

EMPG XV

*Fifteenth International Symposium on Experimental
Mineralogy, Petrology and Geochemistry*

Program

Sunday June, 5

12:00 Registration opens

16:00 Icebreaker and Posters to 20:00

Monday June, 6

9:00 Opening remarks by Max Schmidt or Peter Ulmer

9:15 **Plenary lecture** by **George D. Cody**

G. D. Cody, C. Le Losq, Y. Wang, D. Foustoukos and B. O. Mysen

The complex relationship between water and H isotopes with composition
in silicate melts

10:00 coffee break

EMPG XV – Program – Talks

C60 (NO) Monday, June 6

SESSION:

Deformation and Methods

Conveners: Raul Fonseca and Chris Ballhaus

- 10:30** S. Incel, A. Schubnel, N. Hilairet, T. John, L. Labrousse, T. Ferrand, D. Deldicque, Y. Wang, J. Renner and C. Chopin
Laboratory earthquakes triggered by metamorphic reactions during the eclogitization of blueschist
- 10:45** N. Miyajima, Y. Li and F. Heidelbach
Imaging dislocations in a natural olivine by electron channeling contrast in a SEM
- 11:00** H Marquardt, J. Immoor, L. Miyagi, S. Speziale and H.P. Liermann
Experimental high-pressure/high-temperature deformation of lower mantle materials at DESY
- 11:15** C. Petrini, T. Gerya and C. Madonna
Validation of hydro-mechanical modelling numerical code with laboratory experiments
- 11:30** N. Walte, H. Keppler and D. Frost
SAPHiR, the Instrument for Neutron Science at high Pressure and Temperature
- 11:45** D. Di Genova, C. Cimarelli, K.-U. Hess and D. B. Dingwell
An advanced rotational rheometer system for extremely fluid liquids up to 1273 K and applications to alkali carbonate melts
- 12:00** lunch break

H44 (ML) Monday, June 6

SESSION:

Element and Isotope Partitioning

“Traces and volatiles”

Conveners: Mike Carroll and Max Wilke

- 10:30** K. Klimm, F. Schröder-Frerkes and A. B. Woodland (**KEYNOTE**)
Accessory phase saturation, slab temperatures and the physical state of slab liquids
- 11:00** A. Wohlers and B. J. Wood
Lithophile element partitioning between silicate and sulfide liquids: Implication for a reduced, sulfur-rich component of early Earth
- 11:15** H. Guo and A. Audétat
Transfer of volatiles and metals from mafic to felsic magmas in composite magma chambers: an experimental study
- 11:30** R. Arató and A. Audétat
Vanadium partitioning between magnetite and silicate melt – experimental calibration and first application of a new oxybarometer for silicic magmas
- 11:45** K. T. Koga and G. Van den Bleeken
Experimental determination of fluorine-chlorine and cation trace element fractionation during slab melting
- 12:00** lunch break

EMPG XV – Program – Talks

C60 (NO) Monday, June 6

SESSION:

**Volatiles in melts, physical properties of melts, diffusion and kinetics
“Volcanic Processes, Degassing & Volatile Solubilities”**

Conveners: Sharon Webb and Francois Holtz

- 13:30** N. Le Gall and M. Pichavant
Experimental simulation of the ascent and degassing of H₂O- and H₂O-CO₂-bearing basaltic magmas
- 13:45** D. Laporte, M. Hardiagon and A. Provost
Ascent and degassing of magmas: the conditions of homogeneous bubble nucleation in the system basalt-CO₂
- 14:00** S. Fanara, G. Sottili, A. Silleni, D. M. Palladino and B.C. Schmidt
CO₂ bubble nucleation in K-rich silicate melts: evidence from decompression experiments and implication for eruptive dynamics
- 14:15** Y. Moussallam, C. Larre, M. Massuyeau, Y. Morizet and F. Gaillard
H₂O-CO₂ solubility in low SiO₂-melts and the unique mode of kimberlite degassing and emplacement
- 14:30** P. Stabile, H. Behrens, M. R. Carroll, E. Paris and G. Giuli
H₂O solubility in pantelleritic glasses: temperature, pressure and compositional effects
- 14:45** F. B. Wadsworth, J. Vasseur, P. M. Ayriss, K.U. Hess, D. Di Genova and D. B. Dingwell
Diffusive equilibration and sintering of silicate liquid droplets
- 15:15** plenary: next EMPG

Hall NO

15:45 Poster, Beer and Prezel to 19:00

H44 (ML) Monday, June 6

SESSION:

Element and Isotope Partitioning

“Volatiles and Isotopes”

Conveners: Mike Carroll and Max Wilke

- 13:30** B. Joachim, A. Stechern, T. Ludwig, J. Konzett, L. Ruzié, P. L. Clay, R. Burgess, A. Pawley and C. J. Ballentine
Effect of water on halogen partitioning behavior between olivine and melt
- 13:45** C. Zhang, J. Koepke, H. Behrens and F. Holtz
Compositional effects on the partitioning of F between amphibole and silicate melt
- 14:00** A. Mallik
Can subducted slabs carry nitrogen deep in the Earth's mantle?
- 14:15** I. M. Speelmanns, M. W. Schmidt and C. Liebske
Experimental determination of Nitrogen partitioning between metal and silicate melt
- 14:30** N. Kueter, M. D. Lilley, S. M. Bernasconi and M. W. Schmidt
Carbon isotope fractionation among CH₄-CO₂-CO at high temperature
- 14:45** M. Stuff, J. A. Schuessler and M. Wilke
Experimental constraints on iron isotope fractionation in carbonatite melt systems
- 15:15** plenary: next EMPG (in C60 NO)

Hall NO

15:45 Poster, Beer and Prezel to 19:00

EMPG XV – Program – Talks

C60 (NO) Tuesday, June 7

SESSION:

Volatiles in melts, physical properties of melts, diffusion and kinetics
“Viscosity and Melt Structure”

Conveners: Sharon Webb and Francois Holtz

- 9:00** B. C. Schmidt, S. Crummenerl, M. Freese, V. Graubner, M. Leck, M. Nieuwenhuis, A. Kronz and K. Simon
Halogen diffusion in phonolite melt
- 9:15** S. L. Webb
Volatiles which increase magma viscosity
- 9:30** F. Gaillard, M. Laumonier and D. Sifré
The electrical conductivity of hydrated silicic, intermediate, mafic and carbonated melts
- 9:45** K. Armstrong, D. Frost, C. McCammon, D. Rubie and T. Boffa-Ballaran
The oxidation state of Fe in silicate melts as a function of pressure
- 10:00** W. Nash, B. Wood and D. Smythe
Compositional dependence of sulfur speciation in terrestrial and Martian magmas
- 10:15** J. Pohlenz, S. Pascarelli, O. Mathon, A. D. Rosa, S. Belin, G. Landrot, A. Shiryayev, O. Safonov, V. Murzin, T. Irifune and M. Wilke
Structural properties of carbonate-silicate melts: REE EXAFS at high-pressure & temperature
- 10:30** coffee break

H44 (ML) Tuesday, June 7

SESSION:

Fluids

“Mineral/Fluid Interactions”

Conveners: Dionysis Foustoukos and Stefano Poli

- 9:00** S. Tumiati, C. Tiraboschi, T. Pettke, S. Recchia, P. Ulmer and S. Poli
Experimental constraints on the CO₂ content of fluids interacting with the subduction mélange
- 9:15** C. Fauguerolles, T. Castelain, J. Villeneuve and M. Pichavant
In situ determination of thermodynamic properties of H₂-bearing fluids - Application to serpentinization
- 9:30** S. Luginbühl, P. Ulmer and T. Pettke
The release of mobile phases from the slab and the consequences for arc magmatism
- 9:45** C. Tiraboschi, S. Tumiati, P. Ulmer, T. Pettke and S. Poli
Solubility of forsterite + enstatite and magnesite + enstatite in COH fluids
- 10:00** D. Qi, H. Behrens, R. Botcharnikov, I. Derrey and F. Holtz
Quenching effect on synthetic fluid inclusions: implications for study of Cu solubility
- 10:15** J. V. Matjuschkin, J. Blundy and R. A. Brooker
The effect of pressure on sulphur solubility and speciation and implications for PCD formation
- 10:30** coffee break

EMPG XV – Program – Talks

C60 (NO) Tuesday, June 7

SESSION:

Volatiles in melts, physical properties of melts, diffusion and kinetics
“Minerals and Melts in the Mantle”

Conveners: Sharon Webb and Francois Holtz

- 11:00** N. Stamm and M. W. Schmidt
Kimberlitic melts: Moderate partial melting of a metasomatized mantle source
- 11:15** L. S. Capizzi, P. Fumagalli, B. Ildefonse, S. Poli and S. Tumiati
Geometry and connectivity of hydrous-carbonatitic liquids in the mantle: an experimental model
- 11:30** W. J. Malfait, S. Petitgirard, R. Sinmyo, I. Kuppenko, B. Journaux, I. Collings, I. Kantor, L. Hennet, D. Harries, T. Dane, M. Burghammer and D. C. Rubie
Density of MgSiO₃ and SiO₂ glass to core-mantle boundary pressure
- 11:45** A. Norris and B. Wood
Direct measurement of relative volatilities of trace components in silicate melts
- 12:00** M. C. Jollands, I. Zhukova, H. S. C. O'Neill and J. Hermann
New constraints on Mg isotopic tracer diffusion in forsterite: reiterating the importance of full control in diffusion experiments
- 12:15** R. Dohmen, D. Rogalla and H.-W. Becker
Cr-Al interdiffusion in spinel
- 12:30** lunch break

H44 (ML) Tuesday, June 7

SESSION:

Fluids

“Solvation and physical properties”

Conveners: Dionysis Foustoukos and Stefano Poli

- 11:00** G. S. Pokrovski (**KEYNOTE**)
Impact of sulfur radical ions on metal transport by crustal fluids and ore deposit formation
- 11:30** D. I. Foustoukos
D/H systematics in crustal brines
- 11:45** C. Schmidt
Tin speciation in H₂O + HCl fluids to 600 °C from Raman spectroscopy
- 12:00** R. Sinmyo and H. Keppler
Electrical conductivity of H₂O-NaCl fluids to 10 kbar
- 12:15** S. A. T. Redfern and S. Facq
Influence of the Liquid-Liquid Phase Transition of Water on Mineral Solubility and Solution Chemistry
- 12:30** lunch break

EMPG XV – Program – Talks

C60 (NO) Tuesday, June 7

SESSION:

Studies of terrestrial magmatism

“Volatiles - Processes and Effects on magmatic Systems”

Conveners: Michel Pichavant and Tom Sisson

- 14:00** R. E. Botcharnikov, M. Wilke, K. Klimm, O. Beermann and M. Portnyagin
(**KEYNOTE**)
Sulfur partitioning between magmatic phases at sulfide-sulfate transition - Implications for metal mobility
- 14:30** Y.-A. Brugier, M. Pichavant and A. Di Muro
Experimental determination of phase equilibria of a basalt from Piton de la Fournaise (La Réunion island): 1 atm data and high pressure results in presence of volatiles
- 14:45** T. Sisson
Near-solidus melts of N-MORB + 4 wt% H₂O at 0.8–2.8 GPa applied to issues of subduction magmatism
- 15:00** Z. Zajacz
The effect of pressure and temperature on the the partitioning of oxidized sulfur between silicate melts and magmatic volatiles
- 15:15** L. C. Carniel, S. Klemme, R. V. Conceição, J. Berndt and A. Rohrbach
The effects of redox conditions on ferric iron in CaTiO₃-perovskite from kimberlitic magmas

Hall NO

15:30 Poster, Beer and Prezel to 18:00

19:00 Conference Dinner at “Lake Side”

H44 (ML) Tuesday, June 7

SESSION:

Phase Equilibria in Subduction Zones

Conveners: Ken Koga

- 14:00** O. Safonov, S. Kosova, V. Butvina and D. Van Reenen
Reactions of peraluminous metapelite with H₂O-CO₂-alkali chloride fluids at granulite-facies conditions
- 14:15** S. Skora, P. Ulmer, T. Pettke and M. Guillong
Fluid/rock interactions at the slab/mantle interface in subduction zone settings
- 14:30** J. Hermann, U. Troitzsch and D. Scott
The reaction of aragonite + dolomite to Mg-calcite up to 6.5 GPa and implications for subducted marbles
- 14:45** H. Howe, A. Pawley and G. Droop
The effect of Fe-Mg solid solution on the stability of talc and the 10 Å phase
- 15:00** S. Lakey and J. Hermann
Reaction from chlorite to 23Å phase at high pressures in ultramafic schists and implications for water transport in subduction zones
- 15:15** J. Maurice, N. Bolfan-Casanova, G. Manthilake and A. Padron-Navarta, T. Hammouda
Experimental investigation of Phase A stability: implications for water transportation in the mantle

Hall NO

15:30 Poster, Beer and Prezel to 18:00

19:00 Conference Dinner at “Lake Side”

EMPG XV – Program – Talks

C60 (NO) Wednesday, June 8

SESSION:

Studies of terrestrial magmatism

“Silicic magmas by differentiation and melting”

Conveners: Michel Pichavant and Tom Sisson

- 9:00** S. Wilke, F. Holtz, R. Almeev and D. A. Neave
Calibration of a geobarometer for rhyolitic systems based on the composition of cotectic melts
- 9:15** M. Wang, O. Namur, R. Almeev, B. Charlier and F. Holtz
Experimental study on the production of Snake River Plain-Yellowstone rhyolites
- 9:30** P. Romano, B. Scaillet, J. Andujar and S. Rotolo
Phase relationship and liquid line of descent of trachytic magma at Pantelleria island (Italy): An experimental study
- 9:45** C. Rodriguez and A. Castro
Experimental simulation of reverse (centrifugal) pluton zoning under symmetric and horizontal thermal gradients
- 10:00** D. L. Blatter, T. W. Sisson, and W. . Hankins
Voluminous arc dacites as amphibole reaction-point liquids
- 10:15** E. Melekhova and J. Blundy
Constraining arc structure using experimental petrology
- 10:30** coffee break

H44 (ML) Wednesday, June 8

SESSION:

The Mantle and Core of Earth and other Planets

“The Core”

Conveners: Stephan Klemme, Patricia Fumagalli and Arno Rohrbach

- 9:00** J. Brodholt and J. Badro (**KEYNOTE**)
The composition of layers in the outer core
- 9:30** E. S. Posner, D. C. Rubie, D. J. Frost, V. Vlček and G. Steinle-Neumann
High *P-T* experiments and first principles calculations of the diffusion of Si, O, Cr in liquid iron
- 9:45** V. Clesi, M. A. Bouhifd, N. Bolfan-casanova, G. Manthilake, A. Fabrizio and D. Andrault
Effect of H₂O on metal-silicate partitioning of Ni, Co, V, Cr, Mn and Fe: Implications for Earth and Mars
- 10:00** C. E. Fichtner, M. W. Schmidt, C. Liebske, A.-S. Bouvier and L. Baumgartner
Experimental determination of carbon partitioning between metal- and silicate melts
- 10:15** G. Solferino and G. Golabek
Pallasite formation: New experimental results
- 10:30** coffee break

EMPG XV – Program – Talks

C60 (NO) Wednesday, June 8

SESSION:

Studies of terrestrial magmatism

“Melting at upper mantle depths”

Conveners: Michel Pichavant and Tom Sisson

- 11:00** E. Sarafian, G. Gaetani, E. Hauri and A. Sarafian
The H₂O-undersaturated solidus of the oceanic upper mantle
- 11:15** R. Kessel, P. Fumagalli and T. Pettke
Hydrous melting of a metasomatized peridotite at 4-6 GPa
- 11:30** Y. Wang, D. Prelević, S. Buhre and S. Foley
The generation of orogenic ultrapotassic magmas in newly formed lithosphere
- 11:45** G. Borghini, P. Fumagalli and E. Rampone
Partial melting experiments on a secondary pyroxenite at 1 and 1.5 GPa
- 12:00** O. Elazar, R. Kessel and O. Navon
Fluids and melts in equilibrium with a carbonated-hydrous eclogite system at 4-6 GPa and 900-1200°C
- 12:15** S. Poli
Liquids from CaCO₃ in the presence of H₂O at high pressure
- 12:30** lunch break

H44 (ML) Wednesday, June 8

SESSION:

The Mantle and Core of Earth and other Planets

“The Mantles of Earth and Moon”

Conveners: Stephan Klemme, Patricia Fumagalli and Arno Rohrbach

- 11:00** A. Rohrbach and J. Berndt
Carbon storage in the deep reducing mantle
- 11:15** C. Cartier, T. Hammouda, M. Boyet, M. A. Bouhifd and O. Mathon
Nb and Ta fractionation as a planetary differentiation f_{O_2} tracer
- 11:30** R. O. C. Fonseca, F. P. Leitzke, L. T. Michely, P. Sprung, A. Heuser and C. Münker
Effect of TiO₂ content of silicate melt on the partitioning behaviour of the HFSE during lunar mantle melting
- 11:45** A. Fiege, B. Konecke and A. Simon
The lunar apatite story: Revised
- 12:00** T. Grützner, A. Rohrbach, J. Berndt, F. Gervasoni and S. Klemme
Fluorine storage in wadsleyite: Implications for the transition zone
- 12:15** P. A. Sossi, S. Klemme, H. St.C. O'Neill and F. Moynier
Volatility of the elements and the role of oxygen fugacity
- 12:30** lunch break

EMPG XV – Program – Talks

C60 (NO) Wednesday, June 8

SESSION:

Studies of terrestrial magmatism

“Upper Mantle Melting & Subsequent Magmatic Evolution”

Conveners: Michel Pichavant and Tom Sisson

- 14:00** A. Manjón-Cabeza, A. Castro and A. García-Casco
A preliminary forward approach to generation of slab magmas in subduction zones: melting of the Franciscan mélange
- 14:15** A. B. Woodland, V. K. Bulatov, A. V. Gernis, G. P. Brey and H. E. Höfer
Sediment-peridotite interaction in a temperature gradient
- 14:30** M. W. Förster, D. Prelević, S. Buhre, H. R. Schmück, M. Veter, R. Mertz-Kraus, S. Foley and D. E. Jacob
Reaction experiments of glimmerite + harzburgite at 1-2 GPa and genesis of orogenic ultrapotassic magmas
- 14:45** J.E. Francomme, P. Fumagalli and G. Borghini
Olivine-rich troctolites genesis through melt-rock reactions in oceanic spreading lithosphere: an experimental study up to 0.7 GPa
- 15:00** J. Leuthold and P. Ulmer
High temperature crystal-melt reaction in mafic igneous complexes
- 15:15** O. Beermann, E. Duesterhoeft and F. Holtz
Calc-alkaline towards shoshonitic differentiation of mafic magmas: key aspects on melt SiO₂ depletion and K₂O enrichment

Hall NO

15:30 End Sessions and goodbye refreshments to 17:00

H44 (ML) Wednesday, June 8

SESSION:

Mineral Physics

Conveners: Monika Koch-Mueller

- 14:00** T. Boffa Ballaran, A. Kurnosov, D. J. Frost and H. Marquardt (**KEYNOTE**)
Cation substitution in MgSiO₃ bridgmanite: implication for the mineralogy of the Earth's lower mantle
- 14:30** K. Schulze, H. Marquardt, T. Kawazoe, A. Kurnosov, M. Koch-Müller and T. Boffa Ballaran
Direct quantification of the effect of Fe and OH on the HP/HT single-crystal elasticity of ringwoodite
- 14:45** L. Uenver-Thiele, A. Woodland, T. Boffa Ballaran, N. Miyajima and D. Frost
New Fe-Mg oxides at conditions of the deep upper mantle and transition zone?
- 15:00** I. Efthimiopoulos, A. Kuras, U. Schade and M. Koch-Müller
Vibrational properties of dolomite at extreme conditions
- 15:15** A. Watenphul, J. Schlüter, F. Bosi, H. Skogby and B. Mihailova
Octahedral-site occupancies of Li-free tourmalines

Hall NO

15:30 End Sessions and goodbye refreshments to 17:00

Applied Mineralogy, Deformation and Methods

- P1** *M. Bello and M. Carroll*
Study of municipal solid waste bottom ash: volcanic-like rocks and volatile metals
- P2** *R. Champallier, P.-A. Bertrand, I. Chiboub, A. Ebrahimiyeqta, P. Jacquet, J. Précigout, Q. Thibault, D. Bellenoue, A. Canizarès, E. Laherat, E. Le Moing, R. Planckaert, A. Prat, C. Robert, F. Savoie, J. Andujar, C. Bessada, M. Cassir, V. Catoire, P. Echegut, C. Guimbaud, J.-L. Hazemann, M. Pichavant, J.-M. Pouvesle, E. Robert, P. Simon, D. Testemale and B. Scaillet*
PLANEX: a new platform for “in-situ” high temperature and high pressure analysis and measurements
- P3** *M. Koch-Müller, F. Deon, M. Mrosko, J. Müller, A. Watenphul and B. Wunder*
The rocking multi-anvil-press: some applications. (A tribute to Max Schmidt and Peter Ulmer, ETH Zürich)
- P4** *D. Tonkacheev, D. Chareev, V. Abramova, N. Trofimov and B. Tagirov*
“Invisible” gold and PGE elements in synthetic crystals of sphalerite, greenokite and covellite: A EPMA, LA-ICP-MS and XAFS study
- P5** *J. Wade*
It’s not a gamble! Checking EPMA and synchrotron micro-XRF with Monte Carlo simulations

Methods

- P6** *R. Farla and F. Heidelbach*
Pure shear deformation of layered olivine - orthopyroxene aggregates
- P7** *C. Madonna and M. Violay*
Engineered geothermal reservoirs in brittle-ductile transition zone
- P8** *G. Spiekermann, M. Harder, C. Weis, C. Sahle, I. Kupenko, V. Cerantola, S. Petitgirard, W. Morgenroth, I. Kantor, H. Yavas, L. Dubrovinsky, M. Tolan, C. Bressler, C. Sternemann and M. Wilke*
X-ray emission spectroscopy under extreme conditions in laser-heated DACs at beamline P01, PETRA III, DESY
- P9** *N. Walte and F. Heidelbach*
Deformation of stishovite with the SAPHiR multianvil press

Volatiles in melts, physical properties of melts, diffusion and kinetics

- P10** *G. Krättli and M.W. Schmidt*
Plagioclase buoyancy in dry basaltic melts at 0.5 GPa and 1000 g
- P11** *L. Zhang and A. Audétat*
Diffusional modification of Cu concentrations in melt inclusions
- P12** *M. R. Scicchitano, M. C. Jollands, D. Rubatto, J. Hermann and I. S. Williams*
Experimental calibration of oxygen diffusion rates in YAG garnet
- P13** *M. B. Lierenfeld and P. Ulmer*
Cation diffusion in clinopyroxene solid solutions
- P14** *W. Song, Y. Lavalley, K.-U. Hess, U. Kueppers, C. Cimarelli and D. B. Dingwell*
Wetting properties of volcanic ash relevant to gas turbine interaction
- P15** *D. Di Genova, N. Borovkov, J. Vasseur, K.-U. Hess, D. R. Neuville and D. B. Dingwell*
The effect of Fe³⁺/Fe_{tot} ratio on the Raman spectra, structure and viscosity of natural alkali- silica-rich glasses and melts at different redox conditions
- P16** *J. Chen, F. Gaillard, D. Sifré and X. Yang*
The influence of H₂O content on the electrical conductivity of leucogranite melts
- P17** *X. Ritter, C. Sanchez-Valle, A. King, J.P. Perrillat, N. Guignot, M. Laumonier, Y. Morizet, D. Sifré and F. Gaillard*
Density of carbonate melts along the CaCO₃-MgCO₃ join determined by synchrotron X-ray radiography
- P18** *D. Weidendorfer, M. W. Schmidt and H. B. Mattsson*
Oldoinyo Lengai’s parental melt: a moderately sodic Ca-carbonatite
- P19** *C. H. Wijbrans and M. W. Schmidt*
Experimental determination of H₂O + CO₂ solubility in high pressure granitic melts
- P20** *T. Hammouda, G. Manthilake, A. Schubnel, Y. Wang and T. Yu*
In situ recording of acoustic emission from carbonate melt
- P21** *L. Hashim, E. Gardés, D. Sifré, L.F.G. Morales, J. Précigout and F. Gaillard*
Olivine grain growth with and without melt and the properties of the intergranular medium
- P22** *S. Incel, R. Milke and B. Wunder*
Kinetic fractionation in the reaction Ol + Qtz = Opx with variously doped forsterite

- P23** *I. S. Ezad and D. P. Dobson*
Experimentally determined retrograde kinetics of pyrope in mantle peridotites
- P24** *D. Sifré, M. Laumonier, M. Mezouar, J.-P. Perrillat, R. Champallier, Y. Morizet, X. Ritter, Y. Moussallam and F. Gaillard*
The viscosity of carbonated silicate melts
- P25** *E. Persikov, P. Bukhtiyarov, A. Cokol and Y. Palyanov*
Viscosity of ultramafic melts at high pressures

Element and Isotope Partitioning

- P10** *C. Frigo, R. Stalder and C. A. Hauzenberger*
LiOH-defects incorporation in quartz as function of the bulk Li-content and pressure
- P27** *C. Beard, V. van Hinsberg¹, J. Stix and M. Wilke*
Aegirine-melt element partitioning in alkaline magmatic systems
- P28** *D. Grings Cedeño, R. Vieira Conceição, M. R. Wilbert De Souza, R V. Schmitz Quinteiro and L. C. Carniel*
Pelagic sediments as Nitrogen conveyors in subduction zones
- P29** *M. Maimaiti, M. R. Carroll, D. B. Dingwell and G. Giuli*
Experimental study of monazite solubility in granitic melts
- P30** *Y.-J. Hsu, Z. Zajacz, P. Ulmer, and C. A. Heinrich*
Partitioning behavior of chlorine between haplogranitic melt and C-O-H-Cl aqueous fluid at 120-300 MPa and 850 °C
- P31** *R. Nandedkar, N. Hürlimann, P. Ulmer, O. Müntener*
Experimentally determined amphibole-melt partition coefficients for calc-alkaline systems

Fluids

- P32** *A. Currin, J. Koepke, R. Almeev and P. E. Wolff*
Brine-rock interaction in the oceanic crust as evidenced by formation of Cl-rich amphiboles
- P33** *L. Scholten, C. Schmidt, O. Beermann, A. Watenphul and D. Testemale*
Nickel speciation and solubility in hydrothermal fluids

- P34** *J. Stefanski, C. Schmidt and S. Jahn*
Molecular structure of Na(OH)_{aq} solution at high P and T: insights from in-situ Raman spectroscopy and ab initio molecular dynamics simulations
- P35** *D. Zezin*
Volumetric properties of CaSO₄ in hydrothermal solutions
- P36** *I. Kurganskaya, C. Fischer, R. S. Arvidson, A. Luttge and S. Churakov*
Monte Carlo approaches to study mineral-water interface structure and reactivity
- P37** *F. Miozzi and S. Tumiatì*
Problems in using the NNO buffer as highlighted by the analysis of COH fluids in double capsules
- P38** *J. Wu and K. T. Koga*
Fluorine determination of aqueous fluid extracted from high P–T experiments: Direct analysis

Studies of Terrestrial Magmatism

- P39** *F. Marxer, P. Ulmer and N. Kueter*
Differentiation of intermediate calc-alkaline magmas at 2 kbar
- P40** *F. Gervasoni, A. Rohrbach, T. Grützner, J. Berndt and S. Klemme*
Differences between the metasomatism derived by eclogite, kimberlite and carbonatite melts in the upper mantle
- P41** *M. Pichavant and A. Villaros*
Redox state controls mica crystallization in leucogranitic and pegmatitic liquids
- P42** *A. Fiege, F. Vetere, G. Lezzi, A. Simon and F. Holtz*
The roles of ascent rate and volatiles on crystallization in basaltic magma
- P43** *M. R. Ackerson, B. Mysen*
An experimental perspective on Ti activity in rutile-undersaturated melts
- P44** *Z. Liu, A. Rohrbach and S. Klemme*
The effect of C-O-H fluid on partial melting of eclogite and lherzolite under reducing conditions
- P45** *Y. Özdemir, R. Brooker and J. Blundy*
Magma storage conditions beneath Süphan Volcano (Eastern Anatolia, Turkey): An experimental study at 0.5 GPa

- P46** *T. Hou, B. Charlier, O. Namur and F. Holtz*
Experimental study of liquid immiscibility in the Kiruna-type Vergenoeg Fe-F deposit, South Africa
- P47** *M. W. Förster, D. Prelević, S. Buhre², H. R. Schmück, M. Veter, S. Foley and D. E. Jacob*
Reaction experiments of glimmerite + harzburgite at 3-5 GPa and genesis of low-SiO₂ ultrapotassic magmas
- P48** *D. Dolejš, V. Špillar*
Thermokinetic model and interpretation of igneous textures
- P49** *R. R. Almeev, S. A. Linsler and F. Holtz*
An experimental study of liquid lines of descent in boninite
- P50** *L. Aranovich and M. Golunova*
Model granite melting in the presence of sodium carbonate solutions at 0.4 GPa
- P51** *R. Muñoz, A. Castro, M. López-Plaza and J. López-Moro*
Melting of pargasite-bearing pyroxenites in the presence of apatite at 1.0-1.5 GPa and the origin of primary vaugneritic melts
- P52** *A. Mallik, R. Dasgupta, K. Tsuno and J. Nelson*
Partial melting of sediment melt fluxed peridotite with variable water content: Implications for the generation of subduction zone magmas
- P53** *F. Schröder-Frerkes, K. Klimm, A. B. Woodland, A. Gerdes and H. Höfer*
The influence of fluor on accessory phase mineralogy in subducted oceanic crust
- P54** *A. Stechern, R. Botcharnikov, M. Banaszak, and F. Holtz*
Magma mixing end-members for Parinacota and Taapaca volcanoes - constrains from phase equilibria

Phase Equilibria in Subduction Zones

- P55** *G. Manthilake, N. Bolfan-Casanova, D. Novella, M. Mookherjee and D. Andraut*
Anomalously high electrical conductivity at mantle wedges explained by chlorite dehydration
- P56** *M. E. Galvez, P. Ulmer and T. Pettke*
A Silica Shuttle for Fe Transport in Subduction Zone Fluids: Thermodynamic and Experimental Constraints

- P57** *P. Fumagalli, G. Borghini, E. Rampone and S. Poli*
Geobarometric significance of plagioclase in mantle rocks: an experimental study
- P58** *C. Beyer, A. Rosenthal, R. Myhill, W. Crichton, T. Yu, Y. WANG AND D. J. Frost*
Use of in-situ x-ray diffraction for the pressure calibration of geobarometer equilibria
- P59** *M. W. Schmidt, J. A. C. Connolly, A. Golubkova and A. Rohrbach*
Natural SiC: Ultra-reducing grain scale micro-domains forming at low to moderate temperatures

The Mantle and Core of Earth and other Planets

- P60** *Christian Liebske*
Melting of Mars' interior: Implications for source regions of martian basalts
- P61** *E. S. Jennings, S. Petitgirard, O. T. Lord, M. J. Walter, D. J. Frost and D. C. Rubie*
An experimental investigation of silicon and oxygen partitioning between silicate and iron liquids at core formation conditions
- P62** *Y. Zhao, A. P. Van Den Berg and W. Van Westrenen*
Effect of variable thermal conductivity on lunar thermal evolution
- P63** *V. Laurenz, D. C. Rubie and D. J. Frost*
High *P-T* sulfide-silicate partitioning of Re and Os
- P64** *S. A. Linsler, O. Namur, M. Albrecht, B. Charlier, F. Holtz and C. McCammon*
Metal-silicate trace element partitioning at reducing conditions: Implications for Mercury's differentiation

Mineral Physics

- P65** *J. Buchen, H. Marquardt, T. Boffa Ballaran, S. Speziale, T. Kawazoe and A. Kurnosov*
Internally consistent high-pressure single-crystal elasticity of (Mg,Fe)₂SiO₄ wadsleyite
- P66** *L. Boeck, S. Klemme, A. Rohrbach and R. Pöttgen*
Synthesis, structure and magnetic properties of the high pressure phase Nd₃IrO₇