation of Iran university of medical sciences hospital wastewater treatment plants

Andreola F., Barbieri L., Lancellotti I., Anastasiadou K., Bignozzi M.C., Bonvicini M. (Italy)

Agricultural biomass waste: preliminary study on characterization and valorisation in construction materials

Zioris I.V., Raftopoulos C.T., Lambropoulou D.A., Danis T.G., Albanis T.A. (Greece)

Quick easy cheap effective rugged and safe (QuEChERS) approach for the determination of 100 pesticides residues in agricultural products of North Greece during last quinquenium

Kochetov G., Zorya D., Heuss-Abichler S. (Ukraine)

Development of a technology for recovery of copper from electroplating wastewater

Mateju L., Stepankova M., Zimova M., Hurka M. (Czech Republic)

An evaluation of the efficacy of hygienization during processing waste with pathogenic microorganisms

Lesá B., Aneggi E., Comuzzi C., Dolcetti G., Goi D. (Italy)

Salt assisted and sonolitic supported thermal desorption of mercury from polluted dredging sludge

Karatzá D., Lancia A., Prisciandaro M., Musmarra D. (Italy)

Influence of oxygen on adsorption of elemental mercury vapors onto activated carbon

Zimová M., Podolská Z., Matějů L., Melicherčík J., Polanský J., Krstev P. (Czech Republic)

Production and composition of healthcare waste in the Czech Republic

Dvořáčková M., Geryková Z., Julinová M. (Czech Republic)

Biodegradation of polyvinylalcohol in aerobic environment after pretreatment by Fenton process

Stavelova M., Muzikar M., Hermanek R., Brennerova M., Cajthaml T. (Czech Republic)

Influence of plants on PCBs removal from the soil in combination with composting and microbial degradation

Mousios E., Anastasiadou K., Gidaracos E. (Greece)

Solidification / stabilization of asbestos waste from mine operation

Chatzisymeon E., Diamadopoulos E., Mantzavinos D. (Greece)

Comparison and predesign cost estimation of advanced oxidation processes for olive mill wastewater treatment

Frontistis Z., Brebou C., Katsaounis A., Mantzavinos D. (Greece)

Electrochemical degradation of ECDs by anodic oxidation on boron-doped diamonds

Oguchi M., Kida A. (Japan)

Thermodynamic screening of mercury forms for long-term storage of excess mercury

Gallis C., Giagli K., Karypidoy V. (Greece)

Quantitative and geographical analysis of solid waste landfill data in the municipalities union of Thessaloniki greater area for the period 2004-2008

Romaniuk O., Dudok I., Dzhura N., Oshchapovsky I. (Ukraine)

The package of measures to remedy of the environment contaminated with the wastes of oil production and petrochemistry

Radfar M., Movahhed Nia M., Mousaei R., Harati H., Fadaei N. (Iran)

Management of house hazardous wastes

Weltens R., Vanermen G., Tirez K., Vanparys C., Nobels I., Deprez K., Michiels L. (Belgium)

DISCRISET: biotests for classification of hazardous waste - the concept

Ribé V., Nehrenheim E., Aulenius E., Odlare M. (Sweden)

Risk characterization of a former surface treatment and metal industry site using the triad method

Mimilidou A., Giannis A., Gidarakos E. (Greece)

Biological treatment of sewage sludge and yard trimmings with municipal solid wastes in landfill bioreactors

Fudala-Ksiazek S., Luczkiewicz A., Jankowska K., Kulbat E., Czerwionka K., Quant B., Olanczuk-Neyman K. (Poland)

Combinated treatment of landfill leachates with wastewater in a sequencing batch reactor (SBR)

Giannis A., Turro E., Cossu R., Gidarakos E., Katsaounis A. (Greece)

Electrochemical oxidation of stabilized landfill leachate over DSA® electrodes on IrO₂ and RuO₂

Cotman M., Žgajnar-Gotvajn A. (Slovenia)

Physico-chemical treatments of landfill leachate for improvement operation of SBR

Luciano A., Petrangeli Papini M., Viotti P. (Italy)

Experimental investigation on DNAPL mass reduction and dissolved plume development

Vasiliadou I., Chrysikopoulos C. (Greece)

Mathematical modeling of bacteria and clay co-transport in porous media

Hidasi J., Serényi M., Racz M. (Hungary)

Devices and measurement procedure for detecting liquid hydrocarbon derivatives floating on water

Amosov P., Novozhilova N. (Russia)
Taking into consideration the retardation factor in the assessment of ecological safety

Arapoglou D., Doula M., Kavvadias V., Iconomou D., Theocharopoulos S., Tountas P. (Greece)
Monitoring of phenols concentration in soil of olive oil mill waste disposal site

Doula M., Elaiopoulos K., Kavvadias V., Mavraganis V. (Greece)
Use of clinoptilolite to improve and protect soil quality from the disposal of olive oil mills wastes

Kavvadias V., Sarris A., Doula M., Zaharaki D., Theocharopoulos S., Komnitsas K. (Greece)
Soil quality monitoring in olive oil mill waste disposal sites

La Laina Cunha A.C., Ruiz M.S., Echevengua Teixeira C. (Brazil)
Environmental assessment of remediation technologies: an analytical framework for a hexachlorocyclohexane (HCH) contaminated site in Brazil

Kalderis D., Juhasz A., Boopathy R., Comfort S. (Greece)
Soil contaminated by explosives – environmental fate and evaluation of state of the art remediation processes

Panagopoulos I., Karayannis A., Kassomenos P., Gouvalias G., Gaki E. (Greece)
The prediction of toxic fugitive dust depression during soil remediation works using FDM model

Drovc A., Pintar A. (Slovenia)
In situ continuous monitoring of nitrate and nitrite in selected waste water matrices by UV spectroscopy

Trukhina A.I., Gladchenko M.A., Kalyuzhnyi S.V. (Russia)
Influence of nitrogen loading rate on impact of DEAMOX reaction for sulfide and organics driven DIAMOX processes

Valkenburg J., Hill D., Seech A., Mueller J. (USA)
Full scale ZVI/ organic carbon applications in soil

Pinho S.C., Almeida M.F., Nunes O.P. (Portugal)
Applicability of alkaline hydrolysis at health care wastes

Hoffmann M., Schubert K. (Germany)
Material flow management at the Jena university hospital, Germany – selected examples for a separation of uninfected from infectious waste

Kalafatis Y., Galenianou O., Katsoulis A., Kouloumoundras S., Papadopoulos D., Verganelakis K. (Greece)
Athens hazardous medical waste incinerator. A solution for several types hazardous waste produced in Attica region

Amosov P., Novozhilova N. (Russia)
Influence of hazardous waste disposal facility with hazardous wastes location depth on level of underground hydrosphere contamination

Ilarionov R., Koleva M., Shopov N., Simeonov I., Demireva D. (Bulgaria)

Effect of material structure on wave propagation in non-contact ultrasound identification of waste plastics

Panagiotou K., V.A. Sakkas, Albanis T. (Greece)

Application of chemometric assisted dispersive liquid-liquid microextraction to the determination of personal care products in natural waters

Kontogianni St., Karagiannidis A., Antonopoulos I.-S., Moussiopoulos N., Schmidt J., Weidema B., Villeneuve J., Brunner P. (Greece)

Forecasting hazardous waste quantities by tracing physical flows and stocks of resources in Europe for the next 25 years

Petridis N.P., Sirioti I.T., Sakkas V.A., Albanis T.A. (Greece)

Application of leaching test and SPE method for the determination of priority PAHs in solid wastes

Elefsiniotis L., Karagiannidis A., Antonopoulos I.-S., Kontogianni St. (Greece)

A three-stage, steady-bed gasifier for municipal solid waste and biomass

Samaras P., Karagiannidis A., Kalogirou E., Themelis N., Kontogianni S. (Greece)

An inventory of characteristics and treatment processes for fly ash from waste-to-energy facilities for municipal solid wastes

Moussiopoulos N., Koroneos C., Achilles Ch., Vlachokostas Ch. (Greece)

Hazardous waste minimization through redesign of industrial products: the case of NETMOD

Zimová M., Podolská Z., Matějů L., Veverková M., Wittlingerová Z., P. Ševčíková P. (Czech Republic)

Existing approaches to minimize health and environmental risks in the use of energy by-products in the Czech Republic

Bilal E., Bounakhla M., Benmansour, F.M. De Mello (France)

Brazilian Phosphogypsum

Baggio H., Horn H.A., Bilal E. (Brazil)

Behavior heavy metals in the Formoso river, Minas Gerais state, Brazil

Eriçyel K., Arıkan O.A. (Turkey)

Composting of yeast industry biosolids by using shredded cornstalk and hazelnut husk

Campos-Mota L. (Mexico)

Quality of vermicompost from paper mill sludge and vegetal wastes to be used as potting media in the Netherlands

Pensaert S., Van De Velde K. (Belgium)

Storage capacity optimization of tailing ponds by means of mechanical dewatering

Radfar M., Gorbanian Tabrizi M., Roshani M., Aga Mohammadi A. (Iran)

Localizing criteria of hazardous wastes landfill in geographical information system

Posters

Christopoulos K., Moussios E., Anastasiadou K.,
Gidakos E. (Greece)

*Solidification / stabilization of fly and bottom ash
from medical waste incineration facility*

Grzesik K., Mikołajczak J. (Poland)

*The extractive waste management from hard coal
mines in Poland*

CONFERENCE STRUCTURE

Tuesday 5/10/2010 evening	IWWG Task Group "Industrial Waste Management" Meeting - Welcome Drink			
Wednesday 6/10/2010 morning	Opening Ceremony			
	General Sessions		General Sessions / Workshops	Special Sessions / Courses
Wednesday 6/10/2010 morning	A1: Hazardous and Industrial Waste Regulations and Control	B1: Hazardous and Industrial Waste Treatment I	Invited Speaker Invited Speaker	SS1: Αξιολόγηση και Αποκατάσταση Ανεξέλεγκτων Ρυπασμένων Χώρων / Εγκαταστάσεων – Evaluation and Restoration of Uncontrollable Contaminated Sites / Facilities (in Greek only)
Wednesday 6/10/2010 afternoon	A2: Waste / Contaminated Sites Characterization	B2: Hazardous and Industrial Waste Treatment II	Poster Session Invited Speaker W1: WEEE	SC1 : Organization of Hazardous Waste Management
	A3: Industrial Waste Management Strategies	B3: Landfill Issues I	W2: Microwaves & Waste Management	
Thursday 7/10/2010 morning	A4: Thermal Processes	B4: Landfilling Issues II	Invited Speaker Invited Speaker W3: Agro-industrial Waste Management	SS1: Ιατρικά Απόβλητα – Medical Waste (in Greek only)
Thursday 7/10/2010 afternoon	A5: Combustion Residues I	B5: Industrial Wastewater Treatment	Poster Session Invited Speaker C1: Hazardous and Industrial Waste Recycling I	SC2 : Statistical Model Building for Industrial Pollution Control and Hazardous Waste Management
	A6: Combustion Residues II	B6: Asbestos	C2: Hazardous and Industrial Waste Recycling II	
Friday 8/10/2010 morning	A7: Contaminated Groundwater	B7: Toxicity	Invited Speaker Invited Speaker C3: Hospital Waste	
Friday 8/10/2010 afternoon	A8: Contaminated Soil	B8: Waste-to-Energy Concepts	Invited Speaker W4: How to get published	
Friday 8/10/2010 afternoon	Invited Speaker - Round Table Discussion "Energy in the future: the role of waste" Poster Awards - Closing Ceremony			
Friday 8/10/2010 evening	Gala Dinner			