

SARDINIA 2011

**Thirteenth International Waste Management and Landfill
Symposium**

3 - 7 October 2011

S. Margherita di Pula (Cagliari), Sardinia, Italy

PRELIMINARY PROGRAMME

Sunday Oct. 2nd

09.00-11.00

Registration for Training Courses

IWWG Training Courses

09.00-13.00

T1: Composting

Chair: E. Binner (BOKU University, Vienna, AT)

- Feedstock
- Biology of the (aerobic) rotting process
- Optimising of rotting conditions
- Quality of compost
- Application of compost

11.00-13.00

T2: Landfill gas management

Chair: M. Ritzkowski (Hamburg University of Technology, DE)

- Biogas production model
- Extraction and transportation
- Problems and risks
- Poor gas treatment
- Energy recovery

14.30-16.30

T3: Design criteria for innovative landfills and a comparison with the conventional approach

Chair: M. Huber-Humer (BOKU University, Vienna, AT) & R. Pomi (University of Rome "La Sapienza", IT)

- Introduction to the innovative landfill concept
- Waste pre-treatment as a barrier to contaminants emission
- Design and construction of: bottom liner and leachate collection, biogas collection system
traditional and innovative top cover

16.45-19.00

T4: Treatment of landfill leachates to standards suitable for discharge to watercourses

Chair: H. Robinson (Enviros Consulting, GB)

- Generation and composition of landfill leachates
- Treatment processes
- Case studies

Monday Oct. 3rd - Morning

09.00-13.00 Opening session

Monday Oct. 3rd - Afternoon

15.30-17.10 SESSION A1

National strategies in waste management

P. Flyhammar (SE)

One decade of dramatic changes of the Swedish management of household waste

D. Gamble, A. Montgomery (AU)

Challenges and successes in implementing alternative waste technologies in Australia

H. Moora, R. Uselytè (EE)

Development of municipal solid waste management systems in Estonia and Lithuania: a comparative analysis

T. Dorn, M. Nelles, S. Flamme, J. Cai (DE)

Technology transfer in MSW disposal to reduce the carbon footprint of China

18.00-19.40 SESSION A2

Waste prevention

A. Bartl (AT)

Zero waste: a desirable goal or empty words?

A.E. Santamaria, F.G.A. Vagliasindi (IT)

Development of a set of indicators for monitoring implementation of measures to prevent MSW production

S. Scherhauser, F. Schneider (AT)

Prevention, recycling and disposal of waste bread in Austria

T.H. Christensen, E. C. Gentil (DK)

Environmental benefits of waste prevention: food, packaging and advertisement

15.30-17.10 SESSION B1

Assessment and decision tools in landfilling

H.A. Van Der Sloot, D.S. Kosson, O. Hjelmar, R.N.J. Comans (NL)

Recent developments in testing, modelling and environmental impact assessment applicable to landfilled waste, treated waste and waste considered for beneficial use

E. Suchomel, M. Verwiel, G. Thrupp (US)

A new method for calculating waste acceptance criteria for soil at landfills

T. Parker, P. Pointer, A. Childs, J. Lockhart (GB)

Cost benefit analysis to identify the most sustainable management option for landfills

18.00-19.40 SESSION B2

Sustainable landfilling

P. Lechner, M. Huber Humer (AT)

The road to sustainable landfilling

O. Hjelm, J.B. Hansen, M. Mohr, J. Nedenskov, C. Scheutz, S. Stentsoe (DK)

Sustainable landfilling: some conceptual and practical issues

J.W.F. Morris, M. Crest, A. Åkerman, M.A. Barlaz, K.A. Spokas, L. Yuan, D. Presse, S. Hayward-Higham (FR)

Improved methodology to assess modification and completion of landfill gas management in the aftercare period

R. Sjöblom, S. Lindskog, L. Andreas (SE)

Lessons learned from nuclear decommissioning and waste management relevant to end of responsibility for landfills

15.30-17.10 SESSION C1

Waste characterization

C. Dumas, V. Prabhudessai, S. Mutnuri, J.-P. Steyer, M. Torrijos (FR)

Characterization of food solid wastes for predicting methane potential and degradability

N. Menad, J. Van Houwelingen (FR)

New characterisation method of wastes of electrical and electronic equipment (WEEE)

Y. Hirai, S. Sakai, Y. Matsuda (JP)

Biomass fraction of municipal solid waste determined by ¹⁴C method

S. Flamme, J. Geiping (DE)

Quality assurance and standardization of solid recovered fuels

R. Cossu, T. Lai, L. Salin, A. Sandon (IT)

Standardization of BOD5/COD ratio as a biological stability index for MSW

18.00-19.40 SESSION C2

Waste management in developing countries (I)

B. Callaert, R. Hentati (BE)

Sustainable development in the City of Sfax - Taparura project waste management in developing countries

I. Jahan, M. Alamgir, B. Khadiza, M.A.K. Selim (BD)

Siting and design of transfer station in Khulna City of Bangladesh

E. Nehrenheim, P. Klintonberg, M. Odlare, R. Schult (SE)

Recirculation of biogas residue to agricultural land in Namibia - risks and potentials in full utilization of organic waste

V. Schalch, R.E. Cordoba (BR)

Study of the integrated management of construction and demolition wastes from Sao Carlos – SP

O.E. Taiwo, F.A.O. Otieno (ZA)

Comparative study of solid waste management practises for selected cities in Africa

E.A.G. Marques, L.C.R Andrade, A.A.P. Buselli, I.C.D Azevedo, R. Azevedo, F.P. Fonseca, T.C de Souza, I.A. Barbosa (BR)

Evolution of MSW disposal in Zona da Mata, Minas Gerais State, Brazil

15.30-17.10 SESSION D1

Landfill settlement

J.R. McDougall (GB)

Landfill models: classifying parameter demands

A. Mifsud, Q. Napoleoni (MT)

Settlement measurement and analysis in Malta's landfill

M. Conte, P. Carrubba (IT)

Mechanical and biological aspects in MSW settlements

G. F. Simões, C.A.A. Catapreta (BR)

Settlement monitoring of an experimental landfill, Belo Horizonte Brazil

R. L. Thomas, S. D. Cooke (GB)

Numerical prediction of landfill post-capping waste settlement: the analytical process, calibration and remedial works implementation

18.00-19.40 SESSION D2

Hydro-mechanical issues in landfilling

N.D. Woodman, R.P. Beaven (GB)

Assessment of preferential flow concepts for transport through municipal solid waste

L. Yu, F. Battle, J. Carrera, E. Vázquez-Suñé, J. Font (BE)

Numerical analyses of a leachate pumping test at a MSW landfill

M.C. Di Lonardo, F. Lombardi, S. Pantini, I. Verginelli, P. Sirini, F. Ermolli (IT)

Modeling the water-balance of sanitary landfills: a case study

I. Fleming, M.A. Fleming, J.S. Sharma (CA)

Cyclic loading of waste for design of a wind turbine foundation on an old landfill

N. Drut, J.P. Gourc, M. Staub, G. Stoltz, A. Mansour (FR)

Large-scale oedometers (CICLADES) for monitoring the long-term hydro-mechanics of MSW

N. Shariatmadari, M. Karimpour-Fard, M. Keramati, H.J. Kolarijani, A. Naebi, M. Tehrani (IR)

Fiber content impact on the shear strength of MSW materials in direct shear tests

15.30-17.10 SESSION E1

Anaerobic co-digestion

T. Takahashi, N. Osaka, H. Hosono, T. Fujiwara (JP)

A demonstration of a biomass energy system by dry anaerobic digestion for urban areas in Japan

E. Marañon, L. Castrillón, G. Quiroga, Y. Fernández-Nava, L. Gómez, M.M. García (ES)

Co-digestion of cattle manure with food waste and sludge to increase biogas production

C. Ratanatamskul, O. Wattanayommanaporn, K. Yamamoto (TH)

Co-digestion of food waste and sewage sludge by two-stage anaerobic digester for biogas production from high-reuse building

M. Rouez, M. Lemunier, Y. Lessard, A. Simao, L. Galtier (FR)

Co-digestion of diapers organic fraction: feasibility study

P.K. Prapatchandran, V.Gandhiraj (IN)

Co-digestion of thermally pretreated municipal solid wastes (MSW) with distillery effluent

A. Bialowiec, M. Templin (PL)

The influence of modification of municipal solid waste organic fraction on biogas production

18.00- 19.40 SESSION E2

Construction & demolition waste (I)

Y. Menard, K. Bru, S. Touze, A. Lemoign, J.E. Poirier, G. Ruffie, F. Bonnaud, F. Von Der Weid (FR)

Innovative process routes for a high-quality concrete recycling in the aggregates and cement industries

H. J. Kim, K. Endo, Q. Tang, M. Yamada (JP)

A comparison of leaching behaviors of construction and demolition waste's residues from columns with different length/width ratios

S. Butera, J. Møller, T.H. Christensen (DK)

LCA of recycling options for gypsum from construction and demolition waste

A. Pertl, G. Obersteiner, S. Scherfhauer (AT)

Environmental assessment of waste prevention and reuse measures in the construction sector.

15.30-17.10 SESSION F1

Workshop: Hydrothermal carbonization of waste

N. Berge (US)

Hydrothermal carbonization of municipal solid waste: comparison to current management techniques and associated environmental implications

18.00-19.40 SESSION F2

Workshop: Carbonation of special waste

G. Costa, R. Baciocchi, A. Poletini, R. Pomi (IT)

Leaching behaviour of steel treated by accelerated carbonation

L. Sarperi, M. Pellerano, A. Subrenat, A. Kerihuel, F. Chazarenc (FR)

The use of an industrial by-product as a sorbent to remove CO₂ and H₂S from biogas

S. Stengl, C. Koch, E.A. Stadlbauer, B. Weber, K. Albert, M. Bayer (DE)

Production of carbonaceous materials from low value biomass by hydrothermal carbonization and low temperature conversion: a comparison of techniques

15.30-17.10 / 18.00-19.40 SESSION G1/G2

IWWG Workshop: CLEAR Task group

M. Huber-Humer (AT)

Seeding paper CLEAR workshop

15.30-17.10 SESSIONE I1

Recupero e riqualificazione ambientale delle discariche

A. Artuso, E. Cossu (IT)

Bonifica e riqualificazione delle discariche: criteri ed esempi

R. Raga, R. Repetti (IT)

Fattibilità e prospettive per il Landfill Mining in Italia

S. Querci, G. Delbarba (IT)

Il recupero ambientale di una discarica. Restituire territorio al territorio. Trenzano, Castrezzato (Brescia, Italia)

18.00-19.40 SESSIONE I2

Recupero ambientale di siti contaminati (aree dismesse)

S. Demru, R. Dessì, A. Murgia, S. Pilurzu (IT)

Linee guida per la caratterizzazione e la bonifica delle aree minerarie dismesse

A. Angeloni, A. Bavestrelli, M. Maroni, N. Cogoni (IT)

Bonifica e recupero ambientale dell'area mineraria di Baccu Locci nei territori dei comuni di Villaputzu e San Vito – Provincia di Cagliari

D. Caniani, D.S. Lioi, I.M. Mancini, S. Masi (IT)

Valutazione del rischio di contaminazione dei suoli con reti neurali

Tuesday Oct. 4th- *Morning*

09.00-10.40 SESSION A3

Waste collection systems

A. Bernstad, J. La Cour Jansen (SE)

Collection of household food waste – Comparison of different techniques from a systems perspective

S. Sheward, I. D. Williams (GB)

The impact of alternative weekly collections on waste arisings: an English case study

R.G. Souza, M.P.E. Lins, R.A.B. Valle (BR)

Assessing the efficiency of solid waste collection services in Brazil

M. Ragazzi, E. Girelli, E.C. Rada (IT)

A proposal for selective collection guidelines for institutional buildings

11.10-12.50 SESSION A4

Life cycle approaches in waste management

S. Manfredi, R. Pant, D. Pennington (IT)

Supporting environmentally sound decision-making for European waste management with a life cycle thinking approach

J. Clavreul, T.H. Christensen (DK)

Uncertainties in life cycle assessment of waste management systems

A. Haddad, D.R. Reinhart, M. Chopra (US)

Comparative life cycle assessment of different waste management options for green waste

J. Yano, Y. Hirai, S. Sakai (JP)

Life cycle analysis of waste management focused on waste categories and treatment methods

09.00-10.40 SESSION B3

Flushing and recirculation in landfills

T. Rees-White, R. Beaven, H. Woelders, T. Beaumont, M. Hannen, A. Marsen (GB)

Preliminary results of a fill and draw flushing test in pilot-scale landfill cell

S. Reyes, W. Powrie, M. Darqui (AR)

Assessment of minimum leachate recirculation rates for aerobic and anaerobic degradation scenarios on pilot scale waste cells

A.P. Hudson, R.P. Beaven, J.A. Barker, N.D. Woodman, K. Knox (GB)

An experiment to investigate various methods of flushing contaminants from MSW

W. J. Van Vossen, T. Folmer (NL)

Progress of sustainable landfill stabilization after 3 years of recirculation of leachate at the Vlagheide landfill in Schijndel (NL)

11.10-12.50 SESSION B4

Landfill gas generation

R.G. Gregory, S. Davies, D. Browell (GB)

Recent developments in understanding of waste degradation rates and modelling landfill gas generation and recovery

K. Knox (GB)

Uncertainties in understanding and measuring the completion of waste degradation

J. Lamborn (AU)

Issues in using medium to large scale landfill data for modelling, model calibration and prediction

J. Gebert, N. Hanke, S. Bohn, E. Smidt, J. Streese-Kleeberg (DE)

Gas potential of old landfills

09.00-10.40 SESSION C3

Management of rubber and tyre wastes

G. Corbetta, D. Fornai, G. Rimondi (IT)

Implementing the extended producer responsibility for end of life tyres: the Italian case

S. Fiore, M.C. Zanetti, B. Ruffino, E. Santagata (IT)

End of life tyres: crumb rubber physical and chemical characterization for reuse in paving applications

F. Melegari, M. Bergonzoni, M. Spiga, G. Sperandei, E. Delia (IT)

Valorization of rock wool wastes, tyre cloth fabric and waste tyres for the production of an innovative thermo acoustic insulation

11.10-12.50 SESSION C4

Informal waste management activities

G. Obersteiner, R. Linzner, A. Pertl, S. Scherhauser, E. Schmied (AT)

Dimension of informal waste collection activities in central Europe - An Austrian-Hungarian case study.

R. Linzner, A. Pertl, S. Scherhauser, G. Obersteiner (AT)

Methodologies for estimating quantities of informal collected and transboundary shipped bulky waste

S. Scherhauser, A. Pertl, G. Obersteiner (AT)

Environmental effects from reuse informal sector activities in central Europe

U. Lange, B. Bilitewski, G. Obersteiner (DE)

Economic assessment of informal sector activities in the waste management

G. Obersteiner, A. Haider, A. Pertl, S. Scherhauser (AT)

Re-use – recycling - disposal: what is the best case for furniture?

09.00-10.40 SESSION D3

Renewable energy from landfills

M. Kuehle-Weidemeier (DE)

Development, construction and operation of a flexible landfill cover with an integrated photovoltaic power plant

W. H. Stachowitz, F. Ender (DE)

Energy supply of a landfill site in the after care period by LFG, sun, oil, natural gas etc.

M. Zagaroli, K. Bachiri, A. Bodenhausen (IT)

Sustainable landfill closure through integrated solar systems

R. Meoni, I. Pecorini (IT)

An aftercare and monitoring plan of a MSW landfill: a way to use unusable space

11.10-12.50 SESSION D4

Characterization of landfill leachate

M. van Praagh, N. Torneman, M. Johansson, L. Ingelsted Frendberg, E. Heander, A. Johansson (SE)

Emerging organic contaminants in leachates – Review and risk assessment

J. Zagorc Končan, G. Kalčíková, A. Žgajnar Gotvajn (SI)

Comprehensive evaluation of local municipal landfill leachate quality - A useful tool for appropriate treatment management

K. Haarstad, T. Maehlum (NO)

Modern Norwegian leachate (2005-2010) compared to older (1998-2002)

A. Białowiec, M. Kopik (PL)

Fractal geometry: a tool for phytotoxicity assessment of landfill leachate on willow

09.00- 10.40 SESSION E3

CDM approaches in waste management

M. Siebel, V.S. Rotter, J. Gupta (NL)

Clean development mechanism - Reducing GHG emission and stimulating sustainable waste management?

M. Bereznytska, Y. Pyrozhenko (UA)

Joint implementation program of activity: agricultural waste utilization for generating of electricity and heat at the farms of Ukraine

M. Gallo, A. Del Borghi, M. Del Borghi (IT)

Application of clean development mechanism to animal waste management system (AWMS): a methane recovery project in Serbia as case study

C.J. Liebenberg (ZA)

Carbon emission benefits arising from reclaiming of recyclables by informal waste pickers

C. Trois, R. Couth (ZA)

Reduce carbon emissions from improved waste management in Africa

11.10-12.50 SESSION E4
WEEE recovery & recycling

N. Menad, J. Van Houwelingen (FR)

Identification and recovery of rare metals in electric and electronic scrap

F. Henning (DE)

Limits of resource recovery and waste management with regard to electric and electronic equipment

L. Wen, C. Lin, T. Chang (TW)

The comparison study of the extended producer responsibility systems for WEEE recycling in two Chinese societies: Taiwan and China

V.S. Rotter, A. Janz, M.A. Siebel, B. Bilitewski (DE)

Effect of the removal of hazardous substances from WEEE on emission of treatment and recycling

S. Salhofer (AT)

Efficiency of take back system for waste electrical and electronic equipment in Europe

09.00-10.40 SESSION F3
Workshop: Nano waste issues

S.C. Bolyard, D. Reinhart, S. Santra, S. Basumallick (US)

Fate of coated zinc oxide nanoparticles in municipal solid waste landfills

A. Boldrin, S.F. Hansen, A. Baun, T. Astrup (DK)

Nanowaste: business-as-usual or a new challenge for the waste industry?

P. Lozano, N.D. Berge (US)

Carbon nanotube behaviour in representative old leachate

11.10-12.50 SESSION F4
Workshop: Bio-filters for landfill methane mitigation

F. Straka (CZ)

LFG-biofilters: critical evaluation of gas mitigation effectivity after 20 years of operational experiences

S. Dever, X. Wang, G. Swarbrick, R. Stuetz (AU)

Longer term performance of a passive landfill gas biofiltration system in Australia

M. Pawlowska, W. Stepniewski (PL)

Enhancement of methane oxidation capacity in biofilter due to aeration – a laboratory study

09.00-10.40 SESSION G3
Workshop: Evaluation of biodegradable waste sent to landfill

R.Campbell, J. Moriarty, J. Derham, O. Gaillot (IE)

Ireland's approach to measuring the diversion of biodegradable municipal waste from landfill

11.10-12.50 SESSION G4

Workshop: Landfill design & construction

R. Cossu (IT)

Innovative issues in landfill design & construction

K.A. Zamara, N. Dixon, D.R.V. Jones (GB)

Design of drainage systems in geosynthetic landfill caps

O. Del Greco, P. Lefevre, C. Oggeri (IT)

Performances of draining geosynthetics for applications in landfill construction

R. Cossu, P. Carrubba, M. Conte, V. Salieri (IT)

When wrong design is the main problem in landfilling - A case study

09.00-10.40 SESSIONE I3

Controllo degli odori negli impianti di compostaggio

M.L. Mancini, M. Bergonzoni (IT)

Progettazione e gestione sistemi di biofiltrazione aria per la mitigazione degli impatti olfattivi da impianti di compostaggio e pre-selezione.

E. Ranieri, A. Di Biase, V. Torretta, G. Urbini (IT)

L'impianto di biostabilizzazione di Bari. Correlazione tra composizione dell'effluente del biofiltro ed unità odorigene

11.10-12.50 SESSIONE I4

Rifiuti speciali

G. Valentini, L. Ammannati, F. Braca, A. Cecchi, M. Franceschi (IT)

Criteri metodologici per la valutazione dell'efficienza del processo di stabilizzazione dei rifiuti

R. Lacroce, D. Napoli, G. Morgantini (IT)

Strategie innovative di smaltimento dei rifiuti sanitari pericolosi a rischio infettivo

C. Furcas, G. Balletto (IT)

La gestione dei rifiuti da C&D per la ricostruzione sostenibile a seguito di eventi catastrofici

F. Peres (IT)

La gestione dei fanghi di dragaggio nell'implementazione italiana della direttiva 2008/98/CE

F. Paglietti, V. Di Molfetta, S. Malinconico, S. Bellagamba (IT)

Il problema delle discariche e dei centri di stoccaggio di amianto in Italia

Tuesday Oct. 4th- Afternoon

15.30-17.10 SESSION A5

Management of automotive shredder residues

N. Ahmed, H. Wenzel, J.B. Hansen (DK)

Feasibility of resources recovery from shredder waste

O. Hjelm, J.B. Hansen, J.K. Jensen, J. Nedenskov, H. Rolsted, M. Therkildsen, M. Sorenson, J. Nejrup, O.V. Christiansen (DK)

Landfilling of shredder residues: lysimeter leaching tests and field tests

J.B. Hansen, O. Hjelm, J. Hyks, H. Rolsted, M. Therkildsen, J. Nedenskov, F. Andersen (DK)

Landfilling of shredder residues: laboratory testing of leaching properties

L. Bellini, F. Caminiti, G.L. Soldi (IT)

Automotive shredder residue mono-landfill: design, management and monitoring

18.00-19.40 SESSION A6

Recycling of selected WEEE

G. Dodbiba, H. Nagai, K. Okaya, S. Matsuo, T. Fujita (JP)

Comparing several crushing methods for designing an effective system to recover Indium from discarded liquid crystal displays

C. Lin, K. Fan, L. Wen (TW)

Optimized solutions for recycling waste liquid crystal display (LCD) products

F.O. Ongondo, I. D. Williams (GB)

What's your phone worth? Estimating the resource value of stockpiled mobile phones

F. Ongondo, I. Williams, J. Dietrich, C. Carroll (GB)

Towards reuse networks for ICT: experiences from the zerowin project

15.30-17.10 SESSION B5

Landfill gas collection

H.R. Amini, D.R. Reinhart (US)

Evaluating landfill gas collection efficiency uncertainty

R. Hiemstra (DE)

Optimization of gas collection systems landfills, hazardous waste and abandoned waste disposal sites

I. Fleming, D. Stevens (CA)

Landfill gas well performance under short-term and long-term testing

D. Kaminski, M. Varljen (US)

Increasing landfill gas collection rates using gas well dewatering systems

18.00-19.40 SESSION B6

Landfill gas cleaning

G. Mogensen, F. Huber, R. Ricci, A. Giordano, G. Garuti (DK)

Catalytic exhaust gas cleaning for power generating landfill gas engines

E. González, A. Ayats, J. Cabré, F. Relea, E. Jiménez, M. Haberbauer, F. Broto, L.L. Comellas, C. Ribas, G. Gotor, N. Vallmitjana (ES)

MICROPHILOX: Energy recovery from landfill biogas using microturbines and biological removal of hydrogen sulphide and siloxanes

L. Lombardi, E. Carnevale, A. Corti, T. Olivieri (IT)

Biogas upgrading through carbon dioxide absorption with alkali solutions

T. Olivieri, L. Lombardi, P. Mostbauer (AT)

Demonstration scale upgrading of landfill gas with the use of bottom ash - BABIU process design and preliminary results

15.30-17.10 SESSION C5

Waste management policy issues

M. Bocciarelli, G. Bodini, T. Cocciardi, M. Bergonzoni (IT)

Traceability of municipal solid waste as an innovative approach for proper and efficient integrated management on a regional scale

M. R. Berríos-Godoy (BR)

Challenges to apply the new Brazilian legislation on solid waste material

E. Schmied, S. Scherhauser, G. Obersteiner, U. Kabosch, A. Kobler, S. Stix (AT)

Formalisation options for informal sector activities and their legal requirement in Central Europe

O. Hjelm, H.A. van der Sloot, R. Comans (DK)

End-of-waste criteria for aggregates

G. Kirkos, K. Makris, M. Vatyliotou, D. Fatta-Kassinos (CY)

Evaluation of the implementation of the PPW and WEEE directives in island member states and member states that include islands

V.S. Rotter (DE)

Incentives for a recycling oriented waste management - Evaluation of instruments of extended and individual producer responsibility

18.00-19.40 SESSION C6

Supporting & decision tools in waste management

U. Arena, M.L. Mastellone (IT)

Waste management planning based on material and substance flow analyses

J. Silva, E. Carvalho, M. Nunes, D. Alves (PT)

Assessment of municipal waste operators: adapting the assessment framework to a new regulatory context

D.B. Hanan, S.J. Burnley, D.F. Cooke (GB)

The use of multicriteria decision analysis (MCDA) to determine community views on municipal waste management proposals

A. Magrini, D.B. Viana, M.G. Araujo (BR)

The "Samambaia model": a multicriteria tool for management of contaminated areas

15.30-17.10 SESSION D5

Geophysical methods in landfill investigations

S. Heuss-Aßbichler, D. Sager, E. Niesner (DE)

Application of geophysical methods to investigate the structure of a MSWI landfill

S. Moreau, N. Guyomar (FR)

Inversion software of electrical resistivity measurements to observe leachate recirculation in bioreactor landfills

R. Thiel, J.P. Giroud (US)

Important considerations for leakage control of exposed geomembrane-lined ponds

H. Rosqvist, T. Dahlin, V. Leroux, M. Svensson (SE)

Development of 3D geoelectrical resistivity for mapping of gas migration in landfills

S. Thorneloe, E. Thoma, M. Modrak, S. Amin (US)

Measurement of landfill gas collection efficiency using optical remote sensing technology

18.00-19.40 SESSION D6

Impact on groundwater from landfills

H. Scharff, A. Van Zomeren (NL)

Landfill end point criteria for groundwater impact

E. Bietlot, L. Lebrun, C. Collart (BE)

Environmental monitoring on MSW landfill sites in Wallonia: overview on 10 years of field measurements

K. Haarstad, T. Maehlum (NO)

Tracing solid waste leachate in groundwater using ^{13}C

R. Cossu, T. Lai, R. Raga (IT)

Controversial environmental impact from landfills: two case studies in North Italy

I.M. Rafizul, M. Alamgir, M.M. Islam (BD)

Evaluation of contamination potential of sanitary landfill lysimeter using leachate pollution index

R. McApine, K. Plambeck (AU)

Managing groundwater in landfills: a young engineers perspective

15.30- 17.10 SESSION E5

Bottom & fly ashes from different sources

P. Mostbauer, R. Angermeier (AT)

Evaluation of methods for determination of residual metal content in upgraded MSWI bottom ash fractions

G. Valentini, S. Vasarelli, M. Franceschi, F. Braca, A. Cecchi (IT)

Physical models of fly ash as a tool for predicting heavy metals mobility and improving the efficiency of stabilization processes

D. Nordmark, A. Lagerkvist, J. Vestin, M. Arm, B. Lind, P. Hallgren (SE)

Environmental and mechanical assessment of wood fly ash used for stabilisation of gravel roads

H. Weigand, M. Bertau, F. Bohndick, A. Bruckert (DE)

RecoPhos: full-scale recovery of phosphate from sewage sludge ash

S. Rocca, A. Van Zomeren, G. Costa, J.J. Dijkstra, R.N.J. Comans, F. Lombardi (IT)

Interpretation of loss on ignition measurement of waste incineration residues by thermogravimetry and mass spectrometry of evolved gasses

A. García-Maraver, M. Zamorano, A. Ramos-Ridao, L.F Díaz (ES)
Comparative study of cleaning methods for residues from olive tree pruning

18.00-19.40 SESSION E6

Waste pre-treatment: MBT

B. Scaglia, S. Salati, A. Di Gregorio, A. Carrera, F. Adani (IT)
Short mechanical biological treatment of municipal solid waste plus controlled storing in landfill: a new approach to produce recalcitrant residue that acts as C-sink in the landfill

E. Binner, P. Lechner (AT)
Measurement of respiration activity (AT₄) – Comparison of 169 samples measured by Sapromat and OxiTop

G. D'Imporzano, F. Adani, A. Forte, A. Giardiello, D. Richichi (IT)
Revamping of full scale MBT plant to biodrying plant to produce high quality solid recovered fuel.

M. Molena, R. Göschl, M. Götz (AT)
Anaerobic biological treatment of organic fraction from MSW and industrial waste at Benesov (CZ) : experiences, results and interpretation of two years operation

D. Komilis, S. Gerassimidou, G. Kosmidis, V. Lazaridis, E. Mplouhou, V. Papanastassiou, S. Tsipissi (GR)
Aerobic biological pretreatment of municipal solid wastes: effect of different pretreatment periods on anaerobic emissions

A. Cesaro, V. Belgiorno (IT)
Sonolysis and ozonation as pretreatment for anaerobic digestion of organic solid waste

15.30-17.10 SESSION F5

Workshop: Disaster waste

N. Hirayama, T. Shimaoka, T. Fujiwara, T. Okayama, Y. Kawata (JP)
Establishment of procedure for quantitative assessing of disaster debris impact on landfill system

C. Furcas, G. Balletto (IT)
C&D waste management for sustainable reconstruction after catastrophic events.

18.00-19.40 SESSION F6

Workshop: Leaching tests

A. van Zomeren, A. Keulen, R. Bleijerveld, H.A. van der Sloot (NL)
Durability and emissions from stabilised hazardous waste by field measurements, supporting the development of EU waste acceptance criteria for monolithic waste landfills

H. Modin, H. Palm, M. Van Praagh, K.M. Persson (SE)
Leaching test using samples from a modern, carbon-poor landfill

S. Thorneloe, A. Garrabrants, D. Kosson (US)
The leaching environmental assessment framework

G. Feuillade Cathalifaud, M. Leloup, V. Pallier, A. A. Mansour (FR)
Using the leaching test to study the effect of different waste management schemes on the stability of MSW in semi-industrial scale pilots: application to bioreactor and biomechanical pretreatment

15.30-17.10 SESSION G5

Workshop: Fires in landfills

M. Torode, R. Roussel, C. Lorton, P. Pointer, M. Caine (GB)

Extinguishing a sub-surface fire in a fully operational guernsey landfill site

R. Cossu, L. Alibardi, Benzo (IT)

Fire control in an industrial sludge landfill

18.00-19.40 SESSION G6

IWWG Workshop: In situ aeration

M. Ritzkowski (DE)

How does landfill aeration impact on leachate composition?

15.30-17.10 SESSIONE I5

Connubio innovativo “discarica – energia”

L. Lombardi, R. Baciocchi, E. Carnevale, A. Corti, G. Costa, X. Gabarrell, P. Mostbauer, F. Olivieri, T. Olivieri, A. Paradisi, K. Starr, G. Villalba, D. Zingaretti (IT)

Processi innovativi per l'up-grading del biogas

L. Lombardi, E. Carnevale (IT)

Ciclo rankine organico associato a motori a combustione interna per l'ottimizzazione di produzione di energia elettrica da biogas

D. Biondi, G. Cesari, F. Tinti (IT)

Una nuova opportunità per le discariche: lo stoccaggio di energia termica

A. Levorato, A. Atzori, A. Moretto (IT)

Riqualificazione della ex discarica per rifiuti mediante realizzazione di un parco fotovoltaico: la realizzazione e il monitoraggio ambientale

M. Zagaroli, K. Bachiri, A. Bodenhagen (IT)

Chiusura sostenibile delle discariche mediante sistemi solari integrati

18.00-19.40 SESSIONE I6

Raccolta differenziata: tra mito e realtà

R. Lisi, M. Marionni, A. Tolomei, R. Orsini, S. Leoni, E. Pettinao, M.G. Vetere (IT)

Sistemi di calcolo delle raccolte differenziate: stato dell'arte e prospettive per la omogeneizzazione dei sistemi di calcolo di valutazione delle rd alla luce del recepimento della direttiva europea

M. Ragazzi, E. Girelli, E.C. Rada (IT)

Proposta di linee guida per la raccolta differenziata in edifici istituzionali

G. Delbarba, S. Querci (IT)

Cogeme Gestioni e la raccolta differenziata globale. A tre anni dall'introduzione, i successi di un sistema

09.00-10.40 SESSION A7

Biological waste treatment strategies

R. Inaba, K. Matsushashi, Y. Yuyama, S. Okamoto, S. Ito, H. Kurishima (JP)

Biomass utilization strategy aimed at regional activation

W. Hauer (AT)

Four pillars for the treatment of biowaste

G. Andreottola, M. Langone, E.C. Rada, M. Ragazzi (IT)

New energy saving concept in the integrated sewage sludge and organic fraction of solid waste treatment

J.L. Martel, A. Budka, O. Greze, M. Fontana Giusti, M. Rouez, M.R. Stambach (FR)

New solutions for producing biogas and good quality compost from municipal solid waste

11.10-12.50 SESSION A8

Recycling strategies in developing countries

M. Sujauddin, S. M. A. Rahman, S. Murakami (JP)

Existing solid waste recycling system of Bangladesh and its future

G.T.R. Silveira (BR)

Cell phone recycling experiences in the world and potential recycling options for developing countries

Q.H. Bari, K.M. Hassan, R. Haque (BD)

Scenario of solid waste reuses in Khulna City of Bangladesh

S. Aparcana, R. Linzner, S. Salhofer (AT)

Material flow analysis of formal and informal household waste recycling systems in developing countries. Case study from Peru

09.00-10.40 SESSION B7

Measurement of landfill gas emission

P. Kjeldsen, C. Scheutz (DK)

Evaluating gas emission from landfills - Which methodologies can be used?

D. Picciaia, G. Zazzeri, M.S. Giamberini, P. Andreussi (IT)

A new remote sensing method for landfill emission quantification

T. Laurila, J. Hatakka, J. P. Tuovinen, K. Sormunen, K. Karhu, M. Uusihakala, M. Ettala (FI)

Monitoring of methane emissions by micrometeorological method at two modern bioreactors from the initial degradation phases to methane production

J.E. Bogner, K. Spokas, J. Chanton (US)

Comparative field measurement of greenhouse gas emissions from daily, intermediate, and final California landfill cover soils

11.10-12.50 SESSION B8

Methane oxidation in landfill covers

I.U. Röwer, J. Gebert, J. Streese-Kleeberg, A. Gröngröft, S. Melchior, B. Steinert, E.M Pfeiffer (DE)

Design, implementation and operation of soil-based methane oxidation windows for the remediation of gas emission hotspots in landfill cover soils

I. Pecorini, E. Carnevale (IT)

Reduction of hydrogen sulfide and methane emissions from landfills by use of biological active covers: lab and pilot scale studies

S. Bohn, J. Jager (DE)

Low gas emission of mechanically and biologically treated waste and microbial methane oxidation as an adapted method for mitigation of emissions

C. Scheutz, R.B. Pedersen, P. Kjeldsen (DK)

Temperatures in compost landfill covers as a result of methane oxidation and compost respiration

09.00-10.40 SESSION C7

Waste management in developing countries (II)

Q.H. Bari, M. Alamgir (BD)

Waste generation in cities of Bangladesh: a review and further estimation

J.G. Paul, M.A. Bandiez (PH)

Status of environmental education at elementary schools in Iloilo City, Philippines and options to enhance solid waste management habits at microlevel

G.N.K. Rockson, I.B. Acheampong, P.K. Dagadu, L.N.A. Sackey, M.Y. Mensah (GH)

Characterization of waste at the final disposal sites of five major cities in Ghana

M. Stepanovic, M. Vlahovic, P. Jovanic (SR)

Integrated treatment of the generated waste streams on the Djerdap damn

A.B. Farouque, N. Taj (PK)

Community based integrated solid waste management in developing countries

F.A.O. Otieno, O.E. Taiwo (ZA)

Towards sustainable waste management: household habits with respect to waste disposal

11.10-12.50 SESSION C8

Economical aspects in waste management

E. Shamshiry, B. Nadi, M. Bin Mokhtar, I. Komoo, H. Saadiah Hashim (MY)

Optimization of energy and cost for municipal solid waste management

C. Machline, D. Del Bel, C. Caselani, P. Sandroni, V. Machline (BR)

Economics of sanitary landfills in Brazil

M. Gori, R. Gori, P. Sirini (IT)

Economic and environmental implications of sludge treatment and disposal strategies

Y. Matsui, D.T.T. Trang (JP)

Behavior modification mechanism of discharge fee system on household solid waste

J. C. Silva, A. Cunha (PT)

Organic recovery: Portuguese waste sector tariff impact

J. Byström (LU)

Eco efficiency, a path towards integrated resource management

09.00-10.40 SESSION D7

Landfill gas generation & modeling

J. Monster, Z. Mou, P. Kjeldsen, C. Kjeldsen (DK)

Comparison of four landfill gas models using data from four Danish landfills

A. Pukhnyuk, M. Ritzowski, Y. Matveev (UA)

Verification of landfill gas production model results for Ukrainian MSW landfills

C.J. Cronin, P. Kelly, T. Ruddy, D. Smyth, S. Meyler (IE)

A spreadsheet tool to calibrate LandGEM™ gas modeling prediction software for site specific MSW facilities using data from gas extraction audits

J.R. Belouschek, R. Widmann, T. Ricken (DE)

Coupled 3D-FEM-simulation of organic degradation in landfills – Practical experience

O. Hirata, Y. Matsufuji, A. Tachifuji, R. Yanase (JP)

Biodegradation process and mass balance of different landfill types using large-scale lysimeter – Validity study for the gasification rate of semiaerobic landfill by FOD model

11.10-12.50 SESSION D8

Anaerobic waste degradation in landfills

D. Rivière, V. Vigneron, N. Baffaleuf, G. Le Lay, M. Guerbois, J. Cacho (FR)

Diagnostic of a French bioreactor landfill after 8.5 years of degradation

X.H. Nguyen, B. Bilitewski (VN)

Leaching on heavy metals in high organic municipal solid waste landfill

D. Komilis, I. Markidis, D. Dermatas, F. Tsagis (GR)

Degradation of municipal solid wastes stored in bales: a fractional factorial field experiment

R. Bayard, H. Benbelkacem, R. Gourdon, J.P Gourc (FR)

Mass balance on water and dry solids from pilot-scale landfill bioreactor studies

09.00-10.40 SESSION E7

Waste generation, reduction & collection

V.E. Schneider, M.D. Silva, R. Finkler, D. Peresin, E.M.T. Motta (BR)

Evaluation of municipal solid waste generation in neighboring Caxias do Sul/Brazil

C. Stiglitz (AT)

Refilling and recycling of beverage packaging as contribution to waste reduction - New results in the old discussion

A. Bernstad, J. La Cour Jansen (SE)

Need for improvements in pre-treatment of source-separated household food waste

N. Qamaruz-Zaman, M.W. Milke (MY)

VFA and ammonia emission during separate collection of residential food waste as a measure of odour potential

A. Schueler, W. Mary, W. Fernandes (BR)

Solid waste production and treatment in Federal Rural University of Rio de Janeiro, Brazil - searching for zero waste

K. Gjoka, G.J. Ikononi, D. Shutina (AL)

Waste characterization audit in Albania. Potentials for waste recovery and reduction

11.10-12.50 SESSION E8

Construction & demolition waste (II)

R.A. Medeiros Junior, S.P. Fucale, A.D. Gusmao, A.B. De Farias (BR)

Analysis on feasibility of using of civil construction waste as recycled aggregates in compaction piles for soil improvement

Y. Park, S. Yun, J. Lee, J. Won, Y. Kim (KR)

A process for utilization as solid fuel of combustible C&D waste

I.D. Williams, D.A. Turner (GB)

Waste management practises in the small-scale construction industry

A.A.P. Buselli, I.C.D. Azevedo, E.A.G. Marques, R.R. Moraes, B.N. Brito, L.C.R. Andrade (BR)

Evaluation of construction and demolition waste in Viçosa Municipality, MG, Brazil

09.00-10.40 SESSION F7

Workshop: Safety & health issues in waste management

C. Capitano, E. Voudrias (GR)

Safety and health in mechanical-biological treatment plants

V. Grundmann, B. Bilitewski, D. Barceló (DE)

Environmental and health risks of chemical additives and recycling materials

M.A. Azevedo, M.D Oliveira (BR)

Evaluation of environmental impact and health effects caused by municipal solid waste disposal in Minas Gerais State, Brazil

M.A. Azevedo (BR)

Diarrhoea morbidity associated with residence near a municipal solid waste landfill

E. Davoli, G. Bianchi, A.N. Rossi, S. Bonati, M. Il Grande, M. Facchetti, M. Giorgi (IT)

Occupational health risk in landfilling

M. Pinheiro, Y. A. Blumenschein, C. Bernardes Junior, J. Fein (BR)

Use of odor perception to assess environmental effect due to improvement of garbage transfer station at Sao Paulo Brazil

11.10-12.50 SESSION F8

Workshop: GHG emissions from different waste management scenarios

C. Wunsch, B. Bilitewski (DE)

Comparison of greenhouse balances between dumping, sanitary landfilling and incineration of residual waste

N. Yang, X. He, F. Lu, M. Chen, L. Shao, P. He (CN)

Green house gases emission from waste-to-energy incineration in China

W. Ma, Y. Wang, Y. Wang, J. Liu, G. Chen (CN)

Impact of MSW management on GHG emission: case study of China

09.00-10.40 SESSION G7

Workshop: Different landfill concepts

R. Cossu, R. Stegmann (IT)

Different landfill concepts

K. Ishii, T. Furuichi (JP)

Field studies of stabilizing the waste in closed system disposal facilities

11.10-12.50 SESSION G8

Workshop: Landfill mining

R. Emery (ZA)

Mining of waste from landfill in a developing country for beneficiation (re-use/recycling): is it a viable and sustainable opportunity? Insight to a trial study in South Africa

P.J. Dewaele, I.R. Fleming, S. Coulter (CA)

Waste excavation and screening for reclamation and re-engineering of a landfill site

L. Umans (BE)

Landfill mining: a multi-actor approach on policy preparation

09.00-10.40 SESSIONE I7

Trattamento termico dei rifiuti: tante opzioni, scelte sofferte

U. Arena, S. Consonni (IT)

Valutazione critica della gassificazione dei rifiuti solidi urbani

M. Seggiani, A. Bellini, S. Vitolo, M. Puccini, G. Raggio (IT)

Cogassificazione di fanghi da depurazione in un gassificatore updraft

E.C. Rada, M. Ragazzi, L. Paternoster (IT)

Diossine e ruolo del settore rifiuti: un esempio.

11.10-12.50 SESSIONE I8

Scorie e ceneri: opzioni credibili di inertizzazione e/o riuso

A. Gianoncelli, F. Marciano, A. Zacco, R. Ardesi, G. Rizzo, E. Bontempi, L.E. Depero (IT)

Applicabilità di un sistema innovativo di inertizzazione di ceneri volanti da incenerimento

S. Rocca, A. Van Zomeren, G. Costa, J.J. Dijkstra, R.N.J. Comans, F. Lombardi (IT)
Proprietà di lisciviazione di scorie di fondo da incenerimento rifiuti ospedalieri in relazione ad opzioni di riuso/smaltimento

R. Melotti, E. Santagata, M. Bassani, M. Salvo, S. Rizzo (IT)
Caratterizzazione delle ceneri da combustione biomasse per l'utilizzo come aggregati in asfalti di miscela

A. Poletti, R. Onori, R. Pomi (IT)
Modellizzazione della lisciviazione di scorie di fondo di termovalorizzazione attivate in cementi di miscela

P. Plescia, E. Barbarese, S. Bacci, E. Tempesta (IT)
Riciclo delle scorie da industria dell'acciaio e termovalorizzazione per produzione idrogeno e sequestro CO₂

Wednesday Oct. 5th- Afternoon

15.30-17.10 SESSION A9

Waste treatment: MBT, RDF

D. Burgess, L. Carrabin, R. Kirkman, J. Gronow, N. Voulvoulis (GB)
A mass and energy balance multi-criteria assessment for waste management options in the UK

R. Cossu, T. Lai (IT)
Washing treatment of wastes before landfilling

L. Brunn, S. Mattersteig, B. Bilitewski, M. Friese (DE)
Biological filtering of organosilicon compounds in exhaust gas streams of mechanical-biological treatment plants

A.A. Siddiqui, D.J. Richards, W. Powrie (IN)
Investigation into the landfill behaviour of pretreated waste

18.00-19.40 SESSION A10

Companies Forum

C. Gonella (IT)
Waste derived biomasses for anaerobic digestion through press extrusion process

R. Schu, K. Schu (CH)
Modernization of a Swiss MBT-plant with SCHUBIO®-process to a TSS-plant

15.30-17.10 SESSION B9

Materials for methane oxidizing covers

M. Huber-Humer, K. Böhm, J. Tintner, P. Lechner (AT)
New approach to assess the suitability of substrates for methane oxidation purposes

M. Létourneau, A.R. Cabral, T. Johnson (CA)
Evaluation of candidate materials for the construction of a biocover

C.D. Roncato, M.A. Capanema, A.R. Cabral (CA)

Evaluating methane oxidation efficiencies of soils contaminated with heavy metals

W. Stepniewski, M. Pawlowska (PL)

Evaluation of perlite-based material as a potential bed of methanotrophic biofilter

18.00-19.40 SESSION B10

Semi-aerobic landfills

M. Yamada, K. Endo, T. Ishigaki, K. Wangayo, N. Sutthasil, C. Chiechaisri (JP)

A test cell experiment on semi-aerobic landfill system for tropical countries

H. Yoshida (JP)

Analysis of in situ passive aeration of a closed landfill for reduction of methane gas emission

T. Shimaoka, T. Komiya, G. Jiao, Y. Hao, X. Chai, Y. Zhao (JP)

Optimum air injection manner for the stabilization of landfill adopting the aerobic-anaerobic method

W.J. van Vossen, A. De Vos, T. Folmer (NL)

Sustainable emission reduction of ammonium from a landfill body using the anammox-process at the Vlagheide landfill in Schijndel (NL)

15.30-17.10 SESSION C9

Minimization of GHG emissions in waste management

M. Van Brunt, B. Bahor (US)

Global energy and greenhouse gas savings through sustainable waste management

L. Gómez, M.M. García, E. Marañón, L. Castrillón, Y. Fernández-Nava (ES)

Pilot case study: application of a methodology to determine greenhouse gas emissions reduction from manure co-digestion system

M. Piredda, G. Cappai, A. Mazzella, S. Milia (IT)

Evaluation of the carbon dioxide sequestration potential of several residues produced by combustion plants

T. Bramryd, M. Johansson (SE)

Landfills as moderators for climate change based on a combination of enhanced biogas extraction and sequestration of remaining long-lived organic matter in the landfill

M. Hudgins, L. Green (US)

Greenhouse reduction methodology validation of in-situ aerobic stabilization – A guide to sampling and analyses under AM0083

18.00-19.40 SESSION C10

Life cycle analysis of energy recovery from waste

S. Burnley, R. Phillips, T. Coleman (GB)

A life cycle assessment of recovering energy from the organic fractions of municipal waste

R. Turconi, S. Butera, A. Boldrin, M. Grosso, L. Rigamonti, T. Astrup (DK)

LCA comparison of waste incineration in Denmark and Italy

A. Corti, L. Lombardi, G. Del Balio (IT)

Life cycle assessment comparison of traditional and innovative technologies of energy recovery from waste

L.K. Brogaard, T.H. Christensen (DK)

Life cycle assessment of capital goods related to waste incineration

15.30-17.10 SESSION D9

Landfill leachate treatment: nitrogen removal

H. Robinson, M. Carville (GB)

Full scale treatment of landfill leachates with complete nitrification and denitrification

M. Galleguillos, J.L. Vassel (BE)

Optimisation of N removal in landfill leachates treatment with membrane bioreactor: pilot plant and full scale studies

M. Langone, G. Andreottola (IT)

Landfill-leachate treatment: innovative autotrophic biological processes for the nitrogen removal

R. Damiecki, W. Kirchhof (DE)

Optimization of the leachate treatment technology in tropical conditions regarding energy savings by applying the deammonification process, Kuching, Sarawak, Malaysia

R. Frank, C. Trois, F. Coulon (ZA)

Preliminary studies on the microbial population dynamics in the bio-denitrification of high-strength leachates using garden refuse and pine bark

B. Plug, C. Trois (ZA)

Bio-denitrification of MSW landfill leachate using raw and composted garden refuse: a comparative analysis

18.00-19.40 SESSION D10

Landfill leachate treatment: methods for volume reduction

A. Ferrari, I. Pradella (BR)

Leachate management with an evaporator using biogas and lagoons with floating cover in a Brazilian sanitary landfill – A case of study

T. Peters (DE)

Volume minimization for improving leachate management using seeding technology, nanofiltration and hydro cyclon classification

D. Fatutto, C. Del Piccolo, R. Fontana (IT)

Landfill leachate treatment through reverse osmosis and evaporation technologies: from the sample analysis to the plant start-up

K. Sormunen, M. Valtari, J. Taskinen, M. Uusihakala, T. Laurila, M. Ettala (FI)

Leachate quality and water balance at a new bioreactor landfill

15.30-17.10 SESSION E9

Investigation of the gas production potential

F. Di Maria, A. Sordi, C. Micale (IT)

Experimental evaluation of the residual biogas potential for MSW organic fraction after composting treatment

T. Chantou, G. Feuillade- Cathalifaud, D. Mausset, J. Bouzid, G. Matejka (FR)

Application of respirometric tests and organic matter fractionation as indicators of waste stabilization

P.P. Cella Mazzariol, G.F. Galanzino, C. Ubbiali (IT)

Assessment of BMW diversion achieved in the UK by MBT biostabilization system

L. Carvalho, S. Di Bernardino, E. Duarte (PT)

Biogas production from Mediterranean crop silages

I. Pecorini, T. Olivieri, A. Paradisi, G. Cenni, L. Burberi, L. Lombardi, A. Corti (IT)

Biochemical methane potential of organic municipal solid waste components in order to determine gas production in an industrial scale of anaerobic digesters

18.00-19.40 SESSION E10

Material recovery from special waste

A. Mrotzek, H. Lohmann (DE)

Identification and recovery of critical materials of secondary sources

S. Kashiwakura, Y. Kumagai, K. Wagatsuma (JP)

Recovery of rare-earth elements from coal fly ash particles generated from coal-fired electric power stations with the aid of Acid Washing Process

A. Pineda, A. Lozano, I. Aracil, A. Fullana (ES)

Recovery of the components of waste ink from printing industries

S. Migneault, A. Koubaa, B. Riedl, H. Nadji, J. Deng (CA)

Recycling pulp and paper sludge in medium density fiberboard products

15.30-17.10 SESSION F9

Workshop: Pyrolysis & gasification (III)

M. Nieminen, J. Ranta, J. Laatikainen-Luntama (FI)

Upgraded waste fuel for gasification and high efficiency energy production

P. Danz, S. Wirtz, J. Behling, B. Brosch, T. Marzi (DE)

New approach of simulating RDF combustion via discrete element method using experimental pyrolysis and combustion data from a pilot scale plant

D. Chen, L. Zhao, Z. Wang (CN)

Pyrolysis of waste separated from municipal solid waste: emissions and influences caused by other waste components

18.00-19.40 SESSION F10

IWWG Workshop: Leach XS

H.A. Van Der Sloot (NL)

Seeding paper Leach XS

15.30-17.10 SESSION G9

Workshop: Impact of pretreatment on landfill gas generation

A.A. Mansour, A. Motte, V. Pallier, G. Feuillade-Cathalifaud, A. Ponthieux (FR)

Assessment of the aerobic preparation and bottom ash addition as pretreatment steps before landfilling of fresh municipal solid waste: impact on methanogenesis kinetics and leachate parameters

D. Yue, Y. Zhang, Z. Yu, J. Liu, Y. Nie (CN)

Effect of aerobic pretreatment degree of municipal solid waste on gas generation during landfilling

F. Di Maria, F. Valentini (IT)

Effect of MSW aerobic pre-treatment on biogas potential for bioreactor landfill: experimental analysis

C. Dornack, C. Münch, P. Gutsche (DE)

Stabilization of the biogas production from residues from the dairy industry by various pre-treatment

18.00-19.40 SESSION G10

IWWG Workshop: Thermal Treatment

U. Arena (IT)

Seeding paper for TG Thermal Treatment

E.C. Rada, M. Ragazzi, L. Paternoster, M. Marconi, A. Chiste, M. Schiavon, M. Tubino (IT)

Dioxin and waste sector role: an example

15.30-17.10 SESSIONE I9

La discarica bioreattore con ricircolo del percolato: opzione fattibile in Italia?

M.C. Di Lonardo, F. Lombardi, I. Verginelli, F. Ermolli (IT)

Applicazione ad un caso reale di un modello per la stima della produzione del percolato in discarica

P. Simone, L. Nettuno, L. Moro, A. Bracci, J. Schrt, T. Vinson (IT)

Bioreattore: l'esperienza della Florida (USA) e scenari di sviluppo in Italia

18.00-19.40 SESSIONE I10

Impatto ambientale delle discariche: "diffamazione" o realtà?

E. Davoli, G. Bianchi, A.N. Rossi, S. Bonati, M. Il Grande, M. Facchetti, M. Giorgi (IT)

Rischio sanitario dei lavoratori nelle discariche

I. Bortone, S. Carrillo, A. Di Nardo, M. Di Natale, D. Musmarra (IT)

Mitigazione dell'esposizione da sostanze odorose per una discarica di rifiuti inserita in un territorio ad elevata urbanizzazione

A. Scalabrin, S. Cestaro, M. Zanella, M. Bellardi, B. Montebovi, L. Schiavon, M. Ostoich (IT)

Metodologia per la definizione dei valori di fondo dei metalli nelle acque sotterranee in prossimità di una discarica: il caso del sito di San Donà di Piave.

R. Cossu, T. Lai, R. Raga (IT)

Aspetti controversi dell'impatto ambientale delle discariche: due casi di studio in Nord Italia

09.00-10.40 SESSION A11

Composting

C. Springer, W. Bidlingmaier (DE)

Energy and CO₂ - Balance of composting, including energy consumption and compost application

A. Boldrin, J.K. Andersen, T.H. Christensen, C. Scheutz (DK)

Environmental aspects of home composting of organic household waste

A. Fernando de Fuentes, R. Torrejón Gómez, J.V. López Álvarez, M. Gómez Paniagua, M.P. Arraiza Bermudez-Cañete (ES)

Analysis of starch-polyester shopping bag biodegradation in a composting plant: comparison between pilot and industrial experiences

I. Zdanevitch, O. Bour (FR)

Quality of composts from municipal biodegradable waste of different origins

11.10-12.50 SESSION A12

Anaerobic digestion

F. Moedinger, F. Ast, M. Ragazzi, P. Foladori, E.C. Rada, R. Binnig (IT)

Innovative biogas multi-stage R&D plant - Preliminary project experiences

G. Ekama (ZA)

Characterization of organic wastes with a mass balance based steady state model for anaerobic digestion

L. Weitze, E. Kraft (DE)

Optimization of the anaerobic digestion process with empirical knowledge-based control systems

M. Vlachopoulou, E. Iacovidou, G. Ohandja, J. Gronow, A. Butwell, N. Voulvoulis (GB)

Anaerobic digestion of food waste: using the model ADM1 to simulate its performance and assess its potential as a waste management option

09.00-10.40 SESSION B11

Landfill barrier systems

V. Hruby, S. Barrie (SK)

Feedback notes to assist landfill designers

A. Witzsche, J. Weiß (DE)

New and alternative barrier systems – quality assurance during construction and efficiency control in the aftercare period

S. Puma, A. Dominijanni, M. Manassero, D. Toncelli, F. Trotta, M. Zanetti (IT)

Hydraulic performance of a natural bentonite GCL in inorganic solutions and polymer treatment proposal to prevent degradation in long term landfill conditions

S. Imaizumi, K. Kudo, K. Watanabe, S. Matsuyama (JP)

Use of Geonet to prevent the bentonite mixed soil barrier layer subjected to local settlement from crack progress

11.10-12.50 SESSION B12

Phytocaps for landfills

S.T.S. Yuen, M. Salt, J. Sun, P. Benaud, G.X Zhu, M.B. Jaksa, H. Ghadiri, M. Greenway, N. Ashwath, A.B. Fourie (AU)

Phytocapping as a sustainable cover for waste containment systems: experience of the A-ACAP study

P. Lightbody, M. Salt, J.W. Cox, M.B. Jaksa (AU)

Modelling phytocap (evapotranspiration cover) designs using WAVES (Water Atmosphere Vegetation Energy and Solutes) model – Design & calibration

J. Sun, S.T.S. Yuen, J. Bogner, D. Chen (AU)

Investigation of phytocap methane oxidation and emission: a full scale field trial and a controlled glasshouse experiment

K.D. Kim (KR)

Vegetation dynamics on waste landfills in Seoul metropolitan area

09.00-10.40 SESSION C11

Recycling of packaging materials & different plastics

R. Torrejón Gómez, A. Fernando de Fuentes, J.V. López Álvarez, M.P. Arraiza Bermudez- Cañete (ES)

Packaging: part of our every day

R. Bozovic, I. Pavlovic, C. Stiglitz (SR)

Packaging recovery in non-EU European countries: Serbia

R. Meoni, M. Castellani, C. Cecchi, I. Pecorini, A. Corti (IT)

A pilot separation plant: plastic recycling implementation to elide landfilling

A. Kriekouki, J. Gronow, R. Kirkman, L. Carrabin, N. Voulvoulis (GB)

The way forward in assessing options for municipal waste management: the treatment of mixed plastics as a case study

A. Bartl, D. Pico (AT)

From GFRP to GFRP recyclability of fiber reinforced plastics

M. Rudowski, M. Kozłowski (PL)

Modification of properties of polymeric materials from electrical and electronic waste

11.10-12.50 SESSION C12

Local waste management strategies

A. Schüch, F. Höfs, B. Lüdecke, S. Lösel, M. Nelles (DE)

Local waste management strategies for integrated solutions for the biodegradable fraction of municipal solid waste in rural areas

T. Lolos, C. Tsompanidis, G. Lolos, K. Paschali, C. Raptis (GR)

Achieving legislation targets through an integrated waste management facility: the case study of MBT plan in Larnaca & Ammochostos Regions of Cyprus

G.A. Blengini, G. Genon, M. Fantoni (IT)

LCA of integrated municipal solid waste management systems: case studies of Torino and Cuneo (Italy)

E. Gunsilius, S. Spies, S. Garcia-Cortes (DE)

The informal sector in SWM – Economic arguments and political framework for its integration

J.G. Paul, N. Ravena, S.P. Villamor (PH)

Strategies to establish new livelihood as a precondition for informal sector integration into the municipal solid waste management program at Calahunan dumpsite in Iloilo City, Philippines

09.00-10.40 SESSION D11

Case studies in landfill gas utilization

N. Kohler, R.G. Gregory, D. Cornish (GB)

Developing landfill gas to energy systems in South Africa

L.R. Tovar, R.A. Castro, M.E. Gutierrez (MX)

Landfill gas availability in Mexico City Bordo Poniente Stage IV

P. Kouvo (FI)

Combined engine and ORC-process landfill gas power plant (299)

R. Baciocchi, G. Costa, G. Faraoni, L. Lombardi, T. Olivieri, D. Zingaretti (IT)

Pilot-scale carbonation of APC residues for CO₂ storage and alkali regeneration downstream. An absorption column for biogas upgrading

R. Goldstein, P. Brown, R. Ganguli (GB)

Landfill gas to energy project case studies: a global perspective on approaches and resources for reducing methane emissions

11.10-12.50 SESSION D12

Alternatives in landfill leachate treatment

A. Spagni, S. Grilli, F. Piccinelli, S. Casu, R. Farina (IT)

Effect of the nitrate and nitrite addition on leachate characteristics in a simulated landfill bioreactors

A. Tachifuji, Y. Matsufuji, A. Nakamura (JP)

Simple leachate treatment by using on site materials and wastes

S. Fudala-Ksiazek, A. Luczkiewicz, B. Quant, K. Olanczuk-Neyman (PL)

The effectiveness of nitrification and denitrification with co-treatment wastewater with landfill leachate

C.F. Mahler, K. H. Preussler, L. T. Maranhão (BR)

Phytoremediation and renewable energy production in landfill of Caximba, Curitiba, Parana, Brazil

09.00-10.40 SESSION E11

Pyrolysis & gasification (II)

G. Del Alamo, A. Hart, A. Grimshaw, P. Lundstrøm (NO)

Characterisation of syngas produced from MSW gasification at commercial-scale ENERGOS plants

T. Astrup, E. Allegrini, A. Boldrin, R. Pomi, A. Polettoni (DK)
Biomass gasification residues: leaching and disposal options

A. Adrados, I. De Marco, A. López, B.M. Caballero, M.F. Laresgoiti (ES)
Characterization of the rejects of waste packaging separation plants: pyrolysis of individual and families of components

H. Wang, D. Chen, Z. Wang, X. Ma, G. Zhou (CN)
Morphological characteristics of waste plastics pyrolysis and their application for process control

11.10-12.50 SESSION E12

Bottom ashes: stabilization and utilization

A. Polettoni, R. Onori, R. Pomi (IT)
Leaching modelling of activated incinerator bottom ash in cement blends

N. Lapa, R. Barbosa, B. Mendes (PT)
Intrinsic properties of new materials for civil engineering works based on the reuse of MSWI bottom ashes: chemical and ecotoxicological assessment

M. Gori, B. Bergfeldt, J. Reichelt, P. Sirini (IT)
Effect of natural ageing on volume stability of MSW and wood waste incineration residues

F. Takahashi, T. Shimaoka (JP)
The weathering of municipal solid waste incineration bottom ash evaluated by some weathering indices for natural rock profiles suggested in the mineralogy

S. Rocca, A. Van Zomeren, G. Costa, J.J. Dijkstra, R.N.J. Comans, F. Lombardi (IT)
Leaching properties of hospital waste incineration bottom ash in relation to disposal or re-use option

09.00-10.40 SESSION F11

IWWG Workshop: WEEE recovery & recycling

E. Mueller, M. Schlupe, Y. Amoyaw-Osei, S. Prakash, T. Terekhova (CH)
e-waste management in Ghana: a country massflow assessment

M. Fuccaro, P. Simeoni, G. Nardin (IT)
Recovery of small size electric and electronic waste and durable goods for the second-hand market: a case study in the Municipality of Udine

11.10-12.50 SESSION F12

IWWG Workshop: Industrial Waste Management

E. Gidaracos (GR)
Industrial waste management. What does the industry still need?

A. Mattiussi, M. Rosano, P. Simeoni (IT)
Waste management in an industrial park- industrial ecology benefits

K. Govender, I. Valodia (ZA)
Formulating a mixed methodology framework to explore an industry perspective on factors influencing waste management in large manufacturing firms in KwaZulu-Natal, South Africa

R. Hentati, M. Choura, R. Halouani (TN)

Confinement as a sustainable route to phosphogypsum management

09.00-10.40 / 11.10-12.50 SESSION G11/G12

IWWG Workshop: Sustainable landfilling

H. Scharff (NL)

IWWG-SLTG Workshop on sustainable landfill and completion criteria

09.00-10.40 SESSIONE I11

La copertura delle discariche: come e quando

I. Pecorini, A. Corti (IT)

Efficacia di differenti coperture di discarica e comparazione campagne di monitoraggio emissioni CH₄

I. Pecorini, E. Carnevale (IT)

Mitigazione emissioni di H₂S e CH₄ da discarica mediante coperture bio-attive: studi a scale di laboratorio e pilota

M.C. Lavagnolo, R. Cossu (IT)

Utilizzo della superficie della discarica per la coltivazione di piante a scopo energetico

11.10-12.50 SESSIONE I12

Post gestione dei rifiuti: come condizionarla e controllarla

R. Cossu, T. Lai (IT)

Lavaggio dei rifiuti prima del deposito in discarica

R. Meoni, I. Pecorini, C. Meoni, A. Mazzetti (IT)

Piano di monitoraggio e post-esercizio di una discarica per RSU: approccio di utilizzo di spazi inutilizzabili

Thursday Oct. 6th- Afternoon

15.30-17.10 SESSION A13

Biological hydrogen production

R. Brunstermann, R. Widmann (DE)

Stability of bio-hydrogen production by dark fermentation

G. De Gioannis, G. Giordano, A. Muntoni, A. Polettini, R. Pomi, D. Spiga (IT)

Batch hydrogen production from food waste

L. Tuccinardi, S. Scaffoni, M.R. Boni (IT)

Hydrogen production from household waste in semicontinuous reactor: selection of the optimal operating conditions

X.M. Guo, E. Latrille, E. Trably, H. Carrere, J.P. Steyer (FR)

Correlation analysis with PLS regression of biological hydrogen potential (BHP) tests of solid organic waste.

18.00-19.40 SESSION A14

Incineration of waste (I)

E.C. Rada, E. Girelli, E. Mallocci, M. Ragazzi, G. Andreottola (IT)

Consequences of regulation evolution on the sector of RDF/SRF

H. Song, E. Thorin, E. Dotzauer, E. Nordlander, J. Yan (SE)

Modeling and optimization of a regional waste-to-energy system: a case study in central Sweden

M. Nelles, T. Dorn, K. Wu, J. Cai (DE)

Status, problems and solutions of waste incineration in China

M.A.J. Van Berlo, P. Simoes (NL)

High-efficiency waste-to-energy: Amsterdam's experiences after 4 years of operation

15.30-17.10 SESSION B13

Landfill leachate treatment: biological methods

A. Butkovskyi, K. Jönsson (SE)

Application of biological and chemical treatment for removal of organic matter from leachate

H. Robinson, K. Wilson, M. Carville, R. Sibley (GB)

Treatment of leachate at an old landfill in Sussex, UK

A. Žgajnar Gotvajn, G. Kalčíkova, J. Zacorc-Končan (SI)

Lab-scale simulation of biological treatment of mature landfill leachate

J. Wu, Z. Zhou, J. Wang, L. Cao, D. Cai (CN)

Aged refuse reuse for rural decentralized sewage treatment: the humified media filter process from laboratory study to full-scale application

18.00-19.40 SESSION B14

Landfill aeration

M. Ritzkowski, R. Stegman (DE)

Landfill aeration worldwide: concepts, indications and findings

O. Gamperling, M. Hrad, M. Huber-Humer (AT)

Lessons learned during a three-year full-scale application of in-situ landfill aeration in Austria

R. Cossu (IT)

Landfill aeration experience in Italy

G. Oncü, M. Reiser, K. Martin (DE)

Aerobic in-situ stabilization of landfill Konstanz Dorfweiher - Leachate quality after one year of operation

15.30-17.10 SESSION C13

Management of medical waste

J. Richardson, B. Jenkin, A. Nichols, S. Pahl, G. Wallace (GB)

The role of behaviour change in reducing, reusing and recycling waste in healthcare: a systematic review and thematic analysis

D. Peresin, R. Finkler, N.L. Stedile, V.E. Schneider (BR)

Management of medical waste in a higher education institution: relationship between knowledge and the degree of segregation

A. Cardoso, B. Mendes (PT)

Integrated waste management medicine packaging - Valormed case study

E. Pugliesi, V. Schalch (BR)

Study of composition of healthcare waste (HW) and of adopted procedures for its management at a hospital in Brazil

R. Lacroce, D. Napoli (IT)

Innovative strategies for the disposal of hazardous infectious health care waste

S. Sivakumaran, C. Marquez (LK)

Evaluation of clinical waste disposal practises of hospitals in Ampara District

M. Nishat Faisal (IT)

A study of select issues in hospital waste management in Qatar

18.00-19.40 SESSION C14

Contaminated soils related to waste management

D. Caniani, D.S. Lioi, I.M. Mancini, S. Masi (IT)

Assessment of soil pollution hazard by using fuzzy neural network

S.Y. Kim, T. Furuichi, K. Ishii, K. Kurano (JP)

Proposal of cleanup program incorporated with follow-up plan for illegal dumping sites

M. Karakouzian, D. Rigby (US)

A methodology for predicting long-term subsidence at landfills in an arid climate

S. Suzuki, A. Tachifuji, Y. Matsufuji (JP)

Growth inhibition by soil components for degradation of dioxins using white rot fungus

15.30-17.10 SESSION D13

Methane oxidation in landfill covers: methods & approaches

J. Gebert, C. Streblow, C. Knoblauch, E.M. Pfeiffer (DE)

Effect of gas transport on fractionation of carbon stable isotopes related to the microbial oxidation of methane in landfill cover soils

J. Streese-Kleeberg, R. Stegmann (DE)

Measurement of methane oxidation rates with gas push-pull tests (GPPT) – Applications and implications

W.J. Lu, Z.S. Mou (DK)

Effect of bio-cover equipped with a novel passive air diffusion system on methane emission reduction from landfill

D. Widory, M. Blessing, E. Proust, G. Bellenfant, O. Bour (FR)

Assessing methane oxidation under landfill covers and its contribution to the above atmospheric CO₂ levels: the added value of the isotope ($\delta^{13}\text{C}$ & $\delta^{18}\text{O}$ CO₂; $\delta^{13}\text{C}$ & δD CH₄) approach

M. Hrad, M. Huber-Humer, A. Watzinger, B. Wimmer (AT)

Design of top covers supporting aerobic in-situ stabilisation of old landfills - An experimental simulation in lysimeters

G. Rettenberger (DE)

Experiences with full-scale methane oxidation layers

18.00-19.40 SESSION D14

Case studies on landfill gas emissions

S. Dever, T. Clingan, X. Wang, S. Bateman (AU)

Evaluating landfill gas emission at the Wollert landfill, Australia

H. Rosqvist, J. Gebert, C. Streblow, S. Johansson (SE)

Spatial and temporal variability of gas migration at the surface of a MSW landfill

F.J. Maciel, J.F.T. Jucá (BR)

Landfill gas generation and emission in a MSW large-scale experimental cell in Brazil

15.30-17.10 SESSION E13

Incineration of waste (II)

J. Reichelt, G. Pfrang-Stotz, B. Bergfeldt, H. Seifert, P. Knapp (DE)

Formation of deposits on the surfaces of superheaters and economizers of MSW incinerator plants

E.L.S.F. Soares, C.F. Mahler, A.S. Schueler, J. Righi (BR)

Study of the gravimetric characterisation and heating value of urban solid waste in Rio de Janeiro, Brazil

L. Ziyang, Z. Nanwen, L. Bing, C. Xiaoli, Z. Youcai, B. Bilitewski (CN)

The development process of municipal solid waste incineration in China

18.00-19.40 SESSION E14

Composting & compost quality

D. Meyer, G. Hädrich, W. Bidlingmaier, E. Kraft (DE)

The value of composting in the context of economy, ecology and legislation

Y. Decelle, J.L. Martel (BE)

Compost quality assessment and end of waste process: result of two ring tests performed in 2009 and 2011

J.L. Rose, R.L.S. Izzo, C.F. Mahler (BR)

Determination of air permeability in samples of MSW compost

T.L. Gladding (GB)

Dust and bioaerosol emission from open windrow composting sites: an examination of data trends

15.30-17.10 SESSION F13

Workshop: Tannery waste management

E.J.B.N. Cardoso, A.S. Nakatani, A.M. Martines (BR)

Recycling of tannery sludge in tropical soil - A case study in Brazil

18.00-19.40 SESSION F14

Workshop: Material recovery from mixed municipal solid waste

T. Pretz, N. Schmalbein (DE)

Economic aspects of the resource recovery from mixed municipal solid waste

T. Pretz, R. Gillner, B. Wens (DE)

Recovery of non-ferrous metals from mixed MSW - comparable mechanical-biological waste treatment and waste incineration

H. Woelders, E. Michels, B. Nauts, M. Oosting (NL)

Integrated material and energy recycling plant Attero (NL)

D. Tonini, M. Wood, T. Astrup (DK)

Materials and carbon flow in a waste refinery process using enzymes

15.30-17.10 SESSION G13

Workshop: Service lifetime of landfill barriers

C. Pons, F. Farcas, E. Richaud, B. Fayolle, T. Bouchez, L. Mazeas (FR)

Methodology to determine the service lifetime of HDPE geomembranes used in basal liner systems municipal solid waste landfills

K. Yokohata, F. Takahashi, T. Shimaoka (JP)

Adsorption behavior of fulvic acid, copper, and their complex onto clay minerals

18.00-19.40 SESSION G14

Workshop: Monitoring of MBT landfills

K. Muennich, J. Bauer, K. Fricke (DE)

Monitoring of MBT material after disposal on landfill

15.30-17.10 SESSIONE I13

Nuovo ruolo della discarica: tra giustizialismo ed imprescindibile necessità

F. Peres, L. Butti (IT)

Numerosità e complessità delle cause ambientali connesse alla realizzazione ed esercizio delle discariche controllate

18.00-19.40 SESSIONE I14

Coinvolgimento e opinione pubblica: opportunità o escamotage?

M. Ragazzi, E. Girelli, E.C. Rada (IT)

Comportamento dei cittadini e produzione rifiuti

A. Atzori (IT)

Sistemi informatici 2.0 e flussi di informazione e conoscenza. Il sistema ambiente come parte del sistema sociale

P. Simone, L. Nettuno, C. Zaninelli, M. Vercesi (IT)

Progettazione partecipata dei bambini sull'area della discarica Vergomasco a Odolo, in provincia di Brescia (classi III e IV della scuola primaria di Odolo, anni scolastici 2007/2008 e 2009/09)

09.00-10.40 SESSION A15

Pyrolysis & gasification (I)

V. Hankalin, V. Helanti, J. Isaksson (FI)

High-efficiency power production by waste gasification

U. Arena (IT)

A critical assessment of municipal solid waste gasification

M. Seggiani, A. Bellini, M. Puccini, G. Raggio, S. Vitolo (IT)

Cogasification of sewage sludge in an updraft gasifier

S. Morrin, P. Lettieri, C. Chapman, L. Mazzei (GB)

Assessment of a fluid bed gasification – Plasma converter process for clean and efficient conversion from solid waste

11.10-12.50 SESSION A16

Combustion residues

D. Sager, S. Heuss-Aßbichler (AT)

Weathering of MSW bottom ash - results from field-scale experiments considering effects of saline solutions and internal structure

R. Melotti, E. Santagata, M. Bassani, M. Salvo, S. Rizzo (IT)

Characterization of ash from biomass combustion for its use as filler in asphalt mixtures

M. Piredda, G. Cappai, A. Carucci, A. Muntoni (IT)

Stabilization of apc residue by combined carbonation and washing treatment

T. Bramryd, M. Johansson, K. Hemstroem, O. Wik (SE)

Utilization of incinerator slag during road construction and for remediation of landfill areas – heavy metal uptake in plant material as a potential limiting factor

09.00-10.40 SESSION B15

Landfill aftercare

A. Akerman, O. Bour, M. Crest, E. Senante, J.M. Audic, D. Presse (FR)

Performing and cost-effective landfill gas management in the aftercare period

G. Delbarba, S. Querci (IT)

Environmental recovery of a landfill. Returning land to the land - Terenzano, Castrezzato (Brescia), Italy

W.J. Van Vossen, O.J. Prent (NL)

Feasibility study on sustainable material and energy recovery from landfills in the Europe

R.M. Rosendal, D.G. Antonellis, N.L. Verlee (DK)

Estimation of the aftercare period based on data from Danish landfills

11.10-12.50 SESSION B16

GHG emissions from organic waste management

C. Scheutz, J.K. Andersen, A. Boldrin, T.H. Christensen (DK)

Quantification of greenhouse gases from home composting of organic household waste

H. Yoshida, M. Amato, J.K. Park (DK)

A survey on household level organic waste management practice for improving accuracy of carbon accounting

C. Scheutz, J.K. Andersen, J. Samuelsson, P. Kjeldsen, T.H. Christensen (DK)

Quantification of greenhouse gases from three Danish composting facilities

F.C. Gross, M.A. Siebel, V.S. Rotter (DE)

Quantification of greenhouse gas emissions resulting from handling of organic waste

09.00-10.40 SESSION C15

Anaerobic digestion: process optimization

F. Monlau, A. Barakat, E. Latrille, C. Dumas, J.P. Steyer, H. Carrere (FR)

Impact of chemical composition and structural features on methane potential of lignocellulosic substrates

H. Shahriari, M. Warith, M. Hamoda, K. Kennedy (CA)

Anaerobic digestion of organic fraction of municipal solid waste after pretreatment with high temperature microwave and hydrogen peroxide addition

A.M. Fredenslund, T.B. Christensen, T. Kjaer, S. Danielsen, H.B. Møller, L.L. Kjaer, K. Fafner (DK)

Utilization of cast seaweed and waste from pectin production for anaerobic digestion

F. Lu, L.M. Shao, M. Zhu, P.J. He (CN)

Accelerate the start-up of waste anaerobic digestion at low inoculation rate

T. Bouchez, A. Boulanger, E. Pinet, A.A. Mansour, M. Bouix (FR)

Effect of inoculum to substrate ratio and type of inoculum on municipal solid waste methanization potential

A. Alvarado-Lassman, J.M. Méndez-Contreras, R. Alvarado-García, J.M. Hernández-Martínez, N.A. Vallejo-Cantú (MX)

Anaerobic digestion of the organic solid waste soluble fraction in biofilm reactors

11.10-12.50 SESSION C16

Production of bio-fuels

E.M. Angelis, A.I. Vavouraki, M. Kornaros (GR)

Pretreatment of the organic fraction of municipal solid wastes (OFMSW) for biofuel production

L. Vidal, E. Jimenez, F. Relea, L.C. Carrillo, D. Salvatierra, V. Signes, C. Coll (ES)

Biofuel: development of a new, integrated waste treatment process to generate liquid biofuel as the final result.

A.I. Vavouraki, M. Dareioti, M. Kornaros (GR)

An experimental ensilaging procedure and chemical pretreatment of *Sweet Sorghum* stalks for enhancing biofuels production

G. De Gioannis (IT)

Low-power sonification for enhancing food waste hydrolysis in view of hydrogen bioproduction

P. Hadžić, M. Kutin, S. Borozan (SR)

Small-scale production of biodiesel from waste vegetable oil - transformation of one waste to another?

B. Rahimian Zarif (IR)

A novel *Saccharomyces cerevisiae* strain for production of ethanol in the presence of furfural

09.00-10.40 SESSION D15

Process in landfills

K. Pivnenko, E. Gidaracos (GR)

Impact of bioreactor landfill aeration on in situ nitrification/denitrification process

R. Raga, R. Cossu (IT)

Lab scale tests before in situ aerobic stabilization of an old landfill

B. Wimmer, M. Horacek, A. Watzinger, O. Gamperling, M. Hrad, M. Huber-Humer, T.G. Reichenauer (AT)

Stable isotopic signatures for characterizing the biological stability of landfilled municipal solid waste

S. Lee, M. Jadeja, B. Beatty, G. Jarvis (CA)

Analysis of preliminary results of a pilot study on aerobic landfill technology at Innisfil landfill, Ontario, Canada

J. Law, E. Peterson, M. Hudgins (US)

Water requirements estimates for an aerobic bioreactor landfill in China

W. Kattenberg, T. Heimovaara (NL)

Policy process of allowing research pilots for sustainable emission reduction at landfills in The Netherlands

A. Chusov, M. Fedorov, M. Adrianona, E. Negulyaeva (RU)

Investigation of municipal wastes biodegradation ways

11.10-12.50 SESSION D16

Alternative landfill cover materials

E. Branvall, L. Andreas, R. Sjoblom, I. Travar, J. Kumpiene, A. Lagerkvist (SE)

Ageing of ashes in a landfill top cover

R. Al-Fares (KW)

Medical waste fly ash recycling as filler for landfill soil cover and/or liner

M. Aljaradin, T. Selim, K.M. Persson (SE)

Evaluation of the cover soil in Manfraaq landfill-Jordan using hydrys 2D simulation

M.A. Capanema, A.R. Cabral, H. Cabana, D. Massé (CA)

Evaluating odour reduction emissions from an experimental landfill biocover

C.F. Mahler, J. Righi, R.L.S. Izzo, E.L.S.F. Soares (BR)

The use of compost as an alternative landfill cover

09.00-10.40 SESSION E15

Management of special waste

G. Aydin, A.J. Arol, G. Cayci (TR)

Evaluation of pyritic tailings from a copper concentration plant for calcareous sodic soil reclamation

P.A.A. Silva, J.C.O. Matias, P.N.B. Reis (PT)

Recycling of footwear products during the manufacture process: case study

D. Guyonnet, C. Hocquard, F.W. Wellmer (FR)

Link between primary (extracted) and secondary (recycled) mineral resources

M. Choura, I. Djemal, A. Bendraoua (TN)

Chemical fixation and solidification treatment of solid waste generated by a natural gas purification plant

M. Oliveira, L. Carvalho, M. Martins, E. Duarte (PT)

Assessing the performance of biodegradable mulch film under real field conditions: case study in muskmelon crop

11.10- 12.50 SESSION E16

Specific waste management strategies

M.A. Pérez, I. Aracil, A. Fullana (ES)

Biodiesel production by transesterification of sludge in supercritical conditions

S. Mitchell, P. O'Dowd, A. Dimache, T. Roche (IE)

The issue of waste in European manufacturing SMEs

J. Zhang, P. Yue, Y. Qian, H. Yang, J. Chao, P. He (CN)

Treatment and management of rural household solid waste in the subtropical region of China

M. Azevedo, M. Cruz, T. Novaris (BR)

Forming public consortiums for final solid waste disposal and treatment in Brazil

09.00-10.40 SESSION F15

IWWG Workshop: Prevention of food waste

F. Schneider (AT)

Prevention of food waste - Definitions of food waste

11.10-12.50 SESSION F16

Workshop: Asbestos waste treatment

R. Moller Rosendal (DK)

Investigation of the potential health risk of collecting, transportation and handling asbestos waste

09.00-10.40 SESSION G15

Workshop: Landfill gas extraction

P. Novak, L. Kovar (CZ)

Diagnostics of landfill gas extraction system efficiency by instant sampling of methane emissions from landfill surface by Fulx-Fox technology

G. Di Bella, D. Di Trapani, M. Capodici, G. Viviani (IT)

The influence of landfill features and side slopes on methane emission rates

T. Pandolfi, R. Isolani (IT)

Determinaton of vacuum sphere of influence surrounding biogas extraction wells by a low expensive in situ methodology using a tracer gas.

M.N. Tanchuling, T. Soe, A. Resurreccion (PH)

Waste composition and surficial methane concentration at the Quezon City controlled dumping facility (QCCDF), Philippines

11.10-12.50 SESSION G16

Workshop: Citizen conflict & participation

J. Mery, M. Matias, J.M. Deleuil, F. Olivier (FR)

Physical and human geography of the French landfill neighbourhoods

I. D. Williams, S. Harrington (GB)

Improving the efficiency and reducing the negative impacts of a civic amenity site in an area of high socio-economic deprivation: a case study

P. Simone, L. Nettuno, C. Zaninelli, M. Vercesi (IT)

Children-participate design on Vergomasco landfill of Odolo, Province of Brescia

09.00-10.40 SESSIONE I15

Valutazione economica della gestione dei rifiuti: tra incentivazioni e penalità

A. Moretto, A. Levorato (IT)

La regolazione e il controllo delle tariffe degli impianti di trattamento e smaltimento dei rifiuti: gli impianti in Veneto e in Italia

R. Cossu, S. Masi (IT)

La valutazione economica reale, al netto degli incentivi e delle penalizzazioni, della gestione dei rifiuti in Italia

11.10-12.50 SESSIONE I16

Criteri innovativi nella progettazione e costruzione delle discariche

R. Cossu, R. Stegmann (IT)

Differenti tipologie concettuali di discarica

R. Cossu (IT)

Aspetti innovativi nella progettazione e realizzazione delle discariche

Friday Oct. 7th - *Afternoon*

15.30-18.30 Closing session

Posters session

Poster discussion will take place in the Poster Hall in the presence of authors, every afternoon from 17.40 to 18.00

A: Waste management

M. Ragazzi, E. Girelli, A. Castagna, M. Casagrande, A. Zeni, E.C. Rada (IT)
Citizen behavior and waste production

L. Benešová, M. Doležalová, A. Závodská (CZ)
Composition and characteristics of municipal solid waste (MSW) in Czech Republic

N.P. Thanh, Y. Matsui, D.T.T. Trang, N.T.K. Thai (VN)
GPS/GIS application for monitoring and managing segregate waste collection in Hanoi, Vietnam

G. Delbarba, S. Querci (IT)
Cogeme Gestioni and global selective waste collection. The success of a system three years after its introduction

H. Punkkinen, N. Teerioja, K. Moliis, E. Merta, J. Jermakka, E. Kuvaja (FI)
Sustainability of the pneumatic waste collection system in a dense urban area

M. Dareioti, A.I. Vavouraki, M. Kornaros (GR)
Effect of pH on the anaerobic acidogenesis of agroindustrial wastewaters for maximizing bio-hydrogen production

E. Imre, G. Varga (HU)
Laboratory and in situ tests of MSW

H. Corvellec, T. Bramryd, J. Hultman (SE)
The multiple market-exposure of Swedish municipally owned waste management companies

T. Lolos, G. Tavoularis, C. Tsompanidis, G. Lolos (GR)
Development and evaluation of scenarios for integrated SWM systems in selected regions in Bulgaria

W. Gallala, M. Luecke, A. Ismail (TN)
Transferring local experience into regional knowledge – the new sector network in the MENA Region

E.C. Bernardo (PH)
Solid waste management: challenges in the academe and local government unit in Northern Isabela, Philippines

G. Nardin, P. Simeoni, A. Mattiussi (IT)
Exhausted poultry beddings: from environmental issues to resources

D. Davolos, F. Paglietti, B. Pietrangeli (IT)
Investigating cultivable and uncultivable airborne microfungi from waste treatment plants

B: Material recovery & recycling

A. Orsetti, M. Bergonzoni, G. Bodini, A. Bonoli (IT)

Reuse of PFU (tyres out use) into the football fields of the new generation of synthetic turf

E.B.A.V. Pacheco, L.L.Y. Visconte, T.S. Gomes (BR)

The use of banana fiber residue as replacement of glass fiber in polimeric composites

V. Grilc, R. Bezjak (SI)

Thermal recycling of waste glass wool insulation materials

J.C. Campos, V.C. Almeida, V.M.P. Couto, R.A. Rodrigues, F.V.F. Araujo (BR)

Incorporation of sludge from water treatment plant in cement paste

A. Bialowiec, W. Janczukowicz, M. Krzemieniewski, Z. Gusiatin (PL)

The LECA from fly ash after sewage sludge treatment - Possibilities of reuse in constructed wetlands

M. L. Mancini, A. Bonoli, C. Chiavetta, M. Bergonzoni (IT)

Construction and demolition waste (CDW): recycling technologies and application of life cycle assessment (LCA) method in stabilized inert production

N. Quaranta, M. Caligaris, H. Lopez, M. Unsen, N. Lalla, G. Pelozo, A. Cristobal (AR)

Ceramic design to include several wastes from steel plants

G. Lovon-Canchumani, A. Magrini, M. Araujo (BR)

Lubricating oils: an analysis of the sector and recycling policies in Brazil

M. Martín-Morales, J. Cuenca, P. López, J. Rodríguez, M. Zamorano, I. Valverde- Palacios (ES)

Self-compacting concrete with biomass fly ash: preliminary results

P. Plescia, E. Barbarese, S. Bacci, E. Tempesta (IT)

Recycling of slags from steel industry and incineration for hydrogen production and CO₂ sequestration

G. Bodini, P. Merighi, M. Bergonzoni (IT)

Enhancement of rubber scrap for the production of innovative technological products: environmental and economic aspects

C: Supporting tools in waste management

M. L. Mancini, A. Bonoli, C. Chiavetta, M. Bergonzoni (IT)

Life cycle application in industrial waste and end-of-life tyres use for thermo acoustic panels production

M. Alberti, D. Cantaboni, P. Cocca, M. Collotta, F. Marciano, D. Rossi, G. Tomasoni (IT)

The role of a pilot plant in the life cycle inventory of a new technology for the inertization of MSWI fly ashes

H.M.G. Coelho, L.C. Lange, M.R. Sartori (BR)

Waste management assessment using an industrial solid waste destination index

A. Del Borghi, C. Strazza, A. De Gasperi, A. Taramasso, M. Robba, P. Cinquetti (IT)

LCA and optimization – A combined decision tool for the assessment of the biowaste separate collection in the municipality of Cogoleto, Northern Italy

C. Oggeri, O. Del Greco, C. Giraudò (IT)

Technical comparison for suitable landfill sites location through environmental estimations in Cuneo province (Italy)

R.R. Siman, D. E. dos Santos, M. R. T. Halasz (BR)

Reverse logistics as a tool for environmental management of post-sell products of the furniture industry

D: Biological treatment

Y. M. Kim, W. S. Choi, Y. C. Moon, J. Y. Kim (KR)

Predicting methane generation of paper using holocellulose and lignin content

F. Di Maria, A. Sordi, C. Micale (IT)

Experimental assessment of the energetic potential of the anaerobic co-treatment of different agricultural and agro industrial residuals and waste

T. Bouchez, F. Lu, A. Guillot, A. Bize, V. Monnet, P. He (FR)

Exploring anaerobic digestion metaproteome using both de novo peptide identification and mass matching approach

Y.C. Moon, W.S. Choi, H.S. Cho, J.Y. Kim (KR)

Effect of hydraulic retention time and organic loading rate on anaerobic of food waste from garbage disposers

L. Lombardi, E. Carnevale, A. Corti, D. Bacchi (IT)

Potential evaluation and technology comparison for anaerobic digestion of organic fraction of MSW

A. Giordano, S. Grilli, A. Spagni (IT)

Effect of water content on biogas production of biodried MSW fine fraction

A. Schüch, F. Höfs, B. Lüdecke, M. Nelles (DE)

Native-organic fractions of municipal solid waste streams in rural areas - Energetic potentialities by anaerobic digestion

M.L. Mancini, A. Bonoli, M. Bergonzoni (IT)

Air biofiltering systems design and management for mitigating of olfactory impact from solid waste composting and pre-selection plants

Y. Yamashita, K. Iwata, K. Ohmiya (JP)

Dairy cow slurry management by screw press: composting solid component and aerobic digestion of liquid component

T. Lolos, I. Georgiou, G. Lolos, C. Tsompanidis (GR)

Environmental monitoring program results from the MBT plant located in the integrated solid waste management center of Ano Liossia Municipality in Western Attica

L.C Lange, F.V.B. Silva, G.F. Simões (BR)

Influence of moisture content on anaerobic biodegradation of municipal solid waste in experimental reactors

G. Feuillade Cathalifaud, A. Parodi, V. Pallier, A.A. Mansour (FR)

Cradle to grave performance evaluation of aerobic pretreatment on the stabilization of municipal solid waste: application to a fully controlled system through leaching test of solid matrices and leachate analysis

G. Di Bella, A. Cosenza, P.A. Lanza, S. Nicosia, M. Torregrossa, G. Viviani (IT)

Biological stability analysis of the MSW matrix treated in a composting plant

M.C. Lavagnolo, R. Cossu, M. Malagoli (IT)

Phytodepuration in the cycle of energy production from biomass

A. Spagni, A. L. D'errico, S. Casu, S. D'Accurso (IT)

Biological hydrogen production from cheese whey in a bench-scale upflow anaerobic sludge blanket

L. Favaro, L. Alibardi, M.C. Lavagnolo, M. Basaglia, S. Casella (IT)

Does inoculum really affect bio-hydrogen production from OFMSW?

L. Favaro, L. Alibardi, M.C. Lavagnolo, M. Basaglia, S. Casella (IT)

Looking for robust and efficient H₂-producing microbes

R.M. Shweta (IN)

A value added bioactive timber solid waste vermicompost inoculated with microbial inoculants

J.M. Mendez-Contreras, J.E. Ruiz-Espinoza, A. Alvarado-Lassman, S.A. Martinez-Delgadillo (MX)

Rheological kinetics parameters during the anaerobic co-digestion of wastewater sludge of MSW

E: Mechanical and thermal treatment

A. Gianoncelli, F. Marciano, A. Zacco, R. Ardesi, G. Rizzo, E. Bontempi, L.E. Depero (IT)

Applicability of a new method for municipal solid waste incinerator (MSWI) fly ash inertisation: first mechanical test

A. Ilyas, H. Modin, M. Van Praagh, M. Persson (SE)

Quality and biodegradation of residual organic matter in relation to management of MSWI bottom ash

M. Seggiani, A. Bellini, M. Puccini, S. Vitolo (IT)

Updraft fixed-bed gasification of sewage sludge: mathematical modelling and comparison with experimental data

A. Takahashi, T. Kameyama, Y. Suzuki, M. Nakamura, Y. Otsuka, Y. Katayama (JP)

Bio-degradation system for poly-chlorinated dibenzo-p-dioxins and dibenzofurans by using crude enzyme extracted from *Gobacillus* sp. UZO3

K. Pstrowska, J. Walendziewski, M. Stolarski (PL)

Pyrolysis of rapeseed waste as a potential source of fuel component

D. Chen, L. Zhao, Z. Wang (CN)

Pyrolysis of waste plastics and whole combustible components separated from municipal solid waste: comparison of products and emissions

R. Ciccu, A. Mazzella, G. Mei, M. C. Tilocca (IT)

Assessment of CO₂ treatment effects on Sulcis coal ash: CO₂ uptake capacity and metal release

F: Landfills

P. Simone, L. Nettuno, L. Moro, A. Bracci, J. Schrt, T. Vinson (IT)

Bioreactor: the experience in Florida (USA) and development in Italy

A. Dall'Ara, L. Billi, M. Caudatelli, N. Faustini, G. Pescheta (BR)

Methodology to assess the production of low emissivity stabilized organic fraction in landfills

W.C.A. Leite, M.C.A.A. Castro, V. Schalch, E. Pugliesi (BR)

Demandings for environmental licence of areas to implant landfills in Brazil. Experience of São Carlos City, SP.

M. Fischetti, C. Cotto, F. Fracaro, F. Chiampo, A. Godio, B. Ruggeri (IT)

Full-scale use of liquid injection, for innovative control of waste moisture to enhance biogas production in pre treated waste landfill (Bio.Lea.R)

G.F. Simões, F.H.R. Silva (BR)

Application of linear and non-linear elastic models to predict settlements during the filling of a cell in Belo Horizonte sanitary landfill, Brazil

H.Y. Jeon, A.K. Belas, J.H. Park (KR)

Tensile behaviour of HDPE geomembranes after exposure to buffer solution under higher stress at elevated temperature

A. Ferrari, M.E.G. Boscov, F. Zorzi (BR)

Viability of a silty soil as construction material for landfill liner system - A case study

L.A. Goonewardena, R. Wrigley, R. Edis, K. Dassanayake (AU)

Potential for reuse of clay contaminated biosolids as compacted landfill liners

V. Lebrun, F. Delloye, E. Bietlot, O. Le Bussy, C. Collart (BE)

Landfill of waste in Wallonia: transposition of 1999/31/EC groundwater protection plan and trigger levels based on long term monitoring results

V. Lovincic, M. Sojic, A. Stanic, M. Tomasevic (HR)

Progress in the construction and rehabilitation of landfills in the Republic of Croatia for the period 2003 – 2011

N. Nishida, T. Furuichi, K. Ishii (JP)

Evaluation for effectiveness of groundwater remediation in an illegal dumping site

G.F. Simões, H.M.G. Coelho, L.C. Lange (BR)

Study of heavy metals contamination on a municipal solid waste landfill site in Brazil

R.K. Singh, M. Ditta, A.K. Nema (IN)

Application of a time-dependent system for assessment of groundwater contamination hazard rating of MSW landfills

K. Ishii, T. Furuichi, T. Wada (JP)

Proposal of an evaluation method for both waste layer distribution and groundwater contamination using electrical resistivity survey for remediation of illegal dumping sites

K. Shih, Y. Tang, C. Liao (CN)

How hazardous metals are stabilized through the thermal reaction with clay materials?

S. Masi, C. Schiavone, I.M. Mancini (IT)

The analysis and motion recovery for undifferentiated waste disposed of in landfill

N. Knezevic, G.M. Lasjsic, D. Bjelic (BA)

Selection of methods for remediation and recultivation of oily acid sludge waste landfill in refinery
Bosanski Brod

G: Landfill gas and leachate

K. Ishii, T. Furuichi, H. Kamio (JP)

Estimation of change in methane generation rate by analysis of age-defined wastes in a landfill site

K. Starr, X. Gabarrell Durany, G. Villalba Mendez, L. Talens Peiró, L. Lombardi (IT)

CO₂ balance of biogas upgrading technologies

L. Lombardi, E. Carnevale (IT)

Organic rankine cycles coupled with internal combustion engines for increasing the electric energy production form biogas

L. Lombardi, R. Baciocchi, E. Carnevale, A. Corti, G. Costa, X. Gabarrell, P. Mostbauer, F. Olivieri, T. Olivieri, A. Paradisi, K. Starr, G. Villalba, D. Zingaretti (IT)

CO₂ balance of biogas upgrading technologies

T. Filep, E. Imre (HU)

An alternative way to utilization of landfill gas: production of methanol

S. Bohn, J. Jager (DE)

The effect of vegetation on the microbial methane oxidation

I. Pecorini, A. Corti (IT)

Efficiency of different types of landfill covers and comparison of CH₄ emission monitoring campaigns

K.K Kleeberg, J. Streese-Kleeberg (DE)

Optimisation of the needle trap-technique for gaschromatographic analysis of odorous emission

H. Robinson, P. Novella, C. Wise, M. Carville (GB)

Design and commissioning of a very large leachate treatment plant at Vissershok landfill, Cape Town, South Africa

J.C. Campos, F.V.F. Araujo, L.Yokoyama, I. S. Cabral, L.A.C. Teixeira (BR)

Solar photo-fenton process in the treatment of landfill leachate

P. Valenzuela, J.H. Palma, R. Espinace, R. Bernstein, P. Rivas, M. Mejias (CL)

Eco-technology for effluent purification from leaching liquid treatment plants

R.R. Siman, M.R.T. Halasz, F.P. Puget, E.F. Mai (BR)

Performance analysis of high efficiency thickeners to suspensions of leachate

J.C. Campos, B. Quintaes, C.A.M.C. Silva, M. Hinojosa, K.R.A. Silva, M.A.L. Miguel, U.A. Silva, J.A. Ferreira (BR)

Microbial communities in the leachate from urban solid waste and hospital waste co-disposed in experimental landfill

V. Ribé, E. Nehrenheim, M. Odlare, R. Berglind, Å. Forsberg (SE)

Evaluation of the performance and safety of a pine bark filter for landfill leachate and storm water treatment: toxicity testing and chemical analysis

H: Special waste

J. Richardson, A. Nichols, M. Bennallick, J. Grose, S. Pahl (GB)

How can behaviour change theory contribute to a reduce, re-use and recycle approach to waste management in the NHS: a feasibility study

J. Richardson, T. Henry, A. Nichols (GB)

Assessing the co-benefits of a community initiative to reduce, re-use, recycle using a health impact assessment approach

G. Kochetov, S. Heuss-Aßbichler (UA)

Integrated treatment of Cooper-containing liquid waste

M.L. Mancini, M. Bergonzoni, C. Cordero, E. Maestri (IT)

Correlation between chemical and olfactometric aspects in treatment plants for dangerous special waste

D. Karatza, A. Lancia, , G. Mazziotti Di Celso, D. Musmarra, M. Prisciandaro (IT)

Pilot scale application of mercuric chloride adsorption onto Darco FGD activated carbon

D. Musmarra, D. Karatza, M. Prisciandaro, R. Chirone, A. Lancia (IT)

Metallic mercury adsorption onto Darco FGD activated carbon on a pilot scale plant

N. Quaranta, M. Caligaris, H. Lopez, M. Unsen, N. Lalla, G. Pelozo, A. Cristobal (AR)

Environmental aptitude analysis of residues from metalurgical industries for their reutilization in diverse uses

M.C. Zanetti, B. Ruffino, D. Dalmazzo, E. Santagata (IT)

Preliminary evaluation of the potential use of paint sludge in bituminous binders

O. Ashihmina, E. Nehrenheim, M. Odlare, N. Hajem (SE)

Remediation of TNT using pine bark in a batch study: cometabolic reduction and sorption

R.R. Siman, S.T. Cassini, C. Rodrigues, L.M. Pinotti, R. Keller, R.F. Goncalves (BR)

Selection of lipolytic microorganism for exploitation of oily waste derived environmental sanitation

T.V.N. Padmesh (MY)

Biosorption characteristics of *Portunus Sanguinolentus* particles for the removal of Acid Red 88 (AR88) and Acid Blue 15 (AB15) from aqueous solutions

A.B. De Farias, S.P. Fucale, R.A. Medeiros Junior, A.D. Gusmão (BR)

Analysis of the use of civil construction waste (CCW) in soil improvement

D. Jacques, J. Šimůnek, D. Mallants, M.Th. Van Genuchten, L. Yu (BE)

A coupled reactive transport model for contaminant leaching from cementitious waste matrices accounting for solid phase alterations

R. Kchaou, M. N. Khelil, S. Rejeb, B. Henchi (TN)

Direct and residual effect of 15n sewage sludge in sudangrass-barley cropping system

M. Oliveira, E. Duarte (PT)

An integrated approach of winery waste management

C. Barca, D. Meyer, C. Gérente, Y. Andrès, S. Troesch, F. Chazarenc (FR)
The use of steel slag as a substrate to treat wastewater: an integrated approach

G.A. Zainescu, P. Voicu, R. Constantinescu, M. Arsene, O. Vizitiu, M. Mihalache (RO)
Innovative process for obtaining biopolymers from leather wastes for agriculture

C. Tilocca, R. Ciccu, G. Mei, M. Figus (IT)
Reuse of products from waste anodes of aluminium smelter

R.C.C. Ribeiro, C.M.R. Arruda, F.W.H. Vidal, M.G. Oliveira (BR)
Use of marble powder waste as mineral load in polymer industry

F. Moedinger, F. Ast, M. Ragazzi, E.C. Rada, C. Campostrini, S. Ciuta, A. Badea, G. Ionescu (IT)
Exhausted grape marc bio-drying: a pilot scale experimentation

I: Contaminated soils

M.L. Mancini, M. Bergonzoni, A. Zanini (IT)
Groundwater numerical models as tool for managing polluted sites: a test case

G. Andreottola, I.A. Istrate, A. Badea, E.C. Rada, M. Ragazzi (IT)
The application of DCT technologies at laboratory scale

F. Pellerà, E. Gidarakos (GR)
Immobilization of heavy metals in soil using olive pomace biochar

P.P. Falciglia, S. Cannata, S. Romano, F.G.A. Vagliasindi (IT)
Remediation of radionuclides polluted soil by stabilisation/solidification

S.J. Ban, K.K. Lee, H.S. Cho, J.Y. Kim (KR)
Phytoremediation of Cd and Pb contaminated soil around closed open dumping landfill

M.F. Milazzo, R. Lisi, V. Bartolozzi (IT)
Environmental human health risk analysis as a tool for remediation of contaminated sites