

Prof. Dr. Jochen Kolb
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Institute of Applied Geosciences
Chair of Geochemistry & Economic Geology
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QUALIFICATIONS

Institute of Mineralogy and Economic Geology, RWTH Aachen University, Germany
Postdoctoral Lecture Qualification in Mineralogy (Habilitation) **1999 - 2005**
 Thesis: Fluid Plumbing Systems in Orogenic Gold Deposits, with implications for other hydrothermal systems in metamorphic terranes.
PhD student (Dr. rer. nat.) **1996 - 1999**
 Thesis: Tectonic, petrographic and geochemical investigations on auriferous shear zones of the Renco Gold Mine in Southern Zimbabwe.

Johann Wolfgang Goethe-University, Frankfurt am Main, Germany
M.Sc. in Geology and Palaeontology (Diplom) **1996**
B.Sc. in Geology and Palaeontology (Vordiplom) **1992**

Gymnasium (High School), Schloss Wolfenbüttel, Germany
Graduated and Qualified for University Entry (Abitur) **1988**

AWARDS

Hermann-Credner Award from the German Geoscience Association (DGGV) **September, 2005**
 Heitfeld Travel Grant 2001 from the Prof. Dr. Karl-Heinrich Heitfeld Foundation, Aachen, Germany **December, 2001**
 Heitfeld Award 2000 from the Prof. Dr. Karl-Heinrich Heitfeld Foundation **December, 2000**
 Borchers Award from the RWTH Aachen University, Germany **June, 2000**
 Award from the Stifterverband Metalle 1999 (German Association of Metallurgy and Mining, GDMB) **June, 2000**

CAREER

Karlsruhe Institute of Technology (KIT); Institute for Applied Geosciences
Professor for Geochemistry and Economic Geology **since 2016**

- Design, proposal, and supervising of applied science projects as project leader.
- Teaching geochemistry and economic geology courses.
- Head of the Laboratory for Environmental and Raw Materials Analysis.
- Organization of international workshops and conferences.
- Networking with industry and governmental organizations.
- Report to collaborators in research and industry, including publication in scientific journals and meeting.
- Instruction of undergraduate, graduate, and PhD students.

Geological Survey of Denmark and Greenland (GEUS)
Research Professor **2011 - 2016**

- Organization of field campaigns to Greenland.

Department of Geosciences and Natural Resource Management, Copenhagen University
Adjunct Professor **2014 - 2016**

Geological Survey of Denmark and Greenland (GEUS)
Senior Research Scientist **2007 - 2011**

Institute of Mineralogy and Economic Geology, RWTH Aachen University, Germany
Senior Research Fellow and Lecturer (Assistant Professor) **2000 - 2007**

Deilmann Erdöl Erdgas GmbH – Oil and Gas Exploration
Trainee **1993**

German Red Cross, Wolfenbüttel, Germany

Civil Service

1988 - 1990

Schacht Konrad Mine, Salzgitter, Germany

Trainee – Underground workings of the mine, formerly an iron ore mine and test site for final disposal of atomic waste.

1988

RESEARCH EXPERIENCE AND INTERESTS

My research interests are broadly based and follow an integral approach to describe crustal fluid systems and hydrothermal ore deposits. My main interest is to study the interface between orogenic processes including metamorphism, magmatism, fluid migration and metasomatism in combining structural geology, petrology and geochemistry studies in order to describe different mineral systems. Current fields of research are:

- Metal extraction from geothermal fluids in the Upper Rhine Graben, a new mineral source?
- Source area processes in the Central Lapland Greenstone Belt and the Svecofennian, Finland.
- Hydrothermal processes in carbonatite systems and related rare metals mineralization.
- Economic geology potential of central West Greenland: hydrothermal base metal sulfide mineralization.
- Economic geology potential of South Greenland, with particular emphasis on orogenic gold mineralization.
- Metallogeny of Greenland.
- Orogenic gold mineralization at high temperatures: the hypozonal class of deposits.

More general research fields are:

- Qualitative and quantitative investigations of hydrothermal fluid migration mechanisms in mineralized and barren ductile and brittle shear zone systems.
- Development of porosities in mineralized shear zones depending on stress, strain and fluid pressure.
- Tectonometamorphic and magmatic history of terranes and the relationship to possible hydrothermal mineralization.
- Applied projects directed towards the development of exploration strategies for sustainable mining.

TEACHING EXPERIENCE

- Introduction into Geochemistry (Bachelor, KIT).
- Introduction into Economic Geology (Bachelor, KIT).
- Mineral systems for metallic ore deposits (Masters, KIT).
- Mineral systems for non-metallic ore deposits (Masters, KIT).
- Graduate Course: Geology and Metallogeny of Greenland.
- Seminar or workshop: Orogenic Gold Deposits.
- Graduate Course: Fluid Inclusions and Microthermometry.
- Field trips in Germany, Namibia, South Africa and Australia.
- Workshop: Fluid Inclusion Characteristics of Orogenic Gold Deposits.
- Workshop: Introduction into Fluid Inclusion Analysis.

ADDITIONAL TRAINING

- 2009: Project management: Mannaz consulting.
- 2008: 3D modelling using the Leapfrog software; Introduction into ArcGIS: University of Copenhagen, Denmark.
- 2007: 3D modelling using the Leapfrog software.
- 2003: Textures in Geology, Freiberg University of Mining and Technology, Germany: Schaeben, H.
- 2001: Platinum Group Element and Magmatic Sulfide Deposits, Freiberg, Germany: Naldrett, A.J.; Dating of Hydrothermal Events: PhD/Student short course organized by the German Mineralogical Society, Germany; Modeling Reactive Flows in Earth's Crust, Ruhr-University Bochum, Germany: Bolton, E.
- 1999: Epithermal Gold Deposits, Freiberg University of Mining and Technology, Germany: Hedenquist, J.W. & Arribas, A.
- 1998: Introduction into Fluid Inclusion Research: Applications to Metamorphic Petrology, Structural Geology, and Petroleum Geology, Bern University, Switzerland: Diamond, L.

PROFESSIONAL SERVICE

- Since 2025: Deputy Chairman (universities and research institutions) in the Professional Association of German Geoscientists (BDG).
- Since 2022: Dean of Studies for Geosciences at the Faculty for Civil Engineering, Geo- and Environmental Sciences.
- Since 2016: Spokesperson for georesources research in the KIT Climate and Environment Centre.
- 2016-2023
 - Chief Editor of the SGA News and member of the Executive Committee, Society for geology applied to mineral deposits (SGA).
 - Spokesperson on "Geochemical Characterization and Technologies" Helmholtz Program Geothermal Energy.
- 2018-2021: Spokesperson of the "THINTANK Industrial Resource Strategies".
- 2014-2016: Council member of the SGA.
- 2016
 - Member of the organizing committee of the "The North Atlantic Craton and surrounding belts: a craton-specific approach to exploration targeting (NAC+ 2016)" conference.
 - 35th International Geological Congress, co-convenor of "The Hadean and Archean Earth" and "Arctic and Antarctic Geosciences"
- 2014-2016: Representative of GEUS as a core member of the EIT KIC Raw Materials.
- 2013-2016
 - Representative for GEUS in the Danish reference group for Challenge 5: Climate Action, Environment, Resource Efficiency and Raw Materials.
 - GEUS representative in the Technical Advisory Group of the Global Alliance on Health and Pollution.
- 2013
 - Co-chair of the orogenic gold session at the 12th Biennial SGA Meeting "Mineral deposit research for a high-tech world", Uppsala, Sweden
 - Organizer and leader of the excursion to South Greenland at the 12th Biennial SGA Meeting "Mineral deposit research for a high-tech world", Uppsala, Sweden
 - Member of the scientific board for the 12th Biennial SGA Meeting "Mineral deposit research for a high-tech world", Uppsala, Sweden
 - Invited talk at the Finnish PhD seminar, Oulu University
 - External examiner for PhD thesis, Department of Civil, Environmental and Natural Resources Engineering, Luleå University of Technology.
- 2011: Founding member of the European Ore Deposits Initiative (EODI).
- 2007: Chairman: Advances in the Geochemical and Isotopic Analyses of Fluid Inclusions in Ore Mineralizing Systems; 17th V.M. Goldschmidt Conference, Cologne, Germany.
- 2003: Invited lecture: Fluid Inclusion Research in Economic Geology: PhD/Student short course organized by the German Mineralogical Society, Germany.
- 2000
 - Invited talk: Geology and Evolution of Precambrian Terranes from India, Bonn University, Germany: Braun, I. & Raith, M.
 - Invited poster: Gold in 2000, Lake Tahoe, Nevada USA, SEG workshop: Hagemann, S. et al.
 - Invited talk: A Geode-Geofrance 3D Workshop on Orogenic Gold Deposits in Europe with Emphasis on the Variscides, Orleans, France: BRGM & University of Geneva.
- Reviewer for: Mineralium Deposita, Ore Geology Reviews, Economic Geology, Journal of Structural Geology, Geology, Environmental Geology, Mineralogy and Petrology, Journal of South American Earth Sciences, Journal of African Earth Sciences, South African Journal of Geology, Neues Jahrbuch für Mineralogie, International Journal of Earth Sciences, Geological Society of London Special Publications.
- Researcher and proposal evaluation for: National Research Foundation South Africa, Sweden's innovation agency (VINNOVA), Natural Sciences and Engineering Research Council of Canada (NSERC)

CONTRIBUTIONS TO DEPARTMENT AND FACULTY

- Dean of Studies, member of faculty and division councils.
- EU-project coordination group, GEUS (2013-2016).
- Code of research integrity group, GEUS (2013-2016).
- Organizer of the annual Danish Economic Geology Day seminar, GEUS (2008-2016).
- Member of the Danish censor corps in geology, GEUS (2007-2016).

- Chairman of the Department's geology seminar, GEUS (2007-2014).
- Management of the fluid inclusion laboratory, RWTH Aachen University (1996-2007).
- Chairman of scientists in geoscience departments of the Faculty of Georesources and Materials Engineering, RWTH Aachen University (2002-2005).
- Member of the education board of the Faculty of Georesources and Materials Engineering, RWTH Aachen University (2004-2006).

PUBLICATIONS AND PAPERS

- See attached listing of publications from 1995 through 2023.
- h-index: 31
- i10-index: 60
- 93 peer-reviewed articles
- Ca. 40 extended abstracts and other publications
- More than 100 abstracts
- 11 reports
- <https://www.researchgate.net/profile/Jochen-Kolb>
- https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=nJCweKYAAAAJ

LANGUAGES

- German – native language.
- English – speak fluently and read/write with high proficiency.
- Danish – speak fluently and read/write with high proficiency.
- French – speak, read, and write with basic competence.

MEMBERSHIPS

- Society of Economic Geologists (SEG).
- Society for geology applied to mineral deposits (SGA).
- German geoscience association (DGGV).
- Professional Association of German Geoscientists (BDG).

PROJECT LEADERSHIP AND SUPERVISION

- Agile process chain for direct recycling of lithium-ion batteries and regeneration of active materials (2024-2026)
 - Principle researcher: J. Kolb, E. Eiche
 - 1 PhD project: Ch. Zamparas
 - Federal Ministry for Research and Education: 240,654 EUR
 - Genetic deposit model for orogenic Au-Cu-Co-(Ni-Sb-U-REE) deposits: examples from Paleoproterozoic Finland (2024-2026)
 - Principle researcher: J. Kolb, B. Walter, C. Patten
 - 1 PhD project: R. Albrecht
 - DFG: 254,122 EUR
 - Mobile pilot plant for lithium extraction (2024)
 - Principle researcher: J. Kolb, E. Eiche
 - Federal Ministry for Research and Education: 895,260 EUR
 - Optimization of the combustion properties of biogenic residual and waste materials on the basis of a biofuel catalog with a view to expanding the use of resources and increasing the energy efficiency of biomass power plants (2023-2025)
 - Principle researcher: J. Kolb, E. Eiche, S. Chattopadhyay
 - Federal Ministry for Economic Affairs and Energy: 193,243 EUR
 - Mechanism of Paleoproterozoic hydrothermal Zn-Pb-Ag-rare metals mineralization in the Black Angel district, central West Greenland (2022-2025)
 - Principle researcher: J. Kolb, B. Walter
 - 1 PhD project: M. Eigler
 - DFG: 268,900 EUR
 - Inline Lithium-Monitoring zur effizienten Gewinnung und Prozessregelung von Lithium aus Geothermalsolen und aus Recyclingmaterial (LiMo) (2022-2024)
 - Principle researcher: J. Kolb, E. Eiche
 - Ministry of Economics, Labour and Tourism Baden-Württemberg: 707,606 EUR
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- UnLimited: Production of Lithium from geothermal waters in Germany (Untersuchungen zur Lithiumproduktion aus heißen Tiefenwässern in Deutschland; 2020-2024)
 - Principle researcher: J. Kolb
 - 2 PhD projects: R. Reich, K. Slunitschek
 - Federal Ministry for Economic Affairs and Energy: 1,015,915 EUR
 - Energy and mass flux in the Upper Rhine Graben (EMURG): a mineral systems approach to hydrothermal regimes in graben structures (2020-2024)
 - Principle researcher: J. Kolb, B. Walter
 - 1 PhD project: M. Jungmann
 - DFG: 227,994 EUR
 - Optimized handling of non-condensable gases in binary geothermal systems based on techno-economic modelling calculations (2017-2023)
 - Principle researcher: J. Kolb, E. Eiche; T. Kölbl (EnBW)
 - 1 PhD project: D. Fechner
 - EnBW: fully financed through industry
 - Comparison of Paleoproterozoic orogenic gold deposits from Lapland greenstone belt and the Svecofennian, Finland (since 2017)
 - Principle researcher: C. Patten, J. Kolb
 - 2 PhD projects: S. Hector, A. de Araujo Silva, 2 MSc supervised
 - Federal Institute for Geosciences and Natural Resources (BGR): 175,160 EUR
 - DAAD: 14,656 EUR
 - The actively forming seafloor sulfide mineralization in the Kolumbo volcano (ASK): source of metals in an arc-related magmatic-hydrothermal system (2020-2023)
 - Principle researcher: C. Patten, J. Kolb
 - 1 PhD project: S. Hector, 1 MSc supervised
 - DFG: 259,310 EUR
 - THINKTANK "Industrielle Ressourcenstrategien" (2018-2023)
 - Principle researcher: J. Kolb, Ch. Hilgers, D. Stapf, V. Schulze, T. Hirth, F. Schultmann
 - Ministry of the Environment, Climate Protection and the Energy Sector Baden-Württemberg: 3,370,000.00 EUR
 - Großgeräteantrag: LA-ICPMS (2021)
 - Principle researcher: J. Kolb, A. Zeh
 - DFG: 441,805.12 EUR
 - Clumped Isotopes in Geosciences, Antragssumme für "dual-laser monitor model TILDAS-FD-L2" Aerodyne Research Inc. (2021)
 - Principle researcher: J. Kolb, T. Kluge
 - KIT Future Fields Investments: 178,401.83 EUR
 - WeLaReBaWü / Weiterentwicklung Landesstrategie (2020)
 - Principle researcher: J. Kolb, B. Walter
 - Unterauftrag Hochschule Pforzheim: 20,000 EUR
 - Gold mineralization of the southwest Poli region (Cameroon), TWAS exchange program (2019-2020)
 - Principle researcher: J. Kolb, C. Patten, B. Walter
 - DFG: 9150 EUR
 - CATCHING METALS – creating a new sustainable metal reserve for the high-tech engineering industry in Germany (2018-2020)
 - Principle researcher: J. Kolb
 - 1 PhD project: K. Slunitschek, 2 MSc, 1 BSc supervised
 - Boysen Stiftung: 87,600 EUR
 - SEGMENT: South-East Greenland mineral endowment task (2009-2015)
 - Principle researcher: J. Kolb, T.F.D. Nielsen, K. Thrane; Expedition leader: B.M. Steensgaard
 - 2 PhD: M. Poulsen, S. Müller, 4 MSc, 4 BSc supervised
 - 20,000,000 DKK
 - The role of granitic intrusions in the magmatic, metamorphic and hydrothermal evolution of the Paleoproterozoic Ketilidian Orogen, South Greenland"
 - Principle researcher: J. Kolb
 - Carlsberg Foundation: 150,000 DKK
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- Integrating state of the art high resolution mineralogical analyses in investigation of gold mineralisation processes and ore prospecting in Greenland; 1.5 years project (2010-2012)
 - Principle researcher: T. Balic-Zunic, J. Kolb; PostDoc: A. Katerinopoulou
 - 880,000 DKK
 - Hydrothermal mineralization and greenstone belt geology of the North Atlantic craton, southern West Greenland (2008-2010)
 - Principle researcher: J. Kolb; 8 MSc theses, 4 BSc theses supervised
 - 6,000,000 DKK
 - Epithermal gold mineralization on Mindanao, Philippines; 0.5 year postdoc project (2006-2007)
 - Principle researcher: J. Kolb, S. Hagemann
 - 600,000 AUD
 - Hydrothermal fluid characterisation from the geothermal drill hole RWTH-1, Aachen, Germany; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb; 1 PhD supervised: M. Lögering
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
 - Petrologic and geochemical investigations of high-temperature fluid-rock interaction in metasedimentary host rocks: the Navachab gold deposit, Namibia; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb, A. Dziggel; 1 PhD: K. Wulff, 4 MSc supervised
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
 - IOCG mineralization at Guelb Moghrein, Mauritania; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb; 1 PhD: G.A. Sakellaris, 1 MSc supervised
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
 - Copper porphyry mineralization at Batu Hijau, Indonesia; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb; 1 PhD supervised: A. Arifudin
 - PhD salary + field work, analysis, travel expenses (DAAD)
 - Orogenic gold mineralization at Ajjanahalli, Hutti, Hira Buddini and Uti, India; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb; 2 PhD: A.J. Rogers; A. Hellmann, 1 MSc supervised
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
 - Orogenic gold mineralization at Renco, Zimbabwe; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb, A.F.M. Kisters
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
 - Orogenic gold mineralization at Kochkar, Urals, Russia; 3 years project
 - Principle researcher: F.M. Meyer, J. Kolb, A.F.M. Kisters, R. Ertl; 1 MSc supervised
 - PhD salary + field work, analysis, travel expenses (German Science Foundation, DFG)
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2025

- Andrić-Tomašević, N., Walter, B.F., Simić, V., Raza, M., Životić, D., Novković, Ž., Kolb, J., Gerdes, A., Beranoaguirre, A. (2025). Contributions of arid climate and hydrothermal fluid flow on sedimentation in saline-alkaline lakes: Insight from the Ibar intramontane basin (Southern Serbia). *The Depositional Record*, **11(4)**: <https://doi.org/10.1002/dep2.70017>
- Hector, S., Ahmad, Q., Patten, C.G.C., Chiaradia, M., Nomikou, P., Kiliyas, S., Peillod, A., Wagner, S., Kolb, J. (2025). Unravel seafloor hydrothermal leaching and magmatic degassing during chimney formation at Kolumbo volcano. *Scientific Reports*: <https://doi.org/10.1038/s41598-025-99586-5>
- de Araujo Silva, A., Hector, S., Patten, C., Beranoaguirre, A., Eiche, E., Walter, B.F., Kolb, J. (2025). Hydrothermal co-enrichment of Au, As, Co, and Cu in orogenic deposits: insights from the Pohjanmaa belt. *Mineralium Deposita*: 1432-1866. <https://doi.org/10.1007/s00126-025-01380-w>
- Slunitschek, K., Eiche, E., Kolb, J. (2025). Sorption of lithium and competing ions from geothermal brine to lithium manganese oxide sorbent and implication for industrial use. *Separation and Purification Technology*, **378/3**: <https://doi.org/10.1016/j.seppur.2025.134594>.
- Jungmann, M., Walter, B.F., Eiche, E., Giebel, R.J., Kolb, J. (2025). The source of lithium in connate fluids: Evidence from the geothermal reservoir at Soultz-sous-Forêts, Upper Rhine Graben, France. *Journal of Geochemical Exploration*, **270**: 107641. <https://doi.org/10.1016/j.gexplo.2024.107641>
- Kluge, T., Eiche, E., Walter, B., Kramar, U., Göttlicher, J., Gudelius, D., Giebel, J., Kolb, J. (2025). The influence of fluid pressure, redox potential and crystal growth characteristics in Mississippi-Valley-Type (MVT) ore formation - lessons from a modern geothermal scale. *Mineralium Deposita*, **60(4)**: 765-785. <https://doi.org/10.1007/s00126-024-01314-y>
- Raza, M., Giebel, R.J., Staude, S., Beranoaguirre, A., Kolb, J., Markl, G., Walter, B.F. (2025). The magmatic to post-magmatic evolution of the Nooitgedacht Carbonatite Complex, South Africa. *Geochemistry*, **85(1)**: 126249. <https://doi.org/10.1016/j.chemer.2025.126249>

2024

- Betsi, T.B., Mandeng, E.P.B., Bondje, L.N.B., Beranoaguirre, A., Njee, E.J., Mvondo, H., Kolb, J. (2024). In-situ zircon and cassiterite LA-ICP-MS geochronology and implications for granite-hosted Sn deposit models and exploration: Insights from the Cameroon Line. *American Mineralogist*, **109(11)**: 1960-1972. doi/10.2138/am-2023-9174/html
- DeWolfe, Y.M., Kolb, J., Sorensen, E.V., Rosa, D., Guarnieri, P. (2024). Nature and Origin of a Massive Sulfide Occurrence in the Karrat Group: Evidence for Paleoproterozoic VMS Mineralization in Central West Greenland. *Economic Geology*, **119(1)**: 45-57. doi: <https://doi.org/10.5382/econgeo.5036>
- Hector, S., Patten, C.G.C., Beranoaguirre, A., Lanari, P., Kiliyas, S., Nomikou, P., Peillod, A., Eiche, E., Kolb, J. (2024). Magmatic evolution of the Kolumbo submarine volcano and its implication to seafloor massive sulfide formation. *Mineralium Deposita*, **59(6)**: 1229-1248. <https://doi.org/10.1007/s00126-024-01262-7>
- Kardamaki, E., Basler, C., Reich, R., Wilhelms, A., Breunig, I., Eiche, E., Kolb, J., Carl, D. (2024). Laser-induced breakdown spectroscopy for quantitative lithium monitoring in geothermal brines for lithium extraction. *SPIE Photonics Europe*, **12999**. SPIE. <https://doi.org/10.1117/12.3017166>
- Kasay, G.M., Borst, A.M., Giebel, J.R., Bolarinwa, A.T., Beranoaguirre, A., Kluge, T., Aromolaran, O.K., Raza, M., Eiche, E., Kolb, J., Nzolang, C., Walter, B.F. (2024). Petrogenesis and geodynamic setting of the Bingo alkaline-carbonatite complex, DRC: Constraints from petrography, geochemistry, C-O isotopes and U-Pb geochronology. *Precambrian Research*, **408**: 107421. <https://doi.org/10.1016/j.precamres.2024.107421>
- Patten, C.G.C., Hector, S., Kiliyas, S., Ulrich, M., Peillod, A., Beranoaguirre, A., Nomikou, P., Eiche, E., Kolb, J. (2024). Transfer of sulfur and chalcophile metals via sulfide-volatile compound drops in the Christiana-Santorini-Kolumbo volcanic field. *Nature Communications*, **15(1)**: 4968. <https://doi.org/10.1038/s41467-024-48656-9>
- Peillod, A., Patten, C.G.C., Drüppel, K., Beranoaguirre, A., Zeh, A., Gudelius, D., Hector, S., Majka, J., Kleine-Marshall, B.I., Karlson, A., Gerdes, A., Kolb, J. (2024). Disruption of a high-pressure unit during exhumation: Example of the Cycladic Blueschist unit (Thera, Ios and Naxos islands, Greece). *Journal of Metamorphic Geology*, **42(2)**: 225-255. <https://doi.org/10.1111/jmg.12753>
- Poulsen, M.D., Keulen, N., van Hinsberg, V., Kolb, J., Frei, R., Thomsen, T.B., Nielsen, O., Vennemann, T. (2024). Controls on Corundum Formation: Metasomatism of Ultramafic Rock, Nattivit, South-East Greenland. *Journal of Petrology*, **65(11)**.

- Reich, R., Eiche, E. and Kolb, J. (2024). Delithiation and lithiation of LiFePO₄: Implications for direct Li extraction from synthetic solutions and geothermal brines. *Desalination*, **586**: 117883. <https://doi.org/10.1016/j.desal.2024.117883>
- Walter, B.F., Giebel, R.J., Arthuzzi, J.C.L., Kemmler, L., Kolb, J. (2024): Diatreme-hosted fluorite mineralization in S-Namibia – A tale of cryogenic brine formation and fluid mixing below an unconformity in the context of Pangea rifting. *Journal of African Earth Sciences* **210**:105154. doi: <https://doi.org/10.1016/j.jafrearsci.2023.105154>.

2023

- Hector, S., Patten, C.G.C., Kolb, J., de Araujo Silva, A., Walter, B.F., Molnár, F. (2023): Orogenic Au deposits with atypical metal association (Cu, Co, Ni): Insights from the Pohjanmaa Belt, western Finland. *Ore Geology Reviews* **154**:105326. doi: <https://doi.org/10.1016/j.oregeorev.2023.105326>.
- Gudelius, D., Marks, M.W., Markl, G., Nielsen, T.F.D., Kolb, J., Walter, B. (2023): The Origin of Ultramafic Complexes with Mellilitolites and Carbonatites: A Petrological Comparison of the Gardiner (E Greenland) and Kovdor (Russia) Intrusions. *Journal of Petrology* **64**. doi: 10.1093/petrology/egad036.
- Patten, C.G.C., Beranoaguirre, A., Hector, S., Gudelius, D., Kolb, J., Eiche, E. (2023): Improved whole rock low detection limit gold analysis by LA-ICP-MS utilizing pressed-powder-pellets. *International Journal of Mass Spectrometry* **488**:117039. doi: <https://doi.org/10.1016/j.ijms.2023.117039>.
- Patten, C.G.C., Molnar, F., Pitcairn, I.K., Kolb, J., Mertanen, S., Hector, S. (2022): Multi-source and multi-stage metal mobilization during the tectonic evolution of the Central Lapland Greenstone Belt, Finland: implications for the formation of orogenic Au deposits. *Mineralium Deposita* **58**, 461-488. doi: <https://link.springer.com/article/10.1007/s00126-022-01133-z>.
- Peillod, A., Patten, C.G.C., Drüppel, K., Beranoaguirre, A., Zeh, A., Gudelius, D., Hector, S., Majka, J., Kleine-Marshall, B.I., Karlson, A., Gerdes, A., Kolb, J. (2023): Disruption of a high-pressure unit during exhumation: Example of the Cycladic Blueschist unit (Thera, Ios and Naxos islands, Greece). *Journal of Metamorphic Geology* **42**:225-255. doi: <https://doi.org/10.1111/jmg.12753>.
- Peng, E., Kolb, J., Walter, B.F., Frenzel, M., Patten, C.G.C., Xu, D., Wang, Y., Gan, J., Beranoaguirre, A., Wang, Z. (2023): New Insights on the formation of the Jingchong Cu-Co-Pb-Zn deposit, South China: Evidence from sphalerite mineralogy and muscovite ⁴⁰Ar-³⁹Ar dating. *Ore Geology Reviews*:105667. doi: <https://doi.org/10.1016/j.oregeorev.2023.105667>.
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