

### Sunday 16th May

7:45	Great Wall Tour
16:30	Registration starts
17:30-19:00	Welcome reception and Opening ceremony at the <i>Conference Center</i> (Main Building of Process Engineering, Zhong Guan Cun, Bei er Tiao No. 1, Beijing)

### Monday 17th May

8:00	Registration follows
09:00-09:20	Opening ceremony
09:20-10:00	Plenary Lecture 1: Valorisation of Biomass to Energy by Dr Fernando Preto, Canmet ENERGY, CANADA

#### Break

	Room 1	Room 2	Room 3	Room 4
10:15	S 1	S 2	S 3	S 4
11:15	Gasification of biomass	Sludge and MSW	Fly ash and geopolymers	Plastic recycling
11:20	S 5	S 6	S 7	S 8
12:40	Pretreatment for improving performance	Energy Efficiency and Management strategy	Fly ash and bottom ash	Symposium Biolandfill I

#### Lunch

13:45-14:25	Plenary Lecture 2: Valorisation of Minerals and Recyclates by Prof Markus Reuter, University of Melbourne, AUSTRALIA
-------------	--

14:30	S 9	S 10	S 11	S 12
15:50	Wastewater and groundwater	Cement and concrete	Symposium Waste to Energy in China I	Symposium Biolandfill II

#### Break

16:05	S 13	S 14	S 15	S 16
17:25	Organic effluents	Various waste	Symposium Waste to Energy in China II	Symposium Biolandfill III

#### End of Technical Programme

### Tuesday 18th May

8:00	Registration follows
08:00-08:40	Plenary Lecture 3: Destruction and Valorisation of CFC Compounds by Prof Masaaki Yamabe, AIST, JAPAN

08:45	S 17	S 18	S 19	S 20
09:45	MSW management and treatment	Utilisation of bioconversion byproducts	Modeling and optimization: MSW and biomass	Composting, Biogas

#### Break

10:00	S 21	S 22	S 23	S 24
11:00	Tannery and paper sludge	Waste to road base materials	Metallurgical and Pyrometallurgical recycling	Inorganic waste
11:05	S 25	S 26	S 27	S 28
12:05	Sludge from various industries	Biomass, biowaste acidification and H <sub>2</sub> production	Slag and ceramics	CO <sub>2</sub> Issues

#### Lunch

13:10-13:50	Plenary Lecture 4: Resource Utilisation of Heavy Metal Containing Industrial Wastes by Prof Yi Zhang, IPE CHINA
-------------	---

13:55	S 29	S 30	S 31	S 32
15:15	Water assisted conversion	Biodiesel, Bioethanol and Bio-oil	Heavy metals and organic pollutants	Risk and Impact Assessment

	Room 1	Room 2	Room 3	Room 4
15:20-16:05	PANEL DISCUSSION: <i>Waste and Biomass Valorization: Trends, challenges and bottlenecks</i>			
16:10	S 33	S 34	Poster	Poster
17:30	Solar panels, optical waste & spent catalyst	Thermal and physicochemical H2 production		
	End of Technical Programme			
	GALA DINNER at the <i>Beijing Zheng Yuan Da Zhai Men, XiCui Road Branch</i> (19:30 Shuttle Bus)			
	<b>Wednesday 19th May</b>			
8:00	Registration follows			
08:30-09:10	Plenary Lecture 5: Life cycle assessment and waste management lessons for industry and policy makers by Prof Goran Finnveden, Royal Institute of Technology, Sweden			
09:15	S 35	S36	S37	S38
10:35	Adsorbent from waste	Rubber and Tyre valorisation	Waste Management I	Organic Waste
	Break			
10:50	S39	S40	S41	S42
12:10	Biomethane	Life cycle thinking	Waste Management II	Production of enzymes & anti oxydants
12:15-12:55	Plenary Lecture 6: Research and Educational Requirements for Sustainable Waste Management Systems by Prof Hilary INYANG, African University of Science and Technology, Nigeria			
	End of Technical Programme			
12:55-13:15	Closing ceremony and announcement of WasteEng2012			
	Lunch			

## Monday 17th May

8:00 Registration follows

### Room 1

09:00-09:20 Opening ceremony  
**Chairs: Ange Nzihou and Huizhou Liu**  
09:20-10:00 Plenary Lecture 1 : Valorisation of Biomass to Energy  
Dr Fernando Preto, Canmet ENERGY, CANADA

Break

<b>Room 1</b>	<b>S1</b>	<b>Gasification of biomass</b>
<b>Chairs:</b>		<b>Marco Castaldi and Zhixiao Zhang</b>
10:15-10:35	87-A	A BIOMASS STEAM GASIFICATION PILOT PLANT: SYNGAS SUITABILITY FOR SOFC STACKS E. PIERATTI, M. BARATIERI, P. BAGGIO, M. GRIGIANTE, S. CESCHINI
10:35-10:55	88-B	BIOMASS GASIFICATION WITH DOLOMITE AS CATALYST IN A SMALL FLUDIZED BED: EXPERIMENTAL AND MODELING ANALYSIS M. BARATIERI, E. PIERATTI, T. NORDGREEN, M. GRIGIANTE
10:55-11:15	229-B	NON CATALYTIC GASIFICATION OF WOOD BIO-OIL Y. CHHITI, S. SALVADOR, J.-M. COMMANDRÉ, F. BROUST, C. COUHERT
<b>Room 2</b>	<b>S2</b>	<b>Sludge and MSW</b>
<b>Chairs:</b>		<b>Hoffmann Józef and Didier Lecomte</b>
10:15-10:35	58-B	BIOFUEL PRODUCTION BY SEMI-CONTINUOUS CODIGESTION OF WASTE ACTIVATED SLUDGE AND FATTY WASTEWATERS H. CARRERE, Y. RAFRAFI, A. BATTIMELLI, M. TORRIJOS, G. RUYSSCHAERT
10:35-10:55	183-B	BIODRYING OF MUNICIPAL SOLID WASTE AND SEWAGE SLUDGE OF HIGH MOISTURE CONTENT A. ZAWADZKA, L. KRZYTEK, P. STOLAREK, S. LEDAKOWICZ
10:55-11:15	69-B	A NEW TYPE OF HIGH-RATE SLUDGE ANAEROBIC DIGESTER J. WU, P.J. ZHAO, L.TIAN, L. SHI, H.C. SHI
<b>Room 3</b>	<b>S3</b>	<b>Fly ash and geopolymers</b>
<b>Chairs:</b>		<b>William Prince and Xiansu Cheng</b>
10:15-10:35	213-C	VALORISATION OF FLY ASH AND SLAG IN GEOPOLYMER CONCRETES: RESEARCH AND COMMERCIALISATION JANNIE S.J. VAN DEVENTER, PETER DUXSON, JOHN L. PROVIS
10:35-10:55	79-C	THE REUSE OF COAL FLY ASH IN GEOPOLYMER CONCRETE: INFLUENCE OF THE ACTIVATOR ON THE GEL COMPOSITION J. DUCHESNE, L. DUONG, T. BOSTROM
10:55-11:15	151-C	ALUMINIUM ETCHING WASTE SOLUTIONS IMMOBILISED IN FLY ASH GEOPOLYMERS H.W. NUGTEREN, J. JOUSMA
<b>Room 4</b>	<b>S4</b>	<b>Plastic recycling</b>
<b>Chairs:</b>		<b>Yannick Soudais and Hideaki Itoh</b>

10:15-10:35	84-C	ANALYSIS OF THE PRODUCTS OBTAINED IN THERMAL AND CATALYTIC DECOMPOSITION OF PLASTIC WASTES A. LÓPEZ, I. DE MARCO, B.M. CABALLERO, M.F. LARESGOITI, A. ADRADOS, A. TORRES, M.J. CHOMÓN
10:35-10:55	166-C	CHEMICAL RECYCLING OF CARBON FIBER REINFORCED PLASTIC WITH SUB- OR SUPERCRITICAL FLUIDS I. OKAJIMA, K. ARAYA, M. HIRAMATSU, T. SAKO
10:55-11:15	129-C	DEGRADABLE PLASTICS FROM RENEWABLE RESOURCES KLAUS FISCHER, JINGJING HUANG

<b>Room 1</b>	<b>S5</b>	<b>Pretreatment for improving performance</b>
<b>Chairs:</b>		<b>Mauricio Grignante and Jinglan Hong</b>
11:20-11:40	135-A	VALORISATION OF LOW GRADE BIOMASS TO SUBSTITUTE FOSSIL FUELS IN A THERMAL POWER PLANT M. HALWACHS, G. KAMPICHLER, ST. KERN, H. HOFBAUER
11:40-12:00	40-B	FAST PYROLYSIS OF MILLIMETRIC WOOD PARTICLES BETWEEN 800 AND 1000 °C LI CHEN, CAPUCINE DUPONT, SYLVAIN SALVADOR, GUILLAUME BOISSONNET, DANIEL SCHWEICH
12:00-12:20	234-B	TORREFACTION OF BIOMASS: INFLUENCE OF OPERATING CONDITIONS ON PRODUCTS AND GRINDABILITY J.-M. COMMANDRÉ, PATRICK ROUSSET
12:20-12:40	56-A	PRE-TREATMENT METHODS FOR URBAN LIGNOCELLULOSIC GREEN WASTE FRACTIONS FOR AN ENHANCED ENERGETIC USE B. SAAKE, R. JANZON, F. SCHÜTT, H. ADWIRAAH, I. KÖRNER

<b>Room 2</b>	<b>S6</b>	<b>Energy Efficiency and Management strategy</b>
<b>Chairs:</b>		<b>Chojnacka Katarzyna and Yaqian Zhao</b>
11:20-11:40	240-H	ENERGY EFFICIENT DEWATERING TECHNOLOGY FOR WET BIOMASS FRACTIONATION N. CUSO GRAU, P. ARLABOSSE
11:40-12:00	90-F	ENERGY RETURNED ON INVESTMENT (EROI) AND ENERGY PAYBACK TIME (EPT) EVALUATION ON ANAEROBIC TECHNOLOGY PRODUCING BIO-H <sub>2</sub> AND BIO-CH <sub>4</sub> S. SANFILIPPO, T. TOMMASI, M. BERNARDI, B. RUGGERI
12:00-12:20	168-C	MANAGEMENT STRATEGY FOR HAZARDOUS WASTE FROM THE PRINTING INDUSTRY L. CRISTÓBAL ANDRADE, P.M. BELLO BUGALLO
12:20-12:40	142-F	ASSESSMENT OF THE BIOMASS POTENTIAL OF RESIDUAL AND WASTE BIOMASS AND ENVIRONMENTAL IMPACTS OF DIFFERENT ENERGY CONVERSION PATHWAYS B. STEUBING, J. REINHARD, C. LUDWIG, R. ZAH

<b>Room 3</b>	<b>S7</b>	<b>Fly ash and bottom ash</b>
<b>Chairs:</b>		<b>Jannie Van Deventer and Henk Nugteren</b>
11:20-11:40	42-C	FEASIBILITY TEST OF ELECTRODIALYTICALLY UPGRADEDMSWI APC RESIDUE UTILIZATION IN MORTAR G.M. KIRKELUND, M.R. GEIKER, P.E. JENSEN
11:40-12:00	227-C	MECHANICAL CHARACTERISATION OF BITUMINOUS MIXTURES WITH BOTTOM ASH FROMMUNICIPAL SOLID WASTE INCINERATION (MSWI) M. PASETTO, N. BALDO
12:00-12:20	104-C	THE VARIATION OF FLY ASH COMPOSITION SINCE THE BEGINNING OF LIGNITE EXPLOITATION IN AMYNTION, GREECE AND THE CASE OF CO-FIRING WITH XYLITE G. ITSKOS, A. MOUITSATSOU, S. ITSKOS, CH. VASILATOS, N. KOUKOUZAS, E. KAKARAS
12:20-12:40	285-C	STUDY ON THE PHYSICO-CHEMICAL PROPERTIES OF ASH FROM DIFFERENT COAL FIRED POWER PLANT

WEI XIANG, BAOPING HAN, DONG ZHOU

**Room 4**

**S8**

**Symposium Biolandfill I**

**Chairs:**

**Remi Gourdon and Liu Jianguo**

11:20-11:40

261-B

CORRELATION BETWEEN WASTE SETTLEMENT AND BIODEGRADATION: MODELLING AND VALIDATION ON LABORATORY BIOREACTORS PILOTS

L. OXARANGO, L. STAUB, M. GOURC, J.-P. BENBELKACEM, H. BAYARD, R. GOURDON

11:40-12:00

259-B

INTENSIFICATION OF METHANE PRODUCTION FROM THE BIODEGRADATION OF MSW IN LANDFILL BIOREACTORS USING MECHANICAL PRETREATMENTS AND LEACHATE INJECTION: A PILOT-SCALE STUDY

R. BAYARD, Y.Y. ZHANG, R. GOURDON, H. BENBELKACEM

12:00-12:20

265-B

THE ELECTRICAL RESISTIVITY TOMOGRAPHY FOR COLUMN BIOREACTOR

Q.Y. ZHOU, C.P. LING, J.G. LIU, Y.W. XUE, R. LI, Y.Y. ZHANG

12:20-12:40

266-B

AN ERT STUDY ON DOMESTIC WASTE BIODEGRADATION UNDER DIFFERENT CONDITIONS

C.P. LING, YUWEI XUE, YUANYUAN ZHANG, RUI LI, JIANGUO LIU, Q.Y. ZHOU

Lunch

**Room 1**

**Chairs:**

**Ange Nzihou and Huizhou Liu**

13:45-14:25

Plenary Lecture 2: Valorisation of Minerals and Recyclates

Prof Markus Reuter, University of Melbourne, AUSTRALIA

**Room 1**

**S9**

**Wastewater and groundwater**

**Chairs:**

**Ekrem Ekinci and Stalisnaw Ledakowicz**

14:30-14:50

71-D

VALORIZATION OF WASTEWATER EFFLUENT AND SLUDGE: AGRICULTURAL REUSE IN LATIN AMERICA AND THE POTENTIAL FOR DEVELOPING COUNTRIES

STEWART M. OAKLEY

14:50-15:10

70-D

INNOVATIVE REUSE OF DEWATERED ALUM SLUDGE IN ENGINEERED WETLAND FOR WASTEWATER TREATMENT: A WIN-WIN TECHNIQUE

Y.Q. ZHAO, Y.S. HU, A.O. BABATUNDE, J.L.G. KUMAR

15:10-15:30

7-D

THERMODYNAMIC STUDIES FOR ARSENIC REMOVAL FROM GROUNDWATER IN TORREON MEXICO

J.R. PARGA, J.L. VALENZUELA

15:30-15:50

78-D

THE INFLUENCE OF AERATION BY THE METHOD OF DESTRATIFICATION ON IMPROVING THE CONTENT OF OXYGEN DISSOLVED IN WATER

M. GAFSI, A. KETTAB

**Room 2**

**S10**

**Cement and concrete**

**Chairs:**

**Josée Duchesne and Marco Ragazzi**

14:30-14:50

302-C

RESEARCH PROGRESS OF PHOSPHOGYPSUM RESOURCE UTILIZATION IN CHINA

WENQING XU, TINGYU ZHU, JUNYAN KUANG

14:50-15:10

32-D

PROPERTIES OF CEMENTITIOUS MATERIALS INCORPORATING THERMOPLASTIC WASTES AS AGGREGATES

KINDA HANNAWI, WILLIAM PRINCE, SIHAM KAMALI-BERNARD

15:10-15:30	27-C	VALORISATION OF PHOSPHATE CHEMICAL GYPSUM BY USING IT AS MINERALIZER IN CEMENT CLINKER L. KACIMI, A. MEROUANE, A. SIMON-MASSERON, Z. DERRICHE
<b>Room 3</b> <b>Chair:</b>	<b>S11</b>	<b>Symposium Waste to Energy in China I</b> <b>Nickolas Themelis</b>
14:30-14:50	272-B	IMPORTANCE OF WASTE-TO-ENERGY TO CHINA AND TO THE GLOBAL CLIMATE NICKOLAS J. THEMELIS, ZHIXIAO ZHANG
14:50-15:10	307-B	MEASURING THE BIOMASS CONTENT OF WASTE FOR GREENHOUSE GAS REPORTING USING CARBON-14 MAURICIO LARENAS
15:10-15:30	245-C	MUNICIPAL SOLID WASTE COMPOSITION AND VALORIZATION OF BOTTOM ASH Y. J. HU, B. MAARTEN, G. Y. CHEN
15:30-15:50	249-B	STUDY ON THE PHYSICO-CHEMICAL PROPERTIES OF MUNICIPAL SOLID WASTE IN CHINA HUO-AN LIU, XIN-CAI ZHU, GANG XU, BO YAO
<b>Room 4</b> <b>Chairs:</b>	<b>S12</b>	<b>Symposium Biolandfill II</b> <b>Gerasimos Lyberatos and Remi Gourdon</b>
14:30-14:50	271-B	MASS BALANCE OF CARBON, NITROGEN AND WATER DURING AEROBIC BIOLOGICAL PRETREATMENT OF MSW PRIOR TO LANDFILL YUANYUAN ZHANG, DONGBEI YUE, JIANGUO LIU, YUWEI XUE, RUI LI, YONGFENG NIE
14:50-15:10	267-B	EFFECTS OF AMMONIA FERTILIZATION ON METHANOTROPHS IN LANDFILL COVER SOILS N. YANG, P.J. HE, F. LÜ, L.M. SHAO
15:10-15:30	184-B	OPTIMISATION OF THE PROCESSES OCCURRING IN AEROBIC LANDFILL – SIMULATION IN LYSIMETERS R. SLEZAK, L. KRZYSZEK, S. LEDAKOWICZ

Break

<b>Room 1</b> <b>Chairs:</b>	<b>S13</b>	<b>Organic effluents</b> <b>Jose Parga and Jesus Valenzuela</b>
16:05-16:25	289-D	PARTITION BEHAVIOR OF PHENOL AND O-NITROPHENOL IN THREE-PHASE SYSTEM PINHUA YU, JUNMEI ZHAO, KUN HUANG, KEN XIE, HUIZHOU LIU
16:25-16:45	202-D	REDUCTIVE DECHLORINATION OF TETRACHLOROETHENE TO ETHENE BY COMPOST SAMPLES WITH DIFFERENT MATURITY L. TSUI, Y.Z. CHUNG, S.F. LIN, H.T. CHEN
16:45-17:05	185-D	POLLUTED SITES REMEDIATION: STUDY OF PCE DEGRADATION WITH KMNO4 SOLUTIONS M. DRAGA, A. FERNANDEZ, R. BARNA
17:05-17:25	8-D	KINETIC AND MECHANISTIC STUDY OF PHOTODEGRADATION OF 4,4'-DIBROMOBIPHENYL BY TiO2 FILMS CAIHONG JI, PING ZHANG
<b>Room 2</b> <b>Chairs:</b>	<b>S14</b>	<b>Various waste</b> <b>Barbara Grzmil and Henryk Gorecki</b>
16:05-16:25	308-C	ZINC RECOVERY FROM ZINC FERRITE - BEARING INDUSTRIAL RESIDUES Y. YANG, D. KEMPERMAN, Y. XIAO

16:25-16:45	54-C	HYDROMETALLURGICAL PROCESSES FOR METALLIC ZINC AND/OR ZINC OXIDES PRODUCTION FROM WAEZL OXIDE D. HERRERO, P.L. ARIAS, U. IZQUIERDO, J.F. CAMBRA, B. GÜEMEZ, V.L. BARRIO, S. ECHEANDIA
16:45-17:05	290-C	INCREASED THE LEACHING RATE OF REALGAR BY ADDING AG+ PEI GUO, JUNYA CAO, GUANGJI ZHANG, ZHAOHENG FANG, CHAO YANG
<b>Room 3</b>	<b>S15</b>	<b>Symposium Waste to Energy in China II</b>
<b>Chair:</b>		<b>Nickolas Themelis</b>
16:05-16:25	301-B	ENERGY FROM WASTE IN CHINA AND US – ITS STATUS AND ITS FUTURE L. XIAO, A. SHU, P. EWALD, M. WHITE
16:25-16:45	273-B	CHARACTERIZATION OF MSW FOR THERMAL TREATMENT AND DEVELOPMENT OF MSW FLUIDIZED BED INCINERATION TECHNOLOGY YONG CHI, JIANHUA YAN, XIAODONG LI, XUGUANG JIANG, ZENYI MA, YUQI JIN, FEI WANG, SHENGYONG LU, MINGJIANG NI, KEFA CEN
16:45-17:05	248-B	THE STUDY OF STABILIZATION OF MUNICIPAL WASTE INCINERATION FLY ASH WEI XIONG, JIN-BO WANG, HUI-DONG QIU, XIN-CAI ZHU, YOU-QING DING, XIONG ZHOU
<b>Room 4</b>	<b>S16</b>	<b>Symposium Biolandfill III</b>
<b>Chairs:</b>		<b>Hilary Inyang and Jianguo Liu</b>
16:05-16:25	268-B	EFFECTS OF GASEOUS H <sub>2</sub> AND CO <sub>2</sub> REMOVAL ON THERMOPHILIC ANAEROBIC DIGESTION L.P. HAO, P.J. HE, F. LÜ, L.M. SHAO
16:25-16:45	284-B	RHEOLOGICAL PROPERTIES OF ANAEROBICALLY DIGESTED SOLID WASTES D. LOISEL, D. GARCIA-BERNET, G. GUIZARD, P. BUFFIÈRE, R. ESCUDIÉ
16:45-17:05	278-B	DEVELOPMENT OF A KINETIC MODEL FOR ANAEROBIC DRY DIGESTION PROCESSES J. BOLLON, H. BENBELKACEM, P. BUFFIERE, R. GOURDON
17:05-17:25	279-B	EFFECT OF SODIUM HYDROXIDE SOLID STATE PRETREATMENT ON PHYSICAL AND CHEMICAL CHARACTERISTICS OF RICE STRAW FOR ANAEROBIC DIGESTION XIU-JIN LI , YAN-FENG HE, YUNZHI PANG, YAN-PING LIU, MING-XIA ZHENG

End of Technical Programme

## Tuesday 18th May

8:00 Registration follows

### Room 1

#### Chairs:

**Huizhou Liu and Ange Nzihou**

08:00-08:40

Plenary Lecture 3: Destruction and Valorisation of CFC Compounds  
Prof Masaaki Yamabe, AIST, JAPAN

### Room 1

#### S17

#### MSW management and treatment

#### Chairs:

**Baoping Han and Liming Hu**

08:45-09:05

59-A

RDF ROLE IN CHANGEABLE SCENARIOS OF MSW MANAGEMENT  
E.C. RADA, M. RAGAZZI, C. STAN, M. VENTURI, T. APOSTOL, C. MARCULESCU

09:05-09:25

197-B

CHARACTERIZATION OF MSW FOR THERMAL TREATMENT AND DEVELOPMENT OF MSW FLUIDIZED BED INCINERATION TECHNOLOGY  
YONG CHI, JIANHUA YAN, XIAODONG LI, XUGUANG JIANG, ZENYI MA, YUQI JIN, FEI WANG, SHENGYONG LU, MINGJIANG NI, KEFA CEN

09:25-09:45

110-C

MINE TAILINGS: WASTE, CONTAMINATED RESOURCE OR VALUABLE SOIL? APPROACH OF REVALUE MINE TAILINGS FOR THE SOUTH AFRICAN MARKET  
O. POLLMANN, S. MEYER, O. BLUMENSTEIN, L. VAN RENSBURG

### Room 2

#### S18

#### Utilisation of bioconversion byproducts

#### Chairs:

**Clara Piccirillo and Sirintornthep Towprayoon**

08:45-09:05

131-C

VALORISATION OF ANAEROBIC DIGESTION RESIDUES: ASSESSMENT OF THEIR BIODEGRADABILITY  
C. TEGLIA, A. TREMIER, J.-L. MARTEL

09:05-09:25

50-B

RECOVERY AND REUSE OF FUEL AND MATERIALS FROM THE MEAT WASTE  
ZYGMUNT KOWALSKI, JOANNA KULCZYCKA

09:25-09:45

136-B

MANAGING TAR FROM BIOMASS GASIFICATION: AN APPROACH FOR BIOLOGICAL TRANSFORMATION PATHS  
M. BARATIERI, S. BENINI, L. BRUSETTI, T. NORDGREEN

### Room 3

#### S19

#### Modeling and optimization: MSW and biomass

#### Chairs:

**Carlo Vandecasteele and Mauricio Larenas**

08:45-09:05

165-A

MODELLING OF INTEGRATED MUNICIPAL SOLID WASTE TO ENERGY TECHNOLOGIES IN THE URBAN ENVIRONMENT  
M. KOSTANTINIDIS, N.J. SAMSATLI, J.E. KEIRSTEAD, N. SHAH

09:05-09:25

96-A

SIMULATION ANALYSIS OF EFFECT OF CO<sub>2</sub>(L)-SLURRIES ON LOW RANK COAL IGCC PERFORMANCE  
ZHIXIAO ZHANG, MARCO J. CASTALDI, JOHN DOOHER

09:25-09:45

89-B

OPTIMAL WORKING TEMPERATURE OF BIO-H<sub>2</sub> AND BIO-CH<sub>4</sub> FROM PSICHROPHILIC VS. THERMOPHILIC REGIME  
T. TOMMASI, M. BERNARDI, S. SANFILIPPO, G. SASSI, B. RUGGERI

### Room 4

#### S20

#### Composting, Biogas

#### Chairs:

**Helene Carrère and Liliana Krzystek**

08:45-09:05

182-B

HISTORICAL AND FUTURE ASPECTS OF COMPOSTING IN THE NETHERLANDS

09:05-09:25	181-A	G.J. DE JONG FUTURE PERSPECTIVE FOR BIO-ENERGY PRODUCTION IN THE PROVINCE OF TURIN D. FINO, E. CONTI, R. MARTINI, R. CONTI
09:25-09:45	41-A	OPTIMISING BIOLOGICAL DESULPHURISATION OF BIOGAS BY ADDITION OF HUMIC SUBSTANCES U. GAYH, J. BEHRENDT, R. OTTERPOHL

Break

<b>Room 1</b>	<b>S21</b>	<b>Tannery and paper sludge</b>
<b>Chairs:</b>		<b>Stewart Oakley and Zygmunt Kowalski</b>
10:00-10:20	95-A	PERFORMANCE OF TWO DIFFERENT INCINERATION SYSTEMS FOR PAPER SLUDGE ZHIXIAO ZHANG, JIADE MA, MARCO J. CASTALDI
10:20-10:40	44-B	FUEL GAS PRODUCTION FROM PAPER WASTES IN HIGH-TEMPERATURE LIQUID WATER A. YAMAGUCHI, N. HIYOSHI, O. SATO, K.K. BANDO, M. SHIRAI
10:40-11:00	125-A	THERMAL BEHAVIORS AND HEAVY METAL EMISSION OF TANNERY SLUDGE IN INCINERATION PROCESS TANG PING, XIA FENG-YI, XIE ZHENG-MIAO
<b>Room 2</b>	<b>S22</b>	<b>Waste to road base materials</b>
<b>Chairs:</b>		<b>Marco Pasetto and William Prince</b>
10:00-10:20	219-C	USE OF TREATED DREDGED SEDIMENTS AS ROAD BASE MATERIALS : ENVIRONMENTAL ASSESSMENT C. TRIBOUT, B. HUSSON, A. NZIHOU
10:20-10:40	214-C	THE USE OF GRANULAR VOLCANIC ASH WASTE IN ROADS CONSTRUCTION JAMIL A. NAJI, SUBHI ALI
10:40-11:00	21-C	EXPERIMENTAL STUDY ON PHYSICAL AND MECHANICAL PROPERTIES OF DREDGED MARINE SEDIMENT FOR VALORISATION IN ROAD ENGINEERING DONGXING WANG, RACHID ZENTAR, NOR EDINE ABRIAK, WEIYA XU
<b>Room 3</b>	<b>S23</b>	<b>Metallurgical and Pyrometallurgical recycling</b>
<b>Chairs:</b>		<b>Olaf Pollmann and Takaaki Wajima</b>
10:00-10:20	37-C	ECONOMICAL POTENTIAL OF THE USE OF BIOMASS IN METALLURGICAL RECYCLING PROCESSES S. STEINLECHNER, J. ANTREKOWITSCH
10:20-10:40	190-C	THERMAL TREATMENT OF INDUSTRIAL AND MUNICIPAL WASTES USING PYROMETALLURGICAL SYSTEMS G. YE
10:40-11:00	172-C	USED OF OXYGEN IN PYROMETALLURGICAL TREATMENT OF RECYCLED SCRAP OF HARDMETALS IN THE AIM TO OBTAIN W,TI, CO, AND TA MILORAD CIRKOVIC, DRAGAN MILANOVIC, VLASTIMIR TRUJIC
<b>Room 4</b>	<b>S24</b>	<b>Inorganic waste</b>
<b>Chairs:</b>		<b>Fujio Watanabe and Kuniyuki Kitagawa</b>
10:00-10:20	231-C	SHREDDER RESIDUES: CHARACTERISATION AND MANGEMENT AIMED AT RESOURCE RECOVERY O. HJELMAR

10:20-10:40	199-C	PHYSICO-CHEMICAL TREATMENT OF ASBESTOS CONTAINING MATERIALS Y. YVON, P. SHARROCK, J.Y. COJAN, M.C. MAGNIE
10:40-11:00	218-C	VALORIZATION OF RICH-CARBONATES WASTES ON THE SYNTHESIS OF HYDROXYAPATITE M. CHKIR, A. NZIHOU, P. SHARROCK

<b>Room 1</b>	<b>S25</b>	<b>Sludge from various industries</b>
<b>Chairs:</b>		<b>Patricia Arlabosse and Zhidong Chang</b>
11:05-11:25	176-C	CHARACTERIZATION OF THE MAIN SLUDGE OF CONCENTRATED LATEX INDUSTRY C. SIRIWONG, T. KONGSONG, P. PETJUMRUS, S. DANTERAVANICH, P. CHEVAKIDAGARN, P. SRIDANG
11:25-11:45	241-C	CHARACTERIZATION OF SEWAGE SLUDGE ASH AND TECHNICAL AND ENVIRONMENTAL EVALUATION FOR POTENTIAL UTILIZATION AS SECONDARY RAW MATERIALS IN CONSTRUCTION M. CHEN, L. PANG, D. BLANC, M. GAUTIER, R. GOURDON, J. MEHU
11:45-12:05	315-C	PROPERTIES AND MECHANISM OF RED MUD (RM) IN THE PREPARATION OF ULTRA-LIGHTWEIGHT SLUDGE-RED MUD CERAMICS (ULS-RMC) YUANFENG QI, QINYAN YUE, FEI XI, BAORYU GAO, MIN YUE, SHUXIN HAN, ZHOU LI
<b>Room 2</b>	<b>S26</b>	<b>Biomass, biowaste acidification and H2 production</b>
<b>Chairs:</b>		<b>Joanna Kulczycka and Bodo Saake</b>
11:05-11:25	51-B	EFFECT OF SUBSTRATE CONCENTRATION IN FERMENTATIVE HYDROGEN PRODUCTION FROM SWEET SORGHUM EXTRACT  G. ANTONOPOULOU, H.N. GAVALA, I.V. SKIADAS, G. LYBERATOS
11:25-11:45	120-B	VALORISATION OF FOOD AND MARKET WASTE BY USING TWO-PHASE FIXED FILM ANAEROBIC REACTOR P. PIBUL, S. TOWPRAYOON, P. CHAIPRASERT, S. BOONYAKITSOMBUT
11:45-12:05	193-B	SYNTHETIC BIOENGINEERING OF MICROBIAL CONSORTIA FOR BIOMASS-BASED ZERO- AND ONE- CARBON BIOINDUSTRY XIN-HUI XIN, CHONG ZHANG, YUAN LU, QIHENG LAI, TAO SU, HAO WU, HAO JIANG, HONGXIN ZHAO, FENGXIANG LV, PEIXIA JIANG
<b>Room 3</b>	<b>S27</b>	<b>Slag and ceramics</b>
<b>Chairs:</b>		<b>Ole Hjelmar and Idzumi Okajima</b>
11:05-11:25	108-C	EVALUATION OF POLLUTANT POTENTIAL RELEASE FROM A BOF STEEL SLAG USED IN A CIVIL ENGINEERING SCENARIO  M. LEGRET, A. BÉNARD, D. DENELEE, P. CHAURAND, J. DOMAS, J. ROSE
11:25-11:45	157-C	MODELING OF TECHNOLOGIES AND ENVIRONMENTAL PROPERTIES OF CERAMIC PRODUCTS FROM FERRIC SLAG/MOULDING SAND MIXTURES N. QUIJORNA, B. GALAN, A. COZ, A. ANDRÉS
11:45-12:05	238-C	PREPARATION AND PROPERTIES OF WOOD-CERAMICS MODIFIED BY EH-LIGNIN ZHAO XIAOXIAO, CHENG XIAN SU
<b>Room 4</b>	<b>S28</b>	<b>CO2 Issues</b>
<b>Chairs:</b>		<b>Thomas Christiansen and Masaaki Yamabe</b>
11:05-11:25	80-F	CO2-BALANCE OF SYSTEMS FOR SEPARATE COLLECTION OF RECYCLABLES MARTIN KRANERT, DETLEF CLAÜß, MIHAELA BERECHET, NICOLAS ESCALANTE

11:25-11:45	26-B	TO A CO2 NEUTRAL INDUSTRIAL PARK: CASE STUDY C. BLOCK, B. VAN PRAET, T. WINDELS, I. VERMEULEN, G. DANGREAU, A. OVERMEIRE, E. D'HOOGHE, T. MAES, G. VAN EETVELDE, C. VANDECASTEELE
11:45-12:05	138-E	CARBONATION OF STAINLESS STEEL SLAG AS A PROCESS FOR CO2 STORAGE AND SLAG VALORISATION R. BACIOCCHI, G. COSTA, A. POLETTINI, R. POMI

Lunch

### Room 1

#### Chairs:

**Huizhou Liu and Ange Nzihou**

13:10-13:50

Plenary Lecture 4: Resource Utilisation of Heavy Metal Containing Industrial Wastes  
Prof Yi Zhang, IPE CHINA

### Room 1

**S29**

**Water assisted conversion**

#### Chairs:

**Luca Fiori and Yong Chi**

13:55-14:15

167-B

UTILIZATION OF BIOMASS FOR FUEL AND ENERGY PRODUCTIONS WITH SUBCRITICAL WATER  
T. SAKO, I. OKAJIMA

14:15-14:35

226-B

LIGNOCELLULOSIC COMPOUNDS DECOMPOSITION IN SUBCRITICAL AND SUPERCRITICAL WATER  
J. BARBIER, N. CHARON, N. DUPASSIEUX, A. LOPPINET-SERANI, M. COURTIADÉ, A. DUCROZET, A. FONVERNE, J. PONTIUS, F. CANSELL

14:35-14:55

191-B

SUPERCRITICAL WATER GASIFICATION OF GLUCOSE AND PHENOL SOLUTIONS  
E. WEISS-HORTALA, A. KRUSE, C. CECCARELLI, Q. WU, R. BARNA

14:55-15:15

153-A

HYDROTHERMAL OXIDATION KINETICS OF ETHANOL IN HOT COMPRESSED WATER  
K. KOIDO, K. KUMABE, K. MATSUMOTO, T. HASEGAWA

### Room 2

**S30**

**Biodiesel, Bioethanol and Bio-oil**

#### Chairs:

**Gerasimos Lyberatos and Bernardo Ruggeri**

13:55-14:15

67-C

BIODIESEL MANUFACTURING PLANT IN LANZAROTE (CANARY ISLANDS)

MARCIAL BETANCORT ÁLVAREZ, OVIDIO PÉREZ BÁEZ, JUAN PEÑA QUINTANA, LING LING

14:15-14:35

117-B

CONVERSION OF USED COOKING OIL TO BIOFUEL USING SOLID ACID CATALYST WITH MULTI-POROUS SYSTEM  
LE THI HOAI NAM, NGUYEN THI THANH LOAN, TRAN QUANG VINH, LE THI KIM LAN, LE QUANG DU, BAO LIAN-SU

14:35-14:55

225-B

UTILIZATION OF JAVA KAPOK (CEIBA PENTANDRA) BY OIL TRANSESTERIFICATION TO PRODUCE BIODIESEL  
HARY SULISTYO, AKHMAD KURNIAWAN, NUR EKO SUSILO

14:55-15:15

222-B

BIOLOGICAL PRETREATMENT AND ETHANOL PRODUCTION FROM OLIVE CAKE  
E. JURADO, H.N. GAVALA, G.N. BAROI, I.V. SKIADAS

### Room 3

**S31**

**Heavy metals and organic pollutants**

#### Chairs:

**Qiyu Zhou and Jay Meegoda**

13:55-14:15

31-E

GREENHOUSE GAS CATALYTIC REFORMING FOR LANDFILL GAS TO ENERGY TECHNOLOGIES  
MARCO J. CASTALDI

14:15-14:35	111-C	HEAVY METAL RETENTION DURING LOW TEMPERATURE PYROLYSIS OF CHROMATED COPPER ARSENATE (CCA) TREATED WOOD WASTE: COMPARISON BETWEEN MODEL COMPOUNDS AND REAL CCA TREATED WOOD PYROLYSIS F. CUYPERS, L. HELSEN
14:35-14:55	53-E	POPS MASS BALANCE IN A REAL SCALE FLUIDIZED BED COMBUSTOR CO-INCINERATING ASR J. VAN CANEGHEM, C. BLOCK, G. WAUTERS, A. VAN BRECHT, C. VANDECASTEELE
14:55-15:15	113-E	THE INFLUENCE OF THE ORGANIC COMPOUND CONCENTRATION ON THE BIODEGRADATION PROCESS OF AMINOPOLYCARBOXYLATES USED IN THE LIQUID FERTILIZERS PRODUCTION M. BOROWIEC, M. HUCULAK, J. SKUT, K. HOFFMANN, J. HOFFMANN

<b>Room 4</b>	<b>S32</b>	<b>Risk and Impact Assessment</b>
<b>Chairs:</b>		<b>Pastora Bello Bugallo and Martin Kranert</b>
13:55-14:15	143-E	INVENTORY AND RISK ASSESSMENT OF METAL CONTENT IN ORGANIC WASTE FOR A SAFE VALORIZATION IN AGRICULTURE C. LOPES, M. HERVA, A. FRANCO URÍA, E. ROCA
14:15-14:35	144-E	A COMPLEMENTARY RISK STUDY IN A CATTLE MANURE APPLICATION SCENARIO BY AN ENVIRONMENTAL RISK ASSESSMENT MULTICOMPARTMENT MODEL AND THE NEMERO SYNTHESIS INDEX C. LOPES, M. HERVA, A. FRANCO, E. ROCA
14:35-14:55	232-E	TESTING AND EVALUATION OF THE ENVIRONMENTAL PERFORMANCE OF WASTE MATERIALS IN EUROPE O. HJELMAR, H.A. VAN DER SLOOT
14:55-15:15	205-F	"OLD" AND "NEW" CONSTRUCTION REST AND WASTE APPROACH DAVORIN KRALJ

15:20-16:05 Round table and break

<b>Room 1</b>	<b>S33</b>	<b>Solar panels, optical waste &amp; spent catalyst</b>
<b>Chairs:</b>		<b>Fumio Saito and Markus Reuter</b>
16:10-16:30	294-C	METALLURGICAL RECYCLING OF SILICON KERF FROM WAFER SAWING SLURRY Y. XIAO, M.C.R. MAMBOTE, Y. YANG, A. DE BRUIJN
16:30-16:50	180-C	THE EFFECTS OF TRACE ELEMENT DOPING ON THE OPTICAL PROPERTIES AND PHOTOCATALYTIC ACTIVITY OF TITANIUM DIOXIDE B. GRZMIL, M. GLEN, B. KIC, K. LUBKOWSKI
16:50-17:10	134-C	NO AND C OXIDATION WITH PT RECOVERED FROM SPENT CATALYTIC CONVERTERS J.C. CAROCA, J.P. CICORIA, D. FINO, P. PALMISANO, N. RUSSO
17:10-17:30	217-C	MECHANOCHEMICAL PROCESS FOR RECOVERING INDIUM FROM FLAT PANEL DISPLAYS JUNYA KANO, FUMIO SAITO

<b>Room 2</b>	<b>S34</b>	<b>Thermal and physicochemical H2 production</b>
<b>Chairs:</b>		<b>Radu Barna and Ionnis Skiadas</b>
16:10-16:30	175-B	DISCARDED BIOMASS AND AGRICULTURE ROLE PERSPECTIVES IN THE HYDROGEN SECTOR M. RAGAZZI, E.C. RADA, M. VENTURI
16:30-16:50	216-B	HYDROGEN GENERATION FROM CELLULOSE AND POLYMERS THROUGH MECHANOCHEMICAL ROUTE

16:50-17:10	312-B	QIWU ZHANG, JUNYA KANO, FUMIO SAITO CONVERSION OF PROTEIN- AND FAT-CONTAINING WET BIOMASS WITH HOT COMPRESSED WATER Y.J. TIAN, K. KUMABE, K. MATSUMOTO, Y.S. XIE, T. HASEGAWA
17:10-17:30	91-C	FROM GRAPE MARC TO GRAPE SEED OIL BY SUPERCRITICAL TECHNOLOGY: A FEASIBILITY STUDY L. FIORI

End of Technical Programme

19:30 GALA DINNER (19:30 Shuttle Bus)

## Wednesday 19th May

8:00 Registration follows

### Room 1

#### Chairs:

**Ange Nzihou and Huizhou Liu**

08:30-09:10

Plenary Lecture 5: Life cycle assessment and waste management lessons for industry and policy makers  
Prof Goran Finnveden, Royal Institute of Technology, Sweden

### Room 1

**S35**

#### Adsorbent from waste

#### Chairs:

**Patrick Sharrock and Javier Escudero**

09:15-09:35

34-C

ADSORPTION OF NAPHTHALENE FROM AQUEOUS SOLUTION ON ACTIVATED CARBONS OBTAINED FROM BEAN PODS

EKREM EKINCI, TEMENUZHKA BUDINOVA, BOYKO TSYNTSARSKI, BILYANA PETROVA, NARTZISLAV PETROV, HUSNU ATAKUL

09:35-09:55

20-D

ADSORPTIVE REMOVAL OF ANTIMONY FROM WASTE WATER BY USING METAL-LOADED SORBENT PREPARED FROM ORANGE WASTE

KATSUTOSHI INOUE, JUN-ICHI INOUE, BIBLOB KUMAR BISWAS, HIDETAKA KAWAKITA, KEISUKE OHTO, HIROYUKI HARADA

09:55-10:15

101-C

DEVELOPMENT OF NOVEL COMPOSITE ADSORBENTS FOR IMPROVING BUTANE ADSORPTION PERFORMANCE

H. HUANG, F. WATANABE, N. KOBAYASHI, M. HASATANI, K. KITAGAWA

10:15-10:35

133-C

BIOCHAR AS A SOIL FERTILIZER AND FOR CARBON SEQUESTRATION

W. KWAPINSKI, C. BYRNE, E. KRYSHKO, P. WOLFRAM, C. ADLEY, J.J. LEAHY, M.H.B. HAYES

### Room 2

**S36**

#### Rubber and Tyre valorisation

#### Chairs:

**Jurgen Antrekowitsch and Jean-Michel Commandré**

09:15-09:35

171-C

USE OF SOLID WASTE FROM 3 TYPES OF RUBBER INDUSTRIES FOR COMPOSTING

P. CHEVAKIDAKARN, P. SRIDANG, S. DANTERAVANICH, C. SIRIWONG, P. KLAYTHONG, S. TINGSA

09:35-09:55

314-C

PREPARATION AND CHARACTERIZATION OF MESOPOROUS ACTIVATED CARBONS FROM WASTE TYRE

X. SONG, H.L. LUO, F.L. NEO, K. WANG

09:55-10:15

22-C

KINETIC MODELING OF THE POLYCHLOROPRENE PYROLYSIS UNDER NITROGEN ATMOSPHERE

CRISTINA SERBANESCU, YANNICK SOUDAIS, FLORENT LEMONT, J.-C. POUSSIN, GHEORGHE SOARE, GRIGORE BOZGA

10:15-10:35

63-C

INTENSIFICATION OF RUBBER CHEMICAL CROSS-LINK AND REINFORCEMENT BY THE MODIFIED PYROLYTIC CARBON BLACK FROM SCRAP TIRES

ZHOU JIE, ZHANG ZHI-XIAO, YANG YONG-RONG

### Room 3

**S37**

#### Waste Management I

#### Chairs:

**Enrique Roca and Kralj Davorin**

09:15-09:35

186-F

BAT INVENTORY FOR WASTE TREATMENT INDUSTRIES

P.M. BELLO BUGALLO, L. CRISTÓBAL ANDRADE

09:35-09:55	147-F	ANALYSIS OF SNG-PRODUCTION AS WELL AS OPTIMAL PLANT SIZES AND LOCATIONS FROM AN ENVIRONMENTAL PERSPECTIVE FOR THE CASE OF SWITZERLAND B. STEUBING, J. REINHARD
09:55-10:15	195-F	CONSTRUCTION WASTES FROM THE TEMPORARY RESIDENTIAL AREA OF TSUNAMI SURVIVORS: A CASE OF PRU TIOW VILLAGE, PHANG NGA PROVINCE, THAILAND S. DANTERAVANICH, A. CHAITAWEEWONG, S. CHAIPRAPAT
10:15-10:35	250-F	SOLID WASTE AND ECOLOGICAL ISSUES OF COAL TO ENERGY JAY N. MEEGODA, GAO SHENG-YAN, N.M.A. AL-JOULANI, LIMING HU

<b>Room 4</b>	<b>S38</b>	<b>Organic Waste</b>
<b>Chairs:</b>		<b>Hoai Nam Le Thi and Takeshi Sako</b>
09:15-09:35	43-C	A REVIEW: VALORIZATION OF KERATINOUS MATERIALS K. CHOJNACKA, H. GÓRECKA, H. GÓRECKI
09:35-09:55	97-C	PRODUCTION OF POLY HYDROXY ALKANOATE BIOPOLYESTERS FROM GLYCEROL H. T. WATTANAPHON, N. PISUTPAISAL
09:55-10:15	112-C	ON-SITE TREATMENT OF URBAN ORGANIC WASTE USING HOME COMPOSTING BINS B.K. ADHIKARI, A. TRÉMIER, J. MARTINEZ, S. BARRINGTON
10:15-10:35	75-A	EXPLOITATION OF GRAPE MARC AS A SOURCE OF ENERGY AND BY-PRODUCTS: A PRELIMINARY FEASIBILITY STUDY  L. FIORI, G. CROSARIOL, L. FLORIO, B. BOSIO

Break

<b>Room 1</b>	<b>S39</b>	<b>Biomethane</b>
<b>Chairs:</b>		<b>Hélène Carrere and Henryk Gorecki</b>
10:50-11:10	118-B	DEVELOPMENT OF BIOGAS PLANTS IN LATIN AMERICA AND AFRICA JINGJING HUANG, KLAUS FISCHER
11:10-11:30	155-B	BIOGAS PRODUCTION FROM AUTOCLAVED AND ROTARY DRUM REACTOR-TREATED MUNICIPAL SOLID WASTES P. GIKAS, H. EL MASHAD, R. ZHANG
11:30-11:50	73-B	METHANE PRODUCTION VIA ANAEROBIC DIGESTION OF GLYCEROL T. VLASSIS, K. STAMATELATOU, G. ANTONOPOULOU, K. MARAZIOTI, G. LYBERATOS
11:50-12:10	23-B	ANAEROBIC DIGESTION OF BY-PRODUCTS FROM PRODUCTION AND REFINING OF VEGETABLE OILS FOR ON-SITE ENERGY PRODUCTION M. TORRIJOS, P. SOUSBIE, L. BADEY, F. BOSQUE, J.P. STEYER
<b>Room 2</b>	<b>S40</b>	<b>Life cycle thinking</b>
<b>Chair:</b>		<b>Goran Finnveden and Fernando Preto</b>
10:50-11:10	49-F	VALORISATION OF PACKAGING WASTE MATERIAL – THE CASE OF POLAND JOANNA KULCZYCKA, ZYGMUNT KOWALSKI
11:10-11:30	35-F	ENVIRONMENTAL SUSTAINABILITY EVALUATION OF FOUNDRY SAND WASTES USING LIFE CYCLE THINKING R. ALDACO, M. MARGALLO, A. IRABIEN

11:30-11:50	304-D	LIFE CYCLE ASSESSMENT TO DESIGN FRY-DRYING PROCESS OF INDUSTRIAL BIOMASS M.H. ROMDHANA, G. BUSSET, Y. APPIN, M. MONTRÉJAUD-VIGNOLES, D. LECOMTE, V. SIMON, C. SABLAYROLLES
11:50-12:10	211-F	LIFE CYCLE ASSESSMENT OF SEWAGE SLUDGE INCINERATION : ENVIRONMENTAL AND ECONOMIC ANALYSIS JINGMIN HONG, ZAINAB Z. ISMAIL, JINGLAN HONG
<b>Room 3</b>	<b>S41</b>	<b>Waste Management II</b>
<b>Chairs:</b>		<b>Chantal Block and Jannie van Deventer</b>
10:50-11:10	15-G	GLOBAL WARMING FACTORS MODELED FOR 40 GENERIC MUNICIPAL WASTE MANAGEMENT SCENARIOS THOMAS H. CHRISTENSEN, FEDERICO SIMION, DAVIDE TONINI, JACOB MØLLER
11:10-11:30	159-G	INDICATORS FOR VALORISATION OF MUNICIPAL SOLID WASTE AND SPECIAL WASTE E. CIFRIAN, A. COZ, J.R. VIGURI, A. ANDRÉS
11:30-11:50	247-E	UNCERTAINTY IN GREENHOUSE GAS ACCOUNTING IN SOLID WASTE MANAGEMENT THOMAS H. CHRISTENSEN
11:50-12:10	145-D	VALIDATION OF A SIMPLIFIED ADM1 MODEL FOR ANAEROBIC WASTEWATER TREATMENT PLANTS C. GARCÍA DIÉGUEZ, O. BERNARD, E. ROCA
<b>Room 4</b>	<b>S42</b>	<b>Production of enzymes &amp; anti oxydants</b>
<b>Chairs:</b>		<b>Chen Guo and Xin-Hui Xing</b>
10:50-11:10	215-C	PRODUCTION OF ENZYMES OF BIOTECHNOLOGICAL/ENVIRONMENTAL INTEREST FROM BANANA PEEL C. PALMA, M.J. MARTÍNEZ, I.E. GROSSMANN, M. DOMACH
11:10-11:30	236-C	RESEARCH ON CONDENSATION OF ENZYMATIC HYDROLYSIS LIGNIN AND DIMER ACID LIN WUSHI, CHENG XIANSU
11:30-11:50	140-C	HIGH ADDED-VALUE COMPOUNDS WITH ANTIOXIDANT AND ANTIBACTERIAL PROPERTIES FROM GINJA CHERRIES AND THEIR BY-PRODUCTS S. DEMIRAY, C. PICCIRILLO, A.R. FRANCO, P.M.L. CASTRO, M.E. PINTADO
11:50-12:10	296-C	IMPROVED PRODUCTION OF SUCCINIC ACID FROM COTTON STALK WASTE HYDROLYSATE BY ACTINOBACILLUS SUCCINOGENES Q. LI, Y.J. ZHANG, D. WANG, W.L. LI, J.M. XING, Z.G. SU
<b>Room 1</b>		
<b>Chairs:</b>		<b>Ange Nzihou and Huizhou Liu</b>
12:15-12:55		Plenary Lecture 6: Research and Educational Requirements for Sustainable Waste Management Systems Prof Hilary INYANG, African University of Science and Technology, Nigeria
12:55		End of Technical Programme
12:55-13:15		Closing Ceremony
<b>Chairs:</b>		<b>Ange Nzihou and Huizhou Liu</b>
		Lunch

## Posters sessions - Displayed from Monday 17th to Wednesday 19th May

- 6-C POLLUTION PREVENTION APPLICATIONS IN TURKISH TANNERIES  
FIGEN NAYAL, NILGUN CILIZ, EKREM EKINCI, BASAK BUYUKBAY, AYDIN MAMMADOV, AHMET BABAN, TAMER ATABARUT
- 10-C CHARCOAL FROM BIOMASS – A SUSTAINABLE REDUCTANT  
T. GRIESSACHER, J. ANTREKOWITSCH
- 24-C SELECTIVE RECOVERY OF PRECIOUS METALS BY SELECTIVE ADSORPTION ON DIMETHYLAMINE-MODIFIED PERSIMMON PEEL  
YING XIONG, CHAITANYA RAJ ADHIKARI, HIDETAKA KAWAKITA, KEISUKE OHTO, HIROYUKI HARADA, KATSUTOSHI INOUE
- 30-B SOLID CARBON (BIOMASS AND MSW) TO FUELS USING CO<sub>2</sub>  
MARCO J. CASTALDI
- 46-A THE ENERGY EFFICIENCY INCREASE OF FLUO-SOLID REACTOR USING THE WASTE (SECONDARY) HEAT ENERGY OF ROASTING PROCESS  
MILORAD CIRKOVIC, MILANCE MITOVSKI, VLASTIMIR TRUJIC, ALEKSANDRA MITOVSKI
- 55-D PREPARATION OF SILICA GEL GRAFTING BISQUARTERNARY PHOSPHONIUM AND ITS ANTIBACTERIAL ACTIVITIES STUDIES  
FU SHI-HAI, ZHANG FAN, JING DONG, LU XIAO-PING, HAN PING-FANG
- 57-A HOUSEHOLD AND GARDEN WASTE IN THE CITY OF HAMBURG – THEIR ENERGETIC POTENTIAL AND INTEGRATION POSSIBILITIES INTO A BIOREFINERY APPROACH  
I. KÖRNER, S. OLDENBURG, H. ADWIRAAH, S. LÜBBEN, B. SAAKE
- 60-B RESEARCH ON MSW GASIFICATION WITH FLUE GAS AS GASIFYING MEDIUM  
JIN YU-QI, MARCO J. CASTALDI
- 61-E SELECTIVE RECOVERY OF HEAVY METALS FROM THE LEACH LIQUOR OF MUNICIPAL WASTE INCINERATION FLY ASH  
K. HUANG, K. INOUE, H. HARADA, H. KAWAKITA, K. OHTO
- 65-B CARBON-SUPPORTED TUNGSTEN AND NICKEL CATALYSTS FOR PHENOL HYDRODEOXYGENATION  
S. ECHEANDIA, D. HERRERO, A. IRIONDO, V.L. BARRIO, P.L. ARIAS, B. PAWELEC, J.L.G. FIERRO
- 66-C RECYCLED MATERIAL FROM THE VITRIFICATION OF ASBESTOS-CONTAINING-WASTES TO BE USED AS HIGH TEMPERATURE THERMAL STORAGE MATERIAL  
X. PY, N. CALVET, R. OLIVES, P. ECHEGUT, C. BESSADA, F. JAY
- 68-C MSWI BOTTOM ASH COMMERCIAL POSSIBILITIES IN AN AREA WITH IMPORTANT NATURAL AGGREGATE RESOURCES  
J.M.L. VILARIÑO, E. PIÑON
- 72-F THE USE OF SEMI-MECHANIZED LANDFILLS FOR SMALL TO MEDIUM-SIZED CITIES IN DEVELOPING COUNTRIES  
STEWART M. OAKLEY
- 74-B HYDROGEN PRODUCTION FROM CHICKEN DUNG BY USING HYDROTHERMAL REACTION  
S.Y. BIRCAN, Y. HASEGAWA, K. MATSUMOTO, K. KITAGAWA
- 76-C POTENTIAL OF HYDROGEN AS ALTERNATIVE REDUCING AGENT IN METALLURGICAL PROCESSES  
J. ANTREKOWITSCH, S. STEINLECHNER
- 81-C ASSESSMENT OF THE RESOURCE POTENTIAL IN WASTE – A CASE STUDY  
N. AHMED, H. WENZEL, O. HJELMAR, J.B. HANSEN
- 82-B FROM BIOALCOHOLS (ETHANOL AND N-BUTANOL) TO OXIGENATED DIESEL ADDITIVES: 1,1 DIETHOXY BUTANE  
I. AGIRRE, A. IRIONDO, J. REQUIES, V.L. BARRIO, B. GÜEMEZ, J.F. CAMBRA, A. LOPEZ, P.L. ARIAS
- 85-E EXPERIMENTAL GAS EMISSIONS EVALUATION AND ENERGY BALANCE ASSESSMENT OF A GASIFYING WOOD STOVE  
M. BARATIERI, M. GRIGIANTE, E. PIERATTI, D. ANTOLINI, P. BAGGIO
- 86-C PYROLYSIS ANALYSIS AND SOLID RESIDUE STABILIZATION OF POLYMERS, WASTE TYRES AND SEWAGE SLUDGE  
M. GRIGIANTE, M. ISCHIA, M. BARATIERI, R. DAL MASCHIO, M. RAGAZZI

## Posters sessions - Displayed from Monday 17th to Wednesday 19th May

- 93-D STUDIES ON TRANSPORT OF VANADIUM (V) AND NICKEL (II) FROM WASTEWATERS USING ACTIVATED COMPOSITE MEMBRANES  
L. MELITA, F. GUMRAH
- 98-D THERMAL HYDROLYSIS PRE-TREATMENT TO DEWATER ABILITY OF MECHANICAL DEWATERED SLUDGE  
HONGLEI MA, HAOHUI XIE , YONG CHI, JIANHUA YAN, MINGJAIN NI
- 99-E REDUCTION OF HETEROATOMS IN GAS PHASE GENERATED THROUGH HYDROTHERMAL REACTION OF L-CYSTEINE AS BIOMASS MODEL  
M.F. ALIF, K. KITAGAWA, K. MATSUMOTO, S. MORITA
- 100-B DETERMINATION OF REACTION KINETIC PARAMETER OF EFFECTIVE MICROORGANISM IN BIOGAS PRODUCTION FROM TAPIOCA SOLID WASTE  
S.R. JULIASTUTI, G.A MERTAHARDIANTI
- 103-D REMOVAL OF CR(VI), CU, NI, PB AND ZN FROM WASTEWATER BY THE DIFFERENT GRAIN FRACTIONS OF THE HELLENIC FLY ASHES  
G. ITSKOS, N. KOUKOUZAS, S. ITSKOS, CH. VASILATOS, I. MEGREMI, A. MOUTSATSOU
- 109-C MINERAL-ORGANIC FERTILIZERS PRODUCED ONLY FROM WASTES  
H. GÓRECKA, H. GÓRECKI, H. SZTUDER, S. STRACZYNSKI, K. CHOJNACKA, M. ARTMANSKA, M. BARANSKA, Z. DOBRZANSKI
- 119-C EFFECT OF FACTORS ON THE ADSORPTION PROCESS TO PRODUCE ABSOLUTE ALCOHOL  
LE THI HOAI NAM, TRAN QUANG VINH, NGUYEN THI THANH LOAN, VAN DINH SON THO, LE THI KIM LAN, LE QUANG DU, NGUYEN THE ANH
- 130-B BIOH2POWER: FROM WASTE TO RENEWABLE GASEOUS FUELS FOR CURRENT AND FUTURE VEHICLES  
S. BENSALD, N. RUSSO, D. FINO
- 132-B UPGRADING OF PYROLYTIC-OIL  
W. KWAPINSKI, R. WNETRZAK, F. MELLIGAN, J.J. LEAHY, M.H.B. HAYES
- 154-F SUBSTANCE FLOW ANALYSIS OF COBALT IN CHINA  
X.Y. GUO, C.M. XIAO, J.Y. ZHONG, Q.H. TIAN
- 156-C OPTIMIZATION OF TECHNOLOGICAL AND ENVIRONMENTAL PROPERTIES OF CERAMIC PRODUCTS FROM FERRIC SLAG/MOLDING SANDS MIXTURES  
N. QUIJORNA, B. GALAN, A. COZ, A. ANDRÉS
- 160-G ASSESSMENT OF CONSTRUCTION AND DEMOLITION WASTE GENERATION USING DIFFERENT RATIOS OF WASTE PER UNIT AREA OF CONSTRUCTION  
M.L. CORONADO, A. ANDRÉS, J.R. VIGURI, A. COZ
- 161-C NEW DRILLING FLUID ADDITIVES FROM PHARMACEUTICAL WASTE  
M. KHODJA, J.P. CANSELIER, J. DUPLAY, M. KHODJA-SABER, Z. KESSAÏSSIA
- 173-C PRODUCTION OF POLY-HYDROXYALKANOATES (PHAS) FROM THREE PHASE OLIVE OIL MILL WASTEWATER AT A TWO SCAGE SEMI-PILOT SCALE SYSTEM  
I. NTAIKOU, C.V. PERONI , C. KOURMENTZA, M. STOLLER, V.I ILIEVA, A. CHIANESE, E. CHIELLINI, G. LYBERATOS
- 174-G APPLICATION OF MULTICRITERIA DECISION AID METHODS FOR THE SELECTION OF MUNICIPAL SOLID WASTE TREATMENT OPTIONS  
M. HERVA, R. HERNANDO, E. F. CARRASCO, E. ROCA
- 177-C VALORISATION OF BRITTANY MARINE DREDGED SEDIMENTS AS MATERIALS OF CONSTRUCTION  
TUAN ANH DANG, SIHAM KAMALI-BERNARD, WILLIAM PRINCE
- 179-C THE EFFECT OF TRACE ELEMENT DOPING ON THE TITANIUM DIOXIDE PHASE TRANSFORMATION  
B. GRZMIL, M. GLEN, B. KIC, K. LUBKOWSKI
- 188-B SUPERCRITICAL WATER GASIFICATION OF GLUCOSE IN BATCH REACTOR  
Q. WU, E. WEISS-HORTALA, R. BARNA
- 192-E DUST FROM THE MEDIUM DENSITY FIBREBOARD (MDF) MANUFACTURING  
P. CHEVAKIDAGARN, S. DANTERAVANICH, J. PETCHRUANG, V. SENGYONG, P. SRIDANG, C. SIRIWONG

## Posters sessions - Displayed from Monday 17th to Wednesday 19th May

- 194-B VALORIZATION OF SEWAGE SLUDGE AND AGRICULTURAL WASTE INTO FUEL  
M. WZOREK
- 198-C RECYCLING OF GALLIUM FROM INDUSTRIAL WASTES USING A SIMPLE SOLVENT  
EXTRACTION METHOD  
ASGHAR KARAMI
- 204-C PREPARATION OF CA-P ZEOLITE FROM PAPER SLUDGE ASH VIA ACID LEACHING FOR  
SIMLTANEOUS REMOVAL OF NH<sub>4</sub><sup>+</sup> AND PO<sub>4</sub><sup>3-</sup>  
T. WAJIMA, K. MUNAKATA
- 208-C EVALUATION OF BIOCHEMICAL METHANE POTENTIAL (BMP) OF VARIOUS ENERGY CROPS  
A. KACPRZAK, L. KRZYTEK, S. LEDAKOWICZ, J. KSIEZAK
- 209-B RECOVERY AND BIOLOGICAL UTILIZATION OF ORGANIC WASTES FROM LANDFILLS  
  
S. LEDAKOWICZ, L. KRZYTEK, E. STELMACH, A. ZAWADZKA, J. STELMACH, H.-J. KAHLE
- 212-F UNCERTAINTY PROPAGATION IN LIFE CYCLE INVENTORY AND IMPACT ASSESSMENT:  
APPLICATION TO WATER DISINFECTION  
JINGLAN HONG, OLIVIER JOLLIET
- 224-B COST-EFFECTIVE PRODUCTION OF BIOGAS FROM MANURE – RETROGAS PROJECT  
ESPERANZA JURADO, HARIKLIA N. GAVALA, LARS ROHOLD, IOANNIS V. SKIADAS
- 228-C LABORATORY ANALYSIS OF HYDRAULICALLY BOUND MIXTURES FOR ROAD PAVEMENTS  
MADE WITH WASTE FOUNDRY SAND AND STEEL SLAGS  
M. PASETTO, N. BALDO
- 233-B BIOGAS PRODUCTION FROM CLOVER-GRASS  
H. BANGSØ NIELSEN, J. EJBYE SCHMIDT
- 235-C PREPARATION OF LIGNIN MODIFIED HIGH WEARABLE PHENOLIC RESIN  
ZHU ZHEN, CHENG XIANSU
- 237-C PROPERTIES OF EH-LIGNOSULFONATE ACETONE-FORMALDEHYDE (LSAF) AS DISPERSANT  
OF COAL WATER SLURRY  
QIU FANGMEI, CHENG XIANSU
- 239-B BIO-OIL PRODUCTION VIA FAST PYROLYSIS: PRODUCT YIELDS AND COMPOSITION  
FUNDA ATE, SIBEL TOPHANECIOGLU, AYSE EREN PÜTÜN
- 242-B NEW NICKEL BASED MATERIAL (CAXM12-XAL14O33) FOR BIOMASS TAR STEAM  
REFORMING PRODUCING SYNGAS  
CHUNSHAN LI, DAISUKE HIRABAYASHI, KENZI SUZUKI
- 243-E APATITE LIKE PERMEABLE REACTIVE BARRIERS FOR BROWNFIELD REHABILITATION  
MOHAMED RAI, COSMINA MILITARU, F. JAVIER ESCUDERO SANZ, ANGE NZIHO, PATRICK  
SHARROCK
- 257-D ANTIOXIDANT EFFECT OF PHENOLIC COMPOUNDS RECOVERED FROM OLIVE MILL  
WASTEWATER OF 'CHEMLAL' VARIETY CULTIVED IN KABYLIA (ALGERIA) ON THE  
OXIDATIVE STABILITY OF VIRGIN OLIVE OIL  
RAMDANE MOUSSAOUI, DAOUIA SI ZIANI, AHCÈNE YOUYOU, PATRICK SHARROCK, MARINA  
M.L.FIALLO
- 263-B EFFECT OF PRETREATMENT BY CATALYTIC WET AIR OXIDATION ON THE PRODUCTION OF  
METHANE BY ANAEROBIC DIGESTION FROM OLIVE MILL WASTEWATERS  
D. PHAM MINH, P. GALLEZOT, M. BESSON, S. AZABOU, S. SAYADI
- 264-C PRODUCTION OF CASCADE RECYCLE BOARD FROM USED PLASTICS AND PAPERS  
H. ITOH
- 269-B AMMONIA INHIBITION ON MESOPHILIC ANAEROBIC DIGESTION OF LINCOMYCIN  
BIOWASTE  
D. WU, P.J. HE, F. LÜ, L.M. SHAO
- 270-B CHARACTERISTIC OF LEACHATE IN AEROBIC LANDFILL BIOREACTOR  
YUWEI XUE, JIANGUO LIU, DONGBEI YUE, YUANYUAN ZHANG, RUI LI, YONGFENG NIE
- 276-B EFFECTS OF AERATION AND AGED REFUSE ON LANDFILL REHABILITATION – LABORATORY-  
SCALE STUDY  
RUI LI, JIANGUO LIU, YUWEI XUE, DONGBEI YUE, YUANYUAN ZHANG, YONGFENG NIE

## Posters sessions - Displayed from Monday 17th to Wednesday 19th May

- 283-B INFLUENCE OF LEACHATE RECIRCULATED TO MICROORGANISM COMMUNITIES COMPOSITION IN ANAEROBIC MSW BIOREACTORS  
XIAOCHONG SHI, JIANGUO LIU, DONGBEI YUE, YUANYUAN ZHANG, RUI LI, YONGFENG NIE
- 286-C DE-SODIUM FROM EXTRACTED VANADIUM TAILINGS USING HYDROTHERMAL TREATMENT  
BIAO LIU, HAO DU, SHILI ZHENG, SHAONA WANG, YI ZHANG
- 287-C RECOVERY OF AL AND NA FROM RED MUD BY HYDROTHERMAL PROCESS  
RAN ZHANG, SHILI ZHENG, SHUHUA MA, HAO DU, YI ZHANG
- 291-E RESEARCH PROGRESS OF GASEOUS POLLUTANTS EMISSION IN SINTERING FLUE GAS IN CHINA  
YE MENG, ZHU TINGYU, JING PENGFEI
- 297-E ULTRA-DEEP DESULFURIZATION ADSORBENTS FOR HYDROTREATED DIESEL WITH MAGNETIC MESOPOROUS ALUMINOSILICATES  
WANGLIANG LI , JIANMIN XING, HUIZHOU LIU
- 299-F INJECTION AND COMBUSTION OF RME WITH WATER EMULSIONS IN DIESEL ENGINE  
JERZY CISEK
- 303-F ANALYSIS OF POLYCYCLIC AROMATIC HYDROCARBONS EMISSION FROM LABORATORY SCALE INCINERATION OF BIOMASS  
M.H. ROMDHANA, L. MOREAU, C. SABLAYROLLES, M. MONTRÉJAUD-VIGNOLES, D. LECOMTE, V. SIMON
- 306-C TREATMENT OF WASTEWATER FROM PULPING INDUSTRY USING SOLID WASTES CONTAINING IRON OXIDE AS HETEROGENEOUS CATALYSTS  
DOAN PHAM MINH, THE HA CAO
- 311-F INVESTIGATION OF FUTURE PROSPECTS FOR PARTIALLY ACIDULATED PHOSPHATE ROCK FERTILIZERS IN THE AGROECOLOGICAL CONDITIONS OF CENTRAL EUROPE  
J. SKUT , K. HOFFMANN, J. HOFFMANN
- 313-B OLIVE MILL WASTE TREATMENT TO RECOVER VALUABLE ANTIOXIDANTS  
R. MOUSSAOUI, D. SI ZIANI, A. YOUYOU, M.L. FIALLO, S. GHANDOUR, R. SIPOS, V. BRUMAS