Robert M Hazen

List of Publications by Year
in descending order

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230 papers	16,339 citations	13099 68 h-index	19749 117 g-index
238 all docs	238 docs citations	238 times ranked	11043 citing authors

#	Article	IF	Citations
1	Incorporate temporal topology in a deepâ€time knowledge base to facilitate dataâ€driven discovery in geoscience. Geoscience Data Journal, 2023, 10, 489-499.	4.4	0
2	On the paragenetic modes of minerals: A mineral evolution perspective. American Mineralogist, 2022, 107, 1262-1287.	1.9	31
3	Lumping and splitting: Toward a classification of mineral natural kinds. American Mineralogist, 2022, 107, 1288-1301.	1.9	13
4	Evidence that the GOE was a prolonged event with a peak around 1900 Ma. Geosystems and Geoenvironment, 2022, 1, 100036.	3.2	13
5	Evidence for the oxidation of Earthâ€™s crust from the evolution of manganese minerals. Nature Communications, 2022, 13, 960.	12.8	15
6	Structural and chemical complexity of minerals: an update. Mineralogical Magazine, 2022, 86, 183-204.	1.4	34
7	The expanding network of mineral chemistry throughout earth history reveals global shifts in crustal chemistry during the Proterozoic. Scientific Reports, 2022, 12, 4956.	3.3	4
8	Mineral Element Insiders and Outliers Play Crucial Roles in Biological Evolution. Life, 2022, 12, 951.	2.4	0
9	Global earth mineral inventory: A data legacy. Geoscience Data Journal, 2021, 8, 74-89.	4.4	21
10	Cluster Analysis of Presolar Silicon Carbide Grains: Evaluation of Their Classification and Astrophysical Implications. Astrophysical Journal Letters, 2021, 907, L39.	8.3	18
11	Reply to â€œA comment on â€˜An evolutionary system of mineralogy: Proposal for a classification of planetary materials based on natural kind clusteringâ€™â€. American Mineralogist, 2021, 106, 154-156.	1.9	5
12	The Deep-Time Digital Earth program: data-driven discovery in geosciences. National Science Review, 2021, 8, nwab027.	9.5	55
13	Geological Factors Impacted Cadmium Availability and use as an Alternative Cofactor for Zinc in the Carbon Fixation Pathways of Marine Diatoms. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005966.	3.0	2
14	An evolutionary system of mineralogy. Part III: Primary chondrule mineralogy (4566 to 4561 Ma). American Mineralogist, 2021, 106, 325-350.	1.9	17
15	Association announcement 2021 Felix Chayes Prize. Computers and Geosciences, 2021, 150, 104743.	4.2	0
16	An evolutionary system of mineralogy, Part IV: Planetesimal differentiation and impact mineralization (4566 to 4560 Ma). American Mineralogist, 2021, 106, 730-761.	1.9	19
17	Brine-driven destruction of clay minerals in Gale crater, Mars. Science, 2021, 373, 198-204.	12.6	52
18	A Review of the Phyllosilicates in Gale Crater as Detected by the CheMin Instrument on the Mars Science Laboratory, Curiosity Rover. Minerals (Basel, Switzerland), 2021, 11, 847.	2.0	23

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19	An evolutionary system of mineralogy, Part V: Aqueous and thermal alteration of planetesimals (~4565) Tj ETQq1 1 0.784314 rgBT /Ove	1.9	13
20	Phosphorus mineral evolution and prebiotic chemistry: From minerals to microbes. Earth-Science Reviews, 2021, 221, 103806.	9.1	26
21	Historical natural kinds and mineralogy: Systematizing contingency in the context of necessity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	19
22	Evaluation of the classification of pre-solar silicon carbide grains using consensus clustering with resampling methods: An assessment of the confidence of grain assignments. Monthly Notices of the Royal Astronomical Society, 2021, 510, 334-350.	4.4	10
23	An evolutionary system of mineralogy, part II: Interstellar and solar nebula primary condensation mineralogy (> 4.565 Ga). American Mineralogist, 2020, 105, 1508-1535.	1.9	36
24	An evolutionary system of mineralogy. Part I: Stellar mineralogy (>13 to 4.6 Ga). American Mineralogist, 2020, 105, 627-651.	1.9	53
25	Mineralogy of Vera Rubin Ridge From the Mars Science Laboratory CheMin Instrument. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006306.	3.6	86
26	Hydrothermal Precipitation of Sanidine (Adularia) Having Full Al,Si Structural Disorder and Specular Hematite at Maunakea Volcano (Hawai'i) and at Gale Crater (Mars). Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006324.	3.6	14
27	Evidence for Multiple Diagenetic Episodes in Ancient Fluvialâ€Lacustrine Sedimentary Rocks in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006295.	3.6	45
28	Cycling phosphorus on the Archean Earth: Part I. Continental weathering and riverine transport of phosphorus. Geochimica Et Cosmochimica Acta, 2020, 273, 70-84.	3.9	36
29	Cycling phosphorus on the Archean Earth: Part II. Phosphorus limitation on primary production in Archean ecosystems. Geochimica Et Cosmochimica Acta, 2020, 280, 360-377.	3.9	39
30	Deciphering Biosignatures in Planetary Contexts. Astrobiology, 2019, 19, 1075-1102.	3.0	66
31	Statistical analysis of mineral evolution and mineral ecology: The current state and a vision for the future. Applied Computing and Geosciences, 2019, 1, 100005.	2.2	20
32	Earth in five reactions: Grappling with meaning and value in science. American Mineralogist, 2019, , .	1.9	0
33	An evolutionary system of mineralogy: Proposal for a classification of planetary materials based on natural kind clustering. American Mineralogist, 2019, 104, 810-816.	1.9	41
34	Data-Driven Discovery in Mineralogy: Recent Advances in Data Resources, Analysis, and Visualization. Engineering, 2019, 5, 397-405.	6.7	47
35	Redox states of Archean surficial environments: The importance of H2,g instead of O2,g for weathering reactions. Chemical Geology, 2019, 521, 49-58.	3.3	14
36	The same and not the same: Ore geology, mineralogy and geochemistry of Rodinia assembly versus other supercontinents. Earth-Science Reviews, 2019, 196, 102860.	9.1	16

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37	Bayesian Estimation of Earthâ€™s Undiscovered Mineralogical Diversity Using Noninformative Priors. Mathematical Geosciences, 2019, 51, 401-417.	2.4	25
38	Ediacaran biozones identified with network analysis provide evidence for pulsed extinctions of early complex life. Nature Communications, 2019, 10, 911.	12.8	74
39	Lithium mineral evolution and ecology: comparison with boron and beryllium. European Journal of Mineralogy, 2019, 31, 755-774.	1.3	23
40	Selective Adsorption of Aspartate Facilitated by Calcium on Brucite [Mg(OH)2]. ACS Earth and Space Chemistry, 2019, 3, 1-7.	2.7	5
41	An evolutionary system of mineralogy: Proposal for a classification of planetary materials based on natural kind clustering. American Mineralogist, 2019, , .	1.9	0
42	Quantifying ecological impacts of mass extinctions with network analysis of fossil communities. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5217-5222.	7.1	81
43	Parisite-(La), ideally CaLa₂(CO₃)₃F₂, a new mineral from Novo Horizonte, Bahia, Brazil. Mineralogical Magazine, 2018, 82, 133-144.	1.4	9
44	Geological and Chemical Factors that Impacted the Biological Utilization of Cobalt in the Archean Eon. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 743-759.	3.0	24
45	Gypsum, bassanite, and anhydrite at Gale crater, Mars. American Mineralogist, 2018, 103, 1011-1020.	1.9	96
46	Crystal chemistry of martian minerals from Bradbury Landing through Naukluft Plateau, Gale crater, Mars. American Mineralogist, 2018, 103, 857-871.	1.9	94
47	Relationships between unit-cell parameters and composition for rock-forming minerals on Earth, Mars, and other extraterrestrial bodies. American Mineralogist, 2018, 103, 848-856.	1.9	40
48	The Paleomineralogy of the Hadean Eon Revisited. Life, 2018, 8, 64.	2.4	27
49	Titan mineralogy: A window on organic mineral evolution. American Mineralogist, 2018, 103, 341-342.	1.9	11
50	Structural and chemical complexity of minerals: correlations and time evolution. European Journal of Mineralogy, 2018, 30, 231-236.	1.3	47
51	Sand Mineralogy Within the Bagnold Dunes, Gale Crater, as Observed In Situ and From Orbit. Geophysical Research Letters, 2018, 45, 9488-9497.	4.0	52
52	UV irradiation of biomarkers adsorbed on minerals under Martian-like conditions: Hints for life detection on Mars. Icarus, 2018, 313, 38-60.	2.5	44
53	Analysis and visualization of vanadium mineral diversity and distribution. American Mineralogist, 2018, 103, 1080-1086.	1.9	28
54	Binding of Nucleic Acid Components to the Serpentinite-Hosted Hydrothermal Mineral Brucite. Astrobiology, 2018, 18, 989-1007.	3.0	18

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55	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	10.3	150
56	Cobalt mineral ecology. American Mineralogist, 2017, 102, 108-116.	1.9	43
57	On the mineralogy of the â€œAnthropocene Epochâ€• American Mineralogist, 2017, 102, 595-611.	1.9	65
58	Chromium mineral ecology. American Mineralogist, 2017, 102, 612-619.	1.9	31
59	Mineralogy of an active eolian sediment from the Namib dune, Gale crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2344-2361.	3.6	98
60	Mobility of nutrients and trace metals during weathering in the late Archean. Earth and Planetary Science Letters, 2017, 471, 148-159.	4.4	24
61	Shielding biomolecules from effects of radiation by Mars analogue minerals and soils. International Journal of Astrobiology, 2017, 16, 280-285.	1.6	28
62	Cooperative and Inhibited Adsorption of <scp>d</scp>-Ribose onto Brucite [Mg(OH)₂] with Divalent Cations. ACS Earth and Space Chemistry, 2017, 1, 591-600.	2.7	4
63	Aspartate transformation at 200 Â°C with brucite [Mg(OH)2], NH3, and H2: Implications for prebiotic molecules in hydrothermal systems. Chemical Geology, 2017, 457, 162-172.	3.3	9
64	How many boron minerals occur in Earthâ€™s upper crust?. American Mineralogist, 2017, 102, 1573-1587.	1.9	56
65	Network analysis of mineralogical systems. American Mineralogist, 2017, 102, 1588-1596.	1.9	63
66	Geochemical and mineralogical evidence that Rodinian assembly was unique. Nature Communications, 2017, 8, 1950.	12.8	33
67	Chance, necessity and the origins of life: a physical sciences perspective. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160353.	3.4	22
68	Relative Abundances of Mineral Species: A Statistical Measure to Characterize Earth-like Planets Based on Earthâ€™s Mineralogy. Mathematical Geosciences, 2017, 49, 179-194.	2.4	10
69	A model for late Archean chemical weathering and world average river water. Earth and Planetary Science Letters, 2017, 457, 191-203.	4.4	46
70	Using Visual Exploratory Data Analysis to Facilitate Collaboration and Hypothesis Generation in Cross-Disciplinary Research. ISPRS International Journal of Geo-Information, 2017, 6, 368.	2.9	27
71	Evolution of Structural Complexity In Boron Minerals. Canadian Mineralogist, 2016, 54, 125-143.	1.0	57
72	Carbon mineral ecology: Predicting the undiscovered minerals of carbon. American Mineralogist, 2016, 101, 889-906.	1.9	46

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73	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin Xâ€ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	3.6	159
74	Silicic volcanism on Mars evidenced by tridymite in high-SiO ₂ sedimentary rock at Gale crater. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7071-7076.	7.1	158
75	On the nature and significance of rarity in mineralogy. American Mineralogist, 2016, 101, 1245-1251.	1.9	35
76	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	1.9	122
77	A Tribute to Martin D. Brasier: Palaeobiologist and Astrobiologist (April 12, 1947â€"December 16, 2014). Astrobiology, 2015, 15, 940-948.	3.0	2
78	Attachment of Ribonucleotides on Î±-Alumina as a Function of pH, Ionic Strength, and Surface Loading. Langmuir, 2015, 31, 240-248.	3.5	27
79	Mineral Species Frequency Distribution Conforms to a Large Number of Rare Events Model: Prediction of Earthâ€™s Missing Minerals. Mathematical Geosciences, 2015, 47, 647-661.	2.4	65
80	Boron isotopes in tourmaline from the ca. 3.7â€"3.8Ga Isua supracrustal belt, Greenland: Sources for boron in Eoarchean continental crust and seawater. Geochimica Et Cosmochimica Acta, 2015, 163, 156-177.	3.9	48
81	Statistical analysis of mineral diversity and distribution: Earth's mineralogy is unique. Earth and Planetary Science Letters, 2015, 426, 154-157.	4.4	46
82	Interaction between l-aspartate and the brucite [Mg(OH)2]â€"water interface. Geochimica Et Cosmochimica Acta, 2015, 155, 172-186.	3.9	16
83	Microbes, Mineral Evolution, and the Rise of Microcontinentsâ€"Origin and Coevolution of Life with Early Earth. Astrobiology, 2015, 15, 922-939.	3.0	31
84	MINERAL ECOLOGY: CHANCE AND NECESSITY IN THE MINERAL DIVERSITY OF TERRESTRIAL PLANETS. Canadian Mineralogist, 2015, 53, 295-324.	1.0	75
85	Earthâ€™s â€œmissingâ€• minerals. American Mineralogist, 2015, 100, 2344-2347.	1.9	54
86	Hydrogen enhances the stability of glutamic acid in hydrothermal environments. Chemical Geology, 2014, 386, 184-189.	3.3	8
87	Ferrian saponite from the Santa Monica Mountains (California, U.S.A., Earth): Characterization as an analog for clay minerals on Mars with application to Yellowknife Bay in Gale Crater. American Mineralogist, 2014, 99, 2234-2250.	1.9	67
88	Data-driven abductive discovery in mineralogy. American Mineralogist, 2014, 99, 2165-2170.	1.9	41
89	Enantioselective adsorption on rock-forming minerals: A thought experiment. Surface Science, 2014, 629, 11-14.	1.9	4
90	Beryllium mineral evolution. American Mineralogist, 2014, 99, 999-1021.	1.9	58

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91	Cooperative and Competitive Adsorption of Amino Acids with Ca²⁺ on Rutile (Î±-TiO₂). Environmental Science & Technology, 2014, 48, 9358-9365.	10.0	29
92	The effects of temperature, pH and redox state on the stability of glutamic acid in hydrothermal fluids. Geochimica Et Cosmochimica Acta, 2014, 135, 66-86.	3.9	19
93	Carbon Mineralogy and Crystal Chemistry. Reviews in Mineralogy and Geochemistry, 2013, 75, 7-46.	4.8	91
94	Carbon Mineral Evolution. Reviews in Mineralogy and Geochemistry, 2013, 75, 79-107.	4.8	39
95	Microbially Induced Sedimentary Structures Recording an Ancient Ecosystem in the<i>ca.</i>3.48 Billion-Year-Old Dresser Formation, Pilbara, Western Australia. Astrobiology, 2013, 13, 1103-1124.	3.0	231
96	Clay mineral evolution. American Mineralogist, 2013, 98, 2007-2029.	1.9	112
97	On the Origins of Deep Hydrocarbons. Reviews in Mineralogy and Geochemistry, 2013, 75, 449-465.	4.8	76
98	Structure, Bonding, and Mineralogy of Carbon at Extreme Conditions. Reviews in Mineralogy and Geochemistry, 2013, 75, 47-77.	4.8	100
99	Rhenium variations in molybdenite (MoS2): Evidence for progressive subsurface oxidation. Earth and Planetary Science Letters, 2013, 366, 1-5.	4.4	71
100	Why Deep Carbon?. Reviews in Mineralogy and Geochemistry, 2013, 75, 1-6.	4.8	64
101	Atomic-Scale Surface Roughness of Rutile and Implications for Organic Molecule Adsorption. Langmuir, 2013, 29, 6876-6883.	3.5	16
102	Paleomineralogy of the Hadean Eon: A preliminary species list. Numerische Mathematik, 2013, 313, 807-843.	1.4	119
103	Carbon in Earth's interior: Storage, cycling, and life. Eos, 2012, 93, 17-18.	0.1	34
104	Speciation of <scp>l</scp>-DOPA on Nanorutile as a Function of pH and Surface Coverage Using Surface-Enhanced Raman Spectroscopy (SERS). Langmuir, 2012, 28, 17322-17330.	3.5	32
105	Mineralâ€"organic interfacial processes: potential roles in the origins of life. Chemical Society Reviews, 2012, 41, 5502.	38.1	205
106	Mercury (Hg) mineral evolution: A mineralogical record of supercontinent assembly, changing ocean geochemistry, and the emerging terrestrial biosphere. American Mineralogist, 2012, 97, 1013-1042.	1.9	69
107	Evaluating Glutamate and Aspartate Binding Mechanisms to Rutile (Î±-TiO₂) via ATR-FTIR Spectroscopy and Quantum Chemical Calculations. Langmuir, 2011, 27, 1778-1787.	3.5	65
108	Adsorption and Surface Complexation Study of L-DOPA on Rutile (Î±-TiO₂) in NaCl Solutions. Environmental Science & Technology, 2011, 45, 3959-3966.	10.0	49

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109	Borate Minerals and Origin of the RNA World. Origins of Life and Evolution of Biospheres, 2011, 41, 307-316.	1.9	81
110	Needs and opportunities in mineral evolution research. American Mineralogist, 2011, 96, 953-963.	1.9	61
111	Mineral Evolution: Mineralogy in the Fourth Dimension. Elements, 2010, 6, 9-12.	0.5	117
112	Themes and Variations in Complex Systems. Elements, 2010, 6, 43-46.	0.5	24
113	How Old is Earth, and How Do We Know?. Evolution: Education and Outreach, 2010, 3, 198-205.	0.8	1
114	Acceptance of the Mineralogical Society of America Distinguished Public Service Medal for 2009. American Mineralogist, 2010, 95, 667-667.	1.9	0
115	Adsorption of Nucleic Acid Components on Rutile (TiO₂) Surfaces. Astrobiology, 2010, 10, 311-323.	3.0	64
116	Mineral Surfaces, Geochemical Complexities, and the Origins of Life. Cold Spring Harbor Perspectives in Biology, 2010, 2, a002162-a002162.	5.5	262
117	Adsorption of l-aspartate to rutile (Î±-TiO2): Experimental and theoretical surface complexation studies. Geochimica Et Cosmochimica Acta, 2010, 74, 2356-2367.	3.9	53
118	Catalytic peptide hydrolysis by mineral surface: Implications for prebiotic chemistry. Geochimica Et Cosmochimica Acta, 2010, 74, 5852-5861.	3.9	51
119	The emergence of patterning in lifes origin and evolution. International Journal of Developmental Biology, 2009, 53, 683-692.	0.6	18
120	Evolution of uranium and thorium minerals. American Mineralogist, 2009, 94, 1293-1311.	1.9	176
121	Attachment of <scp>l</scp>-Glutamate to Rutile (Î±-TiO₂): A Potentiometric, Adsorption, and Surface Complexation Study. Langmuir, 2009, 25, 12127-12135.	3.5	72
122	An actualistic perspective into Archean worlds â€" (cyanoâ€)bacterially induced sedimentary structures in the siliciclastic Nhlazatse Section, 2.9 Ga Pongola Supergroup, South Africa. Geobiology, 2008, 6, 5-20.	2.4	133
123	The first contribution of capillary electrophoresis to the study of abiotic origins of homochirality: Investigation of the enantioselective adsorption of 3â€carboxy adipic acid on minerals. Electrophoresis, 2008, 29, 1548-1555.	2.4	11
124	Mineral evolution. American Mineralogist, 2008, 93, 1693-1720.	1.9	569
125	Glutamate Surface Speciation on Amorphous Titanium Dioxide and Hydrous Ferric Oxide. Environmental Science & Technology, 2008, 42, 6034-6039.	10.0	39
126	Inorganic Nitrogen Reduction and Stability under Simulated Hydrothermal Conditions. Astrobiology, 2008, 8, 1113-1126.	3.0	33

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127	Abiotic formation of RNA-like oligomers by montmorillonite catalysis: part II. International Journal of Astrobiology, 2008, 7, 1-7.	1.6	10
128	Functional information and the emergence of biocomplexity. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8574-8581.	7.1	100
129	Debating Evidence for the Origin of Life on Earth. Science, 2007, 315, 937c-939c.	12.6	29
130	Anab initiostudy of adsorption of alanine on the chiral calcite surface. Molecular Simulation, 2007, 33, 343-351.	2.0	33
131	Sequence Analysis of Trimer Isomers Formed by Montmorillonite Catalysis in the Reaction of Binary Monomer Mixtures. Astrobiology, 2007, 7, 715-722.	3.0	17
132	Devonian landscape heterogeneity recorded by a giant fungus. Geology, 2007, 35, 399.	4.4	76
133	A new window into Early Archean life: Microbial mats in Earth's oldest siliciclastic tidal deposits (3.2) Tj ETQq1 1 0.784314 rgBT /Overlo	4.4	229
134	Spatial and temporal distribution of microbially induced sedimentary structures: A case study from siliciclastic storm deposits of the 2.9Ga Witwatersrand Supergroup, South Africa. Precambrian Research, 2006, 146, 35-44.	2.7	69
135	Presidential Address to the Mineralogical Society of America, Salt Lake City, October 18, 2005: Mineral surfaces and the prebiotic selection and organization of biomolecules. American Mineralogist, 2006, 91, 1715-1729.	1.9	117
136	Genesis: Rocks, Minerals, and the Geochemical Origin of Life. Elements, 2005, 1, 135-137.	0.5	35
137	Chiral Crystal Faces of Common Rock-Forming Minerals. , 2004, , 137-151.		43
138	Chiral indices of crystalline surfaces as a measure of enantioselective potential. Journal of Molecular Catalysis A, 2004, 216, 273-285.	4.8	47
139	Correlation of pH-dependent surface interaction forces to amino acid adsorption: Implications for the origin of life. American Mineralogist, 2004, 89, 1048-1055.	1.9	93
140	Chiral selection on inorganic crystalline surfaces. Nature Materials, 2003, 2, 367-374.	27.5	439
141	Earth's earliest microbial mats in a siliciclastic marine environment (2.9 Ga Mozaan Group, South) Tj ETQq1 1 0.784314 rgBT /Overlock	4.4	136
142	Microbial Activity at Gigapascal Pressures. Science, 2002, 295, 1514-1516.	12.6	203
143	High pressure and the origin of life. Journal of Physics Condensed Matter, 2002, 14, 11489-11494.	1.8	41
144	Selective adsorption of L- and D-amino acids on calcite: Implications for biochemical homochirality. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 5487-5490.	7.1	355

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145	Life's Rocky Start. Scientific American, 2001, 284, 76-85.	1.0	138
146	How old are bacteria from the Permian age?. Nature, 2001, 411, 155-155.	27.8	57
147	Nondestructive, in situ, cellular-scale mapping of elemental abundances including organic carbon in permineralized fossils. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 5970-5974.	7.1	58
148	Comparative high-pressure crystal chemistry of wadsleyite, Î²-(Mg_{1â€“<i>x</i>}Fe_{<i>x</i>})₂SiO₄, with<i>x</i>= 0 and 0.25. American Mineralogist, 2000, 85, 770-777.	1.9	55
149	High-pressure crystal chemistry of Fe³⁺-wadsleyite, Î²-Fe_{2.33}Si_{0.67}O₄. American Mineralogist, 2000, 85, 778-783.	1.9	14
150	Principles of Comparative Crystal Chemistry. Reviews in Mineralogy and Geochemistry, 2000, 41, 1-33.	4.8	56
151	Primordial Carbonylated Iron-Sulfur Compounds and the Synthesis of Pyruvate. Science, 2000, 289, 1337-1340.	12.6	392
152	Comparative Crystal Chemistry of Dense Oxide Minerals. Reviews in Mineralogy and Geochemistry, 2000, 41, 157-186.	4.8	36
153	Effects of cation substitution and order-disorder on P-V-T equations of state of cubic spinels. American Mineralogist, 1999, 84, 1956-1960.	1.9	79
154	Compressibility mechanisms of alkali feldspars; new data from reedmergnerite. American Mineralogist, 1999, 84, 333-340.	1.9	28
155	Comparative high-pressure crystal chemistry of karrooite, MgTi₂O₅, with different ordering states. American Mineralogist, 1999, 84, 130-137.	1.9	20
156	Thermodynamics of cation ordering in karrooite (MgTi2O5). American Mineralogist, 1999, 84, 1370-1374.	1.9	10
157	Crystal chemistry of high-pressure BaSi₄O₉in the trigonal (P3) barium tetragermanate structure. American Mineralogist, 1999, 84, 987-989.	1.9	14
158	Abiotic nitrogen reduction on the early Earth. Nature, 1998, 395, 365-367.	27.8	216
159	Crystal Chemistry of Cation Orderâ€“Disorder in Pseudobrookite-Type MgTi2O5. Journal of Solid State Chemistry, 1998, 138, 238-244.	2.9	46
160	High-pressure single-crystal X-ray diffraction and infrared spectroscopic studies of the C2/m-P2₁/m phase transition in cummingtonite. American Mineralogist, 1998, 83, 288-299.	1.9	34
161	Increased Compressibility of Pseudobrookite-Type MgTi2O5Caused by Cation Disorder. Science, 1997, 277, 1965-1967.	12.6	46
162	Compressibility and crystal structure of kyanite, Al₂SiO₅, at high pressure. American Mineralogist, 1997, 82, 467-474.	1.9	61

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163	Structural change associated with the incommensurate-normal phase transition in akermanite, Ca 2 MgSi 2 O 7 , at high pressure. Physics and Chemistry of Minerals, 1997, 24, 510-519.	0.8	58
164	Compressibility and crystal structure of sillimanite, Al 2 SiO 5 , at high pressure. Physics and Chemistry of Minerals, 1997, 25, 39-47.	0.8	68
165	Crystal chemistry of superfluorous phase B (Mg₁₀Si₃O₁₄F₄); implications for the role of fluorine in the mantle. American Mineralogist, 1997, 82, 647-650.	1.9	16
166	High-Pressure Framework Silicates. Science, 1996, 272, 1769-1771.	12.6	55
167	High-pressure crystal chemistry of LiScSiO₄; an olivine with nearly isotropic compression. American Mineralogist, 1996, 81, 327-334.	1.9	17
168	Effects of pressure on order-disorder reactions. American Mineralogist, 1996, 81, 1021-1035.	1.9	88
169	Crystal chemistry of lead aluminosilicate hollandite; a new high-pressure synthetic phase with octahedral Si. American Mineralogist, 1995, 80, 937-940.	1.9	18
170	High-pressure crystal chemistry and phase transition of RbTi2(PO4)3. Journal of Physics Condensed Matter, 1994, 6, 1333-1344.	1.8	12
171	Comparative compressibilities of majorite-type garnets. Physics and Chemistry of Minerals, 1994, 21, 344.	0.8	61
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