

Oral Programme HE1

Asbestos Monitoring & Analytical Methods

Convener: Elena Belluso

Wednesday 17 June, 2009

Chairs: Elena Belluso

- 08.50 – 09.20 HE1a.Wed.KL1
*Mickey E. Gunter**
ASBESTOS MONITORING: PAST, PRESENT, AND FUTURE
- 09.20 – 09.40 HE1a.Wed.L2
Vassileios Anagnostopoulos, Athanasios Godelitsas, Eirini Kougemitrou, Elias Chatzitheodoridis, Dimitrios Anglos, Georgios Economou*
MICROSCOPIC AND SPECTROSCOPIC (RAMAN, LIBS) CHARACTERIZATION OF ASBESTOS MINERALS IN BUILDING MATERIALS FROM ATHENS AREA, GREECE
- 09.40 – 10.00 HE1a.Wed.L3
Bernard Grobéty, Mélanie Aeberhard, Catheline Reymond*
INDUSTRIAL INERTIALIZATION OF ASBESTOS CONTAINING MATERIALS
- 10.00 – 10.20 HE1a.Wed.L4
Matthew S. Sanchez, Mickey E. Gunter, Christina L. Lopano*
USING POWDER X-RAY DIFFRACTION TO SCREEN FOR ASBESTOS MINERALS OCCURRING IN THEIR NATURAL SETTINGS
- 10.20 – 10.40 HE1a.Wed.L5
Simona Mazzionti-Tagliani, Antonio Gianfagna, L. Paoletti, Mickey E. Gunter, Alessandro Pacella*
REAPPRAISAL OF ASBESTOS REFERENCE MATERIALS

COFFEE BREAK 10.40-11.00

Wednesday 17 June, 2009

Chairs: Mickey Gunter

- 11.00 – 11.30 HE1b.Wed.L1
*Donata Bellis**
THE PATHOLOGIST'S INVOLVEMENT IN THE ASBESTOS INVESTIGATIONS
- 11.30 – 11.50 HE1b.Wed.L2
Pascal Dumortier, Paul De Vuyst*
ASBESTOS EXPOSURES, ASBESTOS-RELATED DISEASES AND FIBER ANALYSIS IN LUNG SAMPLES
- 11.50 – 12.10 HE1b.Wed.L3
*Bruce W. Case**
BIOLOGICAL ASBESTOS EXPOSURE ASSESSMENT: NEW PARAMETERS FOR AN OLD MODEL
- 12.10 – 12.30 HE1b.Wed.L4
Caterina Rinaudo, Elisa Fornero, Mario Allegrina, Musa Maya, Donata Bellis, Francesca Toffalorio, Giulia Veronesi, Giuseppe Pelosi*
RAMAN SPECTROSCOPY AND ESEM-EDS: INNOVATIVE TECHNIQUES FOR THE MEDICAL MINERALOGY
- 12.30 – 12.50 HE1b.Wed.L5
*B.E. Tylee**
ASSESSMENT OF RISK FROM ASBESTOS CONTAINING SOILS

Poster Programme HE1

Posting: Monday 15 June, 20.30-22.30. **Removal:** Wednesday 17 June, 12.50-14.30.

Attendance Time: Tuesday 16 June, 18:30–20:00

Chairs: Elena Belluso & Michey Gunter

- HE1.Tue.P1 *F. Burragato**, *G. Gaglianone*, *G. Gerbasi*, *L. Papacchini*, *F. Rossini*
FIBROUS MINERAL DETECTION IN NATURAL SOIL AND RISK MITIGATION
- HE1.Tue.P2 *Antonella Campopiano*, *Lorenza Fiumi**, *Deborah Ramires*, *Simonetta Sspinelli*
PRELIMINARY CHARACTERIZATION OF DECAY ASBESTOS-CEMENT ROOFING
- HE1.Tue.P3 *Antonella Campopiano**, *Angelo Olori*, *Deborah Ramires*, *Antonino Iannò*
ASBESTOS ANALYSIS IN GREENSTONE FROM SAN MANGO (CALABRIA, ITALY)
- HE1.Tue.P4 *Silvana Capella**, *Elena Belluso*, *Donata Bellis*, *Elisa Fornero*
ASBESTOS MONITORING IN SOME AREAS OF THE PIEMONTE REGION (NW ITALY)
- HE1.Tue.P5 *Heather Lowers**
TETRAHEDRAL IRON IN ASBESTIFORM AMPHIBOLES AND THE EFFECT ON AMPHIBOLE NOMENCLATURE
- HE1.Tue.P6 *Angelo Olori**, *Antonella Campopiano*, *Annapaola Cannizzaro*, *Deborah Ramires*, *Fulvio Basili*, *Simone Boccanera*,
Pietro Capone, *Antonino Iannò*, *Aneta Maria Zakrzewska*
IDENTIFICATION AND QUANTIFICATION OF TREMOLITE IN BULK SAMPLES
- HE1.Tue.P7 *Morando Soffritti*, *Fabiana Manservisi*, *Marco Manservigi*, *Daniela Chiozzotto*, *Fiorella Belpoggi**
LONG TERM BIOASSAYS AS IMPORTANT TOOL FOR THE PREDICTIVITY OF THE CARCINOGENIC RISKS FOR HUMANS RELATED TO FIBERS: THE EXAMPLE OF MESOTHELIOMAS INDUCED BY FLUORO-EDENITIC FIBRES PRESENT IN THE LAVA STONE OF THE ETNA VOLCANO
- HE1.Tue.P8 *Aneta Maria Zakrzewska*, *Pietro Paolo Capone*, *Antonino Iannò**, *Antonella Campopiano*, *Angelo Olori*, *Fulvio Basili*, *Simone Boccanera*
EXPOSURE TO MINERAL FIBRES DURING RAILWAY TUNNEL EXCAVATION IN THE AREA OF BIANCAVILLA (SICILY, ITALY)
- HE1.Tue.P9 *Francesco Dellisanti*, *Piermaria Luigi Rossi*, *Giovanni Valdrè**
JOULE HEATING VITRIFICATION OF ASBESTOS CONTAINING MATERIALS
- HE1.Tue.P10 *Cristian Blagioni*, *Deborah Donatio**
OCCURRENCE OF FIBROUS TREMOLITE VEINS IN SERPENTINITES FROM GARFAGNANA (NORTHERN APENNINES, ITALY)
- HE1.Tue.P11 *Deborah Donatio**, *Michele Marroni*, *Sergio Rocchi*
MULTI-SCALE APPROACH FOR THE ESTIMATION OF FIBROUS MINERAL CONTENT IN OPHIOLITIC ROCKS FROM NORTHERN APENNINES
- HE1.Tue.P12 *A. Pugnaroni**, *F. Giantomassi*, *A. Zizzi*, *G. Lucarini*, *A. Bloise*, *S. Capella*, *E. Belluso*
MONITORING OF ASBESTOS AND ASBESTIFORM MINERALS BY CELLULAR SYSTEMS. NATURAL AND SYNTHETIC ASBESTOS TREMOLITE AND FIBROUS ANTIGORITE

Oral Programme HE2

Clays and Natural Zeolites in Medical Applications

Convener: Carmen del Hoyo Martínez

Wednesday 17 June, 2009

Chair: Carmen del Hoyo Martínez

- 11.00 – 11.30 HE2.Wed.KL1
Cesar Viseras, Carola Aguzzi, Pilar Cerezo*
CLAY MINERALS ON DRUG DELIVERY
- 11.30 – 11.50 HE2.Wed.L2
Fabio Tateo, Antonio Ravaglioli, Carlo Andreoli, Francesco Bonina, Vittorio Coiro, Sandro Degetto, Aurelio Giarretta, Attilio Menconi Orsini, Carmelo Puglia, Vito Summa*
THE IN-VITRO PERCUTANEOUS MIGRATION OF CHEMICAL ELEMENTS FROM A THERMAL MUD FOR HEALING USE
- 11.50 – 12.10 HE2.Wed.L3
Mariana Rebelo, Fernando Rocha, Eduardo Silva*
MINERALOGICAL AND PHYSICO-CHEMICAL FEATURES OF CLAYEY MATERIALS USED FOR HEALING/AESTHETIC PURPOSES
- 12.10 – 12.30 HE2.Wed.L4
Ana Quintela, Fernando Rocha, Eduardo Ferreira Da Silva, Denise Terroso*
PHYSICO-CHEMICAL CHARACTERIZATION OF COMMERCIAL CLAYS USED AS COSMETIC PRODUCTS
- 12.30 – 12.50 HE2.Wed.L5
María Isabel Carretero, Manuel Pozo, Francisco Maraver, Francisco Armijo, Ónica Armijo, Eduardo Pozo, Mercedes Castillo*
MOBILITY OF ELEMENTS INFLUENCED BY INTERACTION BETWEEN ARTIFICIAL SWEAT AND PELOIDS USED IN SPANISH SPAS

Poster Programme HE2

Posting: Wednesday 17 June, 20.30-22.30. **Removal:** Friday 19 June.

Attendance Time: Thursday 18 June, 18:30–20:00

Chair: Carmen del Hoyo Martínez

- HE2.Thu.P1 *Carola Aguzzi, Priscilla Capra, Cristina Bonferoni, Pilar Cerezo, Carla Caramella, Cesar Viseras**
CHITOSAN-SILICATE BIOCOMPOSITES FOR COLONIC DELIVERY OF 5-AMINOSALICYLIC ACID
- HE2.Thu.P2 *Miria Baschini*, Eugenia Parolo, Diana Andrade, Jorge Valles, Gisela Pettinari, Carola Aguzzi, Pilar Cerezo, Alberto López-Galindo, Cesar Viseras*
THERAPEUTIC MUDS FROM COPAHUE VOLCAN: CLAY QUANTIFICATION BY ABSORPTION SPECTROSCOPY METHODOLOGIES
- HE2.Thu.P3 *Anna Carraro, Fortunato De Santis, Maria Luigia Giannossi*, Salvatore Margiotta, Vito Summa, Fabio Tateo*
EXPERIMENTAL PREPARATION OF MUDS FOR PELOOTHERAPY: EFFECT ON DIFFERENT CLAY
- HE2.Thu.P4 *U. Costantino, M. Nocchetti*, L. Perioli, L. Tammaro*
HYDROTALCITE-LIKE ANIONIC CLAYS AS HOSTS OF MOLECULAR ANIONS WITH BIO-PHARMACEUTICAL ACTIVITY
- HE2.Thu.P5 *Celso Gomes*, Regla Hernandez, Cristina Sequeira, João Silva*
GEOPHAGY IN CAPE VERDE: TYPOLOGY, PROPERTIES AND FUNCTIONS OF THE CLAYS BEING USED
- HE2.Thu.P6 *Eugenia Parolo, Marcelo Avena, Irene Zajonkovsky, Jorge Valles, Miria Baschini**
SOME APPLICATIONS OF CLAY MINERALS FROM THE ARGENTINEAN NORPATAGONIA IN HUMAN AND VETERINARY MEDICINE
- HE2.Thu.P7 *Miloš Mojović*, Marko Daković, Predrag Banković, Zorica Mojović*
PARAMAGNETIC PILLARED BENTONITES - THE NEW DIGESTIVE TRACT MRI CONTRAST AGENTS
- HE2.Thu.P8 *Carmen Gómez*, Carlos Medina, Maria Lourdes Mourelle, Luis Román, Maria Isabel Carretero, Manuel Pozo, Germany Legido*
ANALYSIS AND COMPARISON OF THERMOPHYSICAL PROPERTIES OF SMECTITE-RICH PELOIDS FOLLOWING MATURATION IN SEAWATER

Oral Programme HE3

Clays as Friendly Environmental Materials

Convener: Guodong Yuan

Friday 19 June, 2009

Chair: Franz Ottner

- 08.50 – 09.20 HE3a.Fri.KL1
*Gavin Patrick Gillman**
CHARGED CLAYS: AN ENVIRONMENTAL SOLUTION
- 09.20 – 09.40 HE3a.Fri.L2
*Guodong Yuan**
ENVIRONMENTAL MATERIALS FOR PHOSPHORUS REMOVAL: ALLOPHANE AS AN EXAMPLE
- 09.40 – 10.00 HE3a.Fri.L3
Marcela Calabi, Alejandra Jara, María De La Luz Mora*
ALLOPHANE NANOCCLAYS FOR ENZYMATIC IMMOBILIZATION: POTENTIAL USE TO INCREASE THE BIOCATALYSIS OF PHOSPHATE
- 10.00 – 10.20 HE3a.Fri.L4
Olugbenga A Ehinola, Liu Qing-Yang*
MINERALOGY, GEOCHEMISTRY AND ENVIRONMENTAL ASSESSMENT OF MEDICINAL CLAY FROM SOUTHEASTERN NIGERIA
- 10.20 – 10.40 HE3a.Fri.L5
Bernhard Kruzik, Franz Ottner*
APPLICABILITY OF AUSTRIAN CLAYS AS ADOBE CONSTRUCTION MATERIAL

COFFEE BREAK 10.40-11.00

Friday 19 June, 2009

Chair: Gavin Patrick Gillman

- 11.00 – 11.30 HE3b.Fri.L1
Hongping He, Yuehong Ma, Jianxi Zhu, Peng Yuan, Wei Shen, Yanhong Qing*
THE INFLUENCE OF CATION EXCHANGE CAPACITY OF CLAYS ON THE MICROSTRUCTURE OF THE RESULTANT ORGANOCLAY
- 11.30 – 11.50 HE3b.Fri.L2
Tomás Undabeytia, Shlomo Nir, Trinidad Sánchez-Verdejo, Celia Maqueda, Esmeralda Morillo*
ENVIRONMENTALLY FRIENDLY SLOW RELEASE FORMULATIONS OF ALACHLOR BASED ON CLAY-PHOSPHATIDYLCHOLINE
- 11.50 – 12.10 HE3b.Fri.L3
Bakhtyar K. Aziz, Muhammad A. Abdullah, Karim J. Jubrael*
ACID ACTIVATION AND BLEACHING CAPACITY OF SOME LOCAL CLAYS FOR DECOLORIZING USED OILS
- 12.10 – 12.30 HE3b.Fri.L4
Chiara Bisio, Fabio Carniato, Giorgio Gatti, Leonardo Marchese, Matteo Guidotti, Maila Sgobba, Rinaldo Psaro, Nicoletta Ravasio*
SYNTHETIC ACID SAPONITES: A PROMISING ENVIRONMENTALLY FRIENDLY CATALYST FOR THE TRANSFORMATION OF METHYL EPOXYSTEARATE
- 12.30 – 12.50 HE3b.Fri.L5
Teruhisa Hongo, Takeshi Iemura, Shigeo Satokawa, Atsushi Yamazaki*
ADSORPTION ABILITY FOR SEVERAL HARMFUL ANIONS OF ZN-FE LAYERED DOUBLE HYDROXIDE

LUNCH 12.50-14.20

Friday 19 June, 2009

Chair: Gavin Patrick Gillman

14.30 – 15.00

HE3c.Fri.L1

James A. Smith, Vinka Ooyanedel-Craver, Erin Kallman*

FIELD EVALUATION OF LOCALLY PRODUCED COLLOIDAL-SILVER-IMPREGNATED CERAMIC FILTERS FOR POINT-OF-USE WATER PURIFICATION IN SAN MATEO IXTATÁN, GUATEMALA

15.00 – 15.20

HE3c.Fri.L2

Oladijo Omotoso, Vicente Munoz, Randy J. Mikula*

IMPACT OF BITUMEN SURFACE CHEMISTRY ON BITUMEN RECOVERY FROM CLAY TAILINGS

Poster Programme HE3

Posting: Wednesday 17 June, 20.30-22.30. **Removal:** Friday 19 June.

Attendance Time: Thursday 18 June, 18:30–20:00

Chair: Gavin Patrick Gillman

- HE3.Thu.P1 *Gowthaman Sinnathamby**, *Debra H. Phillips*, *Vinayagamoothy Sivakumar*, *Mark I. Russell*, *Chris Anderson*, *Ismail Haji Jaya*, *Andras Paksy*
CLAY MINERALOGY OF SELECTED GEOLOGICAL DEPOSITS FROM THE UNITED KINGDOM AS POSSIBLE CAPPING MATERIAL FOR LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES
- HE3.Thu.P2 *S. El hankari*, *L. Scrano**, *C. Belviso*, *F. Lelario*, *S. Fiore*, *S.A. Bufo*
WATER PURIFICATION FROM ORGANIC POLLUTANTS BY USING MICELLE-CLAY SYSTEMS
- HE3.Thu.P3 *Eleni Koutsopoulou**, *Panagiota Tsofis-Katagas*, *Dimitris Papoulis*
ASSESSMENT OF THE BEHAVIOUR OF CLAY MINERALS IN A WASTE DISPOSAL FACILITY
- HE3.Thu.P4 *Filomena Sannino**, *Veria Addorisio*, *Antonio De Martino*, *Renato Capasso*
SORPTION CAPACITY OF Fe_2O_3 -NANOPARTICLES FOR THE REMOVAL OF SIMAZINE AND MCPA FROM WATERS
- HE3.Thu.P5 *Gustavo Aurelio Cifredo*, *Jose Manuel Gatica*, *Sanae Harti*, *Hilario Vidal**
NEW ATTRACTIVE PROCEDURE TO ACTIVATE NATURAL CLAYS EXTRUDED AS HONEYCOMB MONOLITHS FOR ENVIRONMENTAL USES
- HE3.Thu.P6 *Omid Bayat*, *Hamid Reza Karimzadeh**
PALEOENVIRONMENT OF TWO PALEOSOLS AS REVEALED BY CLAY MINERALOGY (EASTERN ISFAHAN, IRAN)
- HE3.Thu.P7 *Eleonora Butenko**, *Régis Guegan*, *Alexey Kapustin*
THE ADSORPTION OF SULFIDE IONS BY CLAY MINERALS
- HE3.Thu.P8 *Chia-feng Chang*, *Tsing-Hai Wang*, *Jiann-Ruey Chen*, *Shi-Ping Teng**
CESIUM SORPTION TO MONTMORILLONITES: EFFECT OF CONCENTRATION AND SPECIES OF CATIONS IN PREEQUILIBRATED SOLUTION
- HE3.Thu.P9 *Shirley Cosin**, *Guillermo Ruperto Martín-Cortés*, *Jorge E. Di Rito*, *Wildor Theodoro Hennies*, *Francisco Rolando Valenzuela Díaz*
SANITARY WARE WASTES AS RAW MATERIAL FOR STRUCTURAL CERAMIC PRODUCTION
- HE3.Thu.P10 *Emna Errais**, *Joelle Duplay*, *Fadila Darragi*
CLAYS FOR THE TREATMENT OF TEXTILE INDUSTRY EFFLUENTS – CASE OF GDS IN TUNISIA
- HE3.Thu.P11 *Jing Li**, *Feng Wu*, *Nansheng Deng*, *Gilles Maillot*
PHOTODEGRADATION OF CHLORAMPHENICOL BY MONTMORILLONITE KSF
- HE3.Thu.P12 *Ali Mostafavi**, *Daryoush Afzali*, *Zahra Biniiaz*
MODIFIED ORGANIC NANOCCLAY AS NEW SORBENT FOR SEPARATION AND PRECONCENTRATION OF TRACE AMOUNTS OF COBALT IONS
- HE3.Thu.P13 *Rosa M. Torres Sánchez**, *Claudio Duran*, *Patricia Eisenberg*
ANTIBACTERIAL ACTIVITY OF SILVER-MONTMORILLONITE/POLYETHYLENE NANOCOMPOSITES
- HE3.Thu.P14 *Guillermo R. Martín-cortés**, *Giorgio Grotti*, *Cássio P. Carvalho*, *Francisco R. Valenzuela-Díaz*
NEW INDUSTRIAL USES IN STRUCTURAL CERAMICS FOR REJECTED SANDS FROM SMELTING METALLURGICAL PROCESS

Oral Programme HE4

Health Effects of the Reactivity of Airborne Minerals

Conveners: F. Javier Huertas, Pascal Dumortier

Tuesday 16 June, 2009

Chairs: Pascal Dumortier & F. Javier Huertas

- 14.30 – 15.00 HE4.Tue.KL1
*José A. Centeno**
HEALTH AND EARTH –MEDICAL GEOLOGY BUILDING A SAFER ENVIRONMENT
- 15.00 – 15.20 HE4.Tue.L2
Joseph P. Smith, Daniel Jbrabander, James R. Besancon, Lewis C. Millholland, Michael J. Gregory, Richard B. Coffin*
MINERALOGY, BACTERIAL SPECIES DIVERSITY, AND BIOAVAILABLE TRACE-ELEMENT LOADING ON THE SILT/CLAY FRACTION OF SURFICIAL SANDS FROM IRAQ AND KUWAIT
- 15.20 – 15.40 HE4.Tue.L3
Diana Meza-Figueroa, Raina M. Maier, Margarita De La O-Villanueva*
DISTRIBUTION OF HEAVY METALS IN EFFLORESCENT SALTS FROM MINE TAILINGS IN ARID ZONES: IMPACT IN RESIDENTIAL SOILS, NACUZARI, SONORA, MEXICO
- 15.40 – 16.00 HE4.Tue.L4
*M. Elena Ramos, Chiara Cappelli, Marisa Rozalen, Saverio Fiore, F. Javier Huertas**
EFFECT OF ORGANIC LIGANDS ON THE ALTERATION OF AIRBORNE SMECTITE PARTICLES
- 16.00 – 16.20 HE4.Tue.L5
Pascal Dumortier, Paul De Vuyst*
INHALED NON-FIBROUS PARTICLES IN LUNG SAMPLES

Poster Programme HE4

Posting Time: Monday 15 June, 20.30-22.30; **Removal:** Wednesday 17 June, 12.50-14.30;

Attendance Time: Tuesday, 16 June, 18:30–19:30

Chairs: Pascal Dumortier & F. Javier Huertas

- HE4.Tue.P1 *Beatrice Moroni**, *Cecilia Viti*
MORPHOCHEMICAL CHARACTERISTICS AND TOXIC POTENTIAL OF STAINLESS STEEL WELDING FUMES
- HE4.Tue.P2 *E. Della Penda**
CHARACTERIZATION OF RISK DUE TO AIRBORNE PARTICULATE IN BRICKS MANUFACTURING
- HE4.Tue.P3 *M. Elena Ramos**, *Cliff T. Johnston*, *F. Javier Huertas*
SPECTROSCOPIC STUDY OF ORGANIC LIGANDS ADSORPTION ON MONTMORILLONITE
- HE4.Tue.P4 *Donato Perniola**, *Fortunato Giordano*, *Antonio Lettino*, *Pietro Ragone*, *Saverio Fiore*
NATURALLY OCCURRING ASBESTOS AND MESOTHELIOMA RISK IN BASILICATA (ITALY)
- HE4.Tue.P5 *Marisa Rozalén*, *Saverio Fiore*, *F. Javier Huertas**
EFFECT OF CITRATE ON THE ALTERATION OF TREMOLITE PARTICLES
- HE4.Tue.P6 *Antonio Lettino**, *Saverio Fiore*
INORGANIC PARTICLE ANALYSES OF ATMOSPHERIC AEROSOL: A MINERALOGICAL APPROACH
- HE4.Tue.P7 *Alessandro Genovese**, *Elena Belluso*
TEM-SEM MINERALOGICAL STUDY OF PM_{2.5} DUST

Oral Programme HE5

Moisture Transport through Clay

Conveners: Laurie Aldridge, Heloisa N. Bordallo, Will Gates

Thursday 18 June, 2009

Chair: Heloisa N. Bordallo

- 08.50 – 09.20 HE5a.Thu.KL1
*V. Marry**, *B. Rotenberg*, *N. Malikova*, *P. Turq*
STRUCTURE AND DYNAMICS OF WATER IN CLAYS FROM MOLECULAR SIMULATIONS
- 09.20 – 09.40 HE5a.Thu.L2
*Tilo Seydel**, *Lutz Wiegart*, *Fanni Jurany*, *Bernd Struth*, *Helmut Schober*
UNAFFECTED MICROSCOPIC DYNAMICS OF MACROSCOPICALLY ARRESTED WATER IN DILUTE CLAY GELS
- 09.40 – 10.00 HE5a.Thu.L3
*Isabelle Bihanic**, *Manuel Pelletier*, *Angelina Razafitianamaharavo*, *Laurent J. Michot*, *Frédéric Villieras*
COMPACTED CLAY SAMPLES: A MULTI-SCALE DESCRIPTION OF POROSITY
- 10.00 – 10.20 HE5a.Thu.L4
*George E. Christidis**
ENVIRONMENTAL APPLICATIONS OF SMECTITES AND ZEOLITES RELATED TO LAYER CHARGE AND CATION EXCHANGE CAPACITY
- 10.20 – 10.40 HE5a.Thu.L5
*Mustafa Cinar**, *Gafure Ersever*, *Oktay Sahbaz*, *Mehmet S. Çelik*
SEPIOLITE CALCIUM INTERACTIONS IN DESICCANT CLAY PRODUCTION

COFFEE BREAK 10.40-11.00

Thursday 18 June, 2009

Chair: George Christidis

- 11.00 – 11.30 HE5b.Thu.L1
H. Vereecken, *A. Pohlmeier**, *L. Stingaciu*, *N. Spindler*, *T. Schröder*, *M. Javaux*, *J. Vanderborght*
NUCLEAR MAGNETIC RESONANCE METHODS TO STUDY IN SUBSURFACE ENVIRONMENTS
- 11.30 – 11.50 HE5b.Thu.L2
*Neal Skipper**, *Felix Fernandez-Alonso*, *Michael Wilkinson*
WATER DYNAMICS IN COMPACTED CLAYS
- 11.50 – 12.10 HE5b.Thu.L3
*A. Pohlmeier**, *L. Stingaciu*, *S. Haber-Pohlmeier*, *A. Haber*, *B. Blümich*, *S. Stapf*, *H. Vereecken*
NMR RELAXOMETRY OF PARTIALLY SATURATED MODEL SOILS
- 12.10 – 12.20 HE5b.Thu.L4
*Enrique Romero**, *Alessio Ferrari*
ASSESSMENT OF THE VOLUME CHANGE BEHAVIOUR OF CLAY AGGREGATES BY ESEM OBSERVATIONS
- 12.20 – 12.40 HE5b.Thu.L5
*Phebe Chung**, *Apostolos Kantzas*
UNDERSTANDING THE BEHAVIOUR OF DEHYDRATED AND HYDRATED CLAYS USING LOW-FIELD NMR

Poster Programme HE5

Posting: Wednesday 17 June, 20.30-22.30. **Removal:** Friday 19 June.

Attendance Time: Thursday 18 June, 18:30–20:00

Chair: Heloisa N. Bordallo

- HE5.Thu.P1 *Ana María Fernández*, Ana María Melón*
WATER STATES AND TYPES OF WATER IN DIFFERENT ARGILLACEOUS FORMATIONS
- HE5.Thu.P2 *Guido Musso*, Enrique Romero*
PORE SIZE DISTRIBUTION EFFECTS ON THE HYDRO-CHEMO-MECHANICAL BEHAVIOUR OF BENTONITE
- HE5.Thu.P3 *Lars Ramstad Alme, Yves Méheust, Jon O. Fossum**
HUMIDITY TRANSPORT IN QUASI ONE-DIMENSIONAL NA FLUOROHECTORITE POWDERS
- HE5.Thu.P4 *Phebe Chung*, Apostolos Kantzas*
USING LOW- FIELD NMR IN THE STUDY OF FROZEN SOILS
- HE5.Thu.P5 *Heloisa N. Bordallo*, Laurence P. Aldridge, G. Jock Churchman, Will P. Gates*
CHARACTERIZING WATER MOBILITY IN NATURAL SOILS BY QUASI-ELASTIC AND NEUTRON SPIN ECHO
- HE5.Thu.P6 *Esperanza Pavón*, Miguel A. Castro, María D. Alba, María Del Mar orta, Carolina Pazos, Moisés Naranjo, Neal Skipper, Gabriel Cuello*
MONTE-CARLO SIMULATIONS OF INORGANIC CATIONS IN EXPANDABLE MICAS
- HE5.Thu.P7 *A.N. Rozko*, Vu.G. Fedorenko*
SYNTHESIS, SWELLING OF KAOLIN-POLYAKRYLAMIDE COMPOSITES AND THEIR SORPTION CAPACITY FOR¹³⁷Cs
- HE5.Thu.P8 *Fabrice Salles*, Sabine Devautour-Vinot, Jean-Marc Douillard, Olivier Bildstein, Michel Jullien, Henri Van Damme*
DETERMINATION OF HYDRATION ENERGIES IN SWELLING CLAYS AND DIFFUSION COEFFICIENTS BY CONDUCTIVITY MEASUREMENTS
- HE5.Thu.P9 *María Victoria Villar*, Ana María Fernández, Ana María Melón*
EFFECT OF WETTING/DRYING CYCLES ON THE WATER RETENTION CAPACITY OF AN ARGILLITE

Oral Programme HE7

Speciation of trace elements in soils and sediments

Conveners: Isabel Gonzales, Roberto Terzano

Tuesday 16 June, 2009

Chairs: Isabel Gonzales & Roberto Terzano

- 08.50 – 09.20 HE7a.Tue.KL1
*Melissa A. Denecke**
ACTINIDE SPECIATION USING SYNCHROTRON TECHNIQUES
- 09.20 – 09.40 HE7a.Tue.L2
Jeanne B. Percival, Michael B Parsons, Ning Chen, Suzanne Beauchemin, Y.T. John Kwong*
A XAS STUDY OF ARSENIC SPECIATION IN WASTE MATERIALS FROM LODE GOLD DEPOSITS
- 09.40 – 10.00 HE7a.Tue.L3
Anna Santoro, Roberto Terzano, Saverio Fiore, Stefan Mangold, Gabriella Blo, Pacifico Ruggiero*
MERCURY DISTRIBUTION AND SPECIATION IN THE COLLOIDAL FRACTION OF SOILS CONTAMINATED BY INDUSTRIAL ACTIVITIES: A CASE STUDY IN THE SOUTH OF ITALY
- 10.00 – 10.20 HE7a.Tue.L4
Eric Breynaert, Dirk Dom, Jacqueline Vancluysen, Andreas Scheinost, André Maes*
INTERACTION OF SE WITH BOOM CLAY: XAS SOLID PHASE SPECIATION
- 10.20 – 10.40 HE7a.Tue.L5
María Jose Martínez-Sánchez, Carmen Perez-Sirvent, María Luz Garcia-Lorenzo, M. Hernandez-Cordoba*
MOBILIZATION AND FATE OF HEAVY METALS IN RED MEDITERRANEAN SOILS POLLUTED BY MINING ACTIVITIES

COFFEE BREAK 10.40-11.00

Tuesday 16 June, 2009

Chairs: Isabel Gonzales & Roberto Terzano

- 11.00 – 11.30 HE7b.Tue.L1
*Paola Adamo**
CHEMICAL SPECIATION AND BIOAVAILABILITY OF TRACE ELEMENTS IN SOILS
- 11.30 – 11.50 HE7b.Tue.L2
Carmen Perez-Sirvent, María Jose Martínez-Sánchez, María Luz Garcia-Lorenzo, J. Molina*
ASSESSMENT OF THE ENVIRONMENTAL EFFECT CAUSED BY HEAVY METALS IN SOILS AFFECTED BY OLD MINING ACTIVITIES
- 11.50 – 12.10 HE7b.Tue.L3
Ewa M. Cukrowska, Julien Lusilao-Makiese, Hermogene Nsengimana, David Amouroux*
MERCURY SPECIATION IN THE ENVIRONMENT AFFECTED BY INDUSTRIAL POLLUTION: DETERMINATION AND MODELLING
- 12.10 – 12.30 HE7b.Tue.L4
Ali Akbar Safari Sinegani, Hossein Mirahamdi Araki*
CHANGES IN CHEMICAL FORMS OF LEAD IN TEMPERATE AND SEMIARID SOILS
- 12.30 – 12.50 HE7b.Tue.L5
H. Tutu, E.N. Bakatula, E.M. Cukrowska, I.M. Weiersbye*
CHARACTERISATION OF CYANIDE IN GOLD-MINE TAILINGS OF THE WITWATERSRAND, SOUTH AFRICA

Poster Programme HE7

Posting Time: Monday 15 June, 20.30-22.30; **Removal:** Wednesday 17 June, 12.50-14.30;

Attendance Time: Tuesday, 16 June, 18:30–20:00

Chairs: Isabel Gonzales & Roberto Terzano

- HE7.Tue.P1 *Cristina Annicchiarico, Nicola Cardellicchio, Antonella Di Leo*, Santina Giandomenico, Lucia Spada*
SPECIATION AND BIOAVAILABILITY OF MERCURY IN SEDIMENTS FROM MAR PICCOLO OF TARANTO (IONIAN SEA, SOUTHERN ITALY)
- HE7.Tue.P2 *Micaela Buonocore*, Nicola Cardellicchio, Antonella Di Leo*
METAL SPECIATION IN CONTAMINATED SEDIMENT BEFORE AND AFTER SEDIMENT WASHING TREATMENT
- HE7.Tue.P3 *Ki Young Choi, Suk Hyun Kim, Hyo Taek Chon**
RELATIONSHIP BETWEEN TOTAL CONCENTRATION AND DILUTE HCL EXTRACTION OF HEAVY METALS IN SEDIMENTS OF HARBORS AND COASTAL AREAS IN KOREA
- HE7.Tue.P4 *Isabel González*, María López, Javier García López, Juan Carlos Fernández-Caliani, Antonio Romero, Emilio Galán*
THE APPLICATION OF PIXE IN THE CHEMICAL-MINERALOGICAL SPECIATION OF TRACE ELEMENTS IN POLLUTED SOILS
- HE7.Tue.P5 *Pietro Iavazzo*, Paola Adamo, Maria Boni, Daniela Ducci, Stephen Hillier, Marco Trifuoggi, Mariavittoria Zampella*
SPECIATION OF HEAVY METALS IN SOILS AND SEDIMENTS FROM THE HIGH MOULOUYA RIVER VALLEY (MOROCCO)
- HE7.Tue.P6 *Roberto Terzano*, Anna Santoro, Matteo Spagnuolo, Bart Vekemans, Luca Medici, Koen Janssens, Joerg Goettlicher, Melissa A. Denecke, Stefan Mangold, Pacifico Ruggiero*
DIRECT MERCURY SPECIATION IN SOIL: TRACING BACK TO THE SOURCE OF POLLUTION
- HE7.Tue.P7 *Mariavittoria Zampella, Benedetto De Vivo, Pietro Iavazzo, Annamaria Lima, Paola Adamo**
TRACE ELEMENTS SPECIATION IN SOILS AND SEDIMENTS OF THE SOLOFRANA RIVER VALLEY, SOUTH ITALY

Oral Programme HE8

Stability of Clay Minerals in Geological Radioactive Waste Disposals

Conveners: Andreas Bauer, Tsutomu Sato

Friday 19 June, 2009

Chair: Tsutomu Sato

- 08.50 – 09.20 HE8a.Fri.KL1
E. C. Gaucher, Ph. Blanc, H. Gailhanou, N.C.M. Marty, F. Claret, A. Burnol, C. Lerouge, S. Gaboreau, Ch. Tournassat*
STABILITY OF CLAY MINERALS IN GEOLOGICAL RADIOACTIVE WASTE DISPOSALS FROM DATA ACQUISITION TO MODELLING
- 09.20 – 09.40 HE8a.Fri.L2
S. Kaufhold, R. Dohrmann*
STABILITY OF BENTONITES IN GEOTECHNICAL BARRIERS FOR HLRW REPOSITORIES
- 09.40 – 10.00 HE8a.Fri.L3
Hiroyasu Takase, Kaori Ono, David Savage, Steven Benbow*
LONG-TERM STABILITY OF THE BENTONITE BARRIER: HOW MUCH DO WE NEED TO KNOW?
- 10.00 – 10.20 HE8a.Fri.L4
Keisuke Fukushi, Tomonori Sugiura, Tomoaki Morishita, Hiroshi Yamada, Noriko Hasebe, Noritaka Endo*
OCCURRANCES OF IRON-BENTONITE INTERACTION FOUND IN BENTONITE DEPOSITES

COFFEE BREAK 10.40-11.00

Friday 19 June, 2009

Chair: Eric Gaucher

- 11.00 – 11.30 HE8b.Fri.L1
Camille Rivard, Odile Barres, Guirec Ollivier, Martine Galmiche, Manuel Pelletier, Frederic Villieras, Nicolas Michau*
FE(0)-CLAYS INTERACTIONS AT 90°C UNDER ANOXIC CONDITIONS: A COMPARATIVE STUDY BETWEEN CLAY FRACTION OF CALLOVO-OXFORDIAN AND OTHER PURIFIED CLAYS
- 11.30 – 11.50 HE8b.Fri.L2
Elisabeth Tinseau, Daniel Bartier, Isabelle Techer, Stephane Gaboreau, Justo Cabrera*
A 15 YEARS IN SITU ALKALINE PROPAGATION INTO THE TOURNEMIRE ARGILLITE
- 11.50 – 12.10 HE8b.Fri.L3
Sergey V. Dvinskikh, István Furó*
SWELLING, DISSOLUTION, AND SEDIMENTATION OF BENTONITE CLAY IN WATER: NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY AND IMAGING STUDIES
- 12.10 – 12.30 HE8b.Fri.L4
Tsutomu Sato, Hideki Takayama, Daisuke Chino, Ryo Nakabayashi, Chie Oda, Tetsuro Yoneda*
EFFECT OF COMPACTION ON DISSOLUTION RATE OF SMECTITE UNDER HYPERALKALINE CONDITION
- 12.30 – 12.50 HE8b.Fri.L5
Daisuke Chino, Tsutomu Sato, Yusuke Otani, Ryo Nakabayashi, Chie Oda, Tetsuro Yoneda*
EFFECT OF AQUEOUS ALUMINIUM AND SILICA CONCENTRATIONS ON SMECTITE DISSOLUTION KINETICS AT HYPERALKALINE CONDITIONS

LUNCH 12.50-14.20

Friday 19 June, 2009

Chair: Andreas Bauer

- 14.30 – 15.00 HE8c.Fri.L1
*Raúl Fernández, Urs K. Mäder, Manuel Rodriguez, Raquel Vigil de la villa, Jaime Cuevas**
ALTERATION OF COMPACTED BENTONITE BY DIFFUSION OF HIGHLY ALKALINE SOLUTIONS
- 15.00 – 15.20 HE8c.Fri.L2
Lorenz Holzer, Beat Münch, Roger Wepf, Martha Rizzi, Paul Marschall*
CRYO-STABILIZED PORE STRUCTURE OF BENTONITE AND OPALINUS CLAY

- 15.20 – 15.40 HE8c.Fri.L3
*Carlo A. Arcilla, Meg Honrado, Edmundo Vargas, Chelo Pascua, Ian G. Mckinley, Kazuto Namiki, N. Fujii, Minoru Yamakawa, W. Russell Alexander**
BENTONITE REACTION IN NATURAL HYPERALKALINE GROUNDWATERS: EXAMPLES FROM THE PHILIPPINES
- 15.40 – 16.00 HE8c.Fri.L4
Thierry Allard, Stephanie Sorieul, Chloe Fourdrin, Georges Calas*
RADIATION EFFECTS ON CLAY MINERAL PROPERTIES: A REVIEW

Poster Programme HE8

Posting: Wednesday 17 June, 20.30-22.30. **Removal:** Friday 19 June.

Attendance Time: Thursday 18 June, 18:30–20:00

Chairs: Andreas Bauer & Tsutomu Sato

- HE8.Thu.P1 *Michel Jullien*, Jocelyne Garnier, Delphine Pellegrini, François Marsal*
HETEROGENEOUS REACTIVITY OF THE IRON-CLAY SYSTEM: AN OVERVIEW OF THE IMPLICATIONS FOR THE SAFETY OF NUCLEAR WASTE DISPOSAL
- HE8.Thu.P2 *W. Russell Alexander*, Antoni E. Milodowski, Costas A. Constantinou, Ian G. Mckinley*
BENTONITE REACTION IN NATURAL HYPERALKALINE GROUNDWATERS: EXAMPLES FROM CYPRUS
- HE8.Thu.P3 *Pablo Chain, María D. Alba*, Miguel A. Castro, María Del Mar Orta, Esperanza Pavón*
ACID STABILITY OF CLAY MINERALS: IMPLICATIONS FOR PROCESSES IN GEOLOGICAL RADIOACTIVE WASTE DISPOSAL
- HE8.Thu.P4 *Isabelle Devol-Brown, Elisabeth Tineau*, Flore Rebischung, Laurent De Windt, Daniele Bartier, Sylvie Motellier, Isabelle Techer*
EFFECT OF AN ALKALINE PLUME ON THE TOURNEMIRE ARGILLITE (FRANCE): THROUGH-DIFFUSION AND ADVECTION EXPERIMENTS
- HE8.Thu.P5 *Ana María Fernández*, Ana María Melón, Juan Carlos Mayor*
EFFECT OF WETTING/DRYING CYCLES ON THE GEOCHEMICAL AND MINERALOGICAL PROPERTIES OF THE OPALINUS CLAY FORMATION
- HE8.Thu.P6 *H. Gailhanou, J. Olives, M. Amouric*, J. Rogez, J. C. Van Miltenburg, G. J. K. Van Den Berg, G. De Weireld, Y. Belmabkhout, E. Gaucher, P. Blanc*
THERMODYNAMIC FUNCTIONS AND HYDRATION OF CLAY MINERALS
- HE8.Thu.P7 *Roberto Gómez-Espina*, María Victoria Villar, Antonio Garralón, Alicia Escribano*
GEOCHEMICAL AND MINERALOGICAL CHANGES EXPERIENCED BY MX80 BENTONITE SUBMITTED TO HEAT AND WATER GRADIENTS
- HE8.Thu.P8 *Martina Klinkenberg*, Reiner Dohrmann, Stephan Kaufhold, Siegfried Siegesmund*
INFLUENCE OF CARBONATE MICROFABRICS ON THE FAILURE STRENGTH OF OPALINUS CLAY AND CALLOVO- OXFORDIAN CLAY STONES
- HE8.Thu.P9 *Beate Riebe**
THERMALLY INDUCED CHANGES IN THE ADSORPTION PERFORMANCE OF ORGANOCCLAYS
- HE8.Thu.P10 *María L. Rozalén*, F. Javier Huertas, Patrick V. Brady*
EXPERIMENTAL STUDY OF THE EFFECT OF PH AND TEMPERATURE ON THE KINETICS OF MONTMORILLONITE DISSOLUTION
- HE8.Thu.P11 *Elena Torres*, Alicia Escribano, María Jesus Turrero, Pedro Luis Martin, Trinidad Lopez*
EFFECT OF IRON-REDUCING CONDITIONS
- HE8.Thu.P12 *Tetsuji Yamaguchi*, Yoshibumi Mitsumoto, Mitsushi Kadowaki, Seiichi Hoshino, Toshikatsu Maeda, Tadao Tanaka, Shinichi Nakayama, François Marsal, Delphine Pellegrini*
VERIFICATION OF A REACTIVE TRANSPORT MODEL FOR LONG-TERM ALTERATION OF CEMENT-CLAY SYSTEMS BASED ON LABORATORY EXPERIMENTS AND IN SITU OBSERVATIONS
- HE8.Thu.P13 *Shingo Yokoyama*, Kunihiko Nakamura*
ALTERATION BEHAVIOR OF COMPACTED BENTONITE UNDER ALKALINE CONDITIONS
- HE8.Thu.P14 *Borys Zlobenko*, Ludmila Spasova, Sergey Bugera*
CHARACTERIZATION STUDIES OF CANDIDATE SWELLING CLAYS FOR BARRIER SYSTEM OF UKRAINIAN GEOLOGICAL REPOSITORY
- HE8.Thu.P15 *Kazuya Morimoto*, Tsutomu Sato, Sohtaro Anraku, Tetsuro Yoneda*
ADSORPTION MECHANISMS OF INORGANIC ANIONS ON HYDROTALCITE-LIKE COMPOUNDS AND THEIR POST- ADSORPTION BEHAVIORS
- HE8.Thu.P16 *Omar Al-Qudah*, John Walton*
MINERALOGICAL ANALYSIS OF GROUNDWATER IN THE VICINITY OF YUCCA MOUNTAIN
- HE8.Thu.P17 *Ana María Fernández, Scott Altmann, Norbert Maes, Ana María Melón, Christophe Tournassat, Eric Gaucher, Mieke De Craen**
CHARACTERIZATION AND COMPARISON AMONG DIFFERENT ARGILLACEOUS FORMATIONS
- HE8.Thu.P18 *Chloé Fourdrin*, Thierry Allard, Nicolas Menguy, Isabelle Monet, Marc Benedetti, Georges Calas*
EFFECT OF RADIATION-INDUCED AMORPHIZATION ON SMECTITE DISSOLUTION

HE8.Thu.P19

Ursula Alonso, Tiziana Missana, Alessandro Patelli, Miguel Garcia-Gutierrez, Nairobi Albarran, Valentino Rigato*
ANALYSES OF COLLOID DIFFUSION IN CLAY BARRIERS OF RADIOACTIVE WASTE REPOSITORIES

Oral Programme HE9

The Interaction of CO₂ with Clay Minerals

Conveners: Helge Stanjek, Emilio Galan

Wednesday 17 June, 2009

Chairs: Emilio Galan & Helge Stanjek

08.50 – 09.20

HE9.Wed.KL1

~~Oladipo Omotoso*~~, ~~Randy J. Mikula~~

CARBON DIOXIDE SEQUESTRATION IN OIL SANDS CLAY SLURRIES

09.20 – 09.40

HE9.Wed.L2

*Peter Waldo**

CHARACTERIZATION OF CARBON STORAGE RESERVOIRS

09.40 – 10.00

HE9.Wed.L3

Anthony Credo, Olivier Bildstein, Michel Jullien, Joël Raynal, Laurent Trotignon, Alain Castillo, Oleg Pokrovsky*

REACTIVITY OF SMECTITE AND MIXED-LAYER ILLITE/SMECTITE IN CO₂ GEOLOGICAL STORAGE

10.00 – 10.20

HE9.Wed.L4

Emilio Galán, Patricia Aparicio, Santiago Medina*

CO₂ SEQUESTRATION ON CERAMIC BUILDING MATERIALS

10.20 – 10.40

HE9.Wed.L5

Abdelkrim Azzouz, Alina- Violeta Ursu, Denisa Nistor, Tudor Sajin, Elias Assaad, René Roy*

CARBON DIOXIDE RETENTION OVER CLAY-DENDRIMER MATERIALS

Poster Programme HE9

Posting: Monday 15 June, 20.30-22.30. **Removal:** Wednesday 17 June, 12.50-14.30.

Attendance Time: Tuesday 16 June, 18:30–20:00

Chairs: Emilio Galan & Helge Stanjek

HE9.Tue.P1

Linda Luquot, Muriel Andreani, Philippe Gouze*

CO₂ PERCOLATION EXPERIMENT THROUGH CHLORITE/ZEOLITE-RICH SANDSTONE

HE9.Tue.P2

Viviane Lima, Michel Jullien, Olivier Bildstein, Anthony Credo, Jean-Claude Petronin, Sandra Einloft, João Marcelo Ketzer, Gesiane Sbrissa, Paulo Cunha*

REACTIVITY GEOCHEMISTRY OF THE CAPROCKS OF THE PARANÁ BASIN (SOUTHERN BRAZIL) IN THE PRESENCE OF CO₂

HE9.Tue.P3

*Radosław Tarkowski, Magdalena Wdowin**

CHARACTERISATION OF RESEVOIR FORMATION ROCKS IN ORDER TO GEOLOGICAL SEQUESTRATION OF CO₂

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 Riso 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 Airoidi, 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