

Monday, 18 September 2023

Mineralogy and Crystallography

Mon-01	3D electron and powder X-ray diffraction: the best of both worlds to study the crystal structure of γ -Na ₂ Ca ₆ Si ₄ O ₁₅ <u>V. Kahlenberg</u> (Innsbruck), H. Krüger (Innsbruck), J. Vinke (Innsbruck), S. Ito (Tokyo), C.J. Schürmann (Neu Isenburg)
Mon-02	In-situ powder diffraction study on the formation and reaction pathways of potassium calcium silicates <u>H. Liu</u> (Innsbruck), V. Kahlenberg (Innsbruck), C. Hejny (Innsbruck), H. Krüger (Innsbruck)
Mon-03	Incommensurate structure and phase transition of cymrite H. Krüger (Innsbruck), K. Skrzyńska (Sosnowiec), <u>R. Juroszek</u> (Sosnowiec)
Mon-04	Coherent lamellar intergrowth from exsolution of alkali feldspar <u>E. Petrishcheva</u> (Wien), D. Heuser (Wien), R. Abart (Wien)
Mon-05	Crystal-chemical effects of high-temperature treatment on Mg-dominant tourmalines <u>P. Kardošová</u> (Bratislava), P. Bačík (Bratislava), J. Fridrichová (Bratislava), O. Rybnikova (Bratislava), M. Miglierini (Bratislava), T. Mikuš (Bratislava)
Mon-06	A potentially new mineral Ca ₂ Mg ₂ Fe ₁₄ O ₂₅ from Hatrurim Basin, Israel <u>B. Krüger</u> (Innsbruck), I. Galuskina (Silesia), M. Tribus (Innsbruck), G. Cametti (Bern), Ye. Vapnik (Beer Sheva), E. Galuskin (Silesia)
Mon-06A	Bismoclite BiOCl from the Jean Baptiste mine, Lavrion area, Greece <u>I. Liebhart</u> (Wien), B. Rieck (Wien), M. Zeug (Wien, Halle / Saale), G. Giester (Wien)
Mon-07	Non-ideal, but how non-ideal? Low-temperature calorimetry of the Al-F-titanite – titanite solid solution <u>P. Tropper</u> (Innsbruck), E. Dachs (Salzburg), U. Troizsch (Canberra)

Spectroscopic methods in modern geosciences

Mon-08	Fused beads for the analysis of Li bearing samples by LIBS and XRF <u>D. Ebert</u> (Freiberg), R. Möckel (Freiberg), A.D. Renno (Freiberg), A. Schneider (Freiberg), T. Dittrich (Freiberg)
Mon-09	Blue- and green-spotted "K2 gneiss" from the Goldberggruppe, Austria J. Portenkirchner (Wien), <u>E. Libowitzky</u> (Wien)
Mon-10	Investigation of Martian and other meteorites using Raman spectroscopy M. Kaliwoda (München), F. Joseph (München), V. Helmbrecht (München), J. Zuncke (München), A. Nömer (München), L. Eckle (München), I. Drozdovsky (Köln)
Mon-11	Annealing of metamict minerals – spectroscopic study C. Chanmuang N. (Wien), M. Zeug (Wien, Halle / Saale), A. Erlacher (Wien), K.A.G. Sameera (Peradeniya, Sri Jayawardenepura Kotte), <u>L. Nasdala</u> (Wien)

Interplay of chemical and mechanical processes across scales

Mon-12	Experimental study of hydrothermal alteration of volcanic rocks from the Volcanic Eifel <u>A. Abel</u> (Göttingen), D. Sorger (Göttingen), T. Müller (Göttingen)
Mon-13	Influence of deformation and fluids on Ti exchange in natural quartz <u>M. Bestmann</u> (Wien), G. Pennacchioni (Padua), B. Grasemann (Wien), B. Huet (Padova), M.W.M Jones (Wien), C.M Kewish (Brisbane)
Mon-14	Metamorphism induced strength inversion at high-pressure conditions <u>A. Rogowitz</u> (Graz, Wien), S. Schorn (Graz), B. Huet (Wien), L. Menegon (Oslo), B. Grasemann (Wien)
Mon-15	Partial melting of hornblende–epidote eclogite at the pressure maximum (eclogite type-locality, Eastern Alps, Austria) <u>S. Schorn</u> (Graz), A. Rogowitz (Graz, Wien), C. Hauzenberger (Graz)
Mon-16	Relationships between fluid-flow, fluid-rock-interaction and evolving microstructures in a polyphase system - results from experimental approaches using synthetic impure carbonates <u>J. Gärtjen</u> (Göttingen), B. Rose (Göttingen), D. Sorger (Göttingen), S. Piazzolo (Leeds), T. Müller (Göttingen)
Mon-17	Formation of reaction textures in aluminous paragneisses during near-isothermal exhumation <u>D. Sorger</u> (Göttingen, Graz), C.A. Hauzenberger (Graz), F. Finger (Salzburg), M. Linner (Wien), E. Skrzypek (Graz) E.2, Schorn, S.2

Chronology of geological processes: past, present, future

Mon-18	From allanite to monazite and back: a complex polymetamorphic REE-phase evolution <u>M.S. Hollinetz</u> (Wien), B. Huet (Wien), C. McFarlane (Ottawa), D. Schneider (Brunswick), B. Grasemann (Wien)
Mon-19	Meta-igneous rocks from the Kaintaleck Metamorphic Complex as indicators of a Variscan Ocean within the Eastern Alps K. <u>Karner-Rühl</u> (Graz), C.A. Hauzenberger (Graz), E. Skrzypek (Graz), H. Fritz, (Graz)
Mon-20	Mineral assemblage, geochemistry and geochronology of the Kawisigamuwa carbonatite, Sri Lanka <u>D. Gallhofer</u> (Graz), E. Skrzypek (Graz), C.A. Hauzenberger (Graz), G. Auer (Graz), G.W.A.R. Fernando (Graz)
Mon-21	P-T-t evolution of the Pulkau and Pleiing Nappes from the Moravo-Silesian Thaya Window, Lower Austria <u>M.J. Findl</u> (Graz), C.A. Hauzenberger (Graz), E. Skrzypek (Graz), D. Gallhofer (Graz), M. Linner (Wien)
Mon-22	Monazite fission-track dating of a heavy mineral sand, NE Sri Lanka E. Skrzypek (Graz), S. Jones (Melbourne), B. Kohn (Melbourne), L. Chung (Melbourne), A. Gleadow (Melbourne)
Mon-23	In-situ ⁴⁰ Ar/ ³⁹ Ar dating of phenocrysts in the phonolite from Late Quaternary East Eifel Olbrck volcano <u>M. Sudo</u> (Potsdam), U. Altenberger (Potsdam), C. Gnter (Potsdam)

Early Earth – Crustal evolution, metamorphism and tectonics

Mon-24	Accessory minerals in the Isua Supracrustal Belt <u>H. Brschke</u> (Gttingen), D. Sorger (Gttingen), A. Kronz (Gttingen), A.A.G. Webb (Hong Kong), T. Mller (Gttingen)
Mon-25	Retrograde serpentinization and low-pressure metamorphic characteristics in the 3.8 Ga Isua Supracrustal belt, Greenland <u>J. Wolf</u> (Gttingen), D. Sorger (Gttingen), S. Piazzolo (Leeds), A.A.G. Webb (Hong Kong), T. Mller (Gttingen)
Mon-26	LA-ICPMS U-Pb dating of garnet from the Adula nappe, Central Alps <u>L.J. Millonig</u> (Frankfurt), J. Pleuger (Berlin), T. John (Berlin), A. Gerdes (Frankfurt)
Mon-27	Expanding the magmatic and metamorphic geochronological record of the Isua supracrustal belt A. Ramrez-Salazar (Leds, Mexico City), <u>D. Sorger</u> (Gttingen), T. Mller (Gttingen), S. Piazzolo (Leeds)

Tuesday, 19 September 2023

Mineralogy and Crystallography

Tues-01	Crystal structure of anthropogenic $\text{Ca}_2(\text{OH})(\text{AsO}_4)\cdot 2\text{H}_2\text{O}$ found in the Clara mine, Black Forest, Germany <u>U. Kolitsch</u> (Wien)
Tues-02	The crystal structure of a new natural Na-(Sr,Ba,Ca,K)-Fe-tungstophosphate, a derivative of the betpakdalite-group topology from Le Mazet, Échassières, Allier, France <u>U. Kolitsch</u> (Wien)
Tues-03	Ammonium-iron-sulfites from a burning coal-mine dump B. Fehér (Miskolc), S. Szakáll (Miskolc), M. Ende (Wien), <u>H.S. Effenberger</u> (Wien), J. Mihály (Budapest), I. Sajó (Pécs), L. Kótai (Budapest), D. Szabó (Budapest)
Tues-04	Extreme chemical disequilibrium patterns in hydrothermal vein minerals – a case study from Columbian emeralds <u>G. Franz</u> (Berlin), V. Khomenko (Berlin, Kyiv), F. Schiperski (Berlin), U. Gernert (Berlin), J. Nissen (Berlin)
Tues-05	Chemical composition and crystal structure of oxy-dravite from the Beluga occurrence, Nunavut Territory, Canada <u>L. Skřápková</u> (Brno), J. Cempírek (Brno)
Tues-06	Al, Si interdiffusion under lower mantle conditions <u>L. Czekay</u> (Bayreuth), N. Miyajima (Bayreuth), C. McCammon (Bayreuth), D. Frost (Bayreuth)
Tues-07	G.O.Joe: A new software for the evaluation and correction of LA-ICP-MS concentration data <u>F. Altenberger</u> (Leoben), T. Auer (Dorfbeuern/Salzburg), J. Krause (Freiberg), A. Auer (Dorfbeuern/Salzburg), J. Berndt (Münster)
Tues-08	Micro-CT analyses from a prehistoric work and settlement site in Kundl, Tyrol <u>L. Oettel</u> (Innsbruck), P. Tropper (Innsbruck), G. Degenhart (Innsbruck)
Tues-09	$\text{Cu}(\text{SeO}_4)$ and $\text{Cu}(\text{SeO}_3\text{OH})_2\cdot 6\text{H}_2\text{O}$: A tribute to the enlightenment of the stereochemistry of Cu^{2+} ions by Josef Zemann (1923–2022) <u>Herta S. Effenberger</u> (Wien), Gerald Giester (Wien), Manfred Wildner (Wien)

Crystallographic Materials Science: from basics to application

Tues-10	Matching crystal structure plots to “atomic-resolution” HR-TEM images <u>J. Birkenstock</u> (Bremen), S. Pokhrel (Bremen), L. Mädler (Bremen)
Tues-11	Real structure of mineral kenyaite, $\text{Na}_2\text{Si}_{20}\text{O}_{40}(\text{OH})_2 \cdot 8 \text{H}_2\text{O}$ I. Grosskreuz (Bochum), <u>B. Marler</u> (Bochum)

Metal enrichment processes - latest advances in the understanding of ore formation

Tues-12	On preventing Sn-loss in experimental studies <u>J. A.-S. Michaud</u> (Hannover), F. Holtz (Hannover), T. Fusswinkel (Aachen)
Tues-13	Speciation of La^{3+} in Cl-bearing hydrothermal fluids: Development of a new polarizable force field <u>R. Chattopadhyay</u> (Köln), S. Jahn (Köln)
Tues-13A	Trace metals in hydrothermal magnetite – current knowledge, application, and experimental approaches <u>T. Angerer</u> (Wien), R. Bakker (Leoben), F. Melcher (Leoben)

Structure-property relationships of minerals and beyond - Minerals as advanced materials

Tues-14	Analysis of Vickers indentation tests by means of Atomic Force Microscopy (AFM) <u>P. Vivanco-Chávez</u> (Freiberg), M. Klichowicz (Freiberg), H. Lieberwirth (Freiberg), F. Mertens (Freiberg), O. Popov (Freiberg), G. Heide (Freiberg)
Tues-15	Compressibility of pearceite-polybasite group minerals <u>C. Hejny</u> (Innsbruck)
Tues-16	Determination of the electronic polarizabilities of bromine in bromates, perbromates, and bromides <u>S. Nezamabadi</u> (Bremen), P. Fuzon (Marburg), F. Kraus (Marburg), R.D. Shannon (Colorado), I. Spieß (Bremen), R.X. Fischer (Bremen)
Tues-17	Thermal expansion of SiO_2 polymorphs keatite, RUB-11 and silica-sodalite <u>B. Marler</u> (Bochum), I. Grosskreuz (Bochum)
Tues-18	Twinning of götzenite and wöhlerite from the Fohberg phonolite, Kaiserstuhl <u>R. X. Fischer</u> (Bremen), J. Birkenstock (Bremen), G. Biskup (Pforzheim), L.A. Fischer (Freiburg), W.-A. Kahl (Bremen), A. Klügel (Bremen), S. Spürgin (Bötzingen)

Economic Geology and Ore Deposits

Tues-19	Fingerprinting graphite: The development of a three-step approach to differentiate between natural graphite deposits <u>V. Dietrich</u> (Leoben), R. Arató (Leoben), F. Melcher (Leoben)
Tues-20	The anatectic genesis of lithium pegmatite from the Austroalpine Unit Pegmatite Province <u>T. Knoll</u> (Wien), B. Huet (Wien), R. Schuster (Wien), H. Mali (Leoben)

Petrology and Geochemistry

Tues-21	What does tourmaline reveal about the polymetamorphic evolution of the Matsch unit (Vinschgau, S-Tyrol, Italy)? E. Bernabe (Innsbruck), <u>P. Tropper</u> (Innsbruck), C. Morelli (Bozen), V. Mair (Bozen)
Tues-22	Diabases are petrologists best friends: quantitative P-T constraints on the Eoalpine metamorphic gradient in the Ötztal Complex using diabase dikes G. Raso (Innsbruck), <u>P. Tropper</u> (Innsbruck), D. Rammilmair (Hannover)
Tues-23	Corundum-rich rocks in the Tauern Window, Austria <u>F. Melcher</u> (Leoben), M. Feichter (Leoben), H. Mali (Leoben), H. Grill (Neumarkt), B. Huet (Wien)
Tues-24	Petrological investigations on garnet-chlorite-mica shists of the Rosstrugg and Hornkees (Zemmgrund, Zillertal) <u>S. Wagner</u> (Innsbruck), B. Zerobin (Innsbruck), R. Köchl (Innsbruck), P. Tropper (Innsbruck), G. Goldenberg (Innsbruck)
Tues-25	Pressure-Temperature structure of the Makbal UHP complex (NW Kyrgyzstan) <u>D. Brunner</u> (Graz), E. Skrzypek (Graz), S. Schorn (Graz), C. Hauzenberger (Graz), K. Stüwe (Graz), R. Orozbaev (Kyrgyz)
Tues-26	Tracing high-pressure metamorphism: The spatial evaluation of the Eoalpine metamorphic gradient in the Texel unit (S-Tyrol, Italy) J. Lanziner-Oberrauch (Innsbruck), <u>P. Tropper</u> (Innsbruck), K. Fassmer (Innsbruck), H. Pomella (Innsbruck), G. Hoinkes (Graz)
Tues-27	The lower Permian basalt-rhyolite-carbonatite magmatic activity in the Kvetnica volcanic area, Western Carpathians <u>R. Demko</u> (Turzovka)

Wednesday, 20 September 2023

Young Scientist Session

Wed-01	Calorimetric characterisation of the alkali feldspar binary <u>F. Ingegneri</u> (Wien), E. Dachs (Salzburg), R. Abart (Wien)
Wed-02	Assessing enrichment efficiency: A study of mineralogical and physical characteristics of Pb-Zn Ore from Erzgebirge, Germany <u>A. Bravo</u> (Freiberg), O. Popov (Freiberg), H. Lieberwirth (Freiberg)
Wed-03	Crystal chemistry and structural transformations in Fe ²⁺ -bearing talc studied by Raman spectroscopy <u>L. Stoeck</u> (Hamburg), S. Aspiotis (Hamburg), B. Mihailova (Hamburg)
Wed-03A	An online tool to explore large geochemical databases <u>T. Tamanna</u> , D. C. Hezel

Carbonates in natural and technical environments – Precipitation mechanisms, monitoring and applications

Wed-04	Mechanisms of calcium carbonate mineral formation in a roman aqueduct near Cologne (Germany) - A microstructural and geochemical approach <u>I. Egartner</u> (Graz), R. Boch (Graz), K. Grewe (Swisttal-Morenhoven), M. Dietzel (Graz), D. Hippler (Graz)
Wed-05	Reviewing the formation and transformation behaviour of amorphous calcium carbonate: implications for environmental proxies J-M. Brazier (Graz, Bern), <u>M. Pettau</u> (Graz), K. E. Goetschl (Graz), M. Dietzel (Graz)

Linking microstructures, crystallographic textures, and the nature of interfaces

Wed-06	Evolution history of plagioclase hosted Fe-Ti oxides micro-inclusions from oceanic gabbros <u>G. Bian</u> (Wien), O. Ageeva (Wien), A. Kovacs (Jülich), G. Habler (Wien), R. Abart (Wien)
Wed-07	Melting experiments reproducing early differentiation in primitive achondrites S. Iannini Lelarge (Pisa), M. Masotta (Pisa), L. Folco (Pisa), T. Ubide (Brisbane), M.D. Suttle (Pisa, Milton Keynes), W.N. Wegner (Wien), <u>L. Pittarello</u> (Wien)

Mineral history & teaching - Geoscientific collections & museums

Wed-08	New applications for digitised historical collections as teaching materials for special mineralogy and petrography <u>A. Duriagina</u> (Freiberg), C. Kehrer (Freiberg), G. Heide (Freiberg)
Wed-09	Research insights based on documents from the Geological Archive of the University of Vienna M. Heninger (Wien), B. Holly (Wien), P. Nagl (Wien), R. Wohlschlägl (Wien), <u>M. Hamilton</u> (Wien)
Wed-10	"Nothing is more important than health" Eduard Suess (1831-1914). Eduard Suess was a leading contributor to the city of Vienna's projects of the century: the 1 st Vienna spring-water pipeline and the regulation of the Danube <u>M. Hamilton</u> (Wien)
Wed-11	The "Schaudepot" for minerals and rocks of the Krahuletz-Gesellschaft in Eggenburg, Lower Austria <u>F. F. Steininger</u> (Eggenburg), A. Rauscher (Furth-Aigen)
Wed-12	Josef Zemann (25. Mai 1923 – 16. Oktober 2022) <u>H.S. Effenberger</u> (Wien), R. Miletich (Wien)

Geobiochemistry, geomicro-biology, and biomineralogy

Wed-13	Raman spectroscopy of calcium oxalate hydrates from plant leaves <u>N. Horáková</u> (Brno), J. Cempírek (Brno)
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Applied and Technical Mineralogy

Wed-14	Micro-CT and micro-XRF investigations of an Early Bronze-Age smelting crucible fragment M. Piccolruaz (Innsbruck), <u>P. Tropper</u> (Innsbruck), G. Degenhart (Innsbruck)
Wed-15	Micromorphology meets micro-XRF: A case study from the Iron Age site of Haselbach (Lower Austria) F. Stuffer (Innsbruck), S. Cereda (Innsbruck), <u>P. Tropper</u> (Innsbruck), P. Trebsche (Innsbruck)
Wed-16	Don't drink that stuff: mineralogical constraints on the Ni-anomaly in waters from rock glaciers in the Ötztal Complex <u>P. Tropper</u> (Innsbruck), K. Krainer (Innsbruck), G. Winkler (Graz), G. Bertolotti (Innsbruck), V. Schmit (Innsbruck)

Environmental and medical mineralogy

Wed-17	In-situ monitoring of ATP hydrolysis as a function of p-T-Mg ²⁺ : new insights into metabolic kinetics C. Moeller (Potsdam), C. Schmidt (Potsdam), D. Testemale (Grenoble), F. Guyot (Paris), M. Kokh (Potsdam, Münster), M. Wilke (Potsdam)
Wed-18	Tl-retention by jarosite-group minerals in technosoils from the central part of the Allchar deposit, North Macedonia F. Stadler (Wien), T. Đorđević (Wien), A. Vaněk (Prague), M. Mihaljevič (Prague), T. Serafimovski (Štip), G. Tasev (Štip), I. Boev (Štip), B. Boev (Štip)

Petrology and Geochemistry

Wed-19	High-Ti Paleozoic basalts in NE Bavaria G. Franz (Berlin), F. Lucassen (Bremen), F. Schiperski (Berlin), M. Kutzschbach (Berlin)
Wed-20	Impurities in quartz from Amazon river sands D. Jaeger (Innsbruck), T. Ludwig (Heidelberg), S. Andó (Milano), E. Garzanti (Milano), A.O. Sawakuchi (São Paulo), C. Chiessi (São Paulo), M. Strasser (Innsbruck), R. Stalder (Innsbruck)
Wed-21	Amphibole megacrysts with cavities reveal rapid crystal growth at mantle depth during the 1951 eruption of Fogo (Cape Verdes) W.-A. Kahl (Bremen), A. Klügel (Bremen)
Wed-21A	Interstitial diamonds reveal dry exhumation of UHP metamorphic rocks - insights from 3-D spatially resolved X-ray microtomography data W.-A. Kahl (Bremen), H.-P. Schertl (Bochum)
Wed-22	NanoExtrem-NanoExtrem2: Nano-focus end-station for experiments at ID27 at ESRF L. Pennacchioni (Potsdam), M. Mezouar (Grenoble), C. L. Sahle (Grenoble), W. Morgenroth (Potsdam), S. Jahn (Köln), M. Herrmann (Köln), M. Schulze (Köln), A. Pakhomova (Grenoble), B. Wehinger (Grenoble), G. Garbarino (Grenoble), S. Bauchau (Grenoble), K. Martel (Grenoble), F. Gerbon (Grenoble), D. Andraut (Clermont-Ferrand), M. Wilke (Potsdam)
Wed-23	Petrology and geochemistry of the Haddo House – Arnage district contact aureole, Aberdeenshire / Scotland A. Fehleisen (Graz), C.A. Hauzenberger (Graz), J. Booth (Graz)
Wed-24	Unravelling the formation history of the Maronia Skarn, NE Greece: Insights from melilite group minerals M. Zeug (Halle/Saale), A. Repstock (Dresden), P. Voudouris (Athens), H. Schleicher (Hamburg)

The co-evolution of Earth's atmosphere, oceans, continents, and life from the early Archean until today

Wed-25	Using combined C, Cd, Ba, and Ni isotopes as novel biomarkers to decipher Archean microbial metal cycling S.V. Hohl (Shanghai), Y. Lv (Beijing), S. Viehmann (Hannover), Y. Lin (Nanjing), Y. Zhang (Nanjing), Y. Jiang (Nanjing)
Wed-26	Mineralogy and geochemistry of the Majala and Chacarilla Formations in Northern Chile (Atacama Desert): Implications for provenance, tectonic setting and paleoenvironmental conditions N. Hurem (Graz), J. Méndez (Santiago de Chile), V. Gesualdi (Firenze), M. Yurac (Santiago de Chile), M. Belvedere (Firenze, Palermo), C. Salazar (Santiago de Chile), C. A. Meyer (Basel), D. Hippler (Graz)
Wed-27	Hydrothermal pyritization of nano-magnetite and the record of biominerals in ancient sulfide systems E.A. Runge (Göttingen, Tübingen), T.H. Chiu (Tübingen), M. Mansor (Tübingen), A. Kappler (Tübingen), J.-P. Duda (Göttingen, Tübingen)