

Arengo		Tempio1		Tempio2		Marina		Parco		Borgo	
<b>Plenary Meicher</b>											
08.30-09.15											
09.15-09.30											
09.30-09.45	<b>Bauluz</b>	Sossi	Steinmann	Hawthorne	<b>Faulkner</b>					<b>Carvalho</b>	
09.45-10.00		Münker	Villa	Ertl	Leclère						
10.00-10.15	Suárez	Ballhaus	Bonnemains	Burns	Abd Elmola					Cepedal	
10.15-10.30	García-Rivas	<b>Aulbach</b>	de Ronde	plášil	Campione					Mondillo	
10.30-10.45	Martin	Natali	Pertsev	Gurzhiy	Tesei					Ciobanu	
10.45-11.15				<b>Coffee Break</b>							
11.15-11.30	García-Romero	Tiepolo	Kutzschbach	Christy	<b>Tajčmanová</b>					Cook	
11.30-11.45	Schiebel	Brombin	Miron	Rieder	Piazolo					Brodbeck	
11.45-12.00	Malferrari	Aradi	Stefánsson	Krivovichev	Goryaeva					Pinto	
12.00-12.15	Mervat	Liptai	Kleine	Krivovichev	Faryad					Gill	
12.15-12.30	Mills	Puziewicz	Liebscher	Povarennykh	Plümper					Alfonso	
12.30-14.00				<b>Lunch Break</b>							
14.00-14.15	<b>Cerri</b>	Portnyagin	Rapa	Chiesa	<b>Pichavant</b>					Kontonikas-Charos	
14.15-14.30		Borghini	Baumgartner	Hecht	Gubbay-Nemes					Goodenough	
14.30-14.45	Rodeghero	Ali	Fregola	Schumann	Botcharnikov					Hughes	
14.45-15.00	Quartieri	Ferrando	Verlaguet	Simon	Aiglsperger					AI Ali	
15.00-15.15	Cruciani	Sanfilippo		Kreher-Hartmann	Cigala						
15.15-15.45				<b>Coffee Break</b>							
15.45-16.00	Occhipinti	Basch	Sanchez-Valle	Walcott	Oeser						
16.00-16.15	Belviso	<b>Rampone</b>	Hermann	Kaliwoda	González-García						
16.15-16.30	Comboni	Koepke	McCaig	Maraffi	Assbichler						
16.30-16.45	Consani	Schwindrofska	Ziberna	Paris	Ridolfi						
16.45-17.00	Golubev			Milke	Stuff						
17.00-18.30				<b>Poster Sessions</b>							
18.30-20.00				Annual National Society Meetings							

# Tuesday, September 13<sup>th</sup>

## ORAL SESSIONS

### MORNING

## S2. Evolution of the Earth's mantle and melt generation through time

*Conveners: Costanza Bonadiman, Carsten Munker, Helen Williams, Marguerite Godard, Othmar Müntener and Alberto Zanetti*

### (09.30-10.45) Room - Tempio 1

#### 2-1 09.30 – 09.45

Sossi P.A.\* & Moynier F.: THE LUNAR Mg SUITE AND THE IRON ISOTOPE COMPOSITION OF THE MOON

#### 2-2 09.45 – 10.00

van de Löcht J., Li C., Hoffmann J.E., Wang Z., Becker H., Rosing M., Kleinschrodt R. & Münker C.\*: EARTH'S OLDEST MANTLE PERIDOTITES INDICATE EARLY MIXING OF THE LATE VENEER INTO THE MANTLE

#### 2-3 10.00 – 10.15

Ballhaus C.\*, Münker C., Fonseca R.O.C., Nagel T., Speelmanns I.M., Zirner A., Vogel A. & Heuser A.: THE SULFUR DEPLETION IN THE EARTH'S MANTLE IS NOT A HIGH PRESSURE SIGNATURE

#### 2-4 10.15 – 10.30

**(KEYNOTE)** Aulbach S.\*: CONSTRAINTS FROM SPREADING RIDGE-DERIVED ECLOGITES ON ARCHAEOAN MANTLE POTENTIAL TEMPERATURES

#### 2-12 10.30 – 10.45

Beccaluva L., Bianchini G., Natali C.\* & Siena F.: THE ALKALINE-CARBONATITE COMPLEX OF JACUPIRANGA (BRAZIL) REVISITED: MAGMA GENESIS, MODE OF EMPLACEMENT AND TECTONO-MAGMATIC SIGNIFICANCE

### (11.15-12.30) Room - Tempio 1

#### 2-6 11.15 – 11.30

Sessa G., Tiepolo M.\*, Moroni M., Fiorentini M.L., Langone A., Giazzi G., Krotz L., Ferrari E. & Loucks R.R.: AMPHIBOLE AS A PROXY OF THE SECULAR VARIATIONS IN PRIMITIVE MAGMAS

#### 2-7 11.30 – 11.45

Brombin V.\*, Bonadiman C., Coltorti M. & Bryce J.: MANTLE XENOLITHS FROM MAROSTICANO AREA (NORTHERN ITALY): A COMPARISON WITH VENETO VOLCANIC PROVINCE LITHOSPHERIC MANTLE

#### 2-8 11.45 – 12.00

Aradi L.E.\*, Hidas K., Klébesz R., Kovács I., Patkó L., Zanetti A. & Szabó C.: DEFORMATION OF THE LITHOSPHERIC MANTLE BENEATH THE STYRIAN BASIN (EASTERN AUSTRIA) - A STUDY ON PERIDOTITE XENOLITHS

#### 2-9 12.00 – 12.15

Liptai N.\*, Patkó L., Kovács I., Hidas K., O'Reilly S.Y., Griffin W.L., Pearson N.J. & Szabó C.: GEOCHEMICAL EVOLUTION OF THE UPPER MANTLE BENEATH THE NÓGRÁD-GÖMÖR VOLCANIC FIELD (N-HUNGARY – S-SLOVAKIA) AS RECONSTRUCTED FROM SPINEL PERIDOTITE XENOLITHS

**2-11 12.15 – 12.30**

Puziewicz J.\*, Matusiak-Małek M., Ntaflou T., Kukuła A. & Ćwiek M.: MANTLE ROOTS OF NE PART OF THE VARISCAN OROGEN IN EUROPE: PROTOLITH PROVENANCE AND METASOMATIC STYLES

\*\*\*\*\*

**S4. Fluids in the crust**

*Conveners: Maria Luce Frezzotti, Cristoph Heinrich and Thomas Müller*

**(09.30-10.45) Room - Tempio 2**

**4-1 09.30 – 09.45**

Steinmann L.\*, Lazarov M., Wang Z., Becker H. & Weyer S.: THE DISTRIBUTION OF SIDEROPHILE AND CHALCOPHILE TRACE METALS IN MANTLE ROCKS (BALMUCCIA, ITALY)

**4-2 09.45 – 10.00**

Villa I.M.\*, Peverelli V., Oglialoro E., Pettke T. & Frezzotti M.L.: HALOGENS, BARIUM AND URANIUM IN MANTLE FLUID INCLUSIONS

**4-3 10.00 – 10.15**

Bonnemains D.\*, Verlaquet A., Escartin J., Mével C., Boiron M.-C. & Andreani M.: NATURE AND ORIGIN OF SI-RICH FLUIDS AT 13°20'N SILICIFIED OCEANIC DETACHMENT FAULT (MID-ATLANTIC RIDGE)

**4-4 10.15 – 10.30**

de Ronde C.E.J.\* & Stucker V.K.: SEAFLOOR HYDROTHERMAL VENTING AT VOLCANIC RCS AND BACKARCS

**4-5 10.30 – 10.45**

Pertsev A.\*, Prokof'ev V.Y., Aranovich L. & Ageeva O.: PLUTONIC-LEVEL HYDROTHERMAL COOLING RELATED TO OCEANIC DETACHMENT FAULTING: MINERALOGY AND FLUID ORIGIN

**(11.15-12.30) Room - Tempio 2**

**4-6 11.15 – 11.30**

Kutzschbach M.\*, Wunder B., Trumbull R.B., Meixner A., Heinrich W. & Franz G.: THE EFFECT OF TETRAHEDRAL B ON THE B ISOTOPE FRACTIONATION BETWEEN OLENTIC TOURMALINE AND FLUID

**4-7 11.30 – 11.45**

Miron G.D.\*, Wagner T., Kulik D.A. & Heinrich C.A.: INTERNALLY CONSISTENT THERMODYNAMIC DATA FOR HYDROTHERMAL MINERAL SOLUBILITY EQUILIBRIA IN THE SYSTEM Ca-Mg-Na-K-Al-Si-O-H-C-Cl

**4-8 11.45 – 12.00**

Stefánsson A.\*: MULTICOMPONENT FLUID CHEMISTRY OF HIGH-ENTHALPY GEOTHERMAL SYSTEM

**4-9 12.00 – 12.15**

Kleine B.I.\*, Stefánsson A., Halldórsson S.A., Whitehouse M., Barnes J.D., Jónsson K. & Franzson H.: COUPLED HYDROGEN, OXYGEN AND SILICON ISOTOPE SYSTEMATICS OF GROUNDWATER-MAGMA INTERACTION IN ICELANDIC HYDROTHERMAL SYSTEMS

**4-10 12.15 – 12.30**

Liebscher A.\*, Hennings J. & Möller F.: SPECTACULAR VIDEO INSPECTIONS OF TWO-PHASE FLUID CONDITIONS AND INVERTED FLUID-DENSITY PROFILES IN OBSERVATION WELLS AT THE KETZIN CO<sub>2</sub> STORAGE SITE, GERMANY – AN ARTI-

FICIAL ANALOGUE TO VAPOUR DOMINATED GEOTHERMAL SYSTEMS?

\*\*\*\*\*

## **S8. Diffusion, mineral reaction and deformation mechanisms from low to high temperatures: flow and brittle processes of the Earth's interior**

*Conveners: Sylvie Demouchy, Katharina Marquardt, Juan Jimenez-Millan, Martine Buatier and Cecilia Viti*

**(09.30-10.45) Room - Parco**

**8-1                    09.30 – 09.45**

**(KEYNOTE)** Faulkner D.R.\*: FAULT STRENGTH, EARTHQUAKE NUCLEATION, AND RUPTURE PROPAGATION IN CLAY-RICH FAULT ZONES

**8-2                    09.45 – 10.00**

Leclère H.\*, Faulkner D.R., Wheeler J. & Mariani E.: PERMEABILITY CONTROL OF TRANSIENT SLIP WEAKENING DURING GYPSUM DEHYDRATION AND IMPLICATIONS ON SUBDUCTION ZONES

**8-3                    10.00 – 10.15**

Abd Elmola A.\*, Buatier M., Monié P., Charpentier D., Lanari P., Trincal V. & Labaume P.: THERMOCHRONOLOGY OF FAULT ACTIVITY BY CHARACTERIZATIONS OF CLAY MINERALS (EXAMPLE OF PIC DE PORT VIEUX THRUST, PYRENEES, SPAIN)

**8-4                    10.15 – 10.30**

Campione M.\*: THE BIVALENCE AND ANOMALIES OF ANTIGORITE IN THRUST FAULT MECHANICS

**8-5                    10.30 – 10.45**

Tesei T.\*, Viti C. & Collettini C.: DEFORMATION IN SERPENTINE-RICH SHEAR ZONES: FIELD OBSERVATIONS AND FRICTION OF MINERALOGICALLY-CONTROLLED SERPENTINES

**(11.15-12.30) Room - Parco**

**8-6                    11.15 – 11.30**

**(KEYNOTE)** Tajčmanová L.\*, Moulas E., Vrijmoed J.C. & Zhong X.: INTERPLAY BETWEEN CHEMICAL DIFFUSION AND DEFORMATION

**8-7                    11.30 – 11.45**

Piazolo S.\*, La Fontaine A., Trimby P., Harley S., Yang L., Armstrong R. & Cairney J.M.: ATOMS ON THE MOVE: DEFORMATION-INDUCED TRACE ELEMENT REDISTRIBUTION IN ZIRCON REVEALED USING ATOM PROBE TOMOGRAPHY

**8-8                    11.45 – 12.00**

Goryaeva A.M.\*, Carrez P. & Cordier P.: MODELING [100] DISLOCATION GLIDE IN MgSiO<sub>3</sub> POST-PEROVSKITE UNDER D'' CONDITIONS

**8-9                    12.00 – 12.15**

Faryad S.W.\*, Jedlicka R., Jezek J. & Hauzenberger C.: PRESERVATION OF COMPOSITIONAL ZONING OF ECLOGITE FACIES GARNET WITH GRANULITE FACIES OVERPRINT; HOW FAST THE METAMORPHIC PROCESSES DURING COLLISION OROGENY ARE?

**8-10                  12.15 – 12.30**

Plümper O.\*, Botan A., Los C., Malthe-Sørenssen A. & Jamtveit B.: NANOSCALE TRANSIENT POROSITY CONTROLS LARGE-SCALE METAMORPHIC FLUID FLOW

\*\*\*\*\*

TUESDAY 13/09/16

## **S12. Clays, zeolites and nanostructured minerals: from mineralogy to applications in industry and environment**

*Conveners: Emilia Garcia Romero, Annalisa Martucci and Mercedes Suarez*

**(09.30-10.45) Room - Arengo**

**12-1 09.30 – 10.00**

**(KEYNOTE)** Bauluz B.\*, Mayayo M.J. & Yuste A.: MICROTEXTURE AND GENESIS OF KAOLIN MINERALS IN SEDIMENTARY ENVIRONMENTS OF THE LOWER CRETACEOUS IN NE SPAIN

**12-2 10.00 – 10.15**

Suárez M.\*, García-Romero E., Simic V. & Andric N.: Mg-PHYLLOSILICATES CRYSTAL CHEMISTRY OF THE ANDRIČI SEPIOLITE DEPOSIT (SERBIA)

**12-3 10.15 – 10.30**

García-Rivas J.\*, Torres T., Ortiz J.E., Sánchez-Palencia Y., García-Romero E. & Suárez M.: GEOCHEMISTRY AND BIOMARKER ANALYSIS OF THE BENTONITES FROM ESQUIVIAS (MADRID)

**12-4 10.30 – 10.45**

Martín D.\*, Aparicio P. & Galán E.: CAPTURE OF CO<sub>2</sub> BY CONSTRUCTION WASTE

**(11.15-12.30) Room - Arengo**

**12-5 11.15 – 11.30**

García-Romero E.\* & Suárez M.: INFLUENCE OF INTERLAMINAR Mg IN THE CLASSIFICATION OF SMECTITES

**12-6 11.30 – 11.45**

Schiebel K.\*, Jordan G., Kaestner A., Böhnke S. & Schmahl W.W.: INFLUENCE OF MOISTURE AND TEMPERATURE ON THE TENSILE STRENGTH OF BENTONITE BOUNDED MOULDING SAND

**12-7 11.45 – 12.00**

MalFerrari D.\*, Bernini F., Borsari M., Brigatti M.F., Castellini E. & Cástro R.G.: EFFICIENT AND SELECTIVE REMOVAL OF ORGANIC VOLATILE SULPHUR DERIVATIVES USING MONTMORILLONITE INTERCALATED WITH Fe<sup>3+</sup>-PHENANTHROLINE COMPLEX

**12-8 12.00 – 12.15**

Mervat H.\*, Heba F., Fatma A. & El-Herbiny S.: SPECTROSCOPIC AND MICROSCOPIC EVALUATION OF ORGANIC-CLAY INTERCALATION

**12-9 12.15 – 12.30**

Mills S.J.\*, Génin J.-M.R. & Christy A.G.: GREEN RUST: THE FIRST DISCOVERIES IN AUSTRALIA, DNA, AND INDUSTRIAL USES

\*\*\*\*\*

## **S17. Mineral diversity, complexity and evolution**

*Conveners: Sergey Krivovichev and Edward Grew*

**(09.30-10.45) Room - Marina**

**17-6 09.30 – 09.45**

Hawthorne F.C.\*: SILICATE MINERALS AND THE STRUCTURAL HIERARCHY HYPOTHESIS: SHEET SILICATES

**17-7 09.45 – 10.00**

Kutzschbach M., Ertl A.\*, Wunder B., Krstulovic M., Trumbull R.B. & Rocholl A.:

FIRST HIGH-PRESSURE SYNTHESIS OF LITHIUM-RICH TOURMALINE AND EVIDENCE FOR THE INCORPORATION OF Li AT THE X SITE

**17-8 10.00 – 10.15**

Burns P.C.\* & Lussier A.J.: COMPLEXITY OF URANYL MINERALS: A STRUCTURAL HIERARCHY APPROACH

**17-9 10.15 – 10.30**

Plášil J.\*: THE STRUCTURAL COMPLEXITY OF URANYL-OXIDE HYDROXY-HYDRATE MINERALS: IMPLICATIONS FOR THEIR FORMATION AND OCCURRENCE

**17-10 10.30 – 10.45**

Gurzhiy V.V.\*, Tyumentseva O.S. & Krivovichev S.V.: EVOLUTION OF STRUCTURAL TOPOLOGY VS. CHEMICAL COMPOSITION IN MIXED URANYL SULFATE-SELENATES

**(11.15-12.30) Room - Marina**

**17-11 11.15 – 11.30**

Christy A.G.\*: WHAT DO WE MEAN BY "CHALCOPHILICITY" AND "SIDEROPHILICITY" IN THE CRUST?

**17-12 11.30 – 11.45**

Rieder M.\*: PLOTTING THE WHOLE MINERALOGICAL SYSTEM – THE CONCEPT AND THE RESULTS

**17-13 11.45 – 12.00**

Krivovichev V.G.\*, Charykova M.V. & Krivovichev S.V.: MINERAL SYSTEM BASED ON THE NUMBER OF SPECIES-DEFINING CHEMICAL ELEMENTS IN MINERALS, THEIR TYPES, DISTRIBUTION AND MINERAL EVOLUTION OF EARTH'S CRUST

**17-14 12.00 – 12.15**

Krivovichev S.V.\*, Krivovichev V.G. & Hazen R.M.: STRUCTURAL AND CHEMICAL COMPLEXITY OF MINERALS: RELATIONS AND TIME EVOLUTION

**17-15 12.15 – 12.30**

Povarennykh M.Y.\*: CRYSTAL-CHEMICAL PARADIGM OF MODERN MINERALOGY. WHAT IS NEXT? ON THE ONTOGENY PARADIGM

\*\*\*\*\*

## **S23. The future of critical metals: mineralogy, metallogenesis and geometallurgy**

*Conveners: John Bowles, Nigel Cook and Hannah Hughes*

**(09.30-10.45) Room - Borgo**

**23-1 09.30 – 10.00**

**(KEYNOTE)** Carvalho J.R.S., Relvas J.M.R.S.\*, Pinto A.M.M., Pacheco N., Fonseca R., Santos S., Caetano P., Reis T. & Gonçalves M.: INDIUM AND SELENIUM IN THE NEVES-CORVO VHMS DEPOSIT

**23-2 10.00 – 10.15**

Gallard-Esquivel M.C., Cepedal A.\*, Fuertes-Fuente M. & Martin-Izard A.: MINERAL RESOURCE OF CRITICAL METALS (Te-Ge-Se-In) IN EPITHERMAL DEPOSITS OF "LA CAROLINA" DISTRICT, SAN LUIS (ARGENTINA)

**23-3 10.15 – 10.30**

Mondillo N.\*, Herrington R.J., Boni M. & Arfé G.: CRITICAL ELEMENTS IN NONSULFIDE ZINC DEPOSITS

**23-4 10.30 – 10.45**

Ciobanu C.L.\*, Maunders C., Cook N.J. & Wade B.P.: NANOSCALE CHARACTERIZA-

• TION OF COMPOSITIONALLY-ZONED SPHALERITE  
•

• **(11.15-12.30) Room - Borgo**  
•

• **23-5                      11.15 – 11.30**  
•

• Cook N.J.\* & Ciobanu C.L.: MULTI-TRACE ELEMENT CONCENTRATION DATA FOR  
• MINERALS: IDENTIFYING POTENTIAL NEW RESOURCES OF CRITICAL ELEMENTS  
•

• **23-6                      11.30 – 11.45**  
•

• Brodbeck M.\*, Kleinhanns I., Schönberg R., Wenzel T. & Kamber B.S.: TRACE EL-  
• ELEMENT MAPPING - A POWERFUL TOOL TO ASSESS THE SMALL-SCALE DISTRIBUTION  
• OF CRITICAL METALS  
•

• **23-7                      11.45 – 12.00**  
•

• Pinto A.M.M.\*, Relvas J.M.R.S., Barriga F.J.A.S., Carvalho J.R.S., Liu Y., Pacheco N.,  
• Fonseca R., Santos S., Caetano P., Reis T. & Gonçalves M.: GOLD MINERALIZATION  
• IN THE NEVES-CORVO VHMS DEPOSIT  
•

• **23-8                      12.00 – 12.15**  
•

• Gill S.-J.\*: THE RELATIONSHIP BETWEEN MAGNETITE AND COPPER-SILVER MIN-  
• ERALISATION OF THE KALAHARI COPPERBELT IN CENTRAL-EASTERN NAMIBIA  
•

• **23-9                      12.15 – 12.30**  
•

• Alfonso P.\*, Garcia-Valles M., Hamid S., Tomasa O., Llorens T., Oliva J., Guasch E.,  
• Anticoi H. & Garcia-Polonio F.: RARE-ELEMENT MINERALIZATION IN THE Sn-Ta PE-  
• NOUTA ORE DEPOSIT, NW SPAIN  
•

TUESDAY 13/09/16

# Tuesday, September 13<sup>th</sup>

## ORAL SESSIONS

### AFTERNOON

## S2. Evolution of the Earth's mantle and melt generation through time

*Conveners: Costanza Bonadiman, Carsten Munker, Helen Williams, Marguerite Godard, Othmar Müntener and Alberto Zanetti*

### (14.00-15.15) Room - Tempio 1

#### 2-5 14.00 – 14.15

Portnyagin M.\*, Sushchevskaya N., Shishkina T., Kamenetsky V., Taylor R.N. & Garbe-Schönberg D.: SILVER AND COPPER FRACTIONATION IN MORB

#### 2-16 14.15 – 14.30

Borghini G.\*, Fumagalli P. & Rampone E.: THE ROLE OF SECONDARY PYROXENITES IN THE COMPOSITION OF MELTS FROM VEINED MANTLE SOURCES: EXPERIMENTAL CONSTRAINTS

#### 2-21 14.30 – 14.45

Ali S.A.\*, Nutman A.P. & Jones B.G.: OVERVIEW OF THE TECTONIC EVOLUTION OF THE IRAQI ZAGROS THRUST ZONE: SIXTY MILLION YEARS OF CONVERGENCE IN NEOTETHYS

#### 2-14 14.45 – 15.00

Ferrando C.\*, Godard M. & Ildefonse B.: NEW CONSTRAINTS ON THE FORMATION OF HETEROGENEOUS OCEANIC CRUST AT SLOW SPREADING RIDGES: A DETAILED PETRO-GEOCHEMICAL STUDY OF THE OLIVINE-RICH TROCTOLITES FROM ATLANTIS MASSIF (MAR, IODP Hole U1309D, 30°N)

#### 2-15 15.00 – 15.15

Sanfilippo A.\*, Tribuzio R., Ottolini L. & Hamada M.: MANTLE MELTING, MELT EXTRACTION AND AGGREGATION BENEATH MID OCEAN RIDGES: CLUES FROM OLIVINE IN REPLACIVE DUNITES

### (15.45-17.00) Room - Tempio 1

#### 2-22 15.45 – 16.00

Basch V.\*, Rampone E., Ildefonse B., Godard M. & Crispini L.: HYBRID ORIGIN OF THE ERRO-TOBBIO TROCTOLITES (LIGURIAN OPHIOLITES, ITALY): STRUCTURAL AND GEOCHEMICAL EVIDENCE OF MULTI-STAGE EVOLUTION

#### 2-17 16.00 – 16.15

**(KEYNOTE)** Rampone E.\*: MELT MIGRATION AND MELT-ROCK REACTION IN THE ALPINE-APENNINE PERIDOTITES: INSIGHTS ON MANTLE DYNAMICS IN EXTENDING LITHOSPHERE

#### 2-18 16.15 – 16.30

Koepke J.\*, Zhang C., Namur O., Meyer R. & Feig S.T.: ORTHOPYROXENE IN PRIMITIVE LAYERED GABBROS FROM HESS DEEP (EPR): FORMATION BY MANTLE/MELT INTERACTION OR FRACTIONAL CRYSTALLIZATION?

#### 2-19 16.30 – 16.45

Schwindrofska A.\*, Hoernle K., van den Bogaard P., Hauff F. & Werner R.: SUBMARINE STRUCTURES OF THE CARIBBEAN LARGE IGNEOUS PROVINCE: AGE AND GEOCHEMISTRY OF THE BEATA RIDGE AND HESS ESCARPMENT



**2-20 16.45 – 17.00**

Zibera L.\*, Green E.C.R. & Blundy J.D.: THE PRESSURE SIGNAL IN OLIVINE-BEARING GABBROIC ROCKS

\*\*\*\*\*

## **S4. Fluids in the crust**

*Conveners: Maria Luce Frezzotti, Cristoph Heinrich and Thomas Müller*

**(14.00-15.15) Room - Tempio 2**

**4-11 14.00 – 14.15**

Rapa G.\*, Groppo C., Rolfo F. & Mosca P.: CALC-SILICATE REACTIONS AND TEXTURES REVEAL METAMORPHIC-CO<sub>2</sub> PROCESSES AND FLUXES IN THE HIMALAYAS

**4-12 14.15 – 14.45**

**(KEYNOTE)** Baumgartner L.P.\*, Bégué F., Bouvier A.-S., Putlitz B., Vennemann T. & Baumgartner C.: CONTROL OF STABLE ISOTOPE EXCHANGE BY NET-TRANSFER AND DISSOLUTION-RECRYSTALLIZATION REACTIONS AROUND HYDROTHERMAL VEINS IN CARBONATES

**4-13 14.45 – 15.00**

Fregola R.A.\*, Ruggieri G., Rimondi V., Zucchi M., Punzi C., Brogi A. & Liotta D.: RECONSTRUCTING THE CIRCULATION OF PALEO-FLUIDS THROUGH FLUID INCLUSION STUDIES: THE CASE OF THE IRON-MINERALIZATION OF EASTERN ELBA ISLAND

**4-14 15.00 – 15.15**

Verlaguet A.\*, Brunet F., Goffé B., Menut D., Findling N., Poinssot C. & Huet B.: SELECTIVE TRANSFER OF Li-Al-RICH PHYLLOSILICATE TO METAMORPHIC VEINS (WESTERN ALPS): LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) COMPOSITIONAL PROFILES AND MICROSTRUCTURAL CHARACTERIZATION

**(15.45-17.00) Room - Tempio 2**

**4-15 15.45 – 16.00**

Sanchez-Valle C.\*, Louvel M., Tsay A. & Zajacz Z.: SLAB FLUIDS AND CONTROLS ON TRACE ELEMENT RECYCLING IN SUBDUCTION ZONES

**4-16 16.00 – 16.30**

**(KEYNOTE)** Hermann J.\*: THE DEEP WATER CYCLE THROUGH THE LITHOSPHERE

**4-17 16.30 – 16.45**

McCaig A.M.\*, Titarenko S.S., Savov I.P., Cliff R.A., Agostini S. & Boyce A.J.: BORON CONTENT OF ALTERED OCEANIC GABBRO: IMPLICATIONS FOR BORON FLUXES IN SUBDUCTION ZONES

**4-18 16.45 – 17.00**

Kullerud K.\*, Kotková J. & Škoda R.: ELEMENT MOBILITY DURING FORMATION OF THE KONGSBERG SILVER DEPOSIT

\*\*\*\*\*

## **S7. From deep magmatic processes to volcanic eruption**

*Conveners: Caroline Martel, Riccardo Avanzinelli, Maxim Portnyagin and Roman Botcharnikov*

**(14.00-15.15) Room - Parco**

**7-1 14.00 – 14.30**

**(KEYNOTE)** Pichavant M.\*: EXPERIMENTAL MODELLING OF THE DEEP FEEDING

## SYSTEM OF BASALTIC VOLCANOES

**7-2 14.30 – 14.45**

Gubbay-Nemes L.J.\*, Graham I.T., de Ronde C.E.J. & Timm C.: BROTHERS SUBMARINE CALDERA VOLCANO, KERMADEC ARC, NEW ZEALAND: A GEOCHEMICAL AND PETROLOGICAL EVOLUTION

**7-3 14.45 – 15.00**

Botcharnikov R.\*, Holtz F., Stechern A., Almeev R.R. & Sato H.: EXPERIMENTAL CONSTRAINTS ON THE ORIGIN OF DACITIC VOLCANISM IN ARC SETTINGS

**7-4 15.00 – 15.15**

Cigala V.\*, Kueppers U., Pena Fernandez J.J., Sesterhenn J. & Dingwell D.B.: THE INFLUENCE OF EXPERIMENTAL CONDITIONS ON THE DYNAMICS OF STARTING GAS-PARTICLE JETS

**(15.45-17.00) Room - Parco****7-5 15.45 – 16.00**

Oeser M.\*, Ruprecht P. & Weyer S.: MAGMA ASCENT BENEATH CONTINENTAL ARC VOLCANOES – INSIGHTS FROM CHEMICALLY AND ISOTOPICALLY ZONED OLIVINES FROM IRAZÚ VOLCANO (COSTA RICA)

**7-6 16.00 – 16.15**

González-García D.\*, Behrens H., Petrelli M., Vetere F.P., Zezza A., Morgavi D. & Perugini D.: WATER-ENHANCED DIFFUSION OF MAJOR ELEMENTS IN NATURAL MELTS: INSIGHTS FROM DIFFUSION COUPLE EXPERIMENTS

**7-7 16.15 – 16.30**

Assbichler D.\*, Asadpour M., Heuss-Assbichler S. & Kunzmann T.: SEQUENCE OF REPETITIVE EXPLOSIVE AND EFFUSIVE ERUPTION PHASES RECORDED IN LAVAS AND EJECTED BOMBS OF SARAY VOLCANO, NW IRAN

**7-8 16.30 – 16.45**

Ridolfi F.\*, Renzulli A. & Perugini D.: REFINEMENT AND APPLICATION OF CALCIC AMPHIBOLE THERMOBAROMETRY FOR IGNEOUS ROCKS: AMP-TBX.XLSX

**7-9 16.45 – 17.00**

Stuff M.\*, Schuessler J.A., Rocholl A. & Wilke M.: HOW IRON ISOTOPES RECORD INTERACTIONS OF CARBONATITE AND SILICATE MAGMAS

\*\*\*\*\*

## **S12. Clays, zeolites and nanostructured minerals: from mineralogy to applications in industry and environment**

*Conveners: Emilia García Romero, Annalisa Martucci and Mercedes Suarez*

**(14.00-15.15) Room - Arengo****12-10 14.00 – 14.30**

**(KEYNOTE)** Farina M., Cerri G.\*, Brundu A., Juliano C., Giunchedi P., Rassu G., Bonferoni M.C. & Gavini E.: EXPLOITING CLINOPTILOLITE AGAINST *HELICOBACTER PYLORI*: POSSIBILITY OR UTOPIA?

**12-11 14.30 – 14.45**

Rodeghero E.\*, Guzzinati R., Martucci A. & Pasti L.: STRUCTURAL CHARACTERIZATION OF HIGH-SILICA ZEOLITES EXCHANGED WITH REEs ELEMENTS

**12-12 14.45 – 15.00**

Quartieri S.\*, Arletti R., Gigli L. & Di Renzo F.: STABLE CO<sub>2</sub> HYDRATES IN ZEOLITE Na-Y: STRUCTURAL CHARACTERIZATION BY SYNCHROTRON X-RAY POWDER DIF-

## FRACTION

**12-13 15.00 – 15.15**

Berton D., Cruciani G.\*, Rodeghero E. & Martucci A.: NEW INSIGHTS ON THE RESPONSE TO HEATING OF METAVARISCITE: AN *IN SITU* SYNCHROTRON POWDER DIFFRACTION STUDY

**(15.45-17.00) Room - Arengo****12-14 15.45 – 16.00**

Occhipinti R.\*, Tarantino S.C., Riccardi M.P. & Zema M.: S-BEARING ZEOLITES IN GEOPOLYMERS FROM VOLCANIC KAOLIN

**12-15 16.00 – 16.15**

Belviso C.\*, Belviso S., Cavalcante C., Lettino A. & Ragone P.: FLY ASH AS RAW MATERIAL FOR THE SYNTHESIS OF ZEOLITE-ENCAPSULATED TETRAPHYRROLES (PORPHYRAZINE AND METALLO PORPHYRAZINE – PORPHYRIN)

**12-16 16.15 – 16.30**

Comboni D.\*, Gatta G.D., Lotti P., Merlini M. & Liermann H.-P.: PHILLIPSITE AT HIGH PRESSURE: A SINGLE-CRYSTAL X-RAY SYNCHROTRON DIFFRACTION STUDY

**12-17 16.30 – 16.45**

Consani S.\*, Giuli G., Balić-Zunić T., Carbone C., Trapananti A., Cardinale A., Salvulo G. & Lucchetti G.: STUDY OF NATURAL AND SYNTHETIC WOODWARDITE AS POTENTIAL REEs RECOVERY

**12-18 16.45 – 17.00**

Golubev E.A.\*: INFLUENCE OF THE IMPURITIES AND STRUCTURE ON ELECTRO-MAGNETIC PROPERTIES OF NATURAL NANOSTRUCTURED CARBON MATERIALS

\*\*\*\*\*

## **S23. The future of critical metals: mineralogy, metallogenesis and geometallurgy**

*Conveners: John Bowles, Nigel Cook and Hannah Hughes*

**(14.00-15.15) Room - Borgo****23-10 14.00 – 14.15**

Kontonikas-Charos A.\*, Ciobanu C.L., Cook N.J., Ehrig K. & Krneta S.: RARE EARTH ELEMENT REMOBILISATION IN FELDSPARS: EXAMPLES FROM IOCG SYSTEMS IN THE OLYMPIC Cu-Au PROVINCE

**23-11 14.15 – 14.30**

Goodenough K.\*, Deady É., Lacinska A., Shaw R.A. & Roberts N.M.W.: THE ÇANAKLI REE PLACER DEPOSIT, TURKEY: AN ALKALINE VOLCANIC SOURCE?

**23-12 14.30 – 14.45**

Kinnaird J.A., Yudovskaya M., Chikwiri F. & Hughes H.S.R.\*: PGE DEPOSITS: IT'S NOT JUST ABOUT THE GRADE

**23-13 14.45 – 15.00**

Aiglsperger T.\*, Proenza J.A. & Longo F.: Ni LATERITES AS FUTURE UNCONVENTIONAL PGE ORE DEPOSITS

**23-14 15.00 – 15.15**

Al Ali S.\*, Wall F., Pascoe R., Rollinson G. & Dawes W.: ROLE OF AUTOMATED MINERALOGY IN OPTIMISING MINERAL PROCESSING OF CARBONATITE HOSTED REE AT SONGWE HILL, MALAWI

\*\*\*\*\*

## **S28. Museums and teaching mineral sciences to new generations**

*Conveners: Lutz Hecht, Cristiano Ferraris and Eleonora Paris*

### **(14.00-15.15) Room - Marina**

**28-1                    14.00 – 14.15**

Signori G. & Chiesa S.\*: PIETRE-PIETANZE / ROCKING RECIPES

**28-2                    14.15 – 14.30**

Hecht L.\*, Banaszak M., Schmid-Beurmann P., Schmidt B.C. & Stalder R.: THE DEVELOPMENT OF MINERALOGICAL TOOL BOXES: AN EXAMPLE HOW TO STOP THE DISAPPEARANCE OF BASIC GEOSCIENCES IN GERMAN SCHOOL EDUCATION

**28-3                    14.30 – 14.45**

Schumann D.\*, Unrau D., Laquerre A., Collins R. & Phaneuf M.W.: LARGE AREA SEM IMAGING IN GEOSCIENCES: BRINGING THE WORLD OF NANOSCALE MICROSCOPY TO THE CLASSROOMS AND MUSEUMS AS A TOOL FOR TEACHING AND LEARNING

**28-4                    14.45 – 15.00**

Simon G.\* & Gille P.: SINGLE CRYSTAL GROWTH EXPERIMENT FOR AN EXHIBITION

**28-5                    15.00 – 15.15**

Kreher-Hartmann B.\*: WORKING WITH MINERALS FROM PRE-SCHOOL AGE TO THE ELDERLY

### **(15.45-17.00) Room - Marina**

**28-6                    15.45 – 16.00**

Walcott R.\*: FROM NATURAL HISTORY SPECIMENS TO RECORDS OF EARTH SYSTEM PROCESSES

**28-7                    16.00 – 16.15**

Kaliwoda M.\* & Hochleitner R.: MINERALOGICAL EDUCATION FOR CHILDREN AND GROWNUPS IN THE MINERALOGICAL STATE COLLECTION MUNICH (MUSEUM REICH DER KRISTALLE): A SCIENTIFIC PROGRAM TO UNDERSTAND THE GEOLOGICAL WORK OF SCIENTIST

**28-8                    16.15 – 16.30**

Maraffi S.\*, Paris E., Sacerdoti F.M. & Scamardella A.: GEOQUEST - A COMPUTER CLASS ROLE PLAYING GAME

**28-9                    16.30 – 16.45**

Boniello A. & Paris E.\*: THE USE OF VIRTUAL WORLDS IN GEOSCIENCE TEACHING/LEARNING

**28-10                  16.45 – 17.00**

Milke R.\*: WHAT BLIND PEOPLE CAN SEE IN A MINERAL COLLECTION (AND WHAT THEY CAN SHOW US THERE)

# Tuesday, September 13<sup>th</sup>

## POSTER SESSIONS

### Poster Area

### S2. Evolution of the Earth's mantle and melt generation through time

#### 2-10 Panel number 1

Pelorusso B.\*, Bonadiman C., Coltorti M. & Gentili S.: PETROLOGICAL EVOLUTION OF NORTHERN VICTORIA LAND LITHOSPHERE: NEW INSIGHTS FROM HARROW PEAKS MANTLE XENOLITH

#### 2-13 Panel number 2

Godard M.\*, Alard O. & Gréau Y.: REDISTRIBUTION OF TRACE ELEMENTS IN REACTIVE ABYSSAL MANTLE: A LA-ICPMS STUDY OF ODP SITE 1274 PERIDOTITES (15°20' FZ, MID-ATLANTIC RIDGE)

#### 2-23 Panel number 3

Berno D.\*, Tribuzio R. & Zanetti A.: EARLY EVOLUTION OF MANTLE MELTS INTRUDING THE LOWERMOST CONTINENTAL CRUST OF THE IVREA-VERBANO ZONE: INSIGHTS FROM THE M. CAPIO PERIDOTITE-PYROXENITE LENS

#### 2-24 Panel number 4

Bianchini G.\*, Natali C., Shibata T. & Yoshikawa M.: BASIC DYKES CROSSCUTTING THE CRYSTALLINE BASEMENT OF VALSUGANA (ITALY): FURTHER EVIDENCE OF EARLY TRIASSIC VOLCANISM IN THE SOUTHERN ALPS

#### 2-25 Panel number 5

Borghini G. & Fumagalli P.\*: SUBSOLIDUS PHASE RELATIONS IN A SECONDARY-TYPE PYROXENITE: AN EXPERIMENTAL STUDY UP TO 1.5 GPa

#### 2-26 Panel number 6

Ćwiek M.\*: DUNIT CHANNELS IN PERIDOTITES OF LITHOSPHERIC MANTLE BENEATH LOWER SILESIA (SW POLAND)

#### 2-27 Panel number 7

Francomme J.E.\*, Fumagalli P. & Borghini G.: OLIVINE-RICH TROCTOLITE ORIGIN THROUGH MELT-ROCK REACTION EXPERIMENTS

#### 2-28 Panel number 8

Harak M.\*, Hezel D.C. & Münker C.: FRACTIONAL CRYSTALLISATION AND FE-ISOTOPE VARIATION OF BONINITES FROM PAPUA NEW GUINEA

#### 2-29 Panel number 9

Heckel C.R.\*, Brey G.P., Hofer H.E. & Linckens J.: EXSOLUTION OF GARNET AND KYANITE FROM AN ESKOLAITE-BEARING, Al-RICH CLINOPYROXENE IN A RUBY ECLOGITE DURING COOLING IN THE SUBCRATONIC MANTLE (KAAPVAAL-CRATON)

#### 2-30 Panel number 10

Hofer H.E.\*, Brey G.P. & Linckens J.: THE DETERMINATION OF THE OXIDATION STATE OF Fe IN CLINOPYROXENE MEGACRYSTS WITH THE "FLANK METHOD" BY EPMA: IS THE CRYSTALLOGRAPHIC ORIENTATION IMPORTANT?

#### 2-31 Panel number 11

Kukuła A.\*, Puziewicz J., Matusiak-Matek M., Ntaflos T. & Milke R.: EVIDENCE OF CARBONATITE METASOMATISM IN LITHOSPHERIC MANTLE BENEATH THE HELDBURG DIKE SWARM (HELDBURGER GANGSCHAR, CENTRAL GERMANY) SUBSET OF CENTRAL EUROPEAN VOLCANIC PROVINCE

#### 2-32 Panel number 12

Renna M.R.\*, Tribuzio R. & Ottolini L.: NEW PERSPECTIVES ON THE ORIGIN OF OLIVINE-RICH TROCTOLITES AND ASSOCIATED HARRISITES FROM THE LIGURIAN OPHIOLITES (ITALY)

#### 2-33 Panel number 13

Giovanardi T., Zanetti A.\*, Mazzucchelli M., Langone A. & Morishita T.: MELT-PER-

IDOTITE MULTISTAGE INTERACTION AT MANTLE CONDITIONS: PETROLOGICAL AND GEOCHEMICAL EVIDENCES FROM SAPPHIRINE-APATITE-CALCITE-BEARING GABBROIC DYKES FROM THE FINERO PHLOGOPITE PERIDOTITE (IVREA-VERBANO ZONE)

\*\*\*\*\*

## S4. Fluids in the crust

### 4-19 Panel number 20

Remigi S., Ferrando S.\* & Frezzotti M.L.: FLUID-ASSISTED COESITE-QUARTZ TRANSITION IN THE DORA-MAIRA WHITESCHISTS, WESTERN ALPS: PETROGRAPHIC AND RAMAN STUDIES

### 4-20 Panel number 21

Pollak K.\*, Uhlmann L., Pleuger J. & Langenhorst F.: REDISTRIBUTION OF MAIN ELEMENTS DURING ECLOGITE TO AMPHIBOLITE RETROGRADE MINERAL REACTIONS

### 4-21 Panel number 22

Berryman E.\*, Kutzschbach M., Trumbull R.B., Meixner A. & Franz G.: TOURMALINE'S RECORD OF FLUID HISTORY IN THE W TAUERN WINDOW

### 4-22 Panel number 23

Ganzhorn A.C.\*, Verlauguet A. & Austrheim H.: CHARACTERIZATION OF FLUIDS AND ELEMENT TRANSFERS ASSOCIATED TO GARNET VEIN AND CORONA DEVELOPMENT DURING GRANULITIZATION

### 4-23 Panel number 24

Paoli G.\*, Rocchi S. & Dini A.: ELEMENT MOBILITY BETWEEN GRANITE, FLUIDS AND SKARN (CAMPIGLIA MARITTIMA, TUSCANY)

### 4-24 Panel number 25

Kiss G.B.\*, Zagyva T., Pásztor D. & Zaccarini F.: SUBMARINE HYDROTHERMAL PROCESSES, MIRRORING THE GEOTECTONIC EVOLUTION OF THE NE HUNGARIAN JURASSIC SZARVASKŐ UNIT

### 4-25 Panel number 26

Bergemann C.\*, Gnos E., Berger A. & Whitehouse M.: ION PROBE DATING OF HYDROTHERMAL CLEFT MONAZITE TRACKING EXHUMATION AND BRITTLE TECTONIC EVOLUTION IN THE CENTRAL ALPS

### 4-26 Panel number 27

Kuesters T.\*, Mueller T. & Renner J.: IMPLEMENTING METAMORPHIC CONCEPTS IN REACTIVE TRANSPORT MODELLING OF GEOTHERMAL SYSTEMS: CRYSTAL SIZE DISTRIBUTIONS: IDEAL SOLID-SOLUTIONS AND MINERAL ZONING

### 4-27 Panel number 28

Mueller T.\*, Kuesters T., van Zuilen K. & Dietzel M.: MIDAS: MODELLING KINETICALLY CONTROLLED ISOTOPE FRACTIONATION BY MASS-DEPENDENT DIFFUSION, ADVECTION AND SORPTION PROCESS

### 4-28 Panel number 29

Halder S.\*, Lehmann B., Cabral A.R., Horn I. & Weyer S.: *IN-SITU* IRON ISOTOPE STUDY OF IRON ORE AND BANDED IRON FORMATION FROM THE CARAJÁS MINERAL PROVINCE, BRAZIL

### 4-29 Panel number 30

Huertas F.J.\*, Gervilla F. & Delgado-Huertas A.: ISOTOPIC COMPOSITION ( $\delta D$ ,  $\delta^{34}S$ ,  $\delta^{13}C$ ) OF THE ORDOVICIAN BLACK SLATES HOSTING THE RETORTILLO-SANTIDAD URANIUM DEPOSIT (SALAMANCA, SPAIN)

### 4-30 Panel number 31

Jessop K.\*, Daczko N. & Piazzolo S.: HOT AQUEOUS FLUIDS: ARE THEY THE KEY TO HTLP REGIONAL AUREOLES?

### 4-31 Panel number 32

Vezzoni S.\*, Dini A. & Rocchi S.: MAGMA CHASING HYDROTHERMAL FLUIDS IN A DISTAL SKARN SYSTEM AT CAMPIGLIA MARITTIMA (TUSCANY)

**4-32 Panel number 33**

Schmidt C.\*: RAMAN SPECTROSCOPIC STUDY OF TIN SPECIATION IN HYDRO-THERMAL FLUIDS TO 600°C

**4-33 Panel number 34**

Bakker R.J.\*: CENTRE POSITION OF RAMAN SPECTROGRAPHIC BANDS OF GASES IN FLUID INCLUSIONS

\*\*\*\*\*

**S7. From deep magmatic processes to volcanic eruption**

**7-10 Panel number 14**

Just T.\*, Parat F., Botcharnikov R., Stechern A., Holtz F. & Alard O.: INFLUENCE OF OXYGEN FUGACITY ON THE BEHAVIOUR OF SELENIUM AND TELLURIUM IN A BASALTIC MAGMA

**7-11 Panel number 15**

Mandolini T.\*, Ridolfi F., Mollo S., Renzulli A. & Perugini D.: EARLY EXPERIMENTAL RESULTS ON THE MAGMATIC ASSIMILATION OF ANHYDRITIC ROCKS

**7-12 Panel number 16**

Rossi S.\*, Morgavi D., Petrelli M., Vetere F.P. & Perugini D.: CHAOTIC MIXING EXPERIMENTS BETWEEN RHYOLITIC AND SHOSHONITIC MAGMAS FROM AEOLIAN ISLANDS (ITALY)

**7-13 Panel number 17**

Salem L., Edmonds M.\*, MacLennan J. & Corsaro R.: CARBON DIOXIDE SOLUBILITY MODIFIED BY CUMULATE ASSIMILATION AT MOUNT ETNA, ITALY

**7-14 Panel number 18**

Stabile P.\*, Behrens H., Cestelli M., Radica F., Bello M., Carroll M.R., Paris E. & Giulii G.: EFFECT OF TEMPERATURE AND COMPOSITION ON WATER SOLUBILITY IN PANTELLERITES TO 250 MPa

**7-15 Panel number 19**

Tchaptchet Tchato D.\*, Simeni Wambo N.A., Keutchafo Kouamo N.A. & Tchouankoue J.P.: GEOLOGY OF THE KEKEM DYKE SWARMS (CAMEROON CENTRAL SHEAR ZONE): AN INSIGHT INTO PALEZOIC AND MESOZOIC MAGMATISMS AND GEODYNAMIC IMPLICATION FOR THE WEST GONDWANA IN CAMEROON

\*\*\*\*\*

**S8. Diffusion, mineral reaction and deformation mechanisms from low to high temperatures: flow and brittle processes of the Earth's interior**

**8-11 Panel number 47**

Abad I.\*, Sanchez C., Jiménez-Millán J., Faulkner D.R., Nieto F. & Vellilla N.: DOLOMITE AND MICA MINERAL REACTIONS AND MICROSTRUCTURES FORMED DURING THE SEISMIC CYCLE OF THE ALHAMA DE MURCIA FAULT

**8-12 Panel number 48**

Abd Elmola A., Charpentier D., Lanari P., Trincal V. & Buatier M.\*: FLUID-ROCK INTERACTIONS AND DEFORMATION CONDITIONS REGISTERED BY PHYLLOSILICATES IN A MAJOR THRUST (GAVARNIE THRUST AT "PIC DE PORT VIEUX", PYRENEES)

**8-13 Panel number 49**

Bollinger C.\*, Farla R. & Marquardt K.: GRAIN BOUNDARIES IN FORSTERITE: HOW DO THEY MOVE TO PRODUCE SHEAR?

**8-14 Panel number 50**

García-Tortosa F.J., Jiménez-Millán J.\*, Abad I., Faulkner D.R., Martín-Rojas I. & Alfaro P.: FLOW PROCESSES IN DEFORMATION BANDS DEVELOPED ON PLIO-PLEISTOCENE SOFT-ROCKS IN THE BAZA FAULT ZONE (S SPAIN)

**8-15 Panel number 51**

Hashim L.\*, Gardés E., Sifré D., Morales L.F.G., Précigout J. & Gaillard F.: ASSESS-

ING THE MACROSCOPIC OLIVINE GRAIN GROWTH THROUGH THE MICROSCOPIC PHYSICAL PROPERTIES OF THE INTERGRANULAR MEDIUM

**8-16 Panel number 52**

Idrissi H., Bollinger C., Cordier P.\* & Boioli F.: *IN SITU* DEFORMATION OF OLIVINE IN THE TRANSMISSION ELECTRON MICROSCOPE: FROM DISLOCATION VELOCITY MEASUREMENTS TO STRESS-STRAIN CURVES

**8-17 Panel number 53**

Jollands M.C.\*, O'Neill H.S.C., Van Orman J., Berry A.J., Hermann J., Newville M. & Lanzirotti A.: XANES DETERMINATION OF EQUILIBRIUM AND DIFFUSIVE BEHAVIOUR OF Cr<sup>2+</sup> AND Cr<sup>3+</sup> IN SYNTHETIC FORSTERITE AND NATURAL OLIVINE AT 1400°C

**8-18 Panel number 54**

Mussi A.\*, Cordier P., Nzogang B.C. & Demouchy S.: ELECTRON TOMOGRAPHY STUDY OF DISLOCATIONS IN OLIVINE SINGLE CRYSTALS

**8-19 Panel number 55**

Sánchez-Roa C.\*, Vidal O., Jiménez-Millán J., Nieto F. & Faulkner D.R.: THERMODYNAMIC MODELLING OF SEPIOLITE: IMPLICATIONS FOR MECHANICAL BEHAVIOUR OF CRUSTAL FAULTS

**8-20 Panel number 56**

Thieme M.\*, Demouchy S., Mainprice D. & Barou F.: EXPERIMENTAL DUCTILE DEFORMATION OF POLYCRYSTALLINE OLIVINE AT 1000°C

\*\*\*\*\*

## **S12. Clays, zeolites and nanostructured minerals: from mineralogy to applications in industry and environment**

**12-19 Panel number 35**

Ahmed Z.T., Abbas A.S., Albayati T.M. & Doyle A.M.\*: BIODIESEL PRODUCTION USING ZEOLITE CATALYSTS PREPARED FROM SHALE ROCK

**12-20 Panel number 36**

Arletti R., Fois E., Tabacchi G., Vezzalini G.\* & Quartieri S.: HIGH PRESSURE-INDUCED SUPRAMOLECULAR ORGANIZATION OF WATER AND ETHANOL IN ALL-SILICA FERRIERITE: A POTENTIAL ROUTE FOR A CHALLENGING SEPARATION PROBLEM

**12-21 Panel number 37**

Beltrami G.\*, Rodeghero E., Martucci A., Cruciani G., Sarti E., Pasti L. & Ardit M.: DESORPTION OF CHLOROBENZENE CONFINED IN Y ZEOLITE: A COMBINED *IN SITU* SYNCHROTRON X-RAY POWDER DIFFRACTION AND CHROMATOGRAPHIC STUDY

**12-22 Panel number 38**

D'Alessio D.\*, Tribaudino M., Mezzadri F., Milanese C., Mantovani L., Pontiroli D. & Riccò M.: GUEST GASES AND PHASE TRANSITIONS IN MELANOPHLOGITE (TYPE I CLATHRATE)

**12-23 Panel number 39**

Digiaco F.\*, Braschi I., Rodeghero E., Blasioli S. & Martucci A.: ZEOLITES FOR SUSTAINABLE AGRICULTURE: FURFURAL ENCAPSULATION AND CONTROLLED RELEASE IN ZSM-5

**12-24 Panel number 40**

Durán E.\*, Bueno S., Cornejo J., Gamiz B. & Hermosín M.C.: MODIFIED CLAYS AS ADSORBENT IN FILTER SYSTEM FOR MEDIUM OR SMALL SCALE WATER DEPURATION

**12-25 Panel number 41**

Ershova V.B.\*, Vereshchagin O.S., Prokopiev A.V. & Alexandrova G.N.: CENOZOIC CLIMATE CHANGES IN THE RUSSIAN EASTERN ARCTIC (KOTEL'NY ISLAND, NEW SIBERIAN ISLANDS ARCHIPELAGO): EVIDENCE FROM PALEONTOLOGICAL AND CLAY



## ASSEMBLAGE DATA

**12-26 Panel number 42**

Fernandez-Barranco C., Koziol A.E., Drewniak M. & Yebra-Rodriguez A.\*: STRUCTURAL CHARACTERIZATION OF INJECTION MOLDED SEPIOLITE/POLYAMIDE6,6 NANOCOMPOSITES BY MEANS OF STATIC AND DYNAMIC THERMAL METHODS

**12-27 Panel number 43**

Ferretti G.\*, Natali C., Faccini B., Di Giuseppe D., Bianchini G. & Coltorti M.: NEW INSIGHTS ON THE EFFECTS OF DIFFERENT ZEOLITE AMENDMENTS ON PLANTS C-N ISOTOPIC COMPOSITION

**12-28 Panel number 44**

Khatem R., Bakthi A., Celis R. & Hermosín M.C.\*: ANIONIC CLAY AND CATIONIC ORGANOCCLAY AS NANOCARRIERS IN SMART DELIVERY SYSTEMS OF THE HERBICIDE IMAZAMOX

**12-29 Panel number 45**

Mesto E.\*, Lacalamita M., Scordari F., Moro D., Valdrè G., Della Ventura G., Bellatreccia F., Scirè S. & Schingaro E.: HYDROCARBONS IN PHLOGOPITES FROM KASENYI KAMAFUGITIC ROCKS (SW UGANDA): CROSS-CORRELATED AFM, CONFOCAL MICROSCOPY AND RAMAN IMAGING

**12-30 Panel number 46**

Schmidmair D.\*, Kahlenberg V. & Praxmarer A.:  $K_2Ca_2Si_8O_{19}$  - A NEW POTASSIUM CALCIUM DOUBLE-LAYER SILICATE

\*\*\*\*\*

## S15. Structural behavior and energetic properties of minerals

**15-15 Panel number 57**

Chanmuang C.\*, Habler G., Lenz C., Nasdala L. & Váci T.: QUANTIFICATION OF RADIATION EFFECTS IN ZIRCON: FOCUSED-ION BEAM PREPARATION OF THIN LAMELLAE FOR ION-IRRADIATION EXPERIMENTS

**15-16 Panel number 58**

Váci T.\*: ARE THERE POINT DEFECTS IN THE CRYSTALLINE PORTION OF SELF-IRRADIATED MINERALS?

**15-17 Panel number 59**

Zietlow P., Beirau T., Mihailova B., Paulmann C., Malcherek T., Groat L.A. & Bismayer U.\*: ANNEALING OF RADIATION DAMAGED TITANITE

**15-18 Panel number 60**

Nowak W.\*, Majzlan J., Dachs E. & Benisek A.: THERMODYNAMIC DATA OF MAGNESIO- AND ALUMINOCOPIAPITE

**15-19 Panel number 61**

Niksch A.\* & Pöllmann H.: SYNTHESIS AND CHARACTERIZATION OF A  $[Li_{0+x}Mg_{2-2x}Al_{1+x}(OH)_6][Cl \cdot mH_2O]$  ( $x = 0-1$ ) SOLID SOLUTION

**15-20 Panel number 62**

Confalonieri G.\*, Capitani G., Buscaglia V., Rotiroti N. & Dapiaggi M.: STRUCTURAL LOCAL DEFECTS AND MODIFICATION OF THE POLAR BEHAVIOUR IN A SYNTHETIC PEROVSKITE

**15-21 Panel number 63**

Mirwald P.W.\*, Stalder R., Paulini P. & Tappert R.: IRREGULAR PVT BEHAVIOUR OF APATITE – A RAMAN AND ULTRA-SONIC STUDY BETWEEN -200 AND 300°C

**15-22 Panel number 64**

Nakatsuka A.\*, Sugiyama K., Ohkawa M., Ohtaka O., Fujiwara K. & Yoshiasa A.: SINGLE-CRYSTAL X-RAY DIFFRACTION STUDY OF  $SrGe_2O_5$ : A NEW HIGH-PRESSURE STRONTIUM GERMANATE

**15-23 Panel number 65**

Bolanž R.M.\*, Wierzbicka-Wieczorek M., Giester G., Göttlicher J. & Steining R.:  $As^{5+}$  STRUCTURALLY INCORPORATED INTO PHOSPHOSIDERITE ( $FePO_4 \cdot 2H_2O$ ) – AN

## EXAFS STUDY

\*\*\*\*\*

**S17. Mineral diversity, complexity and evolution****17-16 Panel number 66**

Anikina E.\*, Vikent'eva O., Bortnikov N.S. & Gamyarin G.N.: GEOCHEMICAL CHARACTERISTICS OF CARBONATES FROM (Sn)-Ag-Pb-Zn DEPOSITS OF THE VERKHOYANSK FOLD-TRUST BELT (RUSSIA, SAKHA-YAKUTIA)

**17-17 Panel number 67**

Avgustinchik I.\*: EVOLUTION OF ORE MINERAL ASSOCIATIONS IN SOME ORE-FORMING SYSTEMS: LOCAL AND GENERAL REGULARITIES, APPLIED QUESTIONS

**17-18 Panel number 68**

Bonazzi P.\* & Bindi L.: LIGHT-INDUCED ALTERATION OF ALACRANITE, As<sub>8</sub>S<sub>9</sub>

**17-19 Panel number 69**

Filina M.\* & Kogarko L.: COMPOSITIONAL EVOLUTION IN PYROXENES OF THE PERALKALINE NEPHELINE SYENITE (KOLA PENINSULA, RUSSIA)

**17-20 Panel number 70**

Galuskina I.O. \*, Galuskin E.V. & Vapnik Y.A.: TERRESTRIAL MERRILLITE

**17-21 Panel number 71**

Hochleitner R.\*, Kaliwoda M. & Rewitzer C.: NATURAL MEMBERS OF THE PHOSPHOHEDYPHANE - HEDYPHANE - MIMETITE SERIES

**17-22 Panel number 72**

Lyalina L.\* & Selivanova E.: SAKHARJOK ALKALINE MASSIF: A NEW MINERALOGICAL OBJECT ON THE KOLA PENINSULA

**17-23 Panel number 73**

Lykova I.S.\*, Pekov I.V., Yapaskurt V.O., Zubkova N.V., Zolotarev A.A. Jr & Giester G.: POSTCRYSTALLIZATION EVOLUTION OF EPISTOLITE-GROUP HETEROPHYLLO-SILICATES AND ROLE OF NATURAL ION EXCHANGE IN FORMATION OF NEW MINERAL SPECIES IN THIS GROUP

**17-24 Panel number 74**

Novák M.\*, Gadas P., Hreus S., Kocáb J. & Vašínová Galiová M.: OPPOSING CONCENTRATIONS OF Li AND Be IN CORDIERITE/SEKANINAITE FROM GRANITIC PEGMATITES IN THE MOLDANUBICUM; AN INDICATION OF THE DEPTH OF ANATECTIC PROCESSES?

**17-25 Panel number 75**

Pankova Y.A.\*, Krivovichev S.V., Gorelova L.A. & Pekov I.V.: THE CRYSTAL STRUCTURE OF GINORITE, Ca<sub>3</sub>B<sub>4</sub>O<sub>20</sub>(OH)<sub>6</sub>(H<sub>2</sub>O)<sub>5-7</sub>, AND THE ANALYSIS OF DIMENSIONAL REDUCTION AND STRUCTURAL COMPLEXITY IN THE CaO-B<sub>2</sub>O<sub>3</sub>-H<sub>2</sub>O SYSTEM

**17-26 Panel number 76**

Tyumentseva O.S.\*, Gurzhiy V.V. & Krivovichev S.V.: STRUCTURAL AND TOPOLOGICAL COMPLEXITY OF URANYL SELENATES

\*\*\*\*\*

**S19. Gem materials****19-15 Panel number 77**

Andriamamonjy A.\*, Giuliani G., Razafindratsimba S.N., Fallick A.E. & Chatagnier P.-Y.: THE GEM ANDRADITE FROM ANTETEZAMBATO, NORTHERN MADAGASCAR: NEW MINERALOGICAL AND GEOCHEMICAL DATA

**19-16 Panel number 78**

Aurisicchio C., Conte A.M., De Vito C., Medeghini L.\*, Moroz I. & Ottolini L.: THE CONTRIBUTION OF MAJOR AND TRACE ELEMENTS IN THE EMERALD-DEPOSITS CLASSIFICATION SCHEME: STATISTICAL TREATMENT OF EMPA AND SIMS DATA

**19-17 Panel number 79**

Barone G.\*, Bersani D., Lottici P.P., Mazzoleni P. & Raneri S.: COLORED GEMS: A REVIEW ON NON DESTRUCTIVE AND NON INVASIVE APPROACHES IN ART AND

- GEMMOLOGY
- **19-18 Panel number 80**
- Reid M.G. & Anderson A.J.\*: DIRECT OBSERVATION OF MELTING AND CRYSTALLIZATION IN THE SYSTEM  $\text{LiAlSi}_4\text{O}_{10}-\text{H}_2\text{O}$ : IMPLICATIONS FOR CRYSTAL GROWTH IN
- GEM-BEARING POCKETS IN MIAROLITIC PEGMATITES
- **19-19 Panel number 81**
- Rossi M.\*, Rizzi R., Capitelli F., Vergara A. & Ghiara M.R.: MULTI-METHODOLOGICAL CHARACTERIZATION OF TURQUOISE FROM ROYAL MINERALOGICAL MUSEUM OF NAPLES
- **19-20 Panel number 82**
- Tempesta G.\* & Agrosi G.: EMERALDS AND RED BERYLS INVESTIGATED BY LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS)
- **19-21 Panel number 83**
- Diella V.\*, Adamo I., Bocchio R. & Marinoni N.: A NEW INSIGHT ON THE GEM-QUALITY PINK EPIDOTE ("CLINOTHULITE") FROM VAL MALENCO, CENTRAL ALPS, ITALY
- **19-22 Panel number 84**
- Scacchetti M.\*, Marinoni L., Caucia F. & Scetti I.: PHYSICAL, CHEMICAL AND GEMOLOGICAL PROPERTIES OF SOME RHODONITES FROM TANATZ ALP (SWITZERLAND)

\*\*\*\*\*

### **S23. The future of critical metals: mineralogy, metallogenesis and geometallurgy**

- **23-15 Panel number 85**
- Jiménez-Franco A.\*, Alfonso P., Canet C., Trujillo E. & Garcia-Valles M.: MINERAL ASSEMBLAGES IN THE TIN (-INDIUM) SANTA FE MINING DISTRICT, BOLIVIA
- **23-16 Panel number 86**
- Martin A.J.\*, McDonald I., Prichard H.M. & MacLeod C.J.: PRELIMINARY FINDINGS ON THE DISTRIBUTION AND ENRICHMENT OF TELLURIUM (Te) AND SELENIUM (Se) IN HYDROTHERMAL ORE DEPOSITS OF THE TROODOS OPHIOLITE, CYPRUS
- **23-17 Panel number 87**
- Lefebvre M.\*, Romer R.L. & Roscher M.: CHEMICAL AND ISOTOPIC CHARACTERIZATION OF THE HÄMMERLEIN TIN-SKARN DEPOSIT, WESTERN ERZGEBIRGE, GERMANY
- **23-18 Panel number 88**
- Ramos V.\*, Guedes A. & Noronha F.: MALAYAITE AND OTHER TIN-BEARING MINERALS IN THE TUNGSTEN SKARN OF TABUAÇO, NORTHERN PORTUGAL
- **23-19 Panel number 89**
- Zaccarini F.\* & Garuti G.: OCCURRENCES OF PLATINUM GROUP MINERALS (PGM) AND OTHER RARE ACCESSORY PHASES IN ITALY: WHERE AND WHY
- **23-20 Panel number 90**
- Deady É.\*, Knight H., Moore K., Gunn A.G., Naden J. & Boyce A.J.: ANTIMONY MINERALISATION IN SOUTH WEST ENGLAND: NEW INSIGHTS INTO CRITICAL METAL ORE GENESIS
- **23-21 Panel number 91**
- Vikent'eva O.\*, Vikentyev I. & Bortnikov N.: CRITICAL METALS IN THE ORES OF THE SVETLINSK Au-Te DEPOSIT, SOUTHERN URALS
- **23-22 Panel number 92**
- Anikina E.\*, Vikent'eva O., Bortnikov N.S., Gamyaniy G.N. & Prokof'ev V.Y.: A COMPARATIVE STUDY OF Au-Bi-SIDERITE-SULFIDE ARKACHAN AND Ag-Pb-Zn MANGAZEYSKOE DEPOSITS, SAKHA (YAKUTIA), RUSSIA
- **23-23 Panel number 93**
- Cruz C.\*, Lima A., Santos P. & Noronha F.: SUPERGENE GOLD ENRICHMENT IN THE CASTROMIL GOLD DEPOSIT

**23-24 Panel number 94**

Graupner T.\*, Henjes-Kunst F., Klemm R., Gerdes A., Dohrmann R. & Kaufhold S.: RARE EARTH POTENTIAL OF APATITE IN THE SCHIEL COMPLEX, SOUTH AFRICA

**23-25 Panel number 95**

Elizetti de Freitas M., Javier Rios F.\*, Andrade S. & de Moraes R.: CHEMISTRY OF Nb-Ta OXIDE MINERALS FROM SANTA MARIA DE ITABIRA PEGMATITE DISTRICT, MINAS GERAIS, BRAZIL

**23-26 Panel number 96**

Dressler S.\*, Kirk C.A., Norman R.L., Herrington R.J. & Schofield P.F.: THE RESISTENCE OF THE CRITICAL METAL COBALT IN OXIDE MINERAL DEPOSITS - A SYNTHETIC STUDY

**23-27 Panel number 97**

Conte A.M., Cuccuru S., Naitza S.\*, Oggiano G., Secchi F. & Tocco S.: INTO THE DEPTH OF THE ARBURESE VEIN SYSTEM (SW SARDINIA, ITALY): ARSENIDE-SULFIDE EVOLUTION IN THE Ni-Co ORES

**23-28 Panel number 98**

Tuhý M.\*, Ettler V. & Mihaljevič M.: MINERALOGY OF SMELTER- AND MINING-DE-RIVED PARTICULATES DEPOSITED IN SEMI-ARID SOILS

**23-29 Panel number 99**

Bobos I.\* & Noronha F.: Fe,Mn- AND Fe,Mg-CHLORITE: A GENETIC LINKAGE TO W- AND Cu,Mo-METALLIZATION IN THE MAGMATIC-HYDROTHERMAL SYSTEM OF BORRALHA, NORTHERN PORTUGAL

**23-30 Panel number 100**

Molnár Z.\*, Kiss G.B., Zaccarini F., Dunkl I. & Dódy I.: FORMATION CONDI-TIONS OF TWO PHOSPHORITE OCCURRENCES FROM THE TRANSDANUBIAN MOUNTAIN RANGE (HUNGARY)

\*\*\*\*\*

## **S28. Museums and teaching mineral sciences to new generations**

**28-11 Panel number 101**

Biagioni C., Bonaccorsi E., Musetti S.\* & Pasero M.: MONTE AMIATA: THE MINER-ALOGICAL COLLECTION OF THE NATURAL HISTORY MUSEUM OF THE PISA UNI-VERSITY

**28-12 Panel number 102**

del Buey P.\* & Sanz-Montero M.E.: LINKING MINERALS AND HEALTH THROUGH THE WIND DUST. AN EDUCATIONAL PROPOSAL

**28-13 Panel number 103**

Pieraccioni F.\*, Bonaccorsi E. & Gioncada A.: MINERALS AT SCHOOL