

Oral Programme UM1

Teaching Clay Science

Conveners: Darrell Schulze, Giora Rytwo

Sunday 14 June, 2009

Chair: Giora Rytwo

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| 16.40 – 17.10 | UM1.Tue.KL1
<i>Ray E. Ferrell, jr. *</i>
WHITHER CACT (COMPUTER ASSISTED CLAY TEACHING)? |
| 17.10 – 17.30 | UM1.Tue.L2
<i>Vasily Lutsyk*, Olga Sumkina</i>
COMPUTER MODELS OF TERNARY SYSTEMS SPACE DIAGRAM WITH MATERIAL BALANCES |
| 17.30 – 17.50 | UM1.Tue.L3
<i>Giora Rytwo*</i>
EXPERIMENTS ILLUSTRATING THE INFLUENCE OF THERMODYNAMICS PARAMETERS ON SORPTION ON CLAY MINERALS |
| 17.50 – 18.10 | UM1.Tue.L4
<i>Joe B. Dixon*, Ana Luisa Barriento Velázquez, Youjun Deng</i>
SMECTITE CLAY ADSORPTION OF AFLATOXIN ILLUSTRATES APPLIED CLAY SCIENCE TO THE PUBLIC |
| 18.10 – 18.30 | UM1.Tue.L5
<i>Celso Gomes*</i>
ARGUMENTS IN FAVOUR OF KAOLIN REDEFINITION |

Poster Programme UM1

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

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

Chair: Giora Rytwo

UM1.Tue.P1

*Youjun Deng**, *Joe B Dixon*

HANDS-ON LEARNING CLAY MINERALOGY

UM1.Tue.P2

Diana Andrade, *Eugenia Parolo*, *Gisela Pettinari*, *Miria Baschini**, *Carola Aguzzi*, *Pilar Cerezo*, *Cesar SEMI-PRESENTIAL LABORATORY ON CLAY SUSPENSION CHARACTERIZATION BY ABSORPTION SPECTROSCOPY*

Oral Programme UM3

General Topics

Convener: Ray Ferrell

Wednesday 17 June, 2009

Chair: Ray E. Ferrell, Jr.

- 08.50 – 09.20 UM3a.Wed.L1
*Jon O. Fossum**
COMPLEX PHYSICAL PHENOMENA IN A CLAY
- 09.20 – 09.40 UM3a.Wed.L2
*László A. Gömze**
MECHANOCHEMICAL PHENOMENA ASSOCIATED WITH FINE COMMINUTION OF CLAY MINERALS
- 09.40 – 10.00 UM3a.Wed.L3
Ruhollah Taghizadeh Mehrjardi, Shahla Mahmoodi, Ahmad Heidari*
MINERALOGICAL AND MICROMORPHOLOGICAL PROPERTIES OF ARGILLIC HORIZON IN ARIDISOLS FROM IRAN
- 10.00 – 10.20 UM3a.Wed.L4
*Georges-Ivo E. Ekosse**
AN OVERVIEW OF KAOLIN OCCURRENCES IN AFRICA: GEOLOGY, MINERALOGY, CHEMISTRY AND UTILISATION
- 10.20 – 10.40 UM3a.Wed.L5
S.M. Hashemi, H. Torshizian*
KAOLIN DEPOSITS OF SABZEVAR (EASTERN IRAN)

COFFEE BREAK 10.40-11.00

Wednesday 17 June,, 2009

Chairs: Patricia Aparicio & Ray E. Ferrell, Jr.

- 11.00 – 11.30 UM3b.Wed.L1
Richard H. Bennett, Wen-An Chiou, Matthew H. Hulbert, Akira Ishikawa, Krushio Fukushima*
ENVIRONMENTAL TEM TECHNOLOGY: EMERGING RESEARCH PATHWAYS AT THE FOREFRONT IN GEOMATERIALS, ORGANO-CLAY COMPLEXES, AND BIOGEOCHEMISTRY: DYNAMIC OBSERVATIONS AT THE MICRO-NANO- AND MOLECULAR SCALES OF INTERACTION
- 11.30 – 11.50 UM3b.Wed.L2
Juliano Alves De Senna, Carlos Roberto De Souza Filho*
SPECTRO-MINERALOGICAL CHARACTERIZATION OF BRAZILIAN AGALMATOLITES USING REFLECTANCE SPECTROSCOPY AND ASTER IMAGERY ANALYSIS
- 11.50 – 12.10 UM3b.Wed.L3
*Hasan Tofiqhi, Sara Mola, Ali Abasiyan**
KINETICS OF COMPETITIVE FIXATION OF POTASSIUM AND AMMONIUM IONS BY SOME SOILS AND THEIR CLAY AND SILT COMPONENTS
- 12.10 – 12.30 UM3b.Wed.L4
Ali Hooshidar, Peter Uhlík, Douglas G. Ivey, Thomas H. Etsel, Qi Liu*
BEHAVIOUR OF CLAY MINERALS IN THE ALBERTA OIL SANDS DURING NON-AQUEOUS BITUMEN EXTRACTION

Thursday 18 June, 2009

Chairs: Isabel Carretero & Peter Komadel

- 08.50 – 09.20 UM3c.Thu.L1
*Tae-Min Oh**, *Ilhan Chang*, *Gye-Chun Cho*, *Eun-Seok Bang*
RELATIONSHIP BETWEEN UNDRAINED SHEAR STRENGTH AND SHEAR WAVE VELOCITY IN CLAY WITH CONSOLIDATION STATE: IN-SITU UNDRAINED SHEAR STRENGTH ESTIMATION TECHNIQUE FOR CLAY USING SHEAR WAVES
- 09.20 – 09.40 UM3c.Thu.L2
*Qi-Yi Zhang**
SHAKEDOWN ANALYSIS OF OFFSHORE PLATFORM SAFETY UNDER VARIED COMBINED LOADING CONDITIONS
- 09.40 – 10.00 UM3c.Thu.L3
Zhongxin We, *Guoping Zhang*, *Ray E. Ferrell, Jr.**
NANOINDENTATION TESTING OF LAYER SILICATES
- 10.00 – 10.20 UM3c.Thu.L4
*Bünyamin Ünal**
GEOLOGICAL AND ENGINEERING CHARACTERISTICS OF SAM-TEKIN CLAYS (BOZOVA-SANLIURFA-TURKEY)
- 10.20 – 10.40 UM3c.Thu.L5
Filomena Canora, *M. Dolores Fidelibus**, *Giuseppe Spilotro*
CLAYEY SOIL - WATER INTERACTIONS: STUDIES, TESTS AND MAIN RESULTS

COFFEE BREAK 10.40-11.00

Thursday 18 June, 2009

Chairs: Patricia Aparicio & Ray E. Ferrell, Jr.

- 11.00 – 11.30 UM3d.Thu.L1
*Peter Komadel**, *Martin Pentrák*, *Jana Madejová*
EFFECT OF VARIABLES ON ACID DISSOLUTION OF CLAY MINERALS
- 11.30 – 11.50 UM3d.Thu.L2
*Marián Janek**, *Attila Gaál*, *Ignác Bugár*, *Vojtech Szöcs*, *Dušan Velič*
DIELECTRIC PROPERTIES OF MICAS DETERMINED BY TERAHERTZ TIME-DOMAIN SPECTROSCOPY
- 11.50 – 12.10 UM3d.Thu.L3
Tofiqhi Hasan, *Sara Mola*, *Ali Abasiyan**
EVALUATION OF THE MAXIMUM POTENTIAL AMMONIA VOLATILIZATION FROM CLAY AND SOIL SURFACE IN SOME CALCAREOUS SOILS
- 12.10 – 12.30 UM3d.Thu.L4
M. Chambi-Peralta, *A.C. Vieira-Coelho*, *S.M. Toffoli**
CHARACTERIZATION AND CHEMICAL TREATMENT OF BRAZILIAN VERMICULITE
- 12.30 – 12.50 UM3d.Thu.L5
*Taner Kavas**, *Omer F. Emrulloğlu*
PRODUCTION OF CLAY BRICK INCORPORATING RED MUD AND CLAY WASTE CONTAINING BORAX

LUNCH 12.50-14.20

Thursday 18 June, 2009

Chairs: Isabel Carretero & Peter Komadel

- 14.30 – 15.00 UM3e.Thu.L1
M. Kharroubi, *S. Balme**, *F. Henn*, *J.C. Giuntini*, *H. Belarbi*, *A. Haouzi*
CORRELATION BETWEEN HYDRATION AND IONIC TRANSPORT IN HOMOIONIC MONTMORILLONITE
- 15.00 – 15.20 UM3e.Thu.L2
Rômulo P. Tenório, *Lars Ramstad Alme*, *Mario Engelsberg**, *Jon Otto Fossum*, *Fernando Hallwass*
NMR SPECTROSCOPY STUDIES OF WATER INTERCALATION IN NA-FLUOROHECTORITE
- 15.20 – 15.40 UM3e.Thu.L3
Supti Sadhukhan, *Sujata Tarafdar*, *Tapati Dutta**
EFFECT OF CHEMICAL KINETICS ON PERMEABILITY OF A POROUS ROCK: SCALING BY CONCENTRATION OF ACTIVE MATERIAL IN FLUID

15.40 – 16.00

UM3e.Thu.L4

Fabrice Salles, Olivier Bildstein, Isabelle Beurroies, Michel Jullien, Henri Van Damme*
HYDRATION SEQUENCE OF SWELLING CLAYS

16.00 – 16.20

UM3e.Thu.L5

Fabrice Salles, Nilton Rosenbach, Hervé Jobic, Sandrine Bourrelly, Philip Llewellyn, Thomas Devic, Christian Serre, Gérard Ferey, Guillaume Maurin*
STORAGE AND SUPERMOBILITY OF H₂ AND CH₄ IN PROMISING NEW FLEXIBLE METAL-ORGANIC FRAMEWORK MATERIALS

Poster Programme UM3

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

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

Chairs: Ray E. Ferrell, Jr. & Peter Komadel

- UM3.Thu.P1 *Sattar J. Al-Khafaji**
TECHNOLOGICAL ASPECT OF IRON OXIDES IN IRAQI KAOLINITE CLAY, WESTERN DESERT IRA
- UM3.Thu.P2 *Leonid Galetskiy, Elena Remezova**
PROSPECTS FOR DEVELOPMENT OF KAOLIN AND OTHER CLAY MINERALS IN UKRAINE
- UM3.Thu.P3 *Constanta Ittu*, Nicolae Constantin, Cristina Rizescu, Patricia Balog*
INVESTIGATION OF ROMANIAN WOLLASTONITE AND ITS POSSIBLE USE
- UM3.Thu.P4 *Farida Nemmar*, Omar El-Kecha, Mohammed Said Belkaid*
ELECTRICAL AND PIEZOELECTRICAL STUDY OF (NA 0.5 BI0.5)1-X PB X TIO3 SYSTEM
- UM3.Thu.P5 *Taner Kavas**
CHARACTERIZATION OF CLAY WASTES CONTAINING BORAX AND EFFECTS ON THE PURE CELIT (C3A)
- UM3.Thu.P6 *Mahdeyeh Sheykh Shoaie*, Hadi Nemat*
AN INVESTIGATION ON THE AMOUNT OF SULFATE IN TWO TYPES OF CEMENTS
- UM3.Thu.P7 *Sonia Arfaoui*, Najoua Frini-Srasra, Ezzeddine Srasra*
THE MICROPOROSITY OF HYDROXY-CHROMIUM PILLARED BEIDELLITE
- UM3.Thu.P8 *Mingde Fan, Peng Yuan*, Jianxi Zhu, Tianhu Chen, Aihua Yuan, Hongping He, Kangmin Chen, Dong Liu*
CORE-SHELL STRUCTURED IRON NANOPARTICLES HIGHLY DISPERSED ON MONTMORILLONITE CLAY
- UM3.Thu.P9 *Maria Luigia Giannossi*, Giovanni Mongelli, Vito Summa*
THE IMPACT OF TRACE ELEMENTS IN SOIL AND WATER ON GEOGRAPHIC DISTRIBUTION OF DISEASE: A CASE STUDY
- UM3.Thu.P10 *Martin Pentrák*, Jana Madejová, Peter Komadel*
ACID AND ALKALI TREATMENT OF KAOLINS
- UM3.Thu.P11 *Hossein Tabatabaei, Mohammad Javanbakht*, Ahmad Motamed*
THE APPLICATION OF NGS (NATURAL GAMMA RAY SPECTROMETRY) ELECTRICAL DIAGRAM IN IDENTIFICATION CLAY MINERAL OF PABDEH AND GURPI FORMATION AND THE OPTIMIZED MIXED OF DRILLING MUD IN KUPAL OIL FIELD
- UM3.Thu.P12 *Stepan Novosyadly*, Volodymyr Mandzyuk, Myron Luchka*
THE EFFECT OF RARE-EARTH METAL ALLOY ADDITIONS ON THERMAL TENSION OF LAYERED LSI STRUCTURES
- UM3.Thu.P13 *Iskender Isik*, Veli Uz*
CHARACTERIZATION AND UTILIZATION OF NODULAR SEPIOLITE (MEERSCHAUM) FROM ESKISEHIR (TURKEY)
- UM3.Thu.P14 *Stepan Novosyadly*, Volodymyr Vivcharuk*
GETTER EFFICIENCY OF OXYNITRIDE LAYER IN SUBMICRON STRUCTURES OF LSI
- UM3.Thu.P15 *S. Novosyadly, V. Berezhansky**
BORON NITRIDE AS SOLID PLANAR DIFFUSION A SOURCE FOR FORMING SUBMICRON STRUCTURE VLSI
- UM3.Thu.P16 *Pascal G. Yot*, François O. Mear*
FOAM GLASS: A PROMISING RE-USE FOR WASTE CRT GLASS
- UM3.Thu.P17 *Cheng-En Hsieh, Tsing-Hai Wang, Jiann-Ruey Chen, Shi-Ping Teng**
HYDROGEN STORAGE OF PHOSPHORIC ACID ACTIVATED MONTMORILLONITE
- UM3.Thu.P18 *Wu Yanyan*, Qin Yong, Yi Tongsheng*
SULFIDE MINERALOGY AND GEOCHEMISTRY OF THE HIGH-SULFUR COAL FROM KAILI, EASTERN GUIZHOU