

Oral Programme HE10

Interactions between Clays and Inorganic and Organic Pollutants

Conveners: Antonio Violante, Siobhan Staunton

Sunday 14 June, 2009

Chairs: Sandro Froehner & Antonio Violante

- 11.00 – 11.30 HE10a.Sun.L1
M. Carmen Hermosín, Mohammed Lahlou, M. Real, José Julio Ortega-Calvo, Rafael Celis, J. Cornejo*
SORPTION OF PHENANTHRENE AND PYRENE ON SMECTITE AS AFFECTED BY THE PRESENCE OF IRON AND ITS IMPLICATIONS ON BIOAVAILABILITY
- 11.30 – 11.50 HE10a.Sun.L2
*Dorota Izdebska-Mucha, Jerzy Trzciński, Marek S. Zbik**
FORCE MEASUREMENTS ON CLEAN AND HYDROCARBON CONTAMINATED CLAYS
- 11.50 – 12.10 HE10a.Sun.L3
Sandrine Paumier, Nathalie Touze-Foltz, Laurent Mazeas*
DIFFUSION OF ORGANIC POLLUTANTS THROUGH GCLs
- 12.10 – 12.30 HE10a.Sun.L4
Antonio Aragon-Piña, Roberto Leyva-Ramos, Erika Padilla-Ortega, Araceli Jacobo-Azuara, Jovita Mendoza-Barron, Rosa María Guerrero-Coronado*
COMPETITIVE ADSORPTION OF CU(II) AND CR(III) ON BENTONITE
- 12.30 – 12.50 HE10a.Sun.L5
*S. Dib, F. Mohammed-Azizi, A. Khouider, M. Boufatit**
TREATMENT, CHARACTERIZATION AND Pb^{2+} , Cu^{2+} , Ni^{2+} AND Zn^{2+} ADSORPTION BEHAVIOUR OF CHEMICALLY TREATED BENTONITE CLAY: A COMPARATIVE STUDY

LUNCH 12.50-14.20

Sunday 14 June, 2009

Chairs: Antonio Violante

- 14.30 – 15.00 HE10b.Sun.L1
Sandro Froehner, Filipe Falcão, Karina Scurupa Machado, Marcello Rizzo Errera*
DEGRADATION OF ORGANOCHLORINE COMPOUNDS BY HYDROPHOBIC VERMICULITE AMENDED WITH ZERO IRON PARTICLES
- 15.00 – 15.20 HE10b.Sun.L2
Carmen Del Hoyo Martinez, Raquel Zapatera, Araceli Queiruga Dios, Vicente Sanchez Escribano*
CLAYEY MATERIALS AS ADSORBENTS FOR A SUSTAINABLE APPLICATION
- 15.20 – 15.40 HE10b.Sun.L3
Paola Di Leo, Valeria Ancona, Carlo Pastore, M.D. Rosa Pizzigallo*
MECHANOCHEMICAL INTERACTIONS OF CLAY MINERALS WITH ORGANIC POLLUTANTS: A SUITABLE APPROACH TO SOIL REMEDIATION
- 15.40 – 16.00 HE10b.Sun.L4
Daniela Plachá, Gražyna Simha Martynková*
PREPARATION OF ORGANOVERMICULITES AND THEIR CHARACTERIZATION FOR USAGE IN WASTE WATER AND AIR TREATMENT
- 16.00 – 16.20 HE10b. Sun.L5
*Carmen Trigo, Rafael Celis, Gracia Facenda, Maria Del Carmen Hermosín, Juan Cornejo**
ORGANOCLAY-BASED FORMULATIONS OF THE HERBICIDE TERBUTHYLAZINE TO REDUCE ITS LEACHING IN SOIL

COFFEE BREAK 16.20-16.40

Sunday 14 June, 2009

Chairs: Sandro Froehner & Antonio Violante

- 16.40 – 17.10 HE10c.Sun.L1
*Eric Breynaert, Dirk Dom, Jacqueline Vancluysen, Christophe Bruggeman, André Maes**
INTERACTION OF SE(VI) AND SE(IV) WITH ILLITE: EXPERIMENT AND MODELING

- 17.10 – 17.30 HE10c.Sun.L2
*Norbert Jordan**, *Vinzenz Brendler*
SELENIUM SPECIES RETENTION ONTO CLAY MINERALS
- 17.30 – 17.50 HE10c.Sun.L3
Jose Luis Marco Brown, *C. Martín Barbosa Lema*, *Rosa M. Torres Sánchez*, *María Dos Santos Afonso**
PICLORAM ADSORPTION ON PILLARED CLAY
- 17.50 – 18.10 HE10c.Sun.L4
*Xu Yiming**, *Xiong Zhigang*, *Sun Qiong*
MODIFICATION OF ORAGOCCLAY WITH A PHOTSENSITIZER OF METAL PHTHALOCYANINE FOR WATER TREATMENT

Poster Programme HE10

Posting Time: Saturday 13 June; **Removal:** Monday 15 June, 12.50-14.30;

Attendance Time: Sunday, 14 June, 18:30–20:00

Chairs: Sandro Froehner & Antonio Violante

- HE10.Sun.P1 *Aniela Pop**, *Florica Manea*, *Ciprian Radovan*, *Ilie Vlaicu*, *Georgeta Burtica*
IMPLICATIONS OF ZEOLITE IN THE ENHANCEMENT OF THE PERFORMANCES OF THE ELECTROCHEMICAL DETECTION OF ORGANICS FROM WATER
- HE10.Sun.P2 *Antonio Violante**, *Massimo Pigna*, *Vincenza Cozzolino*
MINERALOGY, SURFACE PROPERTIES AND REACTIVITY OF IRON(III)- AND ALUMINUM-ARSENATE COPRECIPITATES
- HE10.Sun.P3 *Felipe Bruna**, *Rafael Celis*, *Ivana Pavlovic*, *Cristobalina Barriga*, *Juan Cornejo*, *María-Ángeles Ulibarri*
STUDY OF KEY PARAMETERS AFFECTING SORPTION OF THE HERBICIDE LINURON BY ORGANOHYDROTALCITES
- HE10.Sun.P4 *Rosa M. Torres Sánchez**, *Maria Dos Santos Afonso*, *Simón Yunes*
INFLUENCE IN THE BENZIMIDAZOL ADSORPTION OF THE MONTMORILLONITE SURFACE CHANGE BY THERMAL AND MECHANICAL TREATMENT
- HE10.Sun.P5 *S. Dib*, *A. Khouider*, *M. Boufatit**
THE USE OF ALGERIAN CLAY MATERIALS FOR THE SIMULTANEOUS SORPTION OF HEAVY METALS FROM AQUEOUS SOLUTION: APPLICATION IN WASTEWATER TREATMENT
- HE10.Sun.P6 *Regis Guegan**, *Fabrice Muller*, *Jean-Michel Beny*, *Mikael Motelica-Heino*, *Alain Seron*
CONFINEMENT OF SURFACTANTS IN VARIOUS LAMELLAR POROUS MATERIALS
- HE10.Sun.P7 *Tiziana Missana*, *Ursula Alonso*, *Miguel García-Gutiérrez*, *Nairobi Albarran**, *Trinidad López*
EFFECT OF COMPETING IONS ON THE EUROPIUM ADSORPTION ONTO 2:1 CLAYS
- HE10.Sun.P8 *Ehsan Moradabadi**, *Hosein Ganjidoost*
MOBILIZATION AND SOLUBILIZATION EFFECTS OF BIOSURFACTANT PRODUCED IN BIODEGRADATION OF HYDROCARBON-CONTAMINATED CLAY
- HE10.Sun.P9 *Ludmila Petrova**
ROLE OF CLAYS IN FORMING OF METALS CONCENTRATIONS
- HE10.Sun.P10 *Ana I. Ruiz*, *Manuel Rodríguez Rastrero*, *Mercedes Regadío*, *Isabel De Soto*, *Nicanor Sánchez Jiménez*, *M. Teresa Sevilla*, *Jesus R. Procopio*, *M. Jesús Gismera*, *Pilar Da Silva*, *Santiago Leguey*, *Jaime Cuevas**
POLLUTION MIGRATION IN OLD URBAN LANDFILLS EMPLACED UPON CLAYS
- HE10.Sun.P11 *Halyna Zadvernyuk**, *Vadim Kadoshnikow*
NONPOLAR HYDROCARBON SORPTION BY CLAY MINERALS
- HE10.Sun.P12 *Bouzidi Abdelkader**, *Souahi Fatiha*, *Hanini Salah*
DETERMINATION OF SOIL-WATER DISTRIBUTION COEFFICIENT OF CESIUM 134 IN AIN OUSSERA SOIL USING BATCH METHOD
- HE10.Sun.P13 *Ararem Abderrahmane**, *Arbaoui Fahd*, *Bouras Omar*
CESIUM ADSORPTION STUDY ON IRON-PILLARED-LAYERED-MONTMORILLONITES (Fe-PILM'S)
- HE10.Sun.P14 *Jessica Bellanova**, *Saverio Fiore*
THE ROLE OF CLAY MINERALS IN THE HEAVY METAL SPECIATION: A LARGE SCALE LABORATORY EXPERIMENT
- HE10.Sun.P15 *Claudia Belviso*, *Francesco Cavalcante*, *Antonio Lettino*, *Luca Medici**, *Pietro Pasquale Ragone*, *Saverio Fiore*
CHEMICAL SPECIATION AND MINERAL PHASES IN SEDIMENTS OF THE BASENTO RIVER (BASILICATA, ITALY)
- HE10.Sun.P16 *Claudia Belviso**, *Francesco Cavalcante*, *Piero Ragone*, *Saverio Fiore*
IMMOBILIZATION OF EXVALENTE CHROMIUM OR ZINC BY ZEOLITE SYNTHETISED AT LOW TEMPERATURE IN POLLUTED SOIL
- HE10.Sun.P17 *Tarik Chafik*, *Sanae Hartj*, *Gustavo Cifredo*, *Jose Manuel Gatica*, *Hilario Vidal**
VOCs ADSORPTION ON EASILY EXTRUDABLE MOROCCAN CLAYS HONEYCOMB MONOLITHS
- HE10.Sun.P18 *Beatriz Gámiz**, *Rafael Celis*, *Maria Del Carmen Hermosín*, *Juan Cornejo*
SPERMINE-EXCHANGED MONTMORILLONITE AS SOIL AMENDMENT TO REDUCE THE LEACHING OF THE HERBICIDE FLUOMETURON

- HE10.Sun.P19 *Jamel Gharsalli*, Rim Rkik, Housseem Mzali, Hédi Zouari, Faiçal Turki, Fakher Jamoussi*
CLAYS OF THE SOUAR-FORMATION IN NORTHEASTERN TUNISIA: CHARACTERISATION, APPLICATION IN HEAVY METALS RETENTION, AND POTENTIAL USE AS A USED WATER REJECT SITE
- HE10.Sun.P20 *Denis I. Guerra*, Rúbia R. Viana, Claudio Airoldi, Rômulo S. Angélica*
INFLUENCE OF THE DIELECTRIC PROPERTIES OF MODIFIED KAOLINITE CLAY IN ADSORPTION MERCURY CATION - THERMODYNAMIC OF ADSORPTION
- HE10.Sun.P21 *Nordine Helassa, Sylvie Noinville, Philippe Dejardin, Jean-Marc Janot, Herve Quiquampoix, Siobhan Staunton**
CONSEQUENCES OF INTERACTION OF Bt (*Bacillus thuringiensis*) TOXIN WITH MINERAL SURFACES
- HE10.Sun.P22 *Rasool Jamshidi*, Zahra Afzali, Atefeh Ahmadi, Behroz Jamshidi*
REMOVAL OF THALLIUM FROM WASTE WATER SAMPLES BY USING NANOCCLAY AS NEW SORBENT
- HE10.Sun.P23 *Nezhat Jandaghi*, Moammad Ali Taher, Daryoush Afzali*
MODIFIED ORGANO NANOCCLAY AS A NEW AND FRIEND OF THE EARTH SORBENT FOR SEPARATION AND PRECONCENTRATION TRACE AMOUNTS OF PALLADIUM
- HE10.Sun.P24 *Lubos Jankovic**
SORPTION AN TEXTILE DYE TO CLAY MODIFIED WITH NON-IONIC SURFACTANTS
- HE10.Sun.P25 *Antoine Karam, Alfred Jaouich*, Arnaud S. De Coninck, Robert Kawa*
EFFECT OF BENTONITE LOADING TO LIMED SULFIDE MINE TAILINGS ON COPPER SORPTION FROM AQUEOUS SOLUTION
- HE10.Sun.P26 *Toshihiro Kogure*, Toshiyuki Nabeta, Hideo Minato, Tatsuo Morimoto*
SPECIATION OF LEAD ADSORBENTS IN WEATHERED GRANITE SOIL USING FIB-TEM TECHNIQUE
- HE10.Sun.P27 *Lydie Le Forestier*, Mariem Ghayaza, Fabien Veillon*
INTERACTION OF A SYNTHESIZED NA-MONTMORILLONITE COMPACTED AND PERCOLATED WITH POLLUTANTS (PB, ZN): APPLICATION TO SUBSURFACE WASTE LANDFILL
- HE10.Sun.P28 *Tsung-Yu Lee, Tsing-Hai Wang, Jiann-Ruey Chen, Shi-Ping Teng**
CESIUM SORPTION TO SURFACTANT (DTMA, BTMA) MODIFIED MX-80
- HE10.Sun.P29 *Roberto Leyva-Ramos*, Erika Padilla-Ortega,, Jovita Mendoza-Barron, Maria Selene Berber-Mendoza, Rosa Maria Guerrero-Coronado, Laura Fuentes-Rubio, Antonio Aragon-Piña*
ADSORPTION OF CADMIUM(II) FROM AQUEOUS SOLUTION ONTO SEPIOLITE
- HE10.Sun.P30 *Shin-Min Lin, Tsing-Hai Wang, Jiann-Ruey Chen, Shi-Ping Teng**
STRONTIUM SORPTION TO MONTMORILLONITE IN LIGHT-WEIGHT ORGANIC SOLUTIONS
- HE10.Sun.P31 *Edite Martinho*, Francisco Alegria, Fernando Almeida*
MONITORING OF DIESEL - CLAYEY SOIL INTERACTION WITH SPECTRAL INDUCED POLARIZATION METHOD
- HE10.Sun.P32 *Wahba Najjar*, Nihel Ksontini, Ghorbel Abdelhamid*
KINETICS STUDY ON CATALYTIC WET AIR OXIDATION OF GALLIC ACID
- HE10.Sun.P33 *Helena Pálková*, Ľuboš Jankovič, Jana Madejová*
INFLUENCE OF THE AMOUNT OF SURFACTANT ON ADSORPTION OF ACID DYE ONTO SMECTITE
- HE10.Sun.P34 *Fabrice Salles*, Jean-Marc Douillard, Olivier Bildstein, Henri Van Damme*
SURFACE ENERGY FOR MONTMORILLONITE SATURATED WITH HEAVY METALS: IMPLICATIONS FOR THEIR HYDRATION PROPERTIES
- HE10.Sun.P35 *Siti Mariam Sumari*, Yamin Yasin, Zaini Hamzah*
ADSORPTION OF AMIDO BLACK DYE FROM AQUEOUS SOLUTION ONTO ANIONIC LAYERED DOUBLE HYDROXIDE
- HE10.Sun.P36 *Fatma Tomul, Funda Turgut Başoğlu**
ADSORPTION OF COPPER AND ZINC FROM AQUEOUS SOLUTIONS BY BENTONITE
- HE10.Sun.P37 *Jesus Vidinha*, Fernando Rocha*
RELATIONSHIP BETWEEN METALS DISTRIBUTION AND ILLITE CRYSTALLOCHEMICAL FEATURES IN BEACH AND DUNE SEDIMENTS
- HE10.Sun.P38 *Oueslati Walid*, Meftah Mahdi, Ben Haj Amara Abdesslem, Ben Rhaïem Hafsia*
STUDY OF THE SELECTIVE EXCHANGE PROCESS LIMIT FOR NA-MONTMORILLONITE: CASE OF (CU²⁺, CO²⁺)

- HE10.Sun.P39 *Michael Wilkinson*, Neal Skipper, Henry Fischer*
THE STRUCTURE AND DYNAMICS OF AROMATIC ORGANIC MOLECULES IN AQUEOUS LIQUIDS AND NANOSCALE CONFINEMENT
- HE10.Sun.P40 *Yunfei Xi*, Megharaj Mallavarapu, Ravendra Naidu*
CHARACTERIZATION OF ORGANOCCLAYS AND THEIR ANIONIC ION ADSORPTION CAPACITIES
- HE10.Sun.P41 *Peng Yuan*, Mingde Fan, Dan Yang, Runliang Zhu, Fei Ge, Dong Liu, Jianxi Zhu, Hongping He, Jingming Wei*
PREPARATION AND CHARACTERIZATION OF DIATOMITE-SUPPORTED MAGNETITE NANO-PARTICLES FOR THE REMOVAL OF HEXAVALENT CHROMIUM [CR(VI)] FROM AQUEOUS SOLUTIONS
- HE10.Sun.P42 *Jun Zhu, Vincenza Cozzolino, Massimo Pigna*, Antonio Violante*
COMPETITION IN ADSORPTION OF CUPPER, LEAD AND CHROMIUM(III) ONTO FERRIHYDRITE
- HE10.Sun.P43 *Jianxi Zhu*, Jingming Wei, Runliang Zhu*
SIMULTANEOUS SORPTION OF CRYSTAL VIOLET AND 2-NAPHTHOL TO MONTMORILLONITE
- HE10.Sun.P44 *Ahmed Al-Futaisi*, Mahad Bawain*
KINETICS AND ADSORPTION CAPACITY OF TRACE METALS ONTO PLYGORSKITE SURFACES
- HE10.Sun.P45 *Adebukola Adegoroye*, Peter Uhlík, Oladipo Omotoso, Zhenghe Xu, Jacob Masliyah*
A COMPREHENSIVE ANALYSIS OF ORGANIC MATTER REMOVAL FROM CLAY – SIZED MINERALS EXTRACTED FROM OIL SANDS USING LOW TEMPERATURE ASHING AND HYDROGEN PEROXIDE
- HE10.Sun.P46 *Claudia Belviso, Francesco Cavalcante, Antonio Lettino, Luca Medici*, Pietro Pasquale Ragone, Saverio Fiore*
TRACE ELEMENTS IN FLUVIAL SEDIMENTS AND IN NEAR-SEDIMENT WATERS OF THE BASENTO RIVER (BASILICATA, ITALY)
- HE10.Sun.P47 *Fortunato De Santis, Salvatore Margiotta*, Giovanni Mongelli, Vito Summa*
PRELIMINARY DATA ON ROCK-WATER INTERACTION IN THE AREA OF THE POLLINO MASSIF (BASILICATA - SOUTHERN ITALY)
- HE10.Sun.P48 *Vladyslav Goncharuk, Svitlana Kobec**
SORPTION OF U(VI) BY ALUMINIUM, IRON AND SILICON OXIDES