

- 11:15 Fluid inclusions used as micro-samplers for batch experiments in the case of simulation of acid gas geological storage
Pironon J., Jacquemet N., Lhomme T., Teinturier S.
- 11:30 Inclusions synthesized from Na₂SO₄ –(NaF)-(NaCl) – containing fluids
Kotelnikova Z. & Kotelnikov A.
- 11:45 213nm UV LA ICP-MS analysis of individual fluid inclusions: a tool for studying base metal transport in hydrothermal systems
Stoffell B., Buckroyd C., Jeffries T., Appold M.

Plenary Lecture

- 12:00 Earliest seafloor type hydrothermal systems on Earth : Isua (Greenland) and Barberton (South Africa): the hen or egg for life ?
J.L.R. Touret

13:00 **Lunch and Posters**

Wednesday, 6th July 2005 - afternoon

SESSION 6

FLUIDS at EXTREME CONDITIONS: P - T - t

Chairs: **B. Cesare - A.M. van den Kerkhof**

- 14:30 **invited** Micro-inclusions in diamonds – the keepers of diamond-forming fluids
Navon O.
- 15:00 Fluid inclusion evidence for water in the mantle beneath Hawaii
Frezzotti M.L. & Peccerillo A.
- 15:15 Discrepancy exhumation of ultra-high pressure metamorphic rocks in the Sulu orogenic terrane: Evidence from fluid inclusions
Fan H.-R., Guo J.-H., Hu F.-F.
- 15:30 PVTX properties of near-critical H₂O-NaCl-KCl-CaCl₂ solutions
Azbej T. & Bodnar R.J.
- 15:45 Fluid-rock interaction in UHP rocks from Southern Sulu orogen (Eastern China)
Ferrando S., Frezzotti M.L., Dallai L., Compagnoni R.
- 16:00 **Coffee break**
- 16:30 Peak-metamorphic H₂O-NaCl-CH₄ fluids in subduction zone eclogites of the Raspas Complex, Ecuador
Herms P., Bakker R.J., John T., Schenk V.
- 16:45 Extremely high density carbonic fluids associated with ultrahigh-temperature crustal metamorphism: examples from the Napier Complex in East Antarctica and the Madurai Block in South India
Tsunogae T., Santosh M., Dubessy J.
- 17:00 CO₂-rich and N₂-rich fluid inclusions in Archean ultrahigh-temperature metamorphic BIF of Voronezh crystalline massif (East European craton, Russia)
Fonarev V., Novikova M., Savko K., Pilugin S.
- 17:15 Fluids in inclusions from well-preserved pillow basalt breccia of the ~3.75 Ga Isua Greenstone Belt: sea-floor hydrothermal or metamorphic origin?
Heijnen W., Appel P., Frezzotti M.L., Touret J.L.R.
- 17:30 The solubility of Ag in supercritical hydrothermal Cl brines
Fry N., Mavrogenes J., Ulrich T.

17:45 Fluids in Early Archaean cherts (Buck Ridge volcano-sedimentary complex, Barberton Greenstone Belt, South Africa)
de Vries S.T. & Touret J.L.R.

18:00

Poster Session

Thursday, 7th July 2005

SESSION 3

CURRENT RESEARCH on MELT INCLUSIONS:
PETROLOGY, VOLCANOLOGY and VOLATILES

Chairs: R.J. Bodnar - A. Peccerillo

- 8:30 **invited** Magmatic immiscibility uncovered by melt and fluid inclusion research
Kamenetsky V.
- 8:50 Do melt inclusions record water contents of the original melt?
Severs M., Azbej T., Thomas J., Mandeville C., Bodnar R.J.
- 9:05 Silicate-silicate liquid immiscibility in basic paralavas of South Urals, Russia: evidence from melt inclusions in anorthite
Sharygin V., Sokol E., Nigmatulina E.
- 9:20 Immiscible Iron- and Silica-rich melts in the Skaergaard intrusion: implications for igneous differentiation
Jakobsen J.K., Tegner C., Veksler I.V., Brooks C.K.
- 9:35 Evidence for percolation of different alkaline melts in the upper mantle beneath the central Pannonian Basin: a silicate melt inclusion study on peridotite xenoliths
Szabo C., Bali E., Banks D., Bodnar R.J., Kovacs I., Zajacz Z., Torok K., Halter W.
- 9:50 Evidence of high-temperature silicate liquid immiscibility in melt inclusions from alkaline and tholeiitic basalts
Veksler I., Rocholl A., Sanchez R.
- 10:05 Evidence for melting of subducted slab: silicate melt inclusion study on quartz-bearing orthopyroxene-rich websterite xenolith from the Bakony – Balaton Highland Volcanic Field (western Hungary, Pannonian Basin)
Bali E., Zajacz Z., Szabo C., Halter W., Kovacs I., Torok K., Vaselli O., Bodnar R.J.
- 10:20 Melt inclusion evidence for rare-metal comendite magmas in the Late Paleozoic bimodal volcanic assemblage of Dzarta Khuduk, central Mongolia
Andreeva I., Kovalenko V., Yarmolyuk V.
- 10:35 **Coffee break**
- 11:00 **invited** Final stages of magmatic crystallization of tourmaline-bearing miarolitic pegmatites from Transbaikalia, Russia, and Pamir, Tajikistan.
Smirnov S.Z., Peretyazhko I.S., Zagorsky V.Y., Thomas V.G.
- 11:20 Formation and behaviour of Very Low Density Melts (VLDMs) in the upper crust: A melt inclusion study
Thomas R. & Heinrich W.
- 11:35 Immiscibility between carbonic fluids and granitic melts during crustal anatexis: the example of the graphitic enclaves from the Neogene Volcanic Province (SE Spain)
Cesare B., Maineri C., Pedron D., Acosta-Vigil A.
- 11:50 Behaviour of copper in magmatic-hydrothermal systems: Coexisting synthetic melt and fluid inclusions
Keller N., Mavrogenes J., Berry A.
- 12:05 Determination of fluid/melt partition coefficients in volatile saturated magmatic systems by LA-ICPMS analysis of coexistent fluid - and silicate melt inclusions
Zajacz Z., Halter W., Pettke T.

- 12:20 New insights into the sources of Italian potassic magmas from melt inclusions
Nikogosian I. & van Bergen M.
- 12:35 A model to explain geochemical difference between melt inclusion and volcanic compositions of 79 AD and 1944 AD Mt. Somma Vesuvius eruptions
Lima A. & De Vivo B.
- 12:50 Evolution of silicate melts during formation of the granite-pegmatite system of the Malkhany pegmatite field, Russia
Thomas R. & Badanina E.V.
- 13:05 **Lunch and Posters**

Thursday, 7th July 2005 - afternoon

SESSION 2

FLUID INCLUSIONS and STABLE ISOTOPES

Chairs: **D. Banks - L. Dallai**

- 14:30 **invited** Stable isotope geochemistry of fluid inclusions: Applications to fluid sources, vein formation mechanisms and paleoaltitudes
Sharp Z.D., Masson H., Lucchini R.
- 14:50 Recovery and stable isotope analysis of water from fluid inclusions: Combination of on-line crushing and glassy carbon pyrolysis method
Dublyansky Y. & Atudorei V.
- 15:05 Fluid evolution, sources, and flow from pro- and retrograde metamorphic veins in the Southern Gotthard massif: Constraints from the chemical and stable isotopic composition of fluid inclusions
Heijboer T., Mullis J., Vennemann T., de Capitani C.
- 15:20 Noble gases in fluid inclusions from emeralds: implications for the origin of fluids and constraints on fluid-rock interactions
Giuliani G., Marty B., Banks D.
- 15:35 Fluids in productive and Barren quartz veins from the Sovetskoe Au-deposit, Yenisey Ridge, Siberia (Russia)
Tomilenko A., Gibsher N., Dublyansky Y., Dallai L.
- 15:50 Calcite veins from the Monte Amiata volcano (Southern Tuscany) as a record of multiple fluid circulation
Gasparrini M., Chiodini G., Caliro S., Ruggieri G.
- 16:05 **Coffee break**
- 16:30 Large-scale meteoric fluid flow in the Central Alps
Mullis J., Vennemann T., O'Neil J.
- 16:45 Models of magnesite origin in the Western Carpathians based on combined fluid inclusion and stable isotope study
Koděra P., Huraiovà M., Prochaska W., Hurai V.
- 17:00 Methane oxidation as inferred from stable isotope compositions of fluid inclusions at the CH₄/H₂O-(CO₂) transition in the external part of the Central Alps, Switzerland
Tarantola A., Vennemann T., Mullis J., Dubessy J., de Capitani C.
- 17:15 The involvement of marine evaporite brines in the origin of Archean Fe oxide-Cu-Au deposits of the Carajás mineral Province, Northern Brazil: a fluid inclusion and boron isotope study
Xavier R.P., Dreher A.M., SoaresMonteiro L.V., GanadeAraujo C.E., Wiedenbeck M., Rhede D.

17:30

Poster session

SESSION 5

CRUSTAL PROCESSES: FLUID ROCK INTERACTION

Chairs: L. Diamond - V. Lüders

- 8:30 **invited** The chemistry of crustal fluids – What do we still need to measure?
Yardley B., Vry V., Banks D.
- 8:50 Fluids in the upper crust: fluid inclusion signatures from Palaeozoic and Cenozoic granites in the Irish onshore massif
Conliffe J. & Feely M.
- 9:05 Reinterpretation of infiltrative skarn phase equilibria: implications for fluid phase composition and behaviour
Lentz D.
- 9:20 Detailed study of the CO₂-CO±C system in mafic granulite xenoliths from Bakony-Balaton Highland Volcanic Field (central Pannonian Basin, W-Hungary)
Dégi J., Badenszki E., Török K., Kodolány J., Szép A., Marosi G.
- 9:35 Fluid evolution and mineral crystallization in rare-metal pegmatites, Sierra de San Luis, Argentina
van den Kerkhof A. M., Sosa G.M., Montenegro T.
- 9:50 Fluid evolution in the nepheline syenites of the Ditrău Alkaline Massif, Transylvania, Romania
Fall A., Bodnar R.J., Szabò C.
- 10:05 Fluid related recovery in quartz in partly retrogressed high grade quartzites from the Bamble sector
Sørensen B.E., Larsen R., Austrheim H.
- 10:20 Can primary fluid inclusions be preserved in thermally overprinted and naturally etched Neoproterozoic fibrous calcite veins?
Bakker R.J. & Bons P.D.
- 10:35 **Coffee break**
- 11:00 The composition of seawater in the Archean and Proterozoic
Banks D. & Gutzmer J.
- 11:15 The use of fluid inclusion analysis in mineral exploration: the Curnamona and Gawler cratons in South Australia
Schmidt-Mumm A., Skirrow R., Clark C.
- 11:30 Fluid circulation at the origin of the Trimouns talc deposit (Pyrenees, France)
Boiron M.C., Boulvais P., Cathelineau M., Banks D., Calvayrac N., Hubert G.
- 11:45 Fluid inclusion and micro-fossil evidence for hydrothermal bio-mineralization in the Vani “white smoker”-type Mn deposit, Milos island, Greece
Kilias S.P., Detsi K., Naden J., Papavasiliu C.
- 12:00 The role of fluids in the formation of Pb-Zn-Ba mineralization: the Tazekka area of Morocco
Noronha F., Auajjar J., Guedes A., Banks D.
- 12:15 Entrapment and re-equilibration of gold-bearing fluid inclusions (Sigma deposit - Abitibi belt - Canada). A multidisciplinary study
Garofalo P. S., Heinrich C.A., Guenther D., Pettke T.
- 12:30 Compositional peculiarities of the solutions which formed different types of F-Be ores at the Yermakovka deposit in Western Transbaikalia
Damdinova L.

12:45 Contrasting styles of amethyst mineralization in the Cretaceous Paraná-Etendeka Continental Flood Basalt Province (Brazil, Uruguay and Namibia)
Gilg A. & Hünken U.

13:00 **Lunch and Posters**

Friday, 8th July 2005 - afternoon

SESSION 4

FLUIDS in NEAR SURFACE PROCESSES

Chairs: J. Pironon - G. Ruggieri

14:30 **invited** Fluid inclusion data for basin modeling – Concept and application
Hantschel T., Kauerauf A., Wygrala B.

14:50 Fluid and gas migration in the North German Basin - Fluid inclusion and stable isotope constraints
Lüders V., Reutel C., Hoth P., Banks D.A., Mingram B., Pettke T.

15:05 Reconstruction of the P-T conditions during methanogenesis and oil-filling of a Mesozoic dolostone reservoir: the case of the Saramako oil field, SE Mexico
Levesse G., Tritlla i Cambra J., Gonzalez-Partida E., Pironon J., Teinturier S., Priftulli E., Oviedo-Perez A., Martinez-Kemp H., Gonzalez-Posadas F.

15:20 Searching for a proof of gas hydrates dissociation in the geological record
Ceriani A., Di Giulio A., Maragliulo C., Galinetto P.

15:35 Paleopressures from fluid inclusions: implications for trap integrity in hydrocarbon systems
Pottorf R., Summa L., Tseng H.Y., Fitts T., Reynolds T.J.

15:50 Fluid inclusions in hydrocarbon-bearing sandstones of the Taranaki Basin, New Zealand
Reyes A.G. & Funnell R.H.

16:05 **Coffee break**

16:30 Source and nature of brines in Proterozoic basins (Saskatchewan (Canada) and Northern territories (Australia)).
Cathelineau M., Boiron M.C., Derome D., Cuney M., Fabre C., Banks D.

16:45 Primary fluid inclusions microthermometry of the Badenian salt deposits and modern halite crust from Romania
Pintea I.

17:00 Formation conditions of "Christmas tree" gypsum from the Madrid Basin (Spain): petrography and fluid inclusion analysis
Ayllón-Quevedo F., Souza-Egipsy V., Sanz-Montero E., Rodriguez-Aranda P.

17:15 Fluid inclusion trails in igneous rocks - what do they tell us? A preliminary study of the Khibina mountains, Kola peninsular, NW-Russia
Beeskov B.

17:30

Poster session

20:00 **Conference Dinner - Cortile del Podestà, Piazza del Campo**

Saturday, 9th July 2005

SESSION 3
continued

CURRENT RESEARCH on MELT INCLUSIONS:
PETROLOGY, VOLCANOLOGY and VOLATILES

Chairs: V. Sharigin - C. Szabo

- 8:30 Na-Ca-Mg carbonate inclusions from the Spitskop carbonatite: Na-bearing carbonatitic melts?
Mavrogenes J. & Tailby N.
- 8:45 Microstructures of silicate glass inclusions from crustal anatectic environments: a case study from the El Hoyazo volcanics, SE Spain
Acosta-Vigil A., Cesare B., London D., Morgan VI G.B.
- 9:00 Bromine and iodine concentrations in volcanic glasses determined by Synchrotrone-XRF: origin and partitioning of heavy halogens during basaltic-andesitic and rhyolitic arc magma formation at the Central American subduction zone
Wehrmann H. & Freundt A.
- 9:15 Fluid regime and compositions of mantle-derived ultrabasic alkaline magmas
Solovova I. & Giris A.
- 9:30 Nature of sulphates in carbonatite complexes of the West Transbaikalia
Doroshkevich A.
- 9:45 Comprehensive study on silicate melt inclusions of olivine phenocrysts from different alkali basalt volcanoes (Hegyestű and Haláp) from the Bakony-Balaton Highland Volcanic Field, central Pannonian Basin, Hungary
Kóthay K., Szabó C., Török K., Sharygin V., Ntaflós T.
- 10:00 Geochemical investigation of magma evolution in Campi Flegrei volcanic field (Italy) based on melt inclusions
Cannatelli C., Bodnar R.J., De Vivo B., Lima A., Fedele L., Piochi M.
- 10:15 The most primitive melts of the trap formation in the Noril'sk region
Sobolev A.V., Krivolutskaya N.A., Kuzmin D.V.
- 10:30 **Coffee break**
- 11:00 Sapphires from the Nezametnoye deposit – Granosyenite magma efflorescence
Pakhomova V., Zalishchak B., Odarichenko E., Lapina M., Karmanov N.

SESSION 5
continued

CRUSTAL PROCESSES: FLUID ROCK INTERACTION

Chairs: F. Noronha - A. Schmidt - Mumm

- 11:20 Fluid and solid inclusions as indicators of provenance and heat treatment of some E African gem rubies
Rankin A.H.
- 11:35 Thermal and compositional variations in the southern part of the Berlin geothermal field (El Salvador)
Ruggieri G., Arias A. - Barrios L.A. - De Henriquez E. - Gianelli G.
- 11:50 Fluid inclusion paleobathymetry of overpressurized hydrothermal systems of the Tertiary accretionary complex of the Western Carpathians
Hurai V., Swierczewska, Tokarski A., Kotulová J., Biron A., Milicka J., Hrušecký I., Marko F.
- 12:05 Fluid-rock interactions in alkaline-carbonatite complexes from São Paulo State, Brazil: fluid inclusion evidence
Costanzo A., Feely M., Moore K.

General discussion