

Gordon G Southam

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6674027/publications.pdf>

Version: 2024-02-01

227
papers

12,308
citations

28274

55
h-index

31849

101
g-index

234
all docs

234
docs citations

234
times ranked

10485
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical transport along bacterial nanowires from <i>Shewanella oneidensis</i> MR-1. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18127-18131.	7.1	566
2	Environmental Genomics Reveals a Single-Species Ecosystem Deep Within Earth. Science, 2008, 322, 275-278.	12.6	474
3	Could bacteria have formed the Precambrian banded iron formations?. Geology, 2002, 30, 1079.	4.4	444
4	Biosynthesis of Silver Nanoparticles by Filamentous Cyanobacteria from a Silver(I) Nitrate Complex. Langmuir, 2007, 23, 2694-2699.	3.5	366
5	Morphology of Gold Nanoparticles Synthesized by Filamentous Cyanobacteria from Gold(I)-Thiosulfate and Gold(III)-Chloride Complexes. Langmuir, 2006, 22, 2780-2787.	3.5	324
6	Mechanisms of Gold Bioaccumulation by Filamentous Cyanobacteria from Gold(III)-Chloride Complex. Environmental Science & Technology, 2006, 40, 6304-6309.	10.0	288
7	Bacterial growth at 15 °C; molecular insights from the permafrost bacterium <i>Planococcus halocryophilus</i> Or1. ISME Journal, 2013, 7, 1211-1226.	9.8	286
8	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.	7.1	283
9	Impact-generated hydrothermal systems on Earth and Mars. Icarus, 2013, 224, 347-363.	2.5	219
10	The geomicrobiology of gold. ISME Journal, 2007, 1, 567-584.	9.8	212
11	Gold biomineralization by a metallophore from a gold-associated microbe. Nature Chemical Biology, 2013, 9, 241-243.	8.0	212
12	Anaerobic methane oxidation coupled to manganese reduction by members of the <i>Methanoperedenaceae</i> . ISME Journal, 2020, 14, 1030-1041.	9.8	203
13	Carbon Dioxide Fixation within Mine Wastes of Ultramafic-Hosted Ore Deposits: Examples from the Clinton Creek and Cassiar Chrysotile Deposits, Canada. Economic Geology, 2009, 104, 95-112.	3.8	201
14	Bioaccumulation of gold by sulfate-reducing bacteria cultured in the presence of gold(I)-thiosulfate complex. Geochimica Et Cosmochimica Acta, 2006, 70, 3646-3661.	3.9	177
15	Carbon Mineralization: From Natural Analogues to Engineered Systems. Reviews in Mineralogy and Geochemistry, 2013, 77, 305-360.	4.8	174
16	The in vitro formation of placer gold by bacteria. Geochimica Et Cosmochimica Acta, 1994, 58, 4527-4530.	3.9	173
17	Desulfotomaculum and Methanobacterium spp. Dominate a 4- to 5-Kilometer-Deep Fault. Applied and Environmental Microbiology, 2005, 71, 8773-8783.	3.1	172
18	Characterizing the effect of carbon steel exposure in sulfide containing solutions to microbially induced corrosion. Corrosion Science, 2011, 53, 955-960.	6.6	165

#	ARTICLE	IF	CITATIONS
19	Implications of a 3.472â€³3.333â€³Gyr-old subaerial microbial mat from the Barberton greenstone belt, South Africa for the UV environmental conditions on the early Earth. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2006, 361, 1857-1876.	4.0	163
20	The impact of sediment fecal coliform reservoirs on seasonal water quality in Oak Creek, ARIZONA. <i>Water Research</i> , 1999, 33, 2163-2171.	11.3	157
21	Synthesis of Platinum Nanoparticles by Reaction of Filamentous Cyanobacteria with Platinum(IV)â”Chloride Complex. <i>Langmuir</i> , 2006, 22, 7318-7323.	3.5	153
22	Relative contributions of abiotic and biological factors in Fe(II) oxidation in mine drainage. <i>Applied Geochemistry</i> , 1999, 14, 511-530.	3.0	146
23	The Geomicrobiology of Ore Deposits. <i>Economic Geology</i> , 2005, 100, 1067-1084.	3.8	144
24	A highâ€³resolution chemical and structural study of framboidal pyrite formed within a lowâ€³temperature bacterial biofilm. <i>Geobiology</i> , 2008, 6, 471-480.	2.4	143
25	Nanoparticle factories: Biofilms hold the key to gold dispersion and nugget formation. <i>Geology</i> , 2010, 38, 843-846.	4.4	137
26	Low temperature anaerobic bacterial diagenesis of ferrous monosulfide to pyrite. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 2019-2023.	3.9	136
27	The occurrence of sulfur and phosphorus within bacterially derived crystalline and pseudocrystalline octahedral gold formed in vitro. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 4369-4376.	3.9	132
28	Synthesis of Palladium Nanoparticles by Reaction of Filamentous Cyanobacterial Biomass with a Palladium(II) Chloride Complex. <i>Langmuir</i> , 2007, 23, 8982-8987.	3.5	120
29	Biologically induced mineralization of dypingite by cyanobacteria from an alkaline wetland near Atlin, British Columbia, Canada. <i>Geochemical Transactions</i> , 2007, 8, 13.	0.7	119
30	Enumeration of Thiobacilli within pH-Neutral and Acidic Mine Tailings and Their Role in the Development of Secondary Mineral Soil. <i>Applied and Environmental Microbiology</i> , 1992, 58, 1904-1912.	3.1	117
31	The hydromagnesite playas of Atlin, British Columbia, Canada: A biogeochemical model for CO2 sequestration. <i>Chemical Geology</i> , 2009, 260, 286-300.	3.3	114
32	Offsetting of CO2 emissions by air capture in mine tailings at the Mount Keith Nickel Mine, Western Australia: Rates, controls and prospects for carbon neutral mining. <i>International Journal of Greenhouse Gas Control</i> , 2014, 25, 121-140.	4.6	113
33	Production and characterization of monoclonal antibodies against serotype strains of <i>Pseudomonas aeruginosa</i> . <i>Infection and Immunity</i> , 1987, 55, 1051-1057.	2.2	111
34	The Biogeochemistry of Gold. <i>Elements</i> , 2009, 5, 303-307.	0.5	106
35	A critical stage in the formation of acid mine drainage: Colonization of pyrite by <i>Acidithiobacillus ferrooxidans</i> under pH-neutral conditions. <i>Geobiology</i> , 2003, 1, 81-90.	2.4	104
36	<i>Shewanella oneidensis</i> MR-1 Bacterial Nanowires Exhibit p-Type, Tunable Electronic Behavior. <i>Nano Letters</i> , 2013, 13, 2407-2411.	9.1	103

#	ARTICLE	IF	CITATIONS
37	Temporal Shifts in the Geochemistry and Microbial Community Structure of an Ultradeep Mine Borehole Following Isolation. <i>Geomicrobiology Journal</i> , 2003, 20, 517-548.	2.0	96
38	Nickel sulfide, iron-nickel sulfide and iron sulfide precipitation by a newly isolated <i>Desulfotomaculum</i> species and its relation to nickel resistance. <i>FEMS Microbiology Ecology</i> , 1994, 14, 121-132.	2.7	93
39	The Origin and Age of Biogeochemical Trends in Deep Fracture Water of the Witwatersrand Basin, South Africa. <i>Geomicrobiology Journal</i> , 2006, 23, 369-414.	2.0	88
40	Microbially Mediated Mineral Carbonation: Roles of Phototrophy and Heterotrophy. <i>Environmental Science & Technology</i> , 2011, 45, 9061-9068.	10.0	84
41	The effect of thiosulfate-oxidizing bacteria on the stability of the gold-thiosulfate complex. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 3759-3772.	3.9	83
42	Carbon sequestration via carbonic anhydrase facilitated magnesium carbonate precipitation. <i>International Journal of Greenhouse Gas Control</i> , 2013, 16, 145-155.	4.6	80
43	Platinum in Earth surface environments. <i>Earth-Science Reviews</i> , 2014, 131, 1-21.	9.1	80
44	Modern lacustrine microbialites: Towards a synthesis of aqueous and carbonate geochemistry and mineralogy. <i>Earth-Science Reviews</i> , 2016, 162, 338-363.	9.1	80
45	Supergene gold transformation: Biogenic secondary and nano-particulate gold from arid Australia. <i>Chemical Geology</i> , 2012, 320-321, 17-31.	3.3	79
46	Implications of in situ calcification for photosynthesis in a ~3.3Ga-old microbial biofilm from the Barberton greenstone belt, South Africa. <i>Earth and Planetary Science Letters</i> , 2011, 310, 468-479.	4.4	75
47	Isolation, characterization, and cellular insertion of the flagella from two strains of the archaeobacterium <i>Methanospirillum hungatei</i> . <i>Journal of Bacteriology</i> , 1990, 172, 3221-3228.	2.2	74
48	Bioleaching of Ultramafic Tailings by <i>Acidithiobacillus</i> spp. for CO ₂ Sequestration. <i>Environmental Science & Technology</i> , 2010, 44, 456-462.	10.0	70
49	Biomining of Gold in Biofilms of <i>Cupriavidus metallidurans</i> . <i>Environmental Science & Technology</i> , 2013, 47, 2628-2635.	10.0	70
50	Subarctic Weathering of Mineral Wastes Provides a Sink for Atmospheric CO ₂ . <i>Environmental Science & Technology</i> , 2011, 45, 7727-7736.	10.0	69
51	Deciphering Biosignatures in Planetary Contexts. <i>Astrobiology</i> , 2019, 19, 1075-1102.	3.0	66
52	Biogeochemical phenomena induced by bacteria within sulfidic mine tailings. <i>Journal of Industrial Microbiology</i> , 1995, 14, 178-185.	0.9	65
53	The preservation and degradation of filamentous bacteria and biomolecules within iron oxide deposits at Rio Tinto, Spain. <i>Geobiology</i> , 2011, 9, 233-249.	2.4	64
54	Metagenomic analysis reveals that modern microbialites and polar microbial mats have similar taxonomic and functional potential. <i>Frontiers in Microbiology</i> , 2015, 6, 966.	3.5	62

#	ARTICLE	IF	CITATIONS
55	The Role of Bacteria in the Supergene Environment of the Morenci Porphyry Copper Deposit, Greenlee County, Arizona. <i>Economic Geology</i> , 2006, 101, 59-70.	3.8	59
56	Strategizing Carbon-Neutral Mines: A Case for Pilot Projects. <i>Minerals (Basel, Switzerland)</i> , 2014, 4, 399-436.	2.0	58
57	A structural comparison of bacterial microfossils vs. 'nanobacteria' and nanofossils. <i>Earth-Science Reviews</i> , 1999, 48, 251-264.	9.1	54
58	Geobiological Cycling of Gold: From Fundamental Process Understanding to Exploration Solutions. <i>Minerals (Basel, Switzerland)</i> , 2013, 3, 367-394.	2.0	54
59	The role of "blebbing" in overcoming the hydrophobic barrier during biooxidation of elemental sulfur by <i>Thiobacillus thiooxidans</i> . <i>Chemical Geology</i> , 2000, 169, 425-433.	3.3	53
60	A depositional model for hydromagnesite "magnesite playas near Atlin, British Columbia, Canada. <i>Sedimentology</i> , 2014, 61, 1701-1733.	3.1	50
61	Microbially Accelerated Carbonate Mineral Precipitation as a Strategy for in Situ Carbon Sequestration and Rehabilitation of Asbestos Mine Sites. <i>Environmental Science & Technology</i> , 2016, 50, 1419-1427.	10.0	50
62	Secondary gold structures: Relics of past biogeochemical transformations and implications for colloidal gold dispersion in subtropical environments. <i>Chemical Geology</i> , 2017, 450, 154-164.	3.3	50
63	Structural and Chemical Characterization of a Natural Fracture Surface from 2.8 Kilometers Below Land Surface: Biofilms in the Deep Subsurface. <i>Geomicrobiology Journal</i> , 2006, 23, 443-452.	2.0	49
64	Effect of the cyanide-producing bacterium <i>Chromobacterium violaceum</i> on ultraflat Au surfaces. <i>Chemical Geology</i> , 2009, 265, 313-320.	3.3	48
65	Photosynthetic isotope biosignatures in laminated micro-stromatolitic and non-laminated nodules associated with modern, freshwater microbialites in Pavilion Lake, B.C.. <i>Chemical Geology</i> , 2010, 274, 56-67.	3.3	48
66	Organic Matter Amendment and Plant Colonization Drive Mineral Weathering, Organic Carbon Sequestration, and Water-Stable Aggregation in Magnetite Fe Ore Tailings. <i>Environmental Science & Technology</i> , 2019, 53, 13720-13731.	10.0	48
67	The Deposition of Elemental Gold from Gold(I)-Thiosulfate Complexes Mediated by Sulfate-Reducing Bacterial Conditions. <i>Economic Geology</i> , 2007, 102, 109-126.	3.8	47
68	Acidic Microenvironments in Waste Rock Characterized by Neutral Drainage: Bacteria "Mineral Interactions at Sulfide Surfaces. <i>Minerals (Basel, Switzerland)</i> , 2014, 4, 170-190.	2.0	47
69	Potential for offsetting diamond mine carbon emissions through mineral carbonation of processed kimberlite: an assessment of De Beers mine sites in South Africa and Canada. <i>Mineralogy and Petrology</i> , 2018, 112, 755-765.	1.1	47
70	A Greenhouse-Scale Photosynthetic Microbial Bioreactor for Carbon Sequestration in Magnesium Carbonate Minerals. <i>Environmental Science & Technology</i> , 2014, 48, 9142-9151.	10.0	46
71	Biological role in the transformation of platinum-group mineral grains. <i>Nature Geoscience</i> , 2016, 9, 294-298.	12.9	46
72	Nocturnal Production of Endospores in Natural Populations of <i>Epulopiscium</i> -Like Surgeonfish Symbionts. <i>Journal of Bacteriology</i> , 2005, 187, 7460-7470.	2.2	45

#	ARTICLE	IF	CITATIONS
73	Accelerating Mineral Carbonation in Ultramafic Mine Tailings via Direct CO ₂ Reaction and Heap Leaching with Potential for Base Metal Enrichment and Recovery. <i>Economic Geology</i> , 2020, 115, 303-323.	3.8	45
74	Geochemical and mineralogical constraints in iron ore tailings limit soil formation for direct phytostabilization. <i>Science of the Total Environment</i> , 2019, 651, 192-202.	8.0	44
75	Actively forming Kuroko-type volcanic-hosted massive sulfide (VHMS) mineralization at Iheya North, Okinawa Trough, Japan. <i>Ore Geology Reviews</i> , 2017, 84, 20-41.	2.7	43
76	Transmission electron microscopy, scanning tunneling microscopy, and atomic force microscopy of the cell envelope layers of the archaeobacterium <i>Methanospirillum hungatei</i> GP1. <i>Journal of Bacteriology</i> , 1993, 175, 1946-1955.	2.2	42
77	Proteomic responses to gold(III)-toxicity in the bacterium <i>Cupriavidus metallidurans</i> CH34. <i>Metallomics</i> , 2016, 8, 1204-1216.	2.4	42
78	Hydrotalcites and hydrated Mg-carbonates as carbon sinks in serpentinite mineral wastes from the Woodsreef chrysotile mine, New South Wales, Australia: Controls on carbonate mineralogy and efficiency of CO ₂ air capture in mine tailings. <i>International Journal of Greenhouse Gas Control</i> , 2018, 79, 38-60.	4.6	42
79	Examination of Lipopolysaccharide (O-Antigen) Populations of <i>Thiobacillus ferrooxidans</i> from Two Mine Tailings. <i>Applied and Environmental Microbiology</i> , 1993, 59, 1283-1288.	3.1	42
80	High-resolution topography of the S-layer sheath of the archaeobacterium <i>Methanospirillum hungatei</i> provided by scanning tunneling microscopy. <i>Journal of Bacteriology</i> , 1990, 172, 6589-6595.	2.2	41
81	Advanced biofilm staining techniques for TEM and SEM in geomicrobiology: Implications for visualizing EPS architecture, mineral nucleation, and microfossil generation. <i>Chemical Geology</i> , 2018, 498, 115-127.	3.3	41
82	A widely distributed hydrogenase oxidises atmospheric H ₂ during bacterial growth. <i>ISME Journal</i> , 2020, 14, 2649-2658.	9.8	41
83	Characterization of the cell wall of the sheathed methanogen <i>Methanospirillum hungatei</i> GP1 as an S layer. <i>Journal of Bacteriology</i> , 1993, 175, 7550-7560.	2.2	40
84	Bacterial nanowires: conductive as silicon, soft as polymer. <i>Soft Matter</i> , 2011, 7, 6617.	2.7	40
85	Modern carbonate microbialites from an asbestos open pit pond, Yukon, Canada. <i>Geobiology</i> , 2011, 9, 180-195.	2.4	40
86	Bioconversion of coal: new insights from a core flooding study. <i>RSC Advances</i> , 2014, 4, 22779.	3.6	40
87	Minerals as Substrates for Life: The Prokaryotic View. <i>Elements</i> , 2012, 8, 101-106.	0.5	39
88	In situ recovery of uranium – the microbial influence. <i>Hydrometallurgy</i> , 2014, 150, 236-244.	4.3	39
89	Evidence of biogeochemical processes in iron duricrust formation. <i>Journal of South American Earth Sciences</i> , 2016, 71, 131-142.	1.4	39
90	Review on metal extraction technologies suitable for critical metal recovery from mining and processing wastes. <i>Minerals Engineering</i> , 2022, 182, 107537.	4.3	38

#	ARTICLE	IF	CITATIONS
91	Sulfur Isotope Enrichment during Maintenance Metabolism in the Thermophilic Sulfate-Reducing Bacterium <i>Desulfotomaculum putei</i> . Applied and Environmental Microbiology, 2009, 75, 5621-5630.	3.1	37
92	Fate of transition metals during passive carbonation of ultramafic mine tailings via air capture with potential for metal resource recovery. International Journal of Greenhouse Gas Control, 2018, 71, 155-167.	4.6	37
93	Microscopic characterization of the bacterial cell envelope of <i>Planococcus halocryophilus</i> Or1 during subzero growth at -15°C. Polar Biology, 2016, 39, 701-712.	1.2	36
94	Biogeochemical processes in canga ecosystems: Armoring of iron ore against erosion and importance in iron duricrust restoration in Brazil. Ore Geology Reviews, 2019, 107, 573-586.	2.7	36
95	Mineralogical, Chemical and Biological Characterization of an Anaerobic Biofilm Collected from a Borehole in a Deep Gold Mine in South Africa. Geomicrobiology Journal, 2007, 24, 491-504.	2.0	35
96	Characterization of halophiles in natural MgSO ₄ salts and laboratory enrichment samples: Astrobiological implications for Mars. Planetary and Space Science, 2010, 58, 599-615.	1.7	34
97	Production of magnesium-rich solutions by acid leaching of chrysotile: A precursor to field-scale deployment of microbially enabled carbonate mineral precipitation. Chemical Geology, 2015, 413, 119-131.	3.3	33
98	Microbial Architecture of Environmental Sulfur Processes: A Novel Syntrophic Sulfur-Metabolizing Consortia. Environmental Science & Technology, 2009, 43, 8781-8786.	10.0	32
99	Carbon Sequestration in Biogenic Magnesite and Other Magnesium Carbonate Minerals. Environmental Science & Technology, 2019, 53, 3225-3237.	10.0	32
100	Pyrite discs in coal: Evidence for fossilized bacterial colonies. Geology, 2001, 29, 47.	4.4	31
101	The early record of life. Geophysical Monograph Series, 2006, , 283-304.	0.1	31
102	The in-vitro growth of gold grains. Geology, 2015, 43, 79-82.	4.4	31
103	Floating Gold Grains and Nanophase Particles Produced from the Biogeochemical Weathering of a Gold-Bearing Ore. Economic Geology, 2016, 111, 1485-1494.	3.8	31
104	Experimental Deployment of Microbial Mineral Carbonation at an Asbestos Mine: Potential Applications to Carbon Storage and Tailings Stabilization. Minerals (Basel, Switzerland), 2017, 7, 191.	2.0	31
105	Structural characterization of the hydrocarbon degrading bacteria-oil interface: implications for bioremediation. International Biodeterioration and Biodegradation, 2001, 47, 197-201.	3.9	30
106	Microbiologically Influenced Corrosion Capability of Bacteria Isolated from Yucca Mountain. Corrosion, 2004, 60, 64-74.	1.1	29
107	Bioaccumulation of Gold by Filamentous Cyanobacteria Between 25 and 200°C. Geomicrobiology Journal, 2006, 23, 591-597.	2.0	28
108	Microbial Diversity in Actively Forming Iron Oxides from Weathered Banded Iron Formation Systems. Microbes and Environments, 2018, 33, 385-393.	1.6	28

#	ARTICLE	IF	CITATIONS
109	Desert Potholes: Ephemeral Aquatic Microsystems. <i>Aquatic Geochemistry</i> , 2005, 11, 279-302.	1.3	27
110	Precipitation of gold by the reaction of aqueous gold(III) chloride with cyanobacteria at 25°C, studied by X-ray absorption spectroscopy. <i>Canadian Journal of Chemistry</i> , 2007, 85, 651-659.	1.1	27
111	Stars of the terrestrial deep subsurface: A novel star-shaped bacterial morphotype from a South African platinum mine. <i>Geobiology</i> , 2008, 6, 325-330.	2.4	27
112	The effect of gram-positive (<i>Desulfosporosinus orientis</i>) and gram-negative (<i>Desulfovibrio</i>) on the growth of <i>Desulfohalobium</i> overlock. <i>Journal of Microbiology</i> , 2018, 64, 629-637.	1.7	27
113	Structural and Chemical Characterization of Placer Gold Grains: Implications for Bacterial Contributions to Grain Formation. <i>Geomicrobiology Journal</i> , 2015, 32, 158-169.	2.0	25
114	Goethite Reduction by a Neutrophilic Member of the Alphaproteobacterial Genus <i>Telmatospirillum</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 2938.	3.5	25
115	Bacterial Surface-Mediated Mineral Formation. <i>Journal of Microbiology</i> , 2019, 65, 257-276.		25
116	Survival and Growth of <i>Yersinia enterocolitica</i> in Egg Washwater. <i>Journal of Food Protection</i> , 1987, 50, 103-107.	1.7	24
117	Nesquehonite sequesters transition metals and CO ₂ during accelerated carbon mineralisation. <i>International Journal of Greenhouse Gas Control</i> , 2016, 55, 73-81.	4.6	24
118	Performance of a sulfidogenic bioreactor inoculated with indigenous acidic communities for treating an extremely acidic mine water. <i>Minerals Engineering</i> , 2019, 131, 370-375.	4.3	24
119	Biochemical synthesis of palladium nanoparticles: The influence of chemical fixatives used in electron microscopy on nanoparticle formation and catalytic performance. <i>Journal of Hazardous Materials</i> , 2020, 398, 122945.	12.4	24
120	Acidophilic Iron- and Sulfur-Oxidizing Bacteria, <i>Acidithiobacillus ferrooxidans</i> , Drives Alkaline pH Neutralization and Mineral Weathering in Fe Ore Tailings. <i>Environmental Science & Technology</i> , 2021, 55, 8020-8034.	10.0	24
121	Characterization of novel, phenol-soluble polypeptides which confer rigidity to the sheath of <i>Methanospirillum hungatei</i> GP1. <i>Journal of Bacteriology</i> , 1992, 174, 935-946.	2.2	23
122	Carbonate precipitation under bulk acidic conditions as a potential biosignature for searching life on Mars. <i>Earth and Planetary Science Letters</i> , 2012, 351-352, 13-26.	4.4	23
123	The Geomicrobiology of Supergene Metal Deposits. <i>Elements</i> , 2015, 11, 337-342.	0.5	23
124	Bioleaching of waste material from the Salobo mine, Brazil: Recovery of refractory copper from Cu hosted in silicate minerals. <i>Chemical Geology</i> , 2018, 498, 72-82.	3.3	23
125	Biogeochemical Cycling of Silver in Acidic, Weathering Environments. <i>Minerals (Basel, Switzerland)</i> , 2017, 7, 218.	2.0	22
126	Microbial Populations of Stony Meteorites: Substrate Controls on First Colonizers. <i>Frontiers in Microbiology</i> , 2017, 8, 1227.	3.5	22

#	ARTICLE	IF	CITATIONS
127	Geochemical and mineralogical changes in magnetite Fe-ore tailings induced by biomass organic matter amendment. <i>Science of the Total Environment</i> , 2020, 724, 138196.	8.0	22
128	Investigating intra-bone isotopic variations in bioapatite using IR-laser ablation and micromilling: Implications for identifying diagenesis?. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2008, 266, 190-199.	2.3	21
129	The influence of hydrogeological disturbance and mining on coal seam microbial communities. <i>Geobiology</i> , 2016, 14, 163-175.	2.4	21
130	Phosphate treatment alleviated acute phytotoxicity of heavy metals in sulfidic Pb-Zn mine tailings. <i>Environmental Pollution</i> , 2019, 250, 676-685.	7.5	21
131	Microstructure variability in freshwater microbialites, Pavilion Lake, Canada. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2013, 392, 62-70.	2.3	20
132	The effect of iron-oxidising bacteria on the stability of gold (I) thiosulphate complex. <i>Chemical Geology</i> , 2014, 376, 52-60.	3.3	20
133	Microstructural characteristics of naturally formed hardpan capping sulfidic copper-lead-zinc tailings. <i>Environmental Pollution</i> , 2018, 242, 1500-1509.	7.5	20
134	Biogeochemical cycling of iron: Implications for biocementation and slope stabilisation. <i>Science of the Total Environment</i> , 2020, 707, 136128.	8.0	20
135	Dissolution and immunochemical analysis of the sheath of the archaeobacterium <i>Methanospirillum hungatei</i> GP1. <i>Journal of Bacteriology</i> , 1991, 173, 6213-6222.	2.2	19
136	Beachrock formation via microbial dissolution and re-precipitation of carbonate minerals. <i>Marine Geology</i> , 2016, 382, 122-135.	2.1	19
137	Field-based accounting of CO ₂ sequestration in ultramafic mine wastes using portable X-ray diffraction. <i>American Mineralogist</i> , 2017, 102, 1302-1310.	1.9	19
138	Synthesis of Copper Sulfide Nanoparticles Using Biogenic H ₂ S Produced by a Low-pH Sulfidogenic Bioreactor. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 35.	2.0	19
139	Deficiencies of secondary Fe (oxy)hydroxides associated with phyllosilicates and organic carbon limit the formation of water-stable aggregates in Fe-ore tailings. <i>Chemical Geology</i> , 2019, 523, 73-87.	3.3	19
140	Predicted CO ₂ water rock reactions in naturally altered CO ₂ storage reservoir sandstones, with interbedded cemented and coaly mudstone seals. <i>International Journal of Coal Geology</i> , 2022, 253, 103966.	5.0	19
141	The Organization of the Paracrystalline Multilayered Spacer-Plugs of <i>Methanospirillum hungatei</i> . <i>Journal of Structural Biology</i> , 1994, 112, 160-171.	2.8	18
142	MORPHOLOGICAL AND CHEMICAL STUDY OF PLACER GOLD FROM THE SAN LUIS RANGE, ARGENTINA. <i>Canadian Mineralogist</i> , 2004, 42, 169-182.	1.0	18
143	The role of aluminium in the preservation of microbial biosignatures. <i>Geoscience Frontiers</i> , 2019, 10, 1125-1138.	8.4	18
144	Bacterial influence on storage and mobilisation of metals in iron-rich mine tailings from the Salobo mine, Brazil. <i>Science of the Total Environment</i> , 2019, 680, 91-104.	8.0	18

#	ARTICLE	IF	CITATIONS
145	Rhizosphere modifications of iron-rich minerals and forms of heavy metals encapsulated in sulfidic tailings hardpan. <i>Journal of Hazardous Materials</i> , 2020, 384, 121444.	12.4	18
146	Scanning force microscopy studies of the colonization and growth of <i>A. ferrooxidans</i> on the surface of pyrite minerals. <i>Scanning</i> , 2005, 27, 136-140.	1.5	17
147	The Geology and Habitability of Terrestrial Planets: Fundamental Requirements for Life. <i>Space Science Reviews</i> , 2007, 129, 7-34.	8.1	17
148	The immobilization of gold from gold (III) chloride by a halophilic sulphate-reducing bacterial consortium. <i>Geological Society Special Publication</i> , 2015, 393, 249-263.	1.3	17
149	Building biogenic beachrock: Visualizing microbially-mediated carbonate cement precipitation using XFM and a strontium tracer. <i>Chemical Geology</i> , 2017, 465, 21-34.	3.3	17
150	Microbial weathering signatures in lateritic ferruginous duricrusts. <i>Earth and Planetary Science Letters</i> , 2020, 538, 116209.	4.4	17
151	IODP Expedition 331: Strong and Expansive Subseafloor Hydrothermal Activities in the Okinawa Trough. <i>Scientific Drilling</i> , 2012, , .	0.6	17
152	Biosynthesis of Gold Nanoparticles: A Review. , 2011, , 37-74.		16
153	Biogeochemical cycling of iron oxides in the rhizosphere of plants grown on ferruginous duricrust (canga). <i>Science of the Total Environment</i> , 2020, 713, 136637.	8.0	16
154	Nickel complexation as an innovative approach for nickel-cobalt selective recovery using sulfate-reducing bacteria. <i>Journal of Hazardous Materials</i> , 2021, 402, 123506.	12.4	16
155	Toward Closing a Loophole: Recovering Rare Earth Elements from Uranium Metallurgical Process Tailings. <i>Jom</i> , 2021, 73, 39-53.	1.9	16
156	Rhizosphere Drives Biotite-Like Mineral Weathering and Secondary Fe-Si Mineral Formation in Fe Ore Tailings. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 618-631.	2.7	16
157	Multi-technique investigation reveals new mineral, chemical, and textural heterogeneity in the Tagish Lake C2 chondrite. <i>Planetary and Space Science</i> , 2010, 58, 1347-1364.	1.7	15
158	Structural and biological control of the Cenozoic epithermal uranium concentrations from the Sierra Peñón Blanca, Mexico. <i>Mineralium Deposita</i> , 2012, 47, 859-874.	4.1	15
159	Surface transformations of platinum grains from Fifield, New South Wales, Australia. <i>American Mineralogist</i> , 2015, 100, 1236-1243.	1.9	14
160	A Spectral Comparison of Jarosites Using Techniques Relevant to the Robotic Exploration of Biosignatures on Mars. <i>Life</i> , 2018, 8, 61.	2.4	14
161	Impact-Generated Endolithic Habitat Within Crystalline Rocks of the Haughton Impact Structure, Devon Island, Canada. <i>Astrobiology</i> , 2014, 14, 522-533.	3.0	13
162	Bioaugmentation with <i>Acidithiobacillus</i> species accelerates mineral weathering and formation of secondary mineral cements for hardpan development in sulfidic Pb-Zn tailings. <i>Journal of Hazardous Materials</i> , 2021, 411, 124988.	12.4	13

#	ARTICLE	IF	CITATIONS
163	An enzyme-linked immunosorbent assay for plant cadmium-binding peptide. <i>Plant Science</i> , 1988, 57, 37-43.	3.6	12
164	Scanning tunneling microscope imaging of hoops from the cell sheath of the bacteria <i>methanospirillum hungatei</i> and atomic force microscope imaging of complete sheathes. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1991, 9, 1242.	1.6	12
165	Efficiency of a Subsurface Constructed Wetland System Using Native Southwestern U.S. Plants. <i>Journal of Environmental Quality</i> , 1999, 28, 225-231.	2.0	12
166	The imaging of a complete biological structure with the scanning tunneling microscope. <i>Ultramicroscopy</i> , 1989, 27, 427-432.	1.9	11
167	Detection of growth sites in and protomer pools for the sheath of <i>Methanospirillum hungatei</i> GP1 by use of constituent organosulfur and immunogold labeling. <i>Journal of Bacteriology</i> , 1992, 174, 6460-6470.	2.2	11
168	AFM and STM studies of the interaction of antibodies with the S-layer sheath of the archaeobacterium <i>Methanospirillum hungatei</i> . <i>Ultramicroscopy</i> , 1992, 42-44, 1214-1221.	1.9	11
169	Caves in caves: evolution of post-depositional macroholes in stalagmites. <i>International Journal of Speleology</i> , 2014, 43, 323-334.	1.0	11
170	Infrared Spectroscopic Biosignatures from Hidden Cave, New Mexico: Possible Applications for Remote Life Detection. <i>Geomicrobiology Journal</i> , 2014, 31, 929-941.	2.0	11
171	Immobilisation of Platinum by <i>Cupriavidus metallidurans</i> . <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 10.	2.0	11
172	The influence of biologically produced sulfide-containing solutions on nickel and cobalt precipitation reactions and particle settling properties. <i>Hydrometallurgy</i> , 2019, 189, 105142.	4.3	11
173	Zinc and lead encapsulated in amorphous ferric cements within hardpans in situ formed from sulfidic Cu-Pb-Zn tailings. <i>Environmental Pollution</i> , 2019, 252, 1106-1116.	7.5	11
174	Characterisation of iron oxide encrusted microbial fossils. <i>Scientific Reports</i> , 2020, 10, 9889.	3.3	11
175	Chemodiversity of Dissolved Organic Matter and Its Molecular Changes Driven by Rhizosphere Activities in Fe Ore Tailings Undergoing Eco-Engineered Pedogenesis. <i>Environmental Science & Technology</i> , 2021, 55, 13045-13060.	10.0	11
176	Quantification of sulfur and phosphorus within secondary gold rims on Yukon placer gold. <i>Geology</i> , 1998, 26, 339.	4.4	10
177	Evaluation of meteorites as habitats for terrestrial microorganisms: Results from the Nullarbor Plain, Australia, a Mars analogue site. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 215, 1-16.	3.9	10
178	Changes in microbial community structure and increased metal bioavailability in a metal-contaminated soil and in the rhizosphere of corn (<i>Zea mays</i>). <i>Rhizosphere</i> , 2019, 11, 100169.	3.0	10
179	Biocement stabilization of an experimental-scale artificial slope and the reformation of iron-rich crusts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18347-18354.	7.1	10
180	Accelerating microbial iron cycling promotes re-cementation of surface crusts in iron ore regions. <i>Microbial Biotechnology</i> , 2020, 13, 1960-1971.	4.2	10

#	ARTICLE	IF	CITATIONS
181	The effect of bituminous coal on methanogenic mixed cultures and pure cultures of Methanococcus and Methanosarcina. Fuel, 2017, 205, 60-70.	6.4	9
182	Cation Exchange in Smectites as a New Approach to Mineral Carbonation. Frontiers in Climate, 0, 4, .	2.8	9
183	The effects of meteorite impacts on the availability of bioessential elements for endolithic organisms. Meteoritics and Planetary Science, 2012, 47, 1681-1691.	1.6	8
184	Geology, Life, and Habitability. , 2015, , 473-486.		8
185	Evaluation of Dispersed Alkaline Substrate and Diffusive Exchange System Technologies for the Passive Treatment of Copper Mining Acid Drainage. Water (Switzerland), 2020, 12, 854.	2.7	8
186	Contribution of bacterially-induced oxidation of Fe-silicates in iron-rich ore to laterite formation, Salobo IOCG mine, Brazil. Chemical Geology, 2020, 539, 119499.	3.3	8
187	9. Carbon Mineralization: From Natural Analogues to Engineered Systems. , 2013, , 305-360.		8
188	Tip-induced displacement and imaging of a multilayered bacterial structure by scanning tunneling microscopy. Ultramicroscopy, 1994, 55, 113-119.	1.9	7
189	Microbial Diversity of Impact-Generated Habitats. Astrobiology, 2016, 16, 775-786.	3.0	7
190	The influence of metal mobility on resource potential in circumneutral pH iron-rich copper mine waste rocks. Journal of Geochemical Exploration, 2020, 219, 106632.	3.2	7
191	Enhanced metal recovery by efficient agglomeration of precipitates in an up-flow fixed-bed bioreactor. Chemical Engineering Journal, 2021, 416, 127662.	12.7	7
192	Alluvial gold in the BÃ©tarÃ© Oya drainage system, east Cameroon. Journal of Sedimentary Environments, 2021, 6, 201-212.	1.5	7
193	Strategising the bioremediation of Brazilian iron ore mines. Critical Reviews in Environmental Science and Technology, 2022, 52, 2749-2771.	12.8	7
194	Waveguide evanescent field scattering microscopy: bacterial biofilms and their sterilization response via UV irradiation. Journal of Biophotonics, 2014, 7, 542-551.	2.3	6
195	Evaluation of operating conditions on sulfate reduction from acidic wastewater in a fixed-bed bioreactor. Minerals Engineering, 2022, 177, 107370.	4.3	6
196	Mobile hydrocarbon microspheres from >2â¬billionâ¬yearâ¬old carbonâ¬bearing seams in the South African deep subsurface. Geobiology, 2012, 10, 496-505.	2.4	5
197	Applications of Scanning Electron Microscopy in Geomicrobiology. , 2019, , 148-165.		5
198	Bacterially-mediated supergene alteration and redistribution of copper in mineralised rocks at the Salobo IOCG deposit, Brazil. Ore Geology Reviews, 2019, 115, 103210.	2.7	5

#	ARTICLE	IF	CITATIONS
199	Carbon accounting of mined landscapes, and deployment of a geochemical treatment system for enhanced weathering at Woodsreef Chrysotile Mine, NSW, Australia. <i>Journal of Geochemical Exploration</i> , 2021, 220, 106655.	3.2	5
200	Effect of Rock Surfaces on the Corrosion Capability of Yucca Mountain Bacteria. <i>Corrosion</i> , 2004, 60, 75-83.	1.1	4
201	<i>Geology, Life and Habitability.</i> , 2007, , 421-437.		4
202	Electrical Transport along Bacterial Nanowires. <i>Biophysical Journal</i> , 2011, 100, 132a.	0.5	4
203	Analysis of the Potential for Negative CO2 Emission Mine Sites through Bacteria-mediated Carbon Mineralisation: Evidence from Australia. <i>Energy Procedia</i> , 2017, 114, 6124-6132.	1.8	4
204	Biologically facilitated precipitation of metals in low-Fe waters at the sulphidic Mount Chalmers mine, Queensland, Australia. <i>Ore Geology Reviews</i> , 2021, 136, 104238.	2.7	4
205	Biogenic Methane Cycling in a Laboratory Model of an Abandoned Bituminous Coal Mine. <i>Geomicrobiology Journal</i> , 2018, 35, 491-502.	2.0	3
206	The biogeochemical reactivity of phosphate during bioleaching of bornite-chalcocite ore. <i>Applied Geochemistry</i> , 2019, 104, 193-201.	3.0	3
207	Small but mighty: microorganisms offer inspiration for mine remediation and waste stabilisation. <i>Microbiology Australia</i> , 2019, , .	0.4	3
208	Experimental simulations of bacterially-mediated magnetite oxidation and observations on ferricrete formation at the Salobo IOCG mine, Brazil. <i>Applied Geochemistry</i> , 2020, 118, 104628.	3.0	3
209	Ferrugination of biocrusts grown on crushed ferricrete: Potential for slope stabilisation. <i>Ore Geology Reviews</i> , 2021, 135, 104239.	2.7	3
210	Accelerating Bauxite Residue Remediation with Microbial Biotechnology. <i>Minerals, Metals and Materials Series</i> , 2019, , 69-77.	0.4	2
211	Titanium mobility preserved in association with microfossils in an iron-rich duricrust capping an iron ore deposit. <i>Chemical Geology</i> , 2021, 559, 119955.	3.3	2
212	Biogeochemical formation of metalliferous laminations in surficial environments. <i>Mineralogical Magazine</i> , 2021, 85, 49-67.	1.4	2
213	Preservation of Terrestrial Microorganisms and Organics Within Alteration Products of Chondritic Meteorites from the Nullarbor Plain, Australia. <i>Astrobiology</i> , 2022, 22, 399-415.	3.0	2
214	Immobilization of free ionic gold and L-asparagine-complexed ionic gold by <i>Sporosarcina ureae</i> : The importance of organo-gold complexes in gold mobility. <i>Mining, Metallurgy and Exploration</i> , 2000, 17, 129-132.	0.8	1
215	An Economic Analysis of the Worldwide Potential for CO2 Sequestration Through Bacteria-Mediated Carbon Mineralisation at Nickel Mine Sites. <i>SSRN Electronic Journal</i> , 2017, , .	0.4	1
216	Organic Matter Preservation and Incipient Mineralization of Microtubules in 120 Ma Basaltic Glass. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	1

#	ARTICLE	IF	CITATIONS
217	Eukaryotic Colonization of Micrometer-Scale Cracks in Rocks: A "Microfluidics" Experiment Using Naturally Weathered Meteorites from the Nullarbor Plain, Australia. <i>Astrobiology</i> , 2020, 20, 364-374.	3.0	1
218	A Column Leaching Model of Low-Grade Chalcopyrite Ore: Mineral Preferences and Chemical Reactivity. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1132.	2.0	1
219	Biosignatures Associated with Freshwater Microbialites. <i>Life</i> , 2020, 10, 66.	2.4	1
220	Paracrystalline Layers of <i>Methanospirillum hungatei</i> GP1. , 1993, , 129-142.		1
221	Erratum to Implications of a 3.472"3.333-Gyr-old subaerial microbial mat from the Barberton greenstone belt, South Africa for the UV environmental conditions on the early Earth. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 464-464.	4.0	0
222	Applications of Transmission Electron Microscopy in Geomicrobiology. , 2019, , 166-186.		0
223	Textures and mineralogy of residual supergene copper silicates in oxidised overburden. <i>Minerals Engineering</i> , 2021, 163, 106775.	4.3	0
224	The Geology and Habitability of Terrestrial Planets: Fundamental Requirements for Life. <i>Space Sciences Series of ISSI</i> , 2007, , 7-34.	0.0	0
225	Investigation of Lattice Surface Layers by Scanning Probe Microscopy. , 1993, , 243-256.		0
226	Laboratory-Based Bacterial Weathering of the Merensky Reef and Its Impact on Platinum Group Mineral Migration. <i>Economic Geology</i> , 0, , .	3.8	0
227	Role of the substrate on Ni inhibition in biological sulfate reduction. <i>Journal of Environmental Management</i> , 2022, 316, 115216.	7.8	0