

Roy A Wogelius

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

3,384
citations

201674

27
h-index

149698

56
g-index

82
all docs

82
docs citations

82
times ranked

4063
citing authors

#	ARTICLE	IF	CITATIONS
1	Natural analogue evidence for controls on radionuclide uptake by fractured crystalline rock. <i>Applied Geochemistry</i> , 2021, 124, 104812.	3.0	4
2	Experimental taphonomy of fish bone from warm and cold water species: Testing the effects of amino acid composition on collagen breakdown in modern fish bone using thermal maturation experiments. <i>Journal of Archaeological Science</i> , 2021, 126, 105318.	2.4	1
3	Machine learning ATR-FTIR spectroscopy data for the screening of collagen for ZooMS analysis and mtDNA in archaeological bone. <i>Journal of Archaeological Science</i> , 2021, 126, 105311.	2.4	9
4	Mid-infrared reflectance spectroscopy of synthetic glass analogs for Mercury surface studies. <i>Icarus</i> , 2021, 361, 114363.	2.5	9
5	Uranium (VI) Adsorbate Structures on Portlandite [Ca(OH) ₂] Type Surfaces Determined by Computational Modelling and X-Ray Absorption Spectroscopy. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1241.	2.0	2
6	Seasonal calibration of the end-cretaceous Chicxulub impact event. <i>Scientific Reports</i> , 2021, 11, 23704.	3.3	5
7	In Situ EXAFS Study of Sr Adsorption on TiO ₂ (110) under High Ionic Strength Wastewater Conditions. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1386.	2.0	2
8	Mid-infrared spectroscopy of laser-produced basalt melts for remote sensing application. <i>Icarus</i> , 2020, 335, 113410.	2.5	13
9	A new Devonian euthycarcinoid reveals the use of different respiratory strategies during the marine-to-terrestrial transition in the myriapod lineage. <i>Royal Society Open Science</i> , 2020, 7, 201037.	2.4	5
10	Seafloor microplastic hotspots controlled by deep-sea circulation. <i>Science</i> , 2020, 368, 1140-1145.	12.6	430
11	Mineral reaction kinetics constrain the length scale of rock matrix diffusion. <i>Scientific Reports</i> , 2020, 10, 8142.	3.3	6
12	Chemical Mapping of Ancient Artifacts and Fossils with X-Ray Spectroscopy. , 2020, , 2393-2455.		0
13	Decimeter-scale mapping of carbonate-controlled trace element distribution in Neoproterozoic cusped stromatolites. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 261, 56-75.	3.9	5
14	Mapping of Pigment Remnants in Fossil Material. , 2019, , .		0
15	Hagfish from the Cretaceous Tethys Sea and a reconciliation of the morphologicalâ€“molecular conflict in early vertebrate phylogeny. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2146-2151.	7.1	97
16	Advances in bone preservation: Identifying possible collagen preservation using sulfur speciation mapping. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2019, 520, 181-187.	2.3	16
17	Portable FTIR for on-site screening of archaeological bone intended for ZooMS collagen fingerprint analysis. <i>Journal of Archaeological Science: Reports</i> , 2019, 26, 101862.	0.5	13
18	Pheomelanin pigment remnants mapped in fossils of an extinct mammal. <i>Nature Communications</i> , 2019, 10, 2250.	12.8	30

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19	Neptunium(V) and Uranium(VI) Reactions at the Magnetite (111) Surface. <i>Geosciences (Switzerland)</i> , 2019, 9, 81.	2.2	4
20	Collagen deamidation in archaeological bone as an assessment for relative decay rates. <i>Archaeometry</i> , 2019, 61, 1382-1398.	1.3	21
21	An assessment of multimodal imaging of subsurface text in mummy cartonnage using surrogate papyrus phantoms. <i>Heritage Science</i> , 2018, 6, .	2.3	22
22	Morphological and chemical evidence for cyclic bone growth in a fossil hyaena. <i>Journal of Analytical Atomic Spectrometry</i> , 2018, 33, 2062-2069.	3.0	4
23	A new synchrotron rapid-scanning X-ray fluorescence (SRS-XRF) imaging station at SSRL beamline 6-2. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 1565-1573.	2.4	19
24	UV-B-absorbing compounds in modern <i>Cedrus atlantica</i> pollen: The potential for a summer UV-B proxy for Northwest Africa. <i>Holocene</i> , 2018, 28, 1382-1394.	1.7	16
25	Investigating the shock histories of lunar meteorites Miller Range 090034, 090070, and 090075 using petrography, geochemistry, and micro-FTIR spectroscopy. <i>Meteoritics and Planetary Science</i> , 2017, 52, 1103-1124.	1.6	19
26	Visualisation of developmental ossification using trace element mapping. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 967-974.	3.0	9
27	Cellular preservation of musculoskeletal specializations in the Cretaceous bird <i>Confuciusornis</i> . <i>Nature Communications</i> , 2017, 8, 14779.	12.8	18
28	Noninvasive Synchrotron-Based X-ray Raman Scattering Discriminates Carbonaceous Compounds in Ancient and Historical Materials. <i>Analytical Chemistry</i> , 2017, 89, 10819-10826.	6.5	27
29	Chemistry of bone remodelling preserved in extant and fossil Sirenia. <i>Metallomics</i> , 2016, 8, 508-513.	2.4	10
30	Elemental characterisation of melanin in feathers via synchrotron X-ray imaging and absorption spectroscopy. <i>Scientific Reports</i> , 2016, 6, 34002.	3.3	44
31	Uranium Immobilization and Nanofilm Formation on Magnesium-Rich Minerals. <i>Environmental Science & Technology</i> , 2016, 50, 3435-3443.	10.0	17
32	Identification of Shell Colour Pigments in Marine Snails <i>Clanculus pharaonius</i> and <i>C. margaritarius</i> (Trochoidea; Gastropoda). <i>PLoS ONE</i> , 2016, 11, e0156664.	2.5	45
33	Effects of velocity and concentration on diffusive transport in low permeability geological systems. <i>Applied Geochemistry</i> , 2015, 63, 357-365.	3.0	0
34	Geochemical Evidence of the Seasonality, Affinity and Pigmentation of <i>Solenopora jurassica</i> . <i>PLoS ONE</i> , 2015, 10, e0138305.	2.5	5
35	Bacteria or melanosomes? A geochemical analysis of micro-bodies on a tadpole from the Oligocene Enspel Formation of Germany. <i>Palaeobiodiversity and Palaeoenvironments</i> , 2015, 95, 33-45.	1.5	23
36	The mapping and differentiation of biological and environmental elemental signatures in the fossil remains of a 50 million year old bird. <i>Journal of Analytical Atomic Spectrometry</i> , 2015, 30, 627-634.	3.0	28

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37	Bioturbating animals control the mobility of redox-sensitive trace elements in organic-rich mudstone. <i>Geology</i> , 2015, 43, 1007-1010.	4.4	14
38	Uranium and technetium interactions with w ^{1/4} stite [Fe1 ⁺ xO] and portlandite [Ca(OH) ₂] surfaces under geological disposal facility conditions. <i>Mineralogical Magazine</i> , 2014, 78, 1097-1113.	1.4	6
39	Leaf metallome preserved over 50 million years. <i>Metallomics</i> , 2014, 6, 774-782.	2.4	35
40	Synchrotron imaging reveals bone healing and remodelling strategies in extinct and extant vertebrates. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140277.	3.4	47
41	Pigments through time. <i>Pigment Cell and Melanoma Research</i> , 2014, 27, 684-685.	3.3	10
42	Mapping prehistoric ghosts in the synchrotron. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 111, 147-155.	2.3	17
43	Synchrotron-based chemical imaging reveals plumage patterns in a 150 million year old early bird. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1024.	3.0	55
44	Mid-Pliocene warm-period deposits in the High Arctic yield insight into camel evolution. <i>Nature Communications</i> , 2013, 4, 1550.	12.8	192
45	Adsorption and co ² precipitation reactions at the mineral ² fluid interface: natural and anthropogenic processes. <i>Crystal Research and Technology</i> , 2013, 48, 877-902.	1.3	3
46	Uranium uptake onto Magnox sludge minerals studied using EXAFS. <i>Mineralogical Magazine</i> , 2012, 76, 3095-3104.	1.4	15
47	Adsorption and diffusion of strontium in simulated rock fractures quantified via ion beam analysis. <i>Mineralogical Magazine</i> , 2012, 76, 3203-3215.	1.4	2
48	Chemical Mapping of Paleontological and Archeological Artifacts with Synchrotron X-Rays. <i>Annual Review of Analytical Chemistry</i> , 2012, 5, 361-389.	5.4	64
49	Infrared mapping resolves soft tissue preservation in 50 million year-old reptile skin. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 3209-3218.	2.6	50
50	Trace Metals as Biomarkers for Eumelanin Pigment in the Fossil Record. <i>Science</i> , 2011, 333, 1622-1626.	12.6	147
51	Morphological and Geochemical Evidence of Eumelanin Preservation in the Feathers of the Early Cretaceous Bird, <i>Gansus yumenensis</i> . <i>PLoS ONE</i> , 2011, 6, e25494.	2.5	35
52	<i>Archaeopteryx</i> feathers and bone chemistry fully revealed via synchrotron imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9060-9065.	7.1	77
53	Mineralized soft-tissue structure and chemistry in a mummified hadrosaur from the Hell Creek Formation, North Dakota (USA). <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2009, 276, 3429-3437.	2.6	81
54	Model system studies of the influence of bacterial biofilm formation on mineral surface reactivity. <i>Biofouling</i> , 2009, 25, 463-472.	2.2	7

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55	Arsenic in hair and nails of individuals exposed to arsenic-rich groundwaters in Kandal province, Cambodia. <i>Science of the Total Environment</i> , 2008, 393, 168-176.	8.0	133
56	Reactions of the feldspar surface with metal ions: Sorption of Pb(II), U(VI) and Np(V), and surface analytical studies of reaction with Pb(II) and U(VI). <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 288-297.	3.9	33
57	Phthalic acid complexation and the dissolution of forsteritic glass studied via in situ FTIR and X-ray scattering. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 1970-1985.	3.9	14
58	Direct EXAFS evidence for incorporation of As ⁵⁺ in the tetrahedral site of natural andraditic garnet. <i>American Mineralogist</i> , 2007, 92, 1856-1861.	1.9	25
59	Mineral surface reactivity and mass transfer in environmental mineralogy. <i>European Journal of Mineralogy</i> , 2007, 19, 297-307.	1.3	11
60	Evolution of mineral-fluid interfaces studied at pressure with synchrotron X-ray techniques. <i>Chemical Geology</i> , 2006, 230, 232-241.	3.3	11
61	Importance of Organosulfur Utilization for Survival of <i>Pseudomonas putida</i> in Soil and Rhizosphere. <i>Applied and Environmental Microbiology</i> , 2005, 71, 6571-6577.	3.1	25
62	The $\frac{1}{4}$ M project on quantifying the effects of biofilm growth on hydraulic properties of natural porous media and on sorption equilibria: an overview. <i>Geological Society Special Publication</i> , 2005, 249, 131-144.	1.3	7
63	Electrochemical oxidation of the chalcopyrite surface: an XPS and AFM study in solution at pH 4. <i>Applied Surface Science</i> , 2003, 218, 34-43.	6.1	36
64	Arsenic speciation in surface waters and sediments in a contaminated waterway: an ICP-MS and XAS based study. <i>Applied Geochemistry</i> , 2003, 18, 1387-1397.	3.0	33
65	Surface oxidation of rhodonite: structural and chemical study by surface scattering and glancing incidence XAS techniques. <i>Mineralogical Magazine</i> , 2003, 67, 1205-1219.	1.4	13
66	Minerals, metals and molecules: ore and environmental mineralogy in the new millennium. <i>Mineralogical Magazine</i> , 2002, 66, 653-676.	1.4	45
67	In situ synchrotron x-ray reflectivity study of the oligoclase feldspar mineral-fluid interface. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 1587-1594.	3.9	26
68	Trace element and isotopic zonation in vein calcite from the Mendip Hills, UK, with spatial-process correlation analysis. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 2037-2051.	3.9	22
69	Water chemisorption and reconstruction of the MgO surface. <i>Physical Review B</i> , 1995, 52, 10823-10826.	3.2	232
70	Periclase surface hydroxylation during dissolution. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 1875-1881.	3.9	72
71	Processing microPIXE linescan data - studies of arsenic zoning in skarn garnets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993, 77, 410-414.	1.4	7
72	In-situ synchrotron X-ray reflectivity measurements at the calcite-water interface. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 4103-4110.	3.9	66

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73	Zonation patterns of skarn garnets: Records of hydrothermal system evolution. <i>Geology</i> , 1993, 21, 113.	4.4	194
74	Trace element zoning in dolomite: Proton microprobe data and thermodynamic constraints on fluid compositions. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 319-334.	3.9	28
75	Olivine dissolution kinetics at near-surface conditions. <i>Chemical Geology</i> , 1992, 97, 101-112.	3.3	202
76	Olivine dissolution at 25°C: Effects of pH, CO ₂ , and organic acids. <i>Geochimica Et Cosmochimica Acta</i> , 1991, 55, 943-954.	3.9	271
77	Subsolidus emplacement history of the Lanzo massif, northern Italy. <i>Geology</i> , 1989, 17, 995.	4.4	7
78	Analytical, experimental and computational methods in environmental mineralogy. , 0, , 5-102.		6
79	Analytical, experimental, and computational methods in environmental mineralogy. , 0, , 7-87.		10