

# Barbara Etschmann

## List of Publications by Year in descending order

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139  
papers

5,524  
citations

66315

42  
h-index

95218

68  
g-index

140  
all docs

140  
docs citations

140  
times ranked

4568  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of gold biomineralization in the bacterium <i>Cupriavidus metallidurans</i> . Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17757-17762.	3.3	283
2	Introducing BASE: the Biomes of Australian Soil Environments soil microbial diversity database. GigaScience, 2016, 5, 21.	3.3	204
3	Mechanism and kinetics of pseudomorphic mineral replacement reactions: A case study of the replacement of pentlandite by violarite. Geochimica Et Cosmochimica Acta, 2009, 73, 1945-1969.	1.6	193
4	A review of the coordination chemistry of hydrothermal systems, or do coordination changes make ore deposits?. Chemical Geology, 2016, 447, 219-253.	1.4	177
5	Nanoparticle factories: Biofilms hold the key to gold dispersion and nugget formation. Geology, 2010, 38, 843-846.	2.0	137
6	Oxidation state of europium in scheelite: Tracking fluid-rock interaction in gold deposits. Chemical Geology, 2008, 257, 26-33.	1.4	133
7	An XAS study of the structure and thermodynamics of Cu(I) chloride complexes in brines up to high temperature (400°C, 600bar). Geochimica Et Cosmochimica Acta, 2007, 71, 4920-4941.	1.6	124
8	Contrasting regimes of Cu, Zn and Pb transport in ore-forming hydrothermal fluids. Chemical Geology, 2015, 395, 154-164.	1.4	121
9	Speciation and thermodynamic properties for cobalt chloride complexes in hydrothermal fluids at 35-440°C and 600bar: An in-situ XAS study. Geochimica Et Cosmochimica Acta, 2011, 75, 1227-1248.	1.6	119
10	Speciation of aqueous tellurium(IV) in hydrothermal solutions and vapors, and the role of oxidized tellurium species in Te transport and gold deposition. Geochimica Et Cosmochimica Acta, 2013, 120, 298-325.	1.6	117
11	Textural and compositional complexities resulting from coupled dissolution-reprecipitation reactions in geomaterials. Earth-Science Reviews, 2015, 150, 628-651.	4.0	115
12	Determination of the oxidation state of Cu in substituted Cu-In-Fe-bearing sphalerite via XANES spectroscopy. American Mineralogist, 2012, 97, 476-479.	0.9	114
13	In-situ X-ray absorption study of Iron(II) speciation in brines up to supercritical conditions. Chemical Geology, 2009, 264, 295-310.	1.4	107
14	UV-Vis spectrophotometric and XAFS studies of ferric chloride complexes in hyper-saline LiCl solutions at 25-90°C. Chemical Geology, 2006, 231, 326-349.	1.4	105
15	Complexation of metal ions in brines: application of electronic spectroscopy in the study of the Cu(II)-LiCl-H <sub>2</sub> O system between 25 and 90°C. Geochimica Et Cosmochimica Acta, 2001, 65, 2691-2708.	1.6	92
16	Distribution and Substitution Mechanism of Ge in a Ge-(Fe)-Bearing Sphalerite. Minerals (Basel), 2017, 7, 105-114.	0.8	90
17	A kinetic study of the exsolution of pentlandite (Ni, Fe)S <sub>8</sub> from the monosulfide solid solution (Fe, Ni)S <sub>8</sub> . Minerals (Basel), 2017, 7, 88-98.	0.9	88
18	Zinc complexation in chloride-rich hydrothermal fluids (25-600°C): A thermodynamic model derived from ab initio molecular dynamics. Geochimica Et Cosmochimica Acta, 2015, 150, 265-284.	1.6	85

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19	Influence of geogenic factors on microbial communities in metallogenic Australian soils. <i>ISME Journal</i> , 2012, 6, 2107-2118.	4.4	79
20	Ab initio molecular dynamics simulation and free energy exploration of copper(I) complexation by chloride and bisulfide in hydrothermal fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 102, 45-64.	1.6	79
21	Biominalization of Gold in Biofilms of <i>Cupriavidus metallidurans</i> . <i>Environmental Science &amp; Technology</i> , 2013, 47, 2628-2635.	4.6	70
22	Bismuth speciation in hydrothermal fluids: An X-ray absorption spectroscopy and solubility study. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 101, 156-172.	1.6	70
23	Enrichment of germanium and associated arsenic and tungsten in coal and roll-front uranium deposits. <i>Chemical Geology</i> , 2017, 463, 29-49.	1.4	70
24	An experimental study of the mechanism of the replacement of magnetite by pyrite up to 300°C. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 5610-5630.	1.6	69
25	Speciation of nickel (II) chloride complexes in hydrothermal fluids: In situ XAS study. <i>Chemical Geology</i> , 2012, 334, 345-363.	1.4	69
26	Metal complexation and ion hydration in low density hydrothermal fluids: Ab initio molecular dynamics simulation of Cu(I) and Au(I) in chloride solutions (25–1000°C, 1–5000bar). <i>Geochimica Et Cosmochimica Acta</i> , 2014, 131, 196-212.	1.6	69
27	Gold transport in hydrothermal fluids: Competition among the Cl <sup>-</sup> , Br <sup>-</sup> , HS <sup>-</sup> and NH <sub>3</sub> (aq) ligands. <i>Chemical Geology</i> , 2014, 376, 11-19.	1.4	65
28	Mechanism and kinetics of a mineral transformation under hydrothermal conditions: Calaverite to metallic gold. <i>American Mineralogist</i> , 2009, 94, 1541-1555.	0.9	64
29	Formation of As(II)-pyrite during experimental replacement of magnetite under hydrothermal conditions. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 100, 1-10.	1.6	60
30	Probing ore deposits formation: New insights and challenges from synchrotron and neutron studies. <i>Radiation Physics and Chemistry</i> , 2010, 79, 151-161.	1.4	58
31	Transformation of pentlandite to violarite under mild hydrothermal conditions. <i>American Mineralogist</i> , 2006, 91, 706-709.	0.9	56
32	Speciation mapping of environmental samples using XANES imaging. <i>Environmental Chemistry</i> , 2014, 11, 341.	0.7	55
33	Palladium complexation in chloride- and bisulfide-rich fluids: Insights from ab initio molecular dynamics simulations and X-ray absorption spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 161, 128-145.	1.6	55
34	Geobiological Cycling of Gold: From Fundamental Process Understanding to Exploration Solutions. <i>Minerals (Basel, Switzerland)</i> , 2013, 3, 367-394.	0.8	54
35	An XAS study of molybdenum speciation in hydrothermal chloride solutions from 25–385°C and 600bar. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 92, 292-307.	1.6	53
36	Love is in the Earth: A review of tellurium (bio)geochemistry in surface environments. <i>Earth-Science Reviews</i> , 2020, 204, 103150.	4.0	53

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37	Mechanism and kinetics of hydrothermal replacement of magnetite by hematite. <i>Geoscience Frontiers</i> , 2019, 10, 29-41.	4.3	51
38	Deriving formation constants for aqueous metal complexes from XANES spectra: Zn <sup>2+</sup> and Fe <sup>2+</sup> -chloride complexes in hypersaline solutions. <i>American Mineralogist</i> , 2007, 92, 761-770.	0.9	49
39	Biological role in the transformation of platinum-group mineral grains. <i>Nature Geoscience</i> , 2016, 9, 294-298.	5.4	46
40	Characterisation of a rare earth element- and zirconium-bearing ion-adsorption clay deposit in Madagascar. <i>Chemical Geology</i> , 2019, 522, 93-107.	1.4	46
41	The role of fluorine in hydrothermal mobilization and transportation of Fe, U and REE and the formation of IOCG deposits. <i>Chemical Geology</i> , 2019, 504, 158-176.	1.4	46
42	The replacement of chalcopyrite by bornite under hydrothermal conditions. <i>American Mineralogist</i> , 2014, 99, 2389-2397.	0.9	44
43	Temporal Evolution of Copper Distribution and Speciation in Roots of <i>Triticum aestivum</i> Exposed to CuO, Cu(OH) <sub>2</sub> , and CuS Nanoparticles. <i>Environmental Science &amp; Technology</i> , 2018, 52, 9777-9784.	4.6	44
44	The solubility of nantokite (CuCl(s)) and Cu speciation in low-density fluids near the critical isochore: An in-situ XAS study. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4094-4106.	1.6	43
45	Revisiting the hydrothermal geochemistry of europium(II/III) in light of new in-situ XAS spectroscopy results. <i>Chemical Geology</i> , 2017, 459, 61-74.	1.4	43
46	Arsenic speciation in fluid inclusions using micro-beam X-ray absorption spectroscopy. <i>American Mineralogist</i> , 2010, 95, 921-932.	0.9	41
47	Can biological toxicity drive the contrasting behavior of platinum and gold in surface environments?. <i>Chemical Geology</i> , 2013, 343, 99-110.	1.4	40
48	Experimental study of the formation of chalcopyrite and bornite via the sulfidation of hematite: Mineral replacements with a large volume increase. <i>American Mineralogist</i> , 2014, 99, 343-354.	0.9	39
49	Large S isotope and trace element fractionations in pyrite of uranium roll front systems result from internally-driven biogeochemical cycle. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 282, 113-132.	1.6	39
50	Arsenic in hydrothermal apatite: Oxidation state, mechanism of uptake, and comparison between experiments and nature. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 196, 144-159.	1.6	38
51	The aqueous chemistry of polonium (Po) in environmental and anthropogenic processes. <i>Journal of Hazardous Materials</i> , 2019, 380, 120725.	6.5	37
52	The role of Te(IV) and Bi(III) chloride complexes in hydrothermal mass transfer: An X-ray absorption spectroscopic study. <i>Chemical Geology</i> , 2016, 425, 37-51.	1.4	35
53	Carbonate complexation enhances hydrothermal transport of rare earth elements in alkaline fluids. <i>Nature Communications</i> , 2022, 13, 1456.	5.8	35
54	Copper(I) speciation in mixed thiosulfate-chloride and ammonia-chloride solutions: XAS and UV-Visible spectroscopic studies. <i>RSC Advances</i> , 2011, 1, 1554.	1.7	33

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55	Speciation and thermodynamic properties of manganese(II) chloride complexes in hydrothermal fluids: In situ XAS study. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 129, 77-95.	1.6	33
56	Synergistic Toxicity of Copper and Gold Compounds in <i>Cupriavidus metallidurans</i> . <i>Applied and Environmental Microbiology</i> , 2017, 83, .	1.4	33
57	Ore Petrography Using Megapixel X-Ray Imaging: Rapid Insights into Element Distribution and Mobilization in Complex Pt and U-Ge-Cu Ores. <i>Economic Geology</i> , 2016, 111, 487-501.	1.8	32
58	The crystal chemistry of Fe-bearing sphalerites: An infrared spectroscopic study. <i>American Mineralogist</i> , 2008, 93, 591-597.	0.9	31
59	Paulscherrerite from the Number 2 Workings, Mount Painter Inlier, Northern Flinders Ranges, South Australia: "Dehydrated schoepite" is a mineral after all. <i>American Mineralogist</i> , 2011, 96, 229-240.	0.9	30
60	The dissociation mechanism and thermodynamic properties of HCl(aq) in hydrothermal fluids (to) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 226, 84-106.	1.6	29
61	Distribution and speciation of gold in biogenic and abiogenic calcium carbonates â€“ Implications for the formation of gold anomalous calcrete. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 1942-1956.	1.6	28
62	Speciation and thermodynamic properties of zinc in sulfur-rich hydrothermal fluids: Insights from ab initio molecular dynamics simulations and X-ray absorption spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 179, 32-52.	1.6	27
63	The role of Pb(II) complexes in hydrothermal mass transfer: An X-ray absorption spectroscopic study. <i>Chemical Geology</i> , 2018, 502, 88-106.	1.4	27
64	A Novel Route for the Synthesis of Mesoporous and Low-Thermal Stability Materials by Coupled Dissolution-Reprecipitation Reactions: Mimicking Hydrothermal Mineral Formation. <i>Chimia</i> , 2010, 64, 693.	0.3	26
65	Xocolatlite, Ca <sub>2</sub> Mn <sub>24</sub> Te <sub>20</sub> 12{middle dot}H <sub>2</sub> O, a new tellurate related to kuranakhite: Description and measurement of Te oxidation state by XANES spectroscopy. <i>American Mineralogist</i> , 2008, 93, 1911-1920.	0.9	25
66	Structure and Thermal Stability of Bi(III) Oxy-Clusters in Aqueous Solutions. <i>Journal of Solution Chemistry</i> , 2014, 43, 314-325.	0.6	25
67	Thermal expansion of troilite and pyrrhotite determined by in situ cooling (873 to 373 K) neutron powder diffraction measurements. <i>Mineralogical Magazine</i> , 2005, 69, 205-216.	0.6	24
68	XAS evidence for the stability of polytellurides in hydrothermal fluids up to 599 Â°C, 800 bar. <i>American Mineralogist</i> , 2012, 97, 1519-1522.	0.9	24
69	HRTEM observations of structural and chemical modulations in cosalite and its relationship to the lillianite homologues. <i>Mineralogical Magazine</i> , 2002, 66, 451-458.	0.6	23
70	A neutron powder diffraction study of Fe and Ni distributions in synthetic pentlandite and violarite using <sup>60</sup> Ni isotope. <i>American Mineralogist</i> , 2006, 91, 1442-1447.	0.9	23
71	Applying the Midas touch: Differing toxicity of mobile gold and platinum complexes drives biomineralization in the bacterium <i>Cupriavidus metallidurans</i> . <i>Chemical Geology</i> , 2016, 438, 103-111.	1.4	23
72	Fluid-Enhanced Coarsening of Mineral Microstructures in Hydrothermally Synthesized Borniteâ€“Digenite Solid Solution. <i>ACS Earth and Space Chemistry</i> , 2017, 1, 465-474.	1.2	23

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73	Synthesis of in-situ Al <sub>3+</sub> -defected iron oxide nanoflakes from coal ash: A detailed study on the structure, evolution mechanism and application to water remediation. <i>Journal of Hazardous Materials</i> , 2020, 395, 122696.	6.5	23
74	Uranium scavenging during mineral replacement reactions. <i>American Mineralogist</i> , 2015, 100, 1728-1735.	0.9	22
75	Colloidal gold in sulphur and citrate-bearing hydrothermal fluids: An experimental study. <i>Ore Geology Reviews</i> , 2019, 114, 103142.	1.1	22
76	Oxidation state and coordination environment of Pb in U-bearing minerals. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 265, 109-131.	1.6	21
77	Microporous gold: Comparison of textures from Nature and experiments. <i>American Mineralogist</i> , 2014, 99, 1171-1174.	0.9	20
78	Trace element catalyses mineral replacement reactions and facilitates ore formation. <i>Nature Communications</i> , 2021, 12, 1388.	5.8	19
79	Mechanisms and modelling of antimonate leaching in hydrated cement paste suspensions. <i>Cement and Concrete Research</i> , 2012, 42, 1307-1316.	4.6	18
80	Characterization of porosity in sulfide ore minerals: A USANS/SANS study. <i>American Mineralogist</i> , 2014, 99, 2398-2404.	0.9	18
81	Uranyl speciation in sulfate-bearing hydrothermal solutions up to 250°C. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 267, 75-91.	1.6	18
82	Effect of physical and biogeochemical factors on placer gold transformation in mountainous landscapes of Switzerland. <i>Gondwana Research</i> , 2019, 66, 77-92.	3.0	18
83	Yttrium complexation and hydration in chloride-rich hydrothermal fluids: A combined ab initio molecular dynamics and in situ X-ray absorption spectroscopy study. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 281, 168-189.	1.6	18
84	A new mode of mineral replacement reactions involving the synergy between fluid-induced solid-state diffusion and dissolution-reprecipitation: A case study of the replacement of bornite by copper sulfides. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 330, 165-190.	1.6	18
85	Synchrotron X-ray study of Er <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> and Yb <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> garnets. <i>Acta Crystallographica Section B: Structural Science</i> , 2001, 57, 136-141.	1.8	17
86	THE OXIDATION STATE OF EUROPIUM IN HYDROTHERMAL SCHEELITE: IN SITU MEASUREMENT BY XANES SPECTROSCOPY. <i>Canadian Mineralogist</i> , 2006, 44, 1079-1087.	0.3	17
87	A LA-ICP-MS sulphide calibration standard based on a chalcogenide glass. <i>Mineralogical Magazine</i> , 2011, 75, 279-287.	0.6	17
88	Gold solubility in alkaline and ammonia-rich hydrothermal fluids: Insights from ab initio molecular dynamics simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 291, 62-78.	1.6	17
89	Effect of silica additive on the high-temperature fireside tube corrosion during the air-firing and oxy-firing of lignite (Xinjiang coal) – Characteristics of bulk and cross-sectional surfaces for the tubes. <i>Fuel</i> , 2017, 187, 68-83.	3.4	16
90	REE-, Sr-, Ca-aluminum-phosphate-sulfate minerals of the alunite supergroup and their role as hosts for radionuclides. <i>American Mineralogist</i> , 2019, 104, 1806-1819.	0.9	16

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91	Nutrient Supply to Planetary Biospheres From Anoxic Weathering of Mafic Oceanic Crust. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094442.	1.5	16
92	The nature of Pu-bearing particles from the Maralinga nuclear testing site, Australia. <i>Scientific Reports</i> , 2021, 11, 10698.	1.6	15
93	Scheuchzerite, Na(Mn,Mg) <sub>9</sub> [VSi <sub>9</sub> O <sub>28</sub> (OH)](OH) <sub>3</sub> , a new single-chain silicate. <i>American Mineralogist</i> , 2006, 91, 937-943.	0.9	14
94	Mechanism of mineral transformations in krennerite, Au <sub>3</sub> AgTe <sub>8</sub> , under hydrothermal conditions. <i>American Mineralogist</i> , 2013, 98, 2086-2095.	0.9	14
95	Surface transformations of platinum grains from Fifield, New South Wales, Australia. <i>American Mineralogist</i> , 2015, 100, 1236-1243.	0.9	14
96	Rapid immobilisation of U(VI) by Eucalyptus bark: Adsorption without reduction. <i>Applied Geochemistry</i> , 2018, 96, 1-10.	1.4	13
97	Zinc transport in hydrothermal fluids: On the roles of pressure and sulfur vs. chlorine complexing. <i>American Mineralogist</i> , 2019, 104, 158-161.	0.9	13
98	The mechanism and kinetics of the transformation from marcasite to pyrite: in situ and ex situ experiments and geological implications. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	1.2	13
99	Lead (Pb) sorption and co-precipitation on natural sulfide, sulfate and oxide minerals under environmental conditions. <i>Minerals Engineering</i> , 2021, 163, 106801.	1.8	13
100	Thermodynamic Modeling of Poorly Complexing Metals in Concentrated Electrolyte Solutions: An X-Ray Absorption and UV-Vis Spectroscopic Study of Ni(II) in the NiCl <sub>2</sub> -MgCl <sub>2</sub> -H <sub>2</sub> O System. <i>PLoS ONE</i> , 2015, 10, e0119805.	1.1	13
101	A thermosyphon-driven hydrothermal flow-through cell for in situ and time-resolved neutron diffraction studies. <i>Journal of Applied Crystallography</i> , 2010, 43, 511-519.	1.9	12
102	Behavior of Fe <sup>2+/3+</sup> Cation and Its Interference with the Precipitation of Mg <sup>2+</sup> Cation upon Mineral Carbonation of Yallourn Fly Ash Leachate under Ambient Conditions. <i>Energy &amp; Fuels</i> , 2016, 30, 3269-3280.	2.5	12
103	High-temperature tube corrosion upon the interaction with Victorian brown coal fly ash under the oxy-fuel combustion condition. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3941-3948.	2.4	12
104	Revisiting hydrocarbon phase mobilization of Au in the Au-Hg McLaughlin Mine, Geysers/Clear Lake area, California. <i>Ore Geology Reviews</i> , 2020, 117, 103218.	1.1	12
105	The role of sulfur in molybdenum transport in hydrothermal fluids: Insight from in situ synchrotron XAS experiments and molecular dynamics simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 290, 162-179.	1.6	12
106	Selective impurity removal and Cu upgrading of copper flotation concentrate by a spontaneously oxidative H <sub>2</sub> SO <sub>4</sub> leaching process. <i>Hydrometallurgy</i> , 2020, 195, 105411.	1.8	12
107	Insights into salty metamorphic fluid evolution from scapolite in the Trans-North China Orogen: Implication for ore genesis. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 293, 256-276.	1.6	12
108	Coupling between mineral replacement reactions and co-precipitation of trace elements: An example from the giant Olympic Dam deposit. <i>Ore Geology Reviews</i> , 2020, 117, 103267.	1.1	11

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109	Unravelling the formation histories of placer gold and platinum-group mineral particles from Corrego Bom Sucesso, Brazil: A window into noble metal cycling. <i>Gondwana Research</i> , 2019, 76, 246-259.	3.0	10
110	A detailed speciation of iron on FCC catalysts based on an integrated use of advanced characterisation methods and thermodynamic equilibrium simulation. <i>Applied Catalysis A: General</i> , 2020, 599, 117597.	2.2	10
111	Selective radionuclide co-sorption onto natural minerals in environmental and anthropogenic conditions. <i>Journal of Hazardous Materials</i> , 2021, 409, 124989.	6.5	10
112	Anatomy of a complex mineral replacement reaction: Role of aqueous redox, mineral nucleation, and ion transport properties revealed by an in-situ study of the replacement of chalcopyrite by copper sulfides. <i>Chemical Geology</i> , 2021, 581, 120390.	1.4	10
113	Understanding the mobility and retention of uranium and its daughter products. <i>Journal of Hazardous Materials</i> , 2021, 410, 124553.	6.5	9
114	Uranium carbonate complexes demonstrate drastic decrease in stability at elevated temperatures. <i>Communications Chemistry</i> , 2021, 4, .	2.0	9
115	Metal resistant bacteria on gold particles: Implications of how anthropogenic contaminants could affect natural gold biogeochemical cycling. <i>Science of the Total Environment</i> , 2020, 727, 138698.	3.9	9
116	Sb <sup>5+</sup> and Sb <sup>3+</sup> substitution in segnitite: A new sink for As and Sb in the environment and implications for acid mine drainage. <i>American Mineralogist</i> , 2014, 99, 1355-1359.	0.9	8
117	The dynamic uptake of lead and its radionuclides by natural and synthetic aluminium-phosphate-sulfates. <i>Minerals Engineering</i> , 2021, 160, 106659.	1.8	8
118	Formation of Mg-carbonates and Mg-hydroxides via calcite replacement controlled by fluid pressure. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	8
119	Leucostaurite, Pb <sub>2</sub> [B <sub>5</sub> O <sub>9</sub> ]Cl·0.5H <sub>2</sub> O, from the Atacama Desert: The first Pb-dominant member of the hilgardite group, and micro-determination of boron in minerals by PIGE. <i>American Mineralogist</i> , 2012, 97, 1206-1212.	0.9	7
120	Nickel exchange between aqueous Ni(II) and deep-sea ferromanganese nodules and crusts. <i>Chemical Geology</i> , 2019, 528, 119276.	1.4	7
121	Kinetically driven successive sodic and potassic alteration of feldspar. <i>Nature Communications</i> , 2021, 12, 4435.	5.8	6
122	Rapid Marcasite to Pyrite Transformation in Acidic Low-Temperature Hydrothermal Fluids and Saturation Index Control on FeS <sub>2</sub> Precipitation Dynamics and Phase Selection. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 2453-2465.	1.2	6
123	Tellurium biogeochemical transformation and cycling in a metalliferous semi-arid environment. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 321, 265-292.	1.6	6
124	Terraced Iron Formations: Biogeochemical Processes Contributing to Microbial Biomineralization and Microfossil Preservation. <i>Geosciences (Switzerland)</i> , 2018, 8, 480.	1.0	5
125	An <i>in situ</i> , micro-scale investigation of inorganically and organically driven rare-earth remobilisation during weathering. <i>Mineralogical Magazine</i> , 2021, 85, 105-116.	0.6	5
126	Waste to worth: A high-temperature water-gas shift magnetite catalyst with encapsulated core-shell structure from coal fly ash. <i>Fuel Processing Technology</i> , 2022, 232, 107265.	3.7	5



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127	A synchrotron X-ray diffraction study of a small congruent LiNbO <sub>3</sub> crystal: A compatible approach to powder diffraction. <i>Powder Diffraction</i> , 2001, 16, 81-85.	0.4	4
128	Geobiology of $\text{U}^{6+}$ In Situ $\text{U}^{6+}$ Uranium Leaching. <i>Advanced Materials Research</i> , 0, 825, 372-375.	0.3	4
129	HighPressureGibbs, a Practical Tool for Fluid-Rock Thermodynamic Simulation in Deep Earth and its Application on Calculating Nitrogen Speciation in Subduction Zone Fluids. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC008973.	1.0	4
130	Localised solution environments drive radionuclide fractionation in uraninite. <i>Journal of Hazardous Materials</i> , 2021, 412, 125192.	6.5	4
131	Complex Salts Derived from the Reactions of Organotin(IV) with 6-Methylpyridine-2-Carboxaldehyde Phenylhydrazone: X-Ray Crystal Structure of BIS[6-Methylpyridine-2-Carboxaldehydehydrazodium]-Tetrachlorodimethylstannate(IV). <i>Journal of Coordination Chemistry</i> , 2003, 56, 215-221.	0.8	2
132	Syntheses and Crystallization of Mineralogically Relevant Chalcogenide Glasses. <i>Journal of the American Ceramic Society</i> , 2010, 93, 2434-2437.	1.9	2
133	Spatial distribution of chromium on the corroded tube surface characterised by synchrotron X-ray fluorescence (SXRF) mapping and $\mu$ -XANES: Co-existence of Ca-rich ash deposits and oxy-firing flue gas. <i>Fuel Processing Technology</i> , 2017, 167, 31-42.	3.7	2
134	Synchrotron X-ray absorption spectroscopy study of the evolution of chlorine during the pyro-hydrolysis of calcium and magnesium chloride waste. <i>Waste Management</i> , 2021, 120, 608-615.	3.7	2
135	Goldilocks effect of fluorine and chlorine in albitisation. <i>Chemical Geology</i> , 2022, 591, 120728.	1.4	2
136	Natural nanoparticles of the critical element tellurium. <i>Journal of Hazardous Materials Letters</i> , 2022, 3, 100053.	2.0	2
137	Gold particles from Kamchatka: A brief look at gold biogeochemical cycling in a distinct environment. <i>Mineralogical Magazine</i> , 2021, 85, 68-75.	0.6	1
138	Transport and migration of plutonium in different soil types and rainfall regimes. <i>Journal of Environmental Radioactivity</i> , 2022, 248, 106883.	0.9	1
139	Spatial distribution of Cr-bearing species on the corroded tube surface characterised by synchrotron X-ray fluorescence (SXRF) mapping and micro-XANES: exposure of tubes in oxy-firing flue gas. <i>Journal of Materials Science</i> , 2018, 53, 11791-11812.	1.7	0