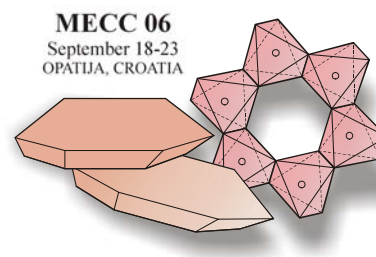


3rd MID-EUROPEAN CLAY CONFERENCE
September 18-23, 2006
Grand Hotel Adriatic
Opatija, CROATIA



PROGRAMME*

MONDAY, SEPTEMBER 18, 2006

14:00 – 19:00 REGISTRATION
20:00 WELCOME PARTY

TUESDAY, SEPTEMBER 19, 2006

HALL 1

9:00 – 9:30 OPENING CEREMONY

9:30 – 10:00 COFFEE BREAK & REGISTRATION

HALL 1

Chairs: Etelka Tombácz and Juraj Bujdák

10:00 – 10:45 PLENARY LECTURE 1

Clay-based bionanocomposites

Eduardo Ruiz-Hitzky

10:45 – 11:00 PAUSE

HALL 1

11:00 – 12:00 THEMATIC SESSION

“COLLOIDAL PROPERTIES AND SURFACE CHEMISTRY”

Chairs: Etelka Tombácz and Juraj Bujdák

- 11:00 – 11:20 **Detachment of colloids from bentonites in water**
Stephan Kaufhold and Reiner Dohrmann
- 11:20 – 11:40 **Intercalated montmorillonites by different aggregates of methylene blue**
Zdenek Klika, Pavla Čapková, Petra Horáková, Marta Valášková and Miroslav Pospíšil
- 11:40 – 12:00 **Latvian smectite clay and bentonite interaction with tetraoctyl-ammonium bromide**
Adris Actiņš, Linda Supe and Inese Sarceviča

* According to the state on September 8th. Minor changes are possible

HALL 2

11:00 – 12:00 THEMATIC SESSIONS "CLAYS IN HUMAN HISTORY" AND „CLAYS AND HEALTH“

Chairs: Esad Prohić and István Viczián

- 11:00 – 11:20 **Mineralogical and petrographical analysis of Kalenderberg household ceramic from Devín Castle (Slovakia)**
Miloš Gregor, Katarína Harmadyová and Radoslav Čambal
- 11:20 – 11:40 **Thermal alteration of mineral phases in Bronze Age ceramics from Transylvania (Romania)**
Corina Ionescu, Lucretia Ghergari, Volker Hoeck, Viorica Simon, Marius Horga
- 11:40 – 12:00 **Clay-based formulations to be used in topical applications**
Celso Gomes and Joao Baptista Perteira Silva.

12:00 – 14:00 LUNCH BREAK

HALL 1

Chairs: Ewa M. Serwicka-Bahranowska and Ivan Sondi

14:00 – 14:45 PLENARY LECTURE 2

Engineering properties of clays

Dobroslav Znidarčić

14:45 – 15:00 PAUSE

HALL 1

15:00 – 16:00 THEMATIC SESSION "COLLOIDAL PROPERTIES AND SURFACE CHEMISTRY"

Chairs: Ewa M. Serwicka-Bahranowska and Ivan Sondi

- 15:00 – 15:20 **Point of zero charge and surface acidity constants of Fe(OH)₂**
Diana Lieber and Helge Stanjek
- 15:20 – 15:40 **Clay mineral template-controlled formation of molecular assemblies of rhodamine 6G**
Juraj Bujdák, Nobuo Iyi and Adriana Czímerová
- 15:40 – 16:00 **TiO₂/delaminated-clay nanocomposites**
Pilar Aranda, Elina Manova, M^a Angeles Martín-Luengo, Sadok Letaïef and Eduardo Ruiz-Hitzky

16:00 – 16:20 COFFEE BREAK

HALL 1

16:20 – 17:00 THEMATIC SESSION "COLLOIDAL PROPERTIES AND SURFACE CHEMISTRY"

Chairs: Jana Madejová and Eduardo Ruiz-Hitzky

- 16:20 – 16:40 **Surface reactivity investigation of mechanochemically activated kaolinite**
Veronika Vágvölgyi, János Kristóf, Erzsébet Horváth and Ray L. Frost
- 16:40 – 17:00 **Comparing surface charge heterogeneity of 1:1 with 2:1 type clay particles in aqueous suspension**
Etelka Tombácz and Márta Szekeres

17:00 – 17:30 PAUSE

HALL 2

15:00 - 16:00 THEMATIC SESSIONS
"ENVIRONMENTAL GEOTECHNICS"
"CLAYS AND PROTECTION OF ENVIRONMENT"

Chairs: Biljana Kovačević Zelić and Dobroslav Znidarčić

- 15:00 – 15:20 **Engineering geological research of highly compacted bentonites in Slovakia**
Renata Adamcova, Zuzana Haasova and Peter Maas
- 15:20 – 15:40 **Behaviour of carboxylic acids on NH₄-smectites : pollution prediction in waste landfill**
Mathieu Gautier, Fabrice Muller, Patric Albéric, Lydie Le Forestier, Jean-Michel Bény and Patrick Baillif
- 15:40 – 16:00 **Cement suspensions for slurry cut-off walls with ultra fine ground Na-bentonite from Lieskovec and Jelšovský potok deposits**
Ivan Janotka and Igor Galko

16:00 – 16:20 COFFEE BREAK

HALL 2

16:20 - 17:20 THEMATIC SESSIONS
"CLAYS IN INDUSTRY"

Chairs: Celso Gomes and Ivan Kraus

- 16:20 – 16:40 **Mineralogical transformations during firing of some Plio-Quaternary clays from NE Slovenia**
Meta Dobnikar, Michele Dondi, Breda Mirtič, Duška Rokavec and Chiara Zanelli
- 16:40 – 17:00 **Smectites from Ziryanovskoe deposit (Kurgan Region, Russia). Relation between composition, structure and technological properties**
Viktoriya Krupskaya, Leonid Voevodin, Georgij Piloyan and Maximilian Nikolskij
- 17:00 – 17:20 **Fluidised bed technology for drying and milling of clay minerals**
Gunther Fleck, Frank Pudel, Lothar Mörl, Janitza Rangelowa and Gerhard Krüger

17:20 – 17:30 PAUSE

HALL 1

Chairs: Jana Madejová and Eduardo Ruiz-Hitzky

17:30 – 18:15 PLENARY LECTURE 3

Layered minerals in catalysis

Krzysztof Bahranowski and Ewa M. Serwicka-Bahranowska

18:15 – 19:00 PLENARY LECTURE 4

Ceramic dish as a symbol of life and universe and the oldest European calendar

Aleksandar Durman

20:00 MEETING OF THE REPRESENTATIVES OF THE CENTRAL EUROPEAN CLAY GROUPS

WEDNESDAY, SEPTEMBER 20, 2006

HALL 1

Chairs: Javier Cuadros and Helge Stanjek

9:00 - 9:45 PLENARY LECTURE 5

Clay mineralogy, petrography and geochemistry of Late Paleozoic siliciclastic rocks from the Mecsek-Villány area (SW Hungary): implications for source-area weathering, provenance and diagenesis

Béla Raucsik, Andrea Raucsik-Varga, György Szakmány and Viktória Kovács-Kiss

9:45 – 10:30 PLENARY LECTURE 6

Mössbauer spectroscopy of geological materials

Enver Murad

10:30 - 11:00 COFFEE BREAK

HALL 1

11:00 - 12:00 THEMATIC SESSION

"GEOLOGY OF CLAYS"

Chairs: Vladimir Bermanec and Javier Cuadros

- 11:00 – 11:20 **The structure and diagenetic transformation of illite/smectite from marls of the Polish Flysch Carpathians**
Katarzyna Górniak
- 11:20 – 11:40 **Clay minerals (I/S, kaolinite) in contact metamorphism related to Tertiary basalts intrusions in Lower Silesia (Poland)**
Wojciech Szeliga
- 11:40 – 12:00 **Geological prospecting of kaolin and kaolinite clays deposits on territory of the Western Carpathians (Slovakia)**
Michal Majdán, Ivan Kraus and Igor Galko

HALL 2

11:00 - 12:00 SYMPOSIUM HONOURING ENVER MURAD: MÖSSBAUER SPECTROSCOPY IN CLAY SCIENCE

Chairs: Eddy De Grave and Peter Komadel

- 11:00 – 11:20 **A multispectral study of clay minerals: Mössbauer, reflectance, transmittance, and emission spectroscopy**
Janice L. Bishop, Adrian J. Brown, Ed Cloutis, M. Darby Dyar, Takahiro Hiroi, Melissa D. Lane, Ralph E. Milliken, Enver Murad and John F. Mustard
- 11:20 – 11:40 **A new approach to the interpretation of Fe²⁺ quadrupole doublets in Mössbauer spectra of dioctahedral trans-vacant micaceous minerals**
Lidia G. Dainyak
- 11:40 – 12:00 **Fe³⁺ intercalation into vermiculite or deposition of iron oxyhydroxides? A Mössbauer spectroscopic investigation**
Anton Lerf, Friedrich E. Wagner, Juan Poyato, Verónica Ramírez -Valle and José L. Pérez-Rodríguez

12:00 – 14:00 LUNCH BREAK

HALL 1

Chairs: Czeslaw August and Derek C. Bain

14:00 - 14:30 PLENARY LECTURE 7

Zeolite deposits in Croatia

Darko Tibljaš and Stjepan Šćavničar

14:30 – 14:45 PAUSE

HALL 1

14:45 - 16:05 THEMATIC SESSIONS

"GEOLOGY OF CLAYS"

"CLAYS IN SOILS AND WEATHERING, PALEOSOLS"

Chairs: Czeslaw August and Derek C. Bain

- 14:45 – 15:05 **Dating of fault clays of the North Anatolian Fault Zone, Turkey**
Halim Mutlu, Erhan Altunel and I. Tonguc Uysal
- 15:05 – 15:25 **K-Ar dating of Cretaceous metamorphism recorded in the eastern part of Mt. Papuk, Slavonia, Croatia**
Vanja Biševac, Dražen Balen, Kadosa Balogh, Darko Tibljaš
- 15:25 – 15:45 **Development of a simple method for Ar/Ar dating of micrometer-sized minerals: a progress report**
Kadosa Balogh, Péter Árkai, Katalin Judik, Tetsumaru Itaya, Hironobu Hyodo and István Balogh
- 15:45 – 16:05 **The possibility of the isotopic dating stages of postsedimentary transformations of clayey terrigenous deposits in the different geodynamical situations**
Yulia V. Kushcheva, Dennis I. Golovin and Margot I. Bujakaite

16:05 – 16:20 COFFEE BREAK

HALL 1

16:20 - 17:20 THEMATIC SESSION

"GEOLOGY OF CLAYS"

Chairs: Goran Durn and Tamás G. Weiszbürg

- 16:20 – 16:40 **Altered tephra layers in the Upper Jurassic Lemeš deposits near Maovice (Dalmatia, Croatia): Clay mineralogy and basic soil mechanic properties**
Branimir Šegvić, Aleksandar Toševski, Danijela Števančić, Vanja Biševac and Boško Lugović
- 16:40 – 17:00 **Upper Cretaceous–Lower Tertiary clay mineral successions of Southern Haymana Region (Ankara, Turkey)**
Emel Bayhan
- 17:00 – 17:20 **Clay mineralogy of Tertiary sedimentary sequence from Gökçeada Island (Northeast Aegean Sea, Turkey)**
Hasan Bayhan, Fatih Güleç, Emel Bayhan, Abidin Temel and Halime Hürüylmaz

17:20 – 17:30 PAUSE

HALL 2

**14:45 - 16:25 SYMPOSIUM HONOURING ENVER MURAD:
MÖSSBAUER SPECTROSCOPY IN CLAY SCIENCE**

Chairs: Janice L. Bishop and Helge Stanjek

- 14:45 – 15:05 **Effects of *in situ* biostimulation on iron mineral speciation in a sub-surface soil**
Joseph W. Stucki, Kangwon Lee, Bernard A. Goodman and Joel E. Kostka
- 15:05 – 15:25 **Iron phases occurring in Fe-rich bentonite from Lieskovec, Slovakia**
Peter Komadel and Joseph W. Stucki

- 15:25 – 15:45 **Mineralogy, Mössbauer characteristics and isotope age of Middle Riphean glauconites (the Olenok Uplift, Northern Siberia)**
Tatyana S. Zaitseva, Igor M. Gorokhov, Tatyana A. Ivanovskaya, Nikolai N. Melnikov and Oxana V. Yakovleva
- 15:45 – 16:05 **Particularities of Mossbauer spectroscopy for the archaeological potsherds dating**
Oleg B. Milder, Alex I. Pikulev, Vladimir A. Semionkin, Evgeny G. Novikov
- 16:05 – 16:25 **Iron oxides on Mars: their characterization from MER Mössbauer spectra**
 Caroline Van Cromphaut, Valdirene G. de Resende, Eddy De Grave, Göstar Klingelhöfer, Antoon Van Alboom and Robert E. Vandenberghe

16:25 – 17:30 COFFEE BREAK - PAUSE

17:30 - 18:45 POSTER SECTION "A" – CONFERENCE HALL LOBBY

20:00 CONFERENCE DINNER

THURSDAY, SEPTEMBER 21, 2006

HALL 1

Chairs: Joseph W. Stucki and Reiner Dohrmann

9:00 - 9:45 PLENARY LECTURE 8

Clay minerals in the making

Javier Cuadros

9:45 – 10:30 PLENARY LECTURE 9

New insight into halloysite physico-chemical properties

Sabine Petit, Emmanuel Joussein and Olivier Grauby

10:30 - 11:00 COFFEE BREAK

HALL 1

11:00 - 12:00 - THEMATIC SESSION

"PHYSICAL AND CHEMICAL PROPERTIES OF CLAYS"

Chairs: Sabine Petit and Reiner Dohrmann

- 11:00 – 11:20 **Fast determination of CEC by Cu-trien method, its limitation and use**
Michaela Hruskova, Tomas Grygar and David Hradil
- 11:20 – 11:40 **Total surface area, surface charge density, cation exchange capacity and water retention in smectites**
Jan Środoń and Douglas K. McCarty
- 11:40 – 12:00 **Crystal-chemical factors affecting the distribution of octahedral cations over *cis*- and *trans*-sites in dioctahedral smectites**
Bella B. Zviagina

12:00 – 14:00 LUNCH BREAK

HALL 1

Chairs: Franz Ottner and Jan Šrodoň

14:00 - 14:30 PLENARY LECTURE 10

XRD texture measurements of oriented cClay aggregates – a quantification tool
Reiner Dohrmann, Katherina Rüping, Markus Kleber and Reinhold Jahn

14:30 – 14:45 PAUSE

HALL 1

14:45 - 16:45 THEMATIC SESSIONS

"GEOLOGY OF CLAYS"

"CLAYS IN SOILS AND WEATHERING, PALEOSOLS"

Chairs: Franz Ottner and Jan Šrodoň

- 14:45 – 15:05 **Mineralogy of glauconite-rich sand deposits in the Southern Slovakia**
Peter Uhlík, Juraj Čihák, Lubomír Tuček, Pavol Malachovský and Ján Derco
- 15:05 – 15:25 **Two in one: two different glauconite series from the same rock, Sümeg Marl Formation, Lower Cretaceous, Bakony Mountains, Hungary**
Erzsébet Tóth and Tamás G. Weiszbürg
- 15:25 – 15:45 **The TOT layer silicate of the lacustrine green clay, Rona limestone, Romania**
Dana Pop, Erzsébet Tóth, Tamás G. Weiszbürg, Emanoil Săsăran and Sándor Stichleitner

15:45 – 16:05 COFFEE BREAK

- 16:05 – 16:25 **Mineralogy of fine-grained sediments related to karst phenomena in Villány Mts., SE Transdanubia, Hungary**
István Viczián, József Dezső and Béla Raucsik
- 16:25 – 16:45 **Maastrichtian calcisols from the Hateg basin, South Carpathians: mineralogical and stable isotopic investigations**
Ana-Voica Bojar, Franz Ottner, Dan Grigorescu and Csiki Zoltan

16:45 - 18:00 POSTER SECTION "B" – CONFERENCE HALL LOBBY

HALL 1

Chairs: Goran Durn and Darko Tibljaš

18:00 - 18:45 PLENARY LECTURE 11

Near infrared spectroscopy: a powerful method to learn more on modified smectites
Jana Madejová

HALL 1

Chairs: Goran Durn and Darko Tibljaš

18:45 – 19:00 CONGRESS CLOSING CEREMONY

FRIDAY, SEPTEMBER 22, 2006

POSTMEETING EXCURSION 1

Clay mineralogy of bauxites and paleosols formed during regional subaerial exposures of Adriatic Carbonate Platform

Leaders: Goran Durn & Franz Ottner

DEPARTURE TIME (IN FRONT OF THE "ADRIATIC" HOTEL): 08:00
APPROXIMATE TIME OF ARRIVAL TO OPATIJA: 20:00

POSTMEETING EXCURSION 2

Ceramic and brick clays deposits and excessive flysch erosion

Leaders: Radovan Avanić, Boris Kruk, Žejko Kastmüller & Marta Mileusnić

DEPARTURE TIME (IN FRONT OF THE "ADRIATIC" HOTEL): 07:00
APPROXIMATE TIME OF ARRIVAL TO OPATIJA: 20:00

SATURDAY, SEPTEMBER 23, 2006

POSTMEETING EXCURSION 3

Clay minerals and selected ecological aspects of soils on the island Veli Brijun, Croatia

Leaders: Franz Ottner, Tomislav Erstić, Monika Sieghardt & Marta Mileusnić

DEPARTURE TIME (IN FRONT OF THE "ADRIATIC" HOTEL): 07:00
APPROXIMATE TIME OF ARRIVAL TO OPATIJA: 20:00

POSTERS

Posters will be continuously exposed during the conference, while authors should be available for discussion at the time indicated in the schedule.

WEDNESDAY, SEPTEMBER 20, 2006
POSTERS SECTION "A"
17:30 – 18:45 CONFERENCE HALL LOBBY

SYMPOSIUM HONOURING ENVER MURAD: MÖSSBAUER SPECTROSCOPY IN CLAY SCIENCE

- A1 **Mössbauer spectroscopy investigation of ground and acid treated vermiculite**
Celia Maqueda, Agua Santos Romero, Esmeralda Morillo José L. Pérez-Rodríguez, Anton Lerf and Friedrich Ernst Wagner
- A2 **The influence of physical alteration on the Mössbauer and reflectance spectra of antigorite and applications to soil alteration processes on Mars**
M. Darby Dyar, Janice L. Bishop, and Ahmed Drief

SECTION: GEOLOGY OF CLAYS AND ASSOCIATED MINERALS

- A3 **Climato-environmental controls on clay mineralogy of the Hettangian–Bajocian successions of the Mecsek Mountains (Tisza Mega-unit, Hungary)**
Béla Raucsik and Andrea Varga
- A4 **Clay mineralogy in northern Iraq during the Miocene: Paleoenvironmental indicators**
Ali Al-Juboury
- A5 **Clay mineralogy and crystallochemistry of the Douro Carboniferous Basin (Early Stephanian C; NW Portugal)**
Ary Pinto de Jesus and Fernando Rocha
- A6 **Mineralogical signatures of weathered Late Holocene ash layer from the island Mljet in Croatia**
Boško Lugović, Marta Crnjaković and Vanja Biševac
- A7 **Mineralogy of a Carboniferous bentonite from the Sudetes (SW Poland), northern margin of the Bohemian Massif – preliminary data**
Czesław August
- A8 **Clay minerals as indicators of thermal history of Palaeozoic rocks from Marija Gorica Hills, NW Croatia**
Darko Tipljaš, Dražen Balen, Smiljan Mahečić, Marijan Kovačić, Dražan Jozić, Darko Španić, Katalin Judik and Peter Árkai
- A9 **Mantienneite from Pinciná alginite deposit (Slovakia)**
Jana Vavrová, Adrián Biroň, Igor Galko and Michal Majdán
- A10 **Correlation of organic and inorganic temperature indicators – a case study on low-temperature metamorphic rock series from Mt. Medvednica, Croatia**
Katalin Judik, Gerd Rantitsch, Thomas M. Rainer, Darko Tipljaš and Péter Árkai
- A11 **Thermal properties of illitic material from Lower Carboniferous black shales (Western Pomerania, N Poland)**
Katarzyna Górniak, Krzysztof Bahranowski, Adam Gawel, Tadeusz Ratajczak and Tadeusz Szydłak
- A12 **Clay minerals assemblage in the Upper Albian carbonate succession (Tinjanska Draga, Istria, Croatia)**
Uroš Barudžija, Neven Tadej and Jasna Tadej
- A13 **The origin of mineral and energy resources of Central Europe (accompanied by metallogenic map 1:2.500,000)**
Harald G. Dill, Reinhard Sachsenhofer, Pavol Grecula, Tibor Sasvári, Ladislav A. Palinkaš, Sibila Borojević Šoštarić, Sabina Strmić Palinkaš, Walter Prochaska, Giorgio Garuti, Federica Zaccarini, Didier Arbouille and Markus Schulz
- A14 **Glauconitic materials from Lower Miocene Macelj Formation (NW Croatia) – new data**
Darko Tipljaš, Radovan Avanić and Darko Hanžel

SECTION: CLAYS IN SOILS AND WEATHERING, PALEOSOLS

- A15 **Mineralogy of Latosols along a regional toposequence across the Central Plateau (Brazil): First results**
Adriana Reatto, Ary Bruand, Eder S. Martins, Fabrice Muller, Euzébio M. Silva, Edi M. Guimarães and Michel Brossard
- A16 **Clay minerals and selected ecological aspects of soils on the island Veliki Brijun, Croatia**
Franz Ottner, Monika Sieghardt, Tomislav Erstic and Marta Mileusnić
- A17 **Clay minerals in Jurassic bauxites and associated cover “blue hole” sequence (Istria, Croatia)**
Goran Durn and Franz Ottner
- A18 **Micromorphology of the pedo-sedimentary colluvial complex in Sjenokoša (Istria, Croatia)**
Goran Durn, Andrea Mindszenty and Judith German-Heins
- A19 **Geochemistry and weathering of the Late Cenozoic red clays in the Pannonian Basin**
János Kovács
- A20 **Relationship between heavy metals and clay in Spanish agricultural topsoils**
José Antonio Rodríguez Martín, Diego Morales Herraiz and José Manuel Grau Corbi
- A21 **Mineralogical and geochemical characteristics of loess/paleosol section in Šarengrad, Srijem, Croatia**
Lidija Galović, Marta Mileusnić, Zoran Peh, Goran Durn and Josip Halamić
- A22 **Nature and alteration of clay minerals in brown forest soil profiles (Luvisols) of Cserhát Mountains (North Hungary)**
Tibor Németh and Péter Sipos

SECTION: CLAYS AND PROTECTION OF ENVIRONMENT

- A23 **Characterization of changes of low and high ordered kaolinite after bioleaching**
Annamária Mockovčiaková and Iveta Štyriaková
- A24 **Use of Romanian clays for textile wastewater depollution**
Eveline Popovici, Aurelia Vasile, Rodica Pode, Emiliana Dvininoy and Erika Reisz
- A25 **Bacterial destruction of smectite and bacterial DNA bound in smectite sediments**
Igor Štyriak, Iveta Štyriaková, Alena Španová and Bohuslav Rittich
- A26 **Physical properties and behaviour during leaching of synthetic aggregates made with polluted dredged sediments from Flanders, Belgium**
Iván Blanco García, Rudy Swennen and Jan Elsen
- A27 **Bacterial removal of Fe(III) impurities from clay: A potential new technology**
Iveta Štyriaková and Igor Štyriak
- A28 **Experimental study of iron – bentonite and pyrite – claystone interaction at low temperature**
Miroslav Honty, Vladimír Šucha, Peter Komadel, Marek Osacký, Jana Madejová, Juraj Bujdák, Jana Valúchová and Peter Uhlík
- A29 **Geochemical studies on pore water from two different clay types in the frame of radioactive waste disposal researches**
Sándor Kele, Mieke De Craen, Maarten Van Geet and Wang Lian

SECTION: ENVIRONMENTAL GEOTECHNICS

- A30 **Chemical compatibility of GCL mineral component to site-specific liquid**
Biljana Kovačević Zelić, Dubravko Domitrović, Marta Mileusnić and Neven Tadej
- A31 **Phase composition and geotechnical evaluation of bentonite from Lieskovec, Slovakia**
Slávka Andrejkovičová, Ivan Janotka and Peter Komadel
- A32 **Application of IP method for discovering clay zones in carbonate terrains**
Snježana Dominković Alavanja and Jasna Orešković
- A33 **Effect of bentonite compaction on the orientation of smectite particles**
Igor Striček, Peter Uhlík, Vladimír Šucha, Renáta Adamcová, Mária Čaplovičová and Igor Galko
- A34 **Barrier characteristics of clay and claystone: The BETTON database**
Johannes Gerardi

THURSDAY, SEPTEMBER 21, 2006
POSTERS SECTION "B"
16:45 – 18:00 CONFERENCE HALL LOBBY

SECTION: CRYSTAL CHEMISTRY AND STRUCTURE

- B1 **The structure and chemistry of natural takovite and synthetic analogue of takovite**
Alexey E. Kapustin, Roman A. Kozlovskiy, and David L. Bish
- B2 **Structure analysis of hydrotalcite intercalated with pyrenetetrasulphonate acid, molecular simulations and experiment**
Miroslav Pospíšil, Marek Veteška, Pavla Čapková, Ludvík Beneš, Klára Melánová and, Vítězslav Zíma
- B3 **Structural heterogeneity of alkylammonium-exchanged synthetic swelling fluoromicas**
Zenon Kłapyta
- B4 **Continuous crystal chemical space for the dioctahedral iron-rich micas and related phases (celadonite, glauconite, Fe-illite)**
Tamás G. Weiszburg, Erzsébet Tóth and Dana Pop
- B5 **Identification of glauconite-smectite interstratification using computer simulations in NEWMOD© program**
Krzysztof Starzec and Michał Skiba

SECTION: PHYSICAL AND CHEMICAL PROPERTIES OF CLAYS

- B6 **Thermal behaviour of synthetic takovite-like anionic clays studied by high-temperature X-ray diffraction and Raman spectroscopy**
František Kovanda, Tomáš Rojka, Vladimír Machovič and Petr Bezdička
- B7 **Solid-state NMR study of stability of "geopolymers" prepared from alkaline activated metakaoline**
Jiri Brus, Martina Urbanova, David Kolousek and Jana Andertova
- B8 **Evolution of swelling and hydration properties of a compacted hectorite percolated by nickel solutions**
Lydie Le Forestier, Patrick Baillif, Chantal Proust and Fabrice Muller
- B9 **Acid treatment of clay minerals: a FTIR spectroscopic study**
Martin Pentrák and Jana Madejová

SECTION: COLLOIDAL PROPERTIES AND SURFACE CHEMISTRY

- B10 **Sorption kinetics and equilibrium of thiocyanate anion on $Mg_xZn_{3-x}Al$ -type hydrotalcites**
Eveline Popovici, Rodica Pode, Erika Reisz, Laura Cochechi, Vasile Pode and Elena Mihaela Seftel
- B11 **Sorption equilibrium of phosphate anion on $Mg_xZn_{3-x}Al$ -type hydrotalcites**
Rodica Pode, Eveline Popovici, Laura Cochechi, Erika Reisz and Elena Mihaela Seftel
- B12 **Sorption of arsenic on clay minerals – a theoretical approach**
Goran Kniewald and Željka Fiket
- B13 **Mechanism of As sorption on Fe-treated clays**
Barbora Doušová, Tomáš Grygar, Alexandr Martaus, David Koloušek, Lucie Fuitová and Vladimír Machovič
- B14 **Energy transfer between cations of laser dyes in dispersions of reduced charge montmorillonites**
Adriana Czimerová, Juraj Bujdák and Nobuo Iyi
- B15 **Spectroscopic study of interaction of porphyrin dyes with layered silicates**
Alexander Čeklovský and Juraj Bujdák
- B16 **Intercalation of aniline in Wyoming montmorillonite exchanged with different cations**
Fabrice Muller, Jean Michel Bény and Mathieu Gautier
- B17 **Properties of clay mineral surfaces modified by intensive physical disintegration**
Ivan Sondi and Neda Vdović
- B18 **Modification of the montmorillonite surface with cationic surfactants**
Petr Praus, Martina Turicová, Soňa Študentová and Gabriela Kartošová

- B19 **Structure and dynamics of cationic surfactants intercalated in synthetic clays**
Robert Müller, Jana Valúchová, Cédric Calberg, Robert Jérôme and Jean Grandjean
- B20 **Metal complex exchange in natural zeolites**
Štefica Cerjan-Stefanović, Natalija Zabukovec-Logar, Karmen Margeta, Mario Šiljeg and Branka Vojnović
- B21 **The equilibrium isotherm for lead removal by natural zeolite-clinoptilolite: a comparison of batch and column methods**
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