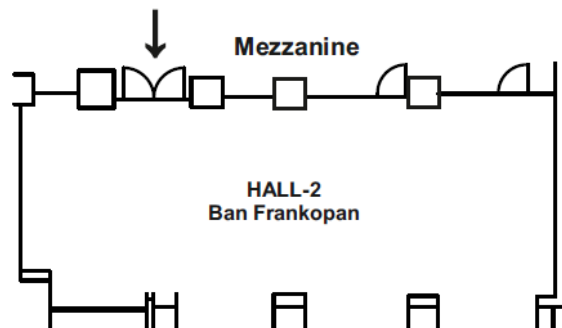
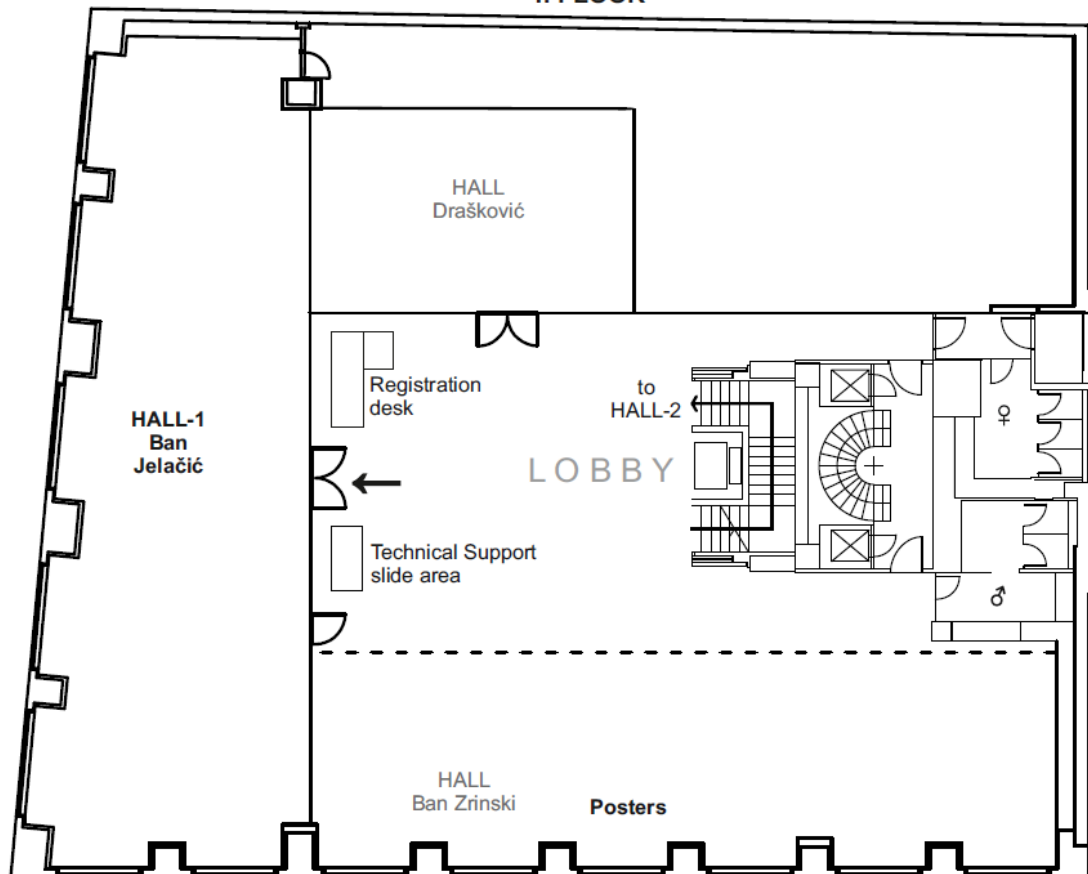


Monday, September 17th - Registration (Hotel Dubrovnik, close to the Hotel Reception)
other days - Registration (in the Lobby of Hotel Dubrovnik Congress Center)

CONGRESS CENTER

1. FLOOR



EVENTS SCHEDULE

Monday, September 17th

13:30-18:30 **Registration (Hotel Dubrovnik, close to the Hotel Reception)**
19:00-21:00 **Welcome reception**

Tuesday, September 18th

8:30-9:00 **Opening Ceremony (Hotel Dubrovnik, Ban Jelačić Hall)**
19:10-20:10 **DTTG Board Meeting (Hotel Dubrovnik, Ban Frankopan Hall)**

Wednesday, September 19th

14:00-16:00 **Zagreb guided city tour**
20:00-24:00 **Conference dinner (Vinodol Restaurant, Nikole Tesle 10)**

Thursday, September 20th

19:00-20:00 **DTTG Meeting (Hotel Dubrovnik, Ban Jelačić Hall)**
20:30 **Mid-European Clay Societies Representatives Meeting**

Friday, September 21st

12:35 **Closing Ceremony (Hotel Dubrovnik, Ban Jelačić Hall)**

Saturday, September 22nd

Field trip to Hrvatsko Zagorje

Tuesday, September 18th

BAN JELAČIĆ HALL

8:30-9:00 Opening Ceremony

9:00-9:45 Plenary lecture:

Clay mineralogy and the origin of unconventional Paleozoic shale reservoirs from the North American midcontinent

Branimir Šegvić, Giovanni Zaroni, Dustin E. Sweet and Andrea Moscariello
(introduced by Jan Środoń)

BAN JELAČIĆ HALL Session E Clay (and associated) minerals in geological systems Chairs: Jan Środoń and Rafael Ferreira Mählmann	BAN FRANKOPAN HALL Session C Modification and synthesis of clays Chairs: Pilar Aranda and Liva Dzene
9:50 – 10:10 Weathering crusts, clay mineralogy and tectonic quiescence: preliminary results <u>Michael Jeffrey Wilson</u> , Mikhail Viktorovich Shaldybin and Lyudmyla Wilson	9:50 – 10:10 Synthesis of dioctahedral clay minerals under low temperature hydrothermal conditions for different time periods Elif Vargun, <u>Ceren Kucukuysal</u> , Omer Bozkaya, Sabine Petit, Merve Gulcan and Zeynep Akcay Yaylim
10:10 – 10:30 Paleoenvironmental and paleoclimatological assessment of the Kalecik basin based on multi-proxy data from the lake sediments of the Neogene Hançılı Formation, Central Turkey Serdar Aker, <u>Asuman Günel Türkmenoğlu</u> and Ceren Küçükuysal	10:10 – 10:30 Formation of iron-rich phyllosilicates in Si-Fe system in function of Fe/Si molar ratio <u>Liva Dzene</u> , Jocelyne Brendle, Lionel Limousy, Patrick Dutournie, Christelle Martin and Nicolas Michau
10:30 – 10:50 Pore-scale processes in clay-bearing chalks: an example from the Outer Carpathians (Poland) <u>Katarzyna Górniak</u>	10:30 – 10:50 Application of halloysite impregnated with Fe ⁰ particles for acid mine drainage water treatment <u>Paulina Maziarz</u> and Jakub Matusik

10:50 – 11:20 COFFEE BREAK

BAN JELAČIĆ HALL Session E Clay (and associated) minerals in geological systems Chairs: Jan Środoń and Rafael Ferreira Mählmann	BAN FRANKOPAN HALL M General session Chairs: Marta Mileusnić and Franz Ottner
11:20 – 11:40 Geology, mineralogy, geochemistry and genesis of bentonite deposits in Miocene volcano-sedimentary units of the Balıkesir region, western Anatolia <u>Selahattin Kadir</u> , Tacit Külah, Hülya Erkoyun and Raffi Arslanyan	11:20 – 11:40 Investigation of the surface sites of tubular halloysite using phosphate anions <u>Nia Gray</u> , Stephen Hillier, Peter Holliman, Chris Greenwell and David Lumsdon

<p>11:40 – 12:00</p> <p>The nature, origin and significance of luminescent layers in the Bazhenov Shale Formation of West Siberia, Russia</p> <p><u>Michail V. Shaldybin</u>, Michael J. Wilson, Lyudmyla Wilson, Yuriy M. Lopushnyak and Elena S. Deeva</p>	<p>11:40 – 12:00</p> <p>Healing clays from Santa Maria (Azores, Portugal): assessment of their potentialities</p> <p><u>Ângela Cerqueira</u>, Cristiana Costa, Fernando Rocha, Cristina Sequeira and Denise Terroso</p>
<p>12:00 – 12:20</p> <p>Artificially induced clay mineral authigenesis in an underground gas storage field, North Alpine Foreland Basin, Austria</p> <p>Magdalena Bottig, <u>Susanne Gier</u> and Wolfdietrich Jilg</p>	<p>12:00 – 12:20</p> <p>Study of iontophoresis process using clays as a transdermal drug delivery system</p> <p><u>Carla Marina Bastos</u>, Fernando Rocha, Amélia P. Marinho, Ângela Cerqueira and Nuno Gomes</p>
	<p>12:20 – 12:40</p> <p>Ethnopharmacological use of geophagic clays</p> <p><u>Fernando Rocha</u>, Angela Cerqueira, Carla Marina Bastos and Cristiana Costa</p>

12:40 – 13:50 LUNCH BREAK

BAN JELAČIĆ HALL	BAN FRANKOPAN HALL
<p>Session G Clays in soils and young sediments Chairs: Goran Durn and Sofia Lessovaia</p>	<p>Session H Clays and environment protection Chairs: Barbora Doušová and Miroslav Honty</p>
<p>13:50 – 14:10</p> <p>Effect of particle shape and surface charge properties on the formation and stability of aggregates</p> <p><u>Stefan Dultz</u>, Martin Schrapel, Susanne K. Woche, Robert Mikutta and Georg Guggenberger</p>	<p>13:50 – 14:10</p> <p>Use of Fe/Mn – modified aluminosilicates as selective anionic sorbents</p> <p><u>Barbora Dousova</u>, David Kolousek, Miloslav Lhotka and Vladimir Machovic</p>
<p>14:10 – 14:30</p> <p>Synthesis and multi-analytical characterization of hydroxy-interlayered smectite (HIS)</p> <p><u>Jan Dietel</u>, Jens Gröger-Trampe, Marko Bertmer, Stephan Kaufhold, Kristian Ufer and Reiner Dohrmann</p>	<p>14:10 – 14:30</p> <p>Influence of the synthesis precursors of layered double hydroxides on the removal of chromium species from aqueous solutions</p> <p>Magdalena Costanzo, Cecilia Ávila, Nora A. Comelli and <u>Nora A. Merino</u></p>
<p>14:30 – 14:50</p> <p>Application of high gradient magnetic separation for characterization of glauconite weathering products formed in soils under different pH conditions</p> <p><u>Magdalena Skoneczna</u>, Michał Skiba, Katarzyna Maj-Szeliga and Wojciech Szymański</p>	<p>14:30 – 14:50</p> <p>International Bentonite Longevity (IBL) project: an overview</p> <p><u>William Russell Alexander</u>, Masakazu Ito and Heini Maria Reijonen</p>

<p>14:50 – 15:10 Mineralogical and geochemical study of the marine sediments of south Aegean Sea: implications for provenance</p> <p><u>Georgia Leontopoulou</u>, <u>George E. Christidis</u>, <u>George Papatheodorou</u>, <u>Maria Geraga</u> and <u>Gregory Roussakis</u></p>	<p>14:50 – 15:10 Application of silver- bentonite in nuclear waste treatment</p> <p><u>Dóra Buzetzky</u>, <u>Zoltán Nemes</u>, <u>Nagy M. Noémi</u> and <u>József Kónya</u></p>
<p>15:10 – 15:30 Clay mineralogy of sediments from the Vistula River and the Gdańsk Bay (Poland)</p> <p><u>Marta Kisiel</u>, <u>Michał Skiba</u>, <u>Artur Kuligiewicz</u>, <u>Mateusz Damrat</u>, <u>Katarzyna Maj-Szeliga</u> and <u>Marek Zajączkowski</u></p>	<p>15:10 – 15:30 Competitive adsorption of Cs and Sr onto raw and amphoteric surfactant-modified Laponites®</p> <p><u>Thomas Thiebault</u>, <u>Jocelyne Brendlé</u>, <u>Grégoire Augé</u> and <u>Lionel Limousy</u></p>

15:30 – 16:00 COFFEE BREAK

<p>BAN JELAČIĆ HALL Session G Clays in soils and young sediments</p> <p>Chairs: Goran Durn and Sofia Lessovaia</p>	<p>BAN FRANKOPAN HALL Session A Crystal chemistry and structure of clay minerals</p> <p>Chairs: Stephen Hillier and Kristian Ufer</p>
<p>16:00 – 16:20 Red soils in Mugla polje, SW Turkey: Mineralogical and Geochemical Approach</p> <p><u>Ceren Kucukuysal</u>, <u>Murat Gul</u>, <u>Tural Aghayev</u> and <u>Merve Gulcan</u></p>	<p>16:00 – 16:20 About the relation of tetrahedral Fe, tetrahedral charge, and Fe-content of dioctahedral smectites</p> <p><u>Stephan Kaufhold</u></p>
<p>16:20 – 16:40 Clay mineralogy of soils developed on Miocene marl sections of Mt Medvednica, NW Croatia: Origin and transformation in temperate humid climate</p> <p><u>Zvonka Gverić</u>, <u>Štefica Kampać</u>, <u>Anja Paradžik</u>, <u>Pavo Vrbanec</u> and <u>Nenad Tomašić</u></p>	<p>16:20 – 16:40 Structural iron release from bentonite by Y^{3+} and La^{3+} ions</p> <p><u>Eszter Mária Kovács</u>, <u>József Kónya</u> and <u>Noémi Nagy</u></p>
<p>16:40 – 17:00 Clay mineralogy of the soils from high belt of the Altai Mountains</p> <p><u>Sofia N. Lessovaia</u>, <u>Michail Amosov</u> and <u>Kirill Chistyakov</u></p>	<p>16:40 – 17:00 Order-disorder in Mg-Fe chlorites with semi-random stacking based on powder X-ray diffraction data</p> <p><u>Katarzyna Luberd-Durnaś</u>, <u>Marek Szczerba</u>, <u>Małgorzata Lempart</u> and <u>Arkadiusz Derkowski</u></p>
	<p>17:00 – 17:20 Structural transformation of lepidocrocite-type layered titanate, $Cs_{0.8}Ti_{1.6}Ni_{0.4}O_4$, via acid treatment and subsequent calcination at different temperatures</p> <p><u>Kanji Saito</u>, <u>Yusuke Komiya</u>, <u>Minoru Sohmiya</u>, <u>Masataka Ogasawara</u> and <u>Sumio Kato</u></p>

BAN ZRINSKI HALL
POSTERS – 17:20-19:00

Session A Crystal chemistry and structure of clay minerals

- A-1 Structural analysis of beidellite and montmorillonite intercalated with acetylcholine and choline – computational investigation
Peter Škorňa, Eva Scholtzova, Ľuboš Jankovič and Daniel Tunega
- A-2 The combination of different disorder models for the Rietveld refinement of rectorite, a regular interstratified clay mineral
Kristian Ufer, Jan Dietel, Stephan Kaufhold and Reiner Dohrmann

Session B Physico-chemical properties of clays

- B-1 Removal of spiramycin from aqueous solutions using natural and purified Algerian palygorskite
Lala Setti Belaroui, Abderrahman Habibi, Alberto Lopez Galindo and Aránzazu Peña
- B-2 Textural characteristics of rehydroxylated kaolinites
Miloslav Lhotka and Barbora Dousova

Session D Organoclays and nanocomposites

- D-1 Influence of quaternary alkylphosphonium and alkylammonium cations on the interaction of synthetic saponite with laser dye
Martin Barlog, Helena Pálkova and Juraj Bujdák
- D-2 Near-infrared spectroscopy: the useful tool for monitoring the conformations of organic cations during hydration and dehydration
Valéria Bizovská, Ľuboš Jankovič and Jana Madejová
- D-3 Highly ordered α -zirconium phosphate intercalate with p-aminoazobenzene: structure refinement and interaction with UV radiation revealed by molecular modelling
Anna Koteja, Katarzyna Luberda-Durnaś, Marek Szczerba and Jakub Matusik
- D-4 DFT study of atrazine-beidellite intercalate
Daniel Moreno Rodríguez, Eva Scholtzová and Ľuboš Jankovič
- D-5 The application of NIR spectroscopy for monitoring the conformation of a series of primary amines in montmorillonite interlayers
Michal Slaný, Ľuboš Jankovič and Jana Madejová

Session E Clay (and associated) minerals in geological systems

- E-1 Clay minerals in the Upper Permian evaporite deposits from the Mali Kukor, Vranjkovići, and Slane Stine (Dalmatia, Croatia)
Željko Dedić, Nikolina Ilijanić and Slobodan Miko
- E-2 Mineralogical and geochemical characterization of Quaternary lacustrine sediments in Rečica clay deposit (Croatia)
Erli Kovačević Galović, Nikolina Ilijanić, Slobodan Miko and Željko Kastmüller

- E-3 Geochemical and mineralogical signatures of Istrian Lower Palaeogene bauxites – a geodynamical thread
Zoran Peh, Nikolina Ilijanić, Slobodan Miko and Erli Kovačević Galović
- E-4 Stratigraphic distribution and lithofacial variations of Carboniferous shales
Eva Wegerer, Nicolai Aust and Alessandra Rachetti
- E-5 Smectite stability in alternating mudstone-sandstone facies from the Pennsylvanian Hoxbar Group (Anadarko Basin, Oklahoma)
Giovanni Zannoni, Branimir Šegvić, Jordan Coe and Dustin E. Sweet

Session F Investigation methods of clays and clay minerals

- F-1 Effect of disaggregation energy on amounts of clay fractions and the clay mineralogy inventory
Reiner Dohrmann
- F-2 Near-IR spectroscopy in organoclays study
Jana Madejová
- F-3 Mathematical model of methylene blue dimerization on clay surfaces
Maja Milošević and Mihovil Logar

Session G Clays in soils and young sediments

- G-1 Clay minerals in Icelandic soils - a study on the weathering of tephra and how they impact soil development in South East Iceland
Theresa Bonatotzky, Franz Ottner, Egill Erlendsson and Guðrún Gísladóttir
- G-2 Geochemistry of volcanic clayey soils from Santa Maria (Azores, Portugal)
Ângela Cerqueira, Cristiana Costa, Fernando Rocha, Cristina Sequeira and Denise Terroso
- G-3 The influence of Fe-oxides and organic matter on surface properties of nanostructured microaggregates of the Terra rossa and Calcocambisol
Stanko Ružičić, Goran Durn, Ivan Sondi, Nuša Cukrov, Srečo D. Škapin and Neda Vdović
- G-4 Mineralogical characterisation of Batizovské pleso sediments (High Tatras, Slovakia)
Peter Uhlík, Adrian Biroň, Radovan Pipík, Juraj Šurka, Dušan Starek and Rastislav Milovský

Session H Clays and environment protection

- H-1 Stability of Fe-containing minerals in the oxidized zone of the Boom Clay
Miroslav Honty, Lian Wang, Christophe Bruggeman, Thomas Bakas, Jana Madejová and Xavier Sillen
- H-2 Sorption of Ni²⁺ and Zn²⁺ on selected natural and synthetic materials
Tomáš Binčík, Marek Osacký and Martina Vítková
- H-3 The influence of zeolites from Donje Jesenje area on the removal of lead and cobalt from water
Tea Novaković and Filip Sokol

Session I Clays in geotechnical applications

- I-1 The stability of bentonites in aqueous solutions (25 to 120°C) relevant to the underground sealing of radioactive waste deposits
Georg H. Grathoff, Carolin Podlech, Laurence N. Warr and Arthur Meleshyn
- I-2 Impact of polymer-characteristics on the hydro-mechanical properties of polycationic modified bentonite
Wolfgang Lieske and Gemmina Di Emidio

Session J Industrial application of clays

- J-1 Evaluation of bentonite deposits from Greece for industrial applications
Eleni Koutsopoulou, George E. Christidis and Ioannis Marantos
- J-2 Removal of iron during bleaching of Bulgarian kaolins
Kremena Mincheva, Aylin Dzhelyaydinova, Veselina Stefanova and Jivka Ivanova
- J-3 Removal of heavy metals from polluted soil using zeolites synthesized from perlite by-product material
Marek Osacký, Martina Vítková, Helena Pálková, Ľuboš Jankovič, Adriana Czímerová, Pavol Hudec and Jaroslav Sedláček

M General session

- M-1 Sediments lagoons characterization to be used as a therapeutic muds in thalassotherapy
Cristiana Costa, Ângela Cerqueira and Fernando Rocha
- M-2 Roman pottery workshops in the province Dalmatia: identifying clay sources and production technology through mineralogical analysis
Anita Grizelj and Ana Konestra
- M-3 Palaeoenvironmental reconstruction of a Permian playa lake: the Boda Claystone Formation
Amadé Halász
- M-4 Structural description and properties of Mg₂Al-layered double hydroxides intercalated with the fluvastatin anions solved by molecular simulation methods
Milan Pšenička and Miroslav Pospíšil
- M-5 LDH as a drug nanocarrier described by DFT and MD calculation methods
Milan Pšenička, Jakub Škoda and Miroslav Pospíšil
- M-6 Biogeochemical characterization of sediments under the anthropogenic influence at mouth of Rio de Minas, Punta Arenas, Chile
Vladimir Bermanec, Jasna Hrenović, Snježana Kazazić, Erna van Wilpe, Chantelle Venter and André Botha
- M-7 Characterization of bacteria in nickel-rich kaolinite, montmorillonite, and saponite mixture from Gornje Orešje, Croatia
Vladimir Bermanec, Jasna Hrenović, Snježana Kazazić, Erna van Wilpe, Chantelle Venter and André Botha

Wednesday, September 19th

BAN JELAČIĆ HALL

8:30-9:15 Plenary lecture:

Thermal reactions of clay minerals and implication for applications

Katja Emmerich

(introduced by Reinhard Kleeberg)

<p>BAN JELAČIĆ HALL Session F Investigation methods of clays and clay minerals Chairs: Reinhard Kleeberg and Jana Madejová</p>	<p>BAN FRANKOPAN HALL Session E Clay (and associated) minerals in geological systems Chairs: Asuman Günel Türkmenoğlu and Béla Raucsik</p>
<p>9:20 – 9:40 Applying a thermogravimetric quantitative method for the determination of dehydroxylation and dehydrogenation in Fe-chlorites <u>Małgorzata Lempart</u> and Arkadiusz Derkowski</p>	<p>9:20 – 9:40 Clay mineralogy of the Kışladağ porphyry Au deposit (Uşak, western Turkey): Evidence for an epithermal overprint <u>Ömer Bozkaya</u>, Nurullah Hanilçi, Gülcan Bozkaya, David Banks and I. Tonguç Uysal</p>
<p>9:40 – 10:00 Cation exchange capacity of bentonite in highly saline environment <u>Peter Boháč</u>, Laure Delavernhe, Erik Zervas, Franz Königer, Rainer Schuhmann and Katja Emmerich</p>	<p>9:40 – 10:00 Genesis of the Yarıkcı hydrothermal kaolinite deposit within Paleozoic metamorphic units, Mihaliçcik, Eskişehir, Turkey <u>Selahattin Kadir</u>, Hülya Erkoyun and Tacit Külah</p>
<p>10:00 – 10:20 Significant bias in clay minerals extracted from ancient carbonates? <u>Rute Coimbra</u>, Fernando Rocha, Adrian Immenhauser, Federico Olóriz, Denise Terroso and Mauritz Horikx</p>	<p>10:00 – 10:20 Illites and chlorites in hydrothermal alteration of a shallow-dipping epithermal Au-Ag-Pb-Zn-Cu deposit Banská Hodruša, Slovakia Peter Koděra, <u>Peter Uhlík</u>, Adrian Biroň, Alexander Kubač, Boris Bača and Marek Osacký</p>

10:20 – 10:50 COFFEE BREAK

<p>BAN JELAČIĆ HALL Session F Investigation methods of clays and clay minerals Chairs: Reinhard Kleeberg and Jana Madejová</p>	<p>BAN FRANKOPAN HALL Session E Clay (and associated) minerals in geological systems Chairs: Asuman Günel Türkmenoğlu and Béla Raucsik</p>
<p>10:50 – 11:10 Benefits of 3D X-ray tomography (XCT) analysis on textural bentonite characterisation <u>Heini M. Reijonen</u>, Jukka Kuva and Heidi Laxtröm</p>	<p>10:50 – 11:20 Keynote lecture Preliminary attempt to define grade of diagenesis and incipient metamorphism considering geothermal gradients calibrated with clay mineral, mineral and maceral index data <u>Rafael Ferreira Mählmann</u></p>

<p>11:10 – 11:30 Combined ab initio and XAFS spectroscopy study on the characteristics of metal uptake by clay minerals</p> <p><u>Annamária Kéri</u>, Rainer Dähn, Matthias Krack and Sergey V. Churakov</p>	<p>11:20 – 11:40 Illitization age data on pre-Alpine geological events: an example from the autochthonous Paleozoic sequence, Tauride Belt, Southern Turkey</p> <p><u>Ömer Bozkaya</u>, Hüseyin Yalçın, I. Tonguç Uysal, Mehmet Cemal Göncüoğlu, Rafael Ferreira Mählmann and Cengiz Okuyucu</p>
<p>11:30 – 11:50 Use of SWIR spectroscopy for the exploration of permeable fracture zones in geothermal wells exploiting a deep-seated granite reservoir</p> <p><u>Carole Glaas</u>, Jeanne Vidal, Benoit Hébert, Patricia Patrier, Daniel Beaufort and Albert Genter</p>	<p>11:40 – 12:00 Elemental mobilization during burial diagenesis of illite-smectite mixed-layer clays in the Beaufort-Mackenzie Basin, Arctic Canada</p> <p><u>Jaehong Ko</u> and Reinhard Hesse</p>
<p>11:50 – 12:10 Detection and quantification of TiO₂ polymorphs in kaolins by X-ray diffraction</p> <p><u>Helen Pendlowski</u>, Stephen Hillier and Ian Phillips</p>	<p>12:00 – 12:20 Thermal history of the central part of the Karst Dinarides, Croatia: combined application of clay mineralogy and low-T thermochronology</p> <p><u>Jan Środoń</u>, Aneta A. Anczkiewicz, István Dunkl, Igor Vlahović, Ivo Velić, Bruno Tomljenović, Tadeusz Kawiak, Michał Banaś and Hilmar von Eynatten</p>
<p>12:10 – 12:40 Keynote lecture Strategies of background treatment in X-ray powder diffraction analysis of clays</p> <p><u>Reinhard Kleeberg</u></p>	

12:40 – 13:45 LUNCH BREAK

Thursday, September 20th

8:30-9:15 Plenary lecture:

Functional nanostructured materials by assembling fibrous clays and other nanoparticles

Pilar Aranda

(introduced by Miroslav Pospíšil)

BAN JELAČIĆ HALL Session J Industrial application of clays Chairs: George Christidis and Peter Uhlík	BAN FRANKOPAN HALL NanoMin workshop Chairs: Ivan Sondi and Goran Durn
9:20 – 9:40 Laponite® technology: present status, challenges and future trends <u>Kirill Shafran</u> and Jane Doyle	9:25 – 10:10 Understanding the (paleo)soils: From palaeoenvironmental reconstruction to the role of iron oxides and soil organic matter on the formation of the surface physicochemical properties and the aggregation processes <u>Goran Durn</u> , Ivan Sondi, Srečo D. Škapin, Marta Mileusnić, Thilo Rennert, Nuša Cukrov, Vedran Rubinić and Stanko Ružičić
9:40 – 10:00 Russian bentonite clay deposits: geological occurrences, structure and properties <u>Peter Belousov</u> , Sergey Zakusin, Olga Dorzhieva, Ekaterina Typina and Victoria Krupskaya	10:10 – 10:40 Nanosized and nanostructured mineral phases from recent sediments and soils of the Adriatic region <u>Ivan Sondi</u> , Srečo D. Škapin and Goran Durn
10:00 – 10:20 Rheological properties of bentonite and palygorskite suspensions after dynamic aging at high temperatures <u>George E. Christidis</u> , Sophia Lytra, George Vlachos and Demetrios Marinakis	
10:20 – 10:40 Effect of calcined bentonite as a supplementary cementitious material on the long-term performance of concrete André Trümer, Horst-Michael Ludwig, Matthias Schellhorn and <u>Ralf Diedel</u>	

10:40 – 11:10 COFFEE BREAK

BAN JELAČIĆ HALL Session J Industrial application of clays Chairs: George Christidis and Peter Uhlík	BAN FRANKOPAN HALL NanoMin workshop Chairs: Ivan Sondi and Goran Durn
11:10 – 11:30 Development of special clay blends for fibre reinforced plasterboards to improve fire resistance <u>Matthias Schellhorn</u> , Dirk Stiehl and Ralf Diedel	11:10 – 11:40 Formation of the authigenic cements in aquatic sediments through precipitation processes at the nanoscale - isotopic and FESEM study <u>Sonja Lojen</u> , Srečo D. Škapin, Maja Ivanić, Tamara Troskot-Čorbić and Ivan Sondi
11:30 – 11:50 Adobe formulations for rehabilitation of old buildings (in Portugal) <u>Cristiana Costa</u> , Ana Velosa, Sara Moutinho, Ângela Cerqueira and Fernando Rocha	

11:50 – 12:10 Effect of talc, huntite, and magnesitic clay and sepiolitic–dolomite additions as different MgO sources on physical properties of Ca-rich ceramic bodies <u>Aydın Aras</u>	11:40 – 12:10 Size-related mineralogical and surface physico-chemical properties of inorganic colloidal particles in recent marine sediments of the Adriatic <u>Maja Ivanić</u> , Ivan Sondi, Goran Durn and Srečo D. Škapin
12:10 – 12:30 Influence of clay mineralogy for heavy clay products <u>Alexander Eppner</u>	

12:30 – 13:40 LUNCH BREAK

BAN JELAČIĆ HALL

13:40-14:25 **George Brown lecture:**
Quantitative analysis of clay minerals and poorly ordered phases by prior determined X-ray diffraction full pattern fitting: procedures and prospects
Stephen Hillier

14:25-15:10 **Gerhard Lagaly Award lecture:**
About relations of properties and performances of bentonites
Stephan Kaufhold

15:10 – 15:35 COFFEE BREAK

BAN JELAČIĆ HALL Session J Industrial application of clays Chairs: George Christidis and Peter Uhlík
15:35 – 15:55 Recycling of rare earth elements from electronic wastes by selective adsorption on industrial clay minerals <u>Stefan Ginzel</u> , Christoph Piribauer, Sarah Klecha, Ralf Diedel and Joachim Scholz
15:55 – 16:15 Removal of chromates and arsenates by halloysite-LDH composites <u>Jakub Matusik</u> and Jakub Hyla
16:15 – 16:35 Computational modelling of the interactions of kaolinite with heavy oil components in solution <u>Stanislav R. Stoyanov</u> , Feng Lin and Yuming Xu

16:35 – 17:00 COFFEE BREAK

BAN JELAČIĆ HALL Session B Physico-chemical properties of clays Chairs: Reiner Dohrmann and Miroslav Pospíšil
17:00 – 17:20 pH-dependent silica dissolution and rheology of Na ⁺ -montmorillonite water dispersions <u>Boris Pokidko</u> , Anna Gracheva, Anna Kutenina and Valeriia Skvortsova

17:20 – 17:40

Mg-Fe LDH derived from magnesite and hematite and its affinity towards sulphates

Karolina Rybka and Jakub Matusik

17:40 – 18:00

Characterization of Tagaran natural clays and its use as adsorbent for removal of a model cationic dye

Dler M. Salh, Bakhtyar K. Aziz and Stephan Kaufhold

18:00 – 18:20

Molecular mechanism of dissolution, growth and ion incorporation of clay minerals at the mineral/water interface

René Schliemann, Inna Kurganskaya and Sergey V. Churakov

18:20 – 18:40

High-pressure methane adsorption on Cs-montmorillonite: experiments and Monte Carlo modelling

Paweł P. Ziemiański, Marek Szczerba and Arkadiusz Derkowski

18:40 – 19:00

Kinetics of rehydroxylation in dioctahedral 2:1 clay minerals: reaction mechanisms and implications for archeometric dating

Artur Kuligiewicz and Arkadiusz Derkowski

Friday, September 21st

8:30-9:15 Plenary lecture:

Clays in earthworks - importance of soil water retention curve

Ana Petkovšek

(introduced by Michael Ploetze)

BAN JELAČIĆ HALL Session I Clays in geotechnical applications Chairs: Biljana Kovačević Zelić and Michael Ploetze
9:20 – 9:40 Comparison of swelling behaviour and hydraulic conductivity of clay pellets for sealing purposes in the framework of geotechnical applications <u>Florian Christ</u> , Matthias Schellhorn and Wiebke Baille
9:40 – 10:00 Hydro-mechanical behaviour of the MX-80 bentonite and bentonite-sand mixture hydrated with brine Richard Brachman, <u>Grant Su</u> , Kerry Rowe, Anil Aickel, Son Nguyen, Karina Lange and Julie Brown
10:00 – 10:20 Shear strength anisotropy of clays from Bedekovčina region in Croatia <u>Aleksej Aniskin</u> , Matija Orešković and Božo Soldo
10:20 – 10:40 The role of clay minerals in formation of sliding surface – a case study of Črešnjevce landslide (Zagreb, Croatia) <u>Jasmina Martinčević Lazar</u> , Željko Miklin, Laszlo Podolszki, Goran Durn and Anita Grizelj
10:40 – 11:00 Influence of organic matter on soil mechanical properties <u>Michael Plötze</u>

11:00 – 11:30 COFFEE BREAK

BAN JELAČIĆ HALL M General session Chairs: Fernando Rocha and Nenad Tomašić
11:30 – 11:50 Impact of mineralogy and pore water chemistry on the CEC of the Boom Clay (Belgium) <u>Lander Frederickx</u> , Miroslav Honty, Mieke De Craen, Reiner Dohrmann and Jan Elsen
11:50 – 12:10 Hectorites from the Lyles deposit, Arizona, USA, and Agua Fria, Sonora, Mexico <u>Mathias Köster</u> and H. Albert Gilg
12:10 – 12:30 Detailed study on origin, geology and mineralogy of Ahrözü Kaolin Deposits, Mihaliççık, Eskişehir-Turkey <u>İşıl Ömeroğlu Sayıt</u> , Asuman Günal Türkmenoğlu and Ş. Ali Sayın

12:35 Closing Ceremony

LUNCH