

Mathew G Newville

List of Publications by Year in descending order

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201
papers

29,173
citations

32410

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all docs

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docs citations

205
times ranked

33639
citing authors

#	ARTICLE	IF	CITATIONS
1	The absorption indicatrix as an empirical model to describe anisotropy in X-ray absorption spectra of pyroxenes. <i>American Mineralogist</i> , 2022, 107, 654-663.	0.9	5
2	Diffusion anisotropy of Ti in zircon and implications for Ti-in-zircon thermometry. <i>Earth and Planetary Science Letters</i> , 2022, 578, 117317.	1.8	15
3	Rapid reduction of basaltic glasses in piston-cylinder experiments: a XANES study. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	4
4	Radiation-Induced Changes in Vanadium Speciation in Basaltic Glasses: Implications for Oxybarometry Measurements Using Vanadium K-edge X-ray Absorption Spectroscopy. <i>American Mineralogist</i> , 2021, , .	0.9	1
5	Trace elemental behavior in the solar nebula: Synchrotron X-ray fluorescence analyses of CM and CR chondritic iron sulfides and associated metal. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 310, 131-154.	1.6	2
6	SMART mineral mapping: Synchrotron-based machine learning approach for 2D characterization with coupled micro XRF-XRD. <i>Computers and Geosciences</i> , 2021, 156, 104898.	2.0	19
7	Improving the reliability of Fe- and S-XANES measurements in silicate glasses: Correcting beam damage and identifying Fe-oxide nanolites in hydrous and anhydrous melt inclusions. <i>Chemical Geology</i> , 2021, 586, 120610.	1.4	14
8	Oxybarometry and valence quantification based on microscale X-ray absorption fine structure (XAFS) spectroscopy of multivalent elements. <i>Chemical Geology</i> , 2020, 531, 119305.	1.4	15
9	Redox state of Earth's magma ocean and its Venus-like early atmosphere. <i>Science Advances</i> , 2020, 6, .	4.7	69
10	Origin of the isostructural electronic states of the topological insulator Bi_2Te_3 . <i>Physical Review B</i> , 2020, 102, .		
11	Structure Analysis of Natural Wangdaodeite LiNbO_3 -Type FeTiO_3 . <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1072.	0.8	3
12	XANES spectroscopy of sulfides stable under reducing conditions. <i>American Mineralogist</i> , 2020, 105, 375-381.	0.9	10
13	Distinct intermediate states in the isostructural phase of the topological insulator Bi_2Te_3 . <i>Physical Review B</i> , 2020, 102, .	1.1	8
14	Snow Algae Preferentially Grow on Fe-containing Minerals and Contribute to the Formation of Fe Phases. <i>Geomicrobiology Journal</i> , 2020, 37, 572-581.	1.0	7
15	Effect of cooling profile on crystalline phases, oxidation state, and chemical partitioning of complex glasses. <i>MRS Advances</i> , 2020, 5, 569-579.	0.5	2
16	Riesite, a New High Pressure Polymorph of TiO_2 from the Ries Impact Structure. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1072.	0.8	21
17	Polyamorphism of GeO_2 Glass at High Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 2000052.	0.7	8
18	Valence determinations and oxybarometry on FIB-sectioned olivine and pyroxene using correlated Ti, V, and Cr micro-XAFS spectroscopy: Evaluation of ion-milling effects and application to Antarctic micrometeorite grains. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2553-2569.	0.7	1

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19	In-situ mapping of ferric iron variations in lunar glasses using X-ray absorption spectroscopy. <i>American Mineralogist</i> , 2019, 104, 453-458.	0.9	6
20	The source of sulfate in brachiopod calcite: Insights from μ -XRF imaging and XANES spectroscopy. <i>Chemical Geology</i> , 2019, 529, 119328.	1.4	10
21	Selective Ion Accumulation in Biomineralizing Marine Acantharia. <i>Microscopy and Microanalysis</i> , 2019, 25, 1072-1073.	0.2	1
22	Insights into past ocean proxies from micron-scale mapping of sulfur species in carbonates. <i>Geology</i> , 2019, 47, 833-837.	2.0	12
23	Direct measurements of copper speciation in basaltic glasses: understanding the relative roles of sulfur and oxygen in copper complexation in melts. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 267, 164-178.	1.6	15
24	Depositional and diagenetic constraints on the abundance and spatial variability of carbonate-associated sulfate. <i>Chemical Geology</i> , 2019, 523, 59-72.	1.4	23
25	Solubility and speciation of iron in hydrothermal fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 252, 126-143.	1.6	38
26	Ice-VII inclusions in diamonds: Evidence for aqueous fluid in Earth's deep mantle. <i>Science</i> , 2018, 359, 1136-1139.	6.0	166
27	Vanadium, sulfur, and iron valences in melt inclusions as a window into magmatic processes: A case study at Nyamuragira volcano, Africa. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 226, 149-173.	1.6	15
28	Substitution and diffusion of Cr ²⁺ and Cr ³⁺ in synthetic forsterite and natural olivine at 1200–1500 °C and 1–bar. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 220, 407-428.	1.6	35
29	Arsenic uptake in bacterial calcite. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 222, 642-654.	1.6	20
30	A Mössbauer-based XANES calibration for hydrous basalt glasses reveals radiation-induced oxidation of Fe. <i>American Mineralogist</i> , 2018, 103, 489-501.	0.9	57
31	Accurate predictions of microscale oxygen barometry in basaltic glasses using V K-edge X-ray absorption spectroscopy: A multivariate approach. <i>American Mineralogist</i> , 2018, 103, 1282-1297.	0.9	16
32	A call for a round robin study of XAFS stability and platform dependence at synchrotron beamlines on well defined samples. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 935-943.	1.0	4
33	Copper complexation and solubility in high-temperature hydrothermal fluids: A combined study by Raman, X-ray fluorescence, and X-ray absorption spectroscopies and ab initio molecular dynamics simulations. <i>Chemical Geology</i> , 2018, 494, 69-79.	1.4	14
34	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018, 6, 450-455.	4.1	54
35	Calibration of Fe XANES for high-precision determination of Fe oxidation state in glasses: Comparison of new and existing results obtained at different synchrotron radiation sources. <i>American Mineralogist</i> , 2017, 102, 369-380.	0.9	31
36	Spatially Resolved Elemental Analysis, Spectroscopy and Diffraction at the GSECARS Sector at the Advanced Photon Source. <i>Journal of Environmental Quality</i> , 2017, 46, 1158-1165.	1.0	24

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37	Shock-transformation of whitlockite to merrillite and the implications for meteoritic phosphate. <i>Nature Communications</i> , 2017, 8, 14667.	5.8	37
38	Evaluating zinc isotope fractionation under sulfate reducing conditions using a flow-through cell and in situ XAS analysis. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 203, 1-14.	1.6	29
39	The bulk valence state of Fe and the origin of water in chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 211, 115-132.	1.6	42
40	Ion Diffusion Within Water Films in Unsaturated Porous Media. <i>Environmental Science & Technology</i> , 2017, 51, 4338-4346.	4.6	24
41	Quantifying and correcting the effects of anisotropy in XANES measurements of chromium valence in olivine: Implications for a new olivine oxybarometer. <i>American Mineralogist</i> , 2017, 102, 1165-1172.	0.9	8
42	Theory and Analysis of XAFS. , 2017, , 13-50.		2
43	The effect of self-consistent potentials on EXAFS analysis. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 1173-1179.	1.0	3
44	Subretinal Pigment Epithelial Deposition of Drusen Components Including Hydroxyapatite in a Primary Cell Culture Model. , 2017, 58, 708.		105
45	Redox variations in the inner solar system with new constraints from vanadium XANES in spinels. <i>American Mineralogist</i> , 2016, 101, 1928-1942.	0.9	56
46	Mobility of iron and nickel at low temperatures: Implications for ^{60}Fe - ^{60}Ni systematics of chondrules from unequilibrated ordinary chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 178, 87-105.	1.6	25
47	Spectroscopic Investigation of the Coloration and Fabrication Conditions of Medieval Blue Glasses. <i>Journal of the American Ceramic Society</i> , 2016, 99, 89-97.	1.9	28
48	Structure and thermodynamic stability of $\text{UTa}_3\text{O}_{10}$, a U(ν)-bearing compound. <i>Dalton Transactions</i> , 2016, 45, 18892-18899.	1.6	6
49	Structure and thermodynamics of uranium-containing iron garnets. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 189, 269-281.	1.6	41
50	Synchrotron-based X-ray Spectroscopy Studies for Redox-based Remediation of Lead, Zinc, and Cadmium in Mine Waste Materials. <i>Journal of Environmental Quality</i> , 2016, 45, 1883-1893.	1.0	22
51	XAFS Data Interchange: A single spectrum XAFS data file format. <i>Journal of Physics: Conference Series</i> , 2016, 712, 012148.	0.3	8
52	Synchrotron X-ray fluorescence spectroscopy of salts in natural sea ice. <i>Earth and Space Science</i> , 2016, 3, 463-479.	1.1	13
53	Effect of cation field strength on Co^{2+} speciation in alkali-borate glasses. <i>Journal of Non-Crystalline Solids</i> , 2016, 451, 101-110.	1.5	28
54	Valence and metal/silicate partitioning of Mo: Implications for conditions of Earth accretion and core formation. <i>Earth and Planetary Science Letters</i> , 2016, 437, 89-100.	1.8	27

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55	U($\langle \text{scp} \rangle$) in metal uranates: a combined experimental and theoretical study of MgUO_4 , CrUO_4 , and FeUO_4 . Dalton Transactions, 2016, 45, 4622-4632.	1.6	45
56	Structural environment of iron and accurate determination of Fe^{3+}/Fe ratios in andesitic glasses by XANES and Mössbauer spectroscopy. Chemical Geology, 2016, 428, 48-58.	1.4	36
57	High-speed, coupled micro-beam XRD/XRF/XAFS mapping at GSECARS: APS Beamline 13-ID-E. , 2016, , 53-64.		3
58	Spectroscopic Evidence of Uranium Immobilization in Acidic Wetlands by Natural Organic Matter and Plant Roots. Environmental Science & Technology, 2015, 49, 2823-2832.	4.6	39
59	Speciation Matters: Bioavailability of Silver and Silver Sulfide Nanoparticles to Alfalfa (<i>Medicago</i>) Tj ETQq1 1 0.784314 rgBT/Overlo	4.6	96
60	Redox evolution of silicic magmas: Insights from XANES measurements of Ce valence in Bishop Tuff zircons. Chemical Geology, 2015, 402, 77-88.	1.4	33
61	High pressure induced charge transfer in $3d^4 4f$ bimetallic photomagnetic materials. Chemical Communications, 2015, 51, 8868-8871.	2.2	13
62	Charge-Coupled Substituted Garnets ($\text{Y}_{3-x}\text{Ca}_{0.5x}\text{M}_{0.5x}\text{Fe}_5\text{O}_{12}$, (M = Ce, Th): Structure and Stability as Crystalline Nuclear Waste Forms. Inorganic Chemistry, 2015, 54, 4156-4166.	1.9	29
63	Hyperspectral image reconstruction for x-ray fluorescence tomography. Optics Express, 2015, 23, 9014.	1.7	33
64	Sb ⁵⁺ and Sb ³⁺ substitution in segnitite: A new sink for As and Sb in the environment and implications for acid mine drainage. American Mineralogist, 2014, 99, 1355-1359.	0.9	8
65	XANES measurements of Cr valence in olivine and their applications to planetary basalts. American Mineralogist, 2014, 99, 1404-1412.	0.9	36
66	Spectroscopic properties of five-coordinated Co^{2+} in phosphates. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 117, 406-412.	2.0	28
67	X-ray absorption spectroscopy of GeO_2 glass to 64 GPa. Journal of Physics Condensed Matter, 2014, 26, 035104.	0.7	28
68	Cerium Substitution in Yttrium Iron Garnet: Valence State, Structure, and Energetics. Chemistry of Materials, 2014, 26, 1133-1143.	3.2	53
69	Distributions of iron, phosphorus and sulfur along trichomes of the cyanobacteria Trichodesmium. Metallomics, 2014, 6, 1141-1149.	1.0	4
70	Synchrotron x-Ray Spectroscopic Analysis. , 2014, , 213-230.		4
71	Local Ordering Around Tetrahedral Co^{2+} in Silicate Glasses. Journal of the American Ceramic Society, 2014, 97, 60-62.	1.9	33
72	Fundamentals of XAFS. Reviews in Mineralogy and Geochemistry, 2014, 78, 33-74.	2.2	215

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73	Retention and chemical speciation of uranium in an oxidized wetland sediment from the Savannah River Site. <i>Journal of Environmental Radioactivity</i> , 2014, 131, 40-46.	0.9	37
74	Micro-X-Ray Fluorescence, Micro-X-Ray Absorption Spectroscopy, and Micro-X-Ray Diffraction Investigation of Lead Speciation after the Addition of Different Phosphorus Amendments to a Smelter-Contaminated Soil. <i>Journal of Environmental Quality</i> , 2014, 43, 488-497.	1.0	22
75	Scientific data exchange: a schema for HDF5-based storage of raw and analyzed data. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 1224-1230.	1.0	86
76	Developing vanadium valence state oxybarometers (spinel-melt, olivine-melt, spinel-olivine) and V/(Cr+Al) partitioning (spinel-melt) for martian olivine-phyric basalts. <i>American Mineralogist</i> , 2013, 98, 2193-2196.	0.9	21
77	Experimental demonstration of novel imaging geometries for x-ray fluorescence computed tomography. <i>Medical Physics</i> , 2013, 40, 061903.	1.6	26
78	Abiotic Reductive Immobilization of U(VI) by Biogenic Mackinawite. <i>Environmental Science & Technology</i> , 2013, 47, 2361-2369.	4.6	100
79	Redox systematics of martian magmas with implications for magnetite stability. <i>American Mineralogist</i> , 2013, 98, 616-628.	0.9	35
80	High-pressure X-ray absorption fine structure in the diamond anvil cell and its applications in geological materials. <i>Journal of Physics: Conference Series</i> , 2013, 430, 012120.	0.3	4
81	Larch: An Analysis Package for XAFS and Related Spectroscopies. <i>Journal of Physics: Conference Series</i> , 2013, 430, 012007.	0.3	244
82	Pressure-induced transformations in amorphous Si-Ge alloy. <i>Physical Review B</i> , 2012, 85, .	1.1	9
83	Efficient simultaneous reverse Monte Carlo modeling of pair-distribution functions and extended x-ray-absorption fine structure spectra of crystalline disordered materials. <i>Journal of Chemical Physics</i> , 2012, 136, 074105.	1.2	16
84	Grain Accumulation of Selenium Species in Rice (<i>Oryza sativa</i> L.). <i>Environmental Science & Technology</i> , 2012, 46, 5557-5564.	4.6	82
85	Rapid reequilibration of H ₂ O and oxygen fugacity in olivine-hosted melt inclusions. <i>Geology</i> , 2012, 40, 915-918.	2.0	285
86	Towards data format standardization for X-ray absorption spectroscopy. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 869-874.	1.0	16
87	Thickness measurements of nanoscale brine films on silica surfaces under geologic CO ₂ sequestration conditions using synchrotron X-ray fluorescence. <i>Water Resources Research</i> , 2012, 48, .	1.7	30
88	High-Cr Biosolids Compost-Induced Changes in Lead and Arsenic Speciation and Bioaccessibility in Co-contaminated Soils. <i>Journal of Environmental Quality</i> , 2012, 41, 1612-1622.	1.0	34
89	The Unique Biogeochemical Signature of the Marine Diazotroph <i>Trichodesmium</i> . <i>Frontiers in Microbiology</i> , 2012, 3, 150.	1.5	57
90	Zinc Speciation in Proximity to Phosphate Application Points in a Lead/Zinc Smelter-Contaminated Soil. <i>Journal of Environmental Quality</i> , 2012, 41, 1865-1873.	1.0	22

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91	Quantitative performance measurements of bent crystal Laue analyzers for X-ray fluorescence spectroscopy. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 375-380.	1.0	10
92	Sulfides from martian and lunar basalts: Comparative chemistry for Ni, Co, Cu, and Se. <i>American Mineralogist</i> , 2011, 96, 932-935.	0.9	8
93	The effect of fO ₂ on the partitioning and valence of V and Cr in garnet/melt pairs and the relation to terrestrial mantle V and Cr content. <i>American Mineralogist</i> , 2011, 96, 1278-1290.	0.9	29
94	Direct determination of europium valence state by XANES in extraterrestrial merrillite: Implications for REE crystal chemistry and martian magmatism. <i>American Mineralogist</i> , 2011, 96, 1418-1421.	0.9	26
95	Phloem transport of arsenic species from flag leaf to grain during grain filling. <i>New Phytologist</i> , 2011, 192, 87-98.	3.5	170
96	Cellular Sequestration of Cadmium in the Hyperaccumulator Plant Species <i>Sedum alfredii</i> . <i>Plant Physiology</i> , 2011, 157, 1914-1925.	2.3	172
97	Standardizing data formats for X-ray absorption spectra and libraries. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2011, 67, C171-C171.	0.3	0
98	Arsenic microdistribution and speciation in toenail clippings of children living in a historic gold mining area. <i>Science of the Total Environment</i> , 2010, 408, 2590-2599.	3.9	55
99	<i>In Situ</i> study of Nucleation of Zirconia in an MgO-Al ₂ O ₃ -SiO ₂ Glass. <i>Journal of the American Ceramic Society</i> , 2010, 93, 342-344.	1.9	55
100	Partitioning of Eu between augite and a highly spiked martian basalt composition as a function of oxygen fugacity (IW-1 to QFM): Determination of Eu ²⁺ /Eu ³⁺ ratios by XANES. <i>American Mineralogist</i> , 2010, 95, 410-413.	0.9	19
101	X-ray fluorescence tomography using imaging detectors. , 2010, , .		4
102	The nanoparticulate nature of invisible gold in arsenopyrite from Pezinok (Slovakia). <i>Neues Jahrbuch Fur Mineralogie, Abhandlungen</i> , 2010, 187, 1-9.	0.1	12
103	Evidence for nanoscale two-dimensional Co clusters in CoPt ₃ films with perpendicular magnetic anisotropy. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 146002.	0.7	11
104	High quality x-ray absorption spectroscopy measurements with long energy range at high pressure using diamond anvil cell. <i>Review of Scientific Instruments</i> , 2009, 80, 073908.	0.6	39
105	Grain Unloading of Arsenic Species in Rice. <i>Plant Physiology</i> , 2009, 152, 309-319.	2.3	268
106	Antimony sinks in the weathering crust of bullets from Swiss shooting ranges. <i>Science of the Total Environment</i> , 2009, 407, 1669-1682.	3.9	68
107	Cadmium sorption, influx, and efflux at the mesophyll layer of leaves from ecotypes of the Zn/Cd hyperaccumulator <i>Thlaspi caerulescens</i> . <i>New Phytologist</i> , 2009, 181, 626-636.	3.5	43
108	On the valency state of radiogenic lead in zircon and its consequences. <i>Chemical Geology</i> , 2009, 261, 4-11.	1.4	62

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109	The speciation of copper in natural fluid inclusions at temperatures up to 700°C. <i>Chemical Geology</i> , 2009, 259, 2-7.	1.4	23
110	Improvements in modeling EXAFS with many-pole self-energy and FEFF 8.5. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012023.	0.3	9
111	Comparison of EXAFS foil spectra from around the world. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012032.	0.3	11
112	Three-dimensional textural and compositional analysis of particle tracks and fragmentation history in aerogel. <i>Meteoritics and Planetary Science</i> , 2009, 44, 1445-1463.	0.7	17
113	Oxidation state of iron in komatiitic melt inclusions indicates hot Archaean mantle. <i>Nature</i> , 2008, 455, 960-963.	13.7	180
114	Real-Time X-ray Absorption Spectroscopy of Uranium, Iron, and Manganese in Contaminated Sediments During Bioreduction. <i>Environmental Science & Technology</i> , 2008, 42, 2839-2844.	4.6	21
115	Chemical composition and heterogeneity of Wild 2 cometary particles determined by synchrotron X-ray fluorescence. <i>Meteoritics and Planetary Science</i> , 2008, 43, 187-213.	0.7	35
116	Films for Self-Detection and Decontamination. <i>International Journal of Photoenergy</i> , 2008, 2008, 1-6.	1.4	4
117	Fluorescence x-ray absorption fine structure studies of Fe-Ni-S and Fe-Ni-Si melts to 1600 K. <i>Physical Review B</i> , 2008, 77, .	1.1	3
118	Intermediate states of GeO ₂ glass under pressures up to 35 GPa. <i>Physical Review B</i> , 2007, 75, .	1.1	59
119	Chapter 3 Molecular Structure of Lead(II) Coprecipitated with Iron(III) Oxyhydroxide. <i>Developments in Earth and Environmental Sciences</i> , 2007, 7, 67-93.	0.1	0
120	Reduced-scan schemes for X-ray fluorescence computed tomography. , 2007, , .		0
121	Speciation and colloid transport of arsenic from mine tailings. <i>Applied Geochemistry</i> , 2007, 22, 1884-1898.	1.4	67
122	Externally-driven charge transfer in silicates at high pressure and temperature: A XANES study. <i>Earth and Planetary Science Letters</i> , 2007, 256, 314-327.	1.8	12
123	Reduced-Scan Schemes for X-Ray Fluorescence Computed Tomography. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 1535-1542.	1.2	11
124	Long-Term Stability of Organic Carbon-Stimulated Chromate Reduction in Contaminated Soils and Its Relation to Manganese Redox Status. <i>Environmental Science & Technology</i> , 2007, 41, 4326-4331.	4.6	25
125	Elemental Tomography of Cancer-Cell Spheroids Reveals Incomplete Uptake of Both Platinum(II) and Platinum(IV) Complexes. <i>Journal of the American Chemical Society</i> , 2007, 129, 13400-13401.	6.6	56
126	The effect of CO ₂ on the speciation of bromine in low-temperature geological solutions: an XANES study. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 219-226.	1.0	12

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127	Comet 81P/Wild 2 Under a Microscope. <i>Science</i> , 2006, 314, 1711-1716.	6.0	848
128	Elemental Compositions of Comet 81P/Wild 2 Samples Collected by Stardust. <i>Science</i> , 2006, 314, 1731-1735.	6.0	200
129	Spatial and Temporal Variability of Arsenic Solid-State Speciation in Historically Lead Arsenate Contaminated Soils. <i>Environmental Science & Technology</i> , 2006, 40, 673-679.	4.6	63
130	A XANES study of Cu speciation in high-temperature brines using synthetic fluid inclusions. <i>American Mineralogist</i> , 2006, 91, 1773-1782.	0.9	56
131	Plutonium Oxidation and Subsequent Reduction by Mn(IV) Minerals in Yucca Mountain Tuff. <i>Environmental Science & Technology</i> , 2006, 40, 3508-3514.	4.6	70
132	Solid-phases and desorption processes of arsenic within Bangladesh sediments. <i>Chemical Geology</i> , 2006, 228, 97-111.	1.4	162
133	$\hat{1}\frac{1}{4}$ -XANES and $\hat{1}\frac{1}{4}$ -XRF Investigations of Metal Binding Mechanisms in Biosolids. <i>Journal of Environmental Quality</i> , 2006, 35, 342-351.	1.0	52
134	An experimental study of the oxidation state of vanadium in spinel and basaltic melt with implications for the origin of planetary basalt. <i>American Mineralogist</i> , 2006, 91, 1643-1656.	0.9	85
135	Application of a new vanadium valence oxybarometer to basaltic glasses from the Earth, Moon, and Mars. <i>American Mineralogist</i> , 2006, 91, 270-277.	0.9	61
136	Probing of bonding changes in B ₂ O ₃ glasses at high pressure with inelastic X-ray scattering. <i>Nature Materials</i> , 2005, 4, 851-854.	13.3	178
137	ATHENA, ARTEMIS, HEPHAESTUS: data analysis for X-ray absorption spectroscopy using IFEFFIT. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 537-541.	1.0	12,799
138	Uranium Reduction in Sediments under Diffusion-Limited Transport of Organic Carbon. <i>Environmental Science & Technology</i> , 2005, 39, 7077-7083.	4.6	22
139	Application of Quantitative Fluorescence and Absorption-Edge Computed Microtomography to Image Metal Compartmentalization in <i>Alyssum murale</i> . <i>Environmental Science & Technology</i> , 2005, 39, 2210-2218.	4.6	185
140	Vanadium K edge XANES of synthetic and natural basaltic glasses and application to microscale oxygen barometry. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2333-2348.	1.6	148
141	Strontium in coral aragonite: Sr coordination and geochemistry in relation to skeletal architecture. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 3801-3811.	1.6	52
142	Mercury transformations in chemical agent simulant as characterized by X-ray absorption fine spectroscopy. <i>Talanta</i> , 2005, 67, 730-735.	2.9	3
143	Reconstruction of deglacial sea surface temperatures in the tropical Pacific from selective analysis of a fossil coral. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	31
144	The formation of sp ³ bonding in compressed BN. <i>Nature Materials</i> , 2004, 3, 111-114.	13.3	162

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145	Microscale Distribution of Cesium Sorbed to Biotite and Muscovite. <i>Environmental Science & Technology</i> , 2004, 38, 1017-1023.	4.6	117
146	Structure and reactivity of the hydrated hematite (0001) surface. <i>Surface Science</i> , 2004, 573, 204-224.	0.8	279
147	Hexavalent Uranium Diffusion into Soils from Concentrated Acidic and Alkaline Solutions. <i>Environmental Science & Technology</i> , 2004, 38, 3056-3062.	4.6	24
148	Arsenic Sequestration by Ferric Iron Plaque on Cattail Roots. <i>Environmental Science & Technology</i> , 2004, 38, 6074-6077.	4.6	156
149	Bonding Changes in Compressed Superhard Graphite. <i>Science</i> , 2003, 302, 425-427.	6.0	610
150	Strontium in coral aragonite: 1. Characterization of Sr coordination by extended absorption X-ray fine structure. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 1197-1202.	1.6	28
151	XAFS study of local disorder in the α -Gd ₂ Si ₂ amorphous magnetic semiconductor. <i>Physical Review B</i> , 2003, 67, .	1.1	17
152	Surface oxidation of rhodonite: structural and chemical study by surface scattering and glancing incidence XAS techniques. <i>Mineralogical Magazine</i> , 2003, 67, 1205-1219.	0.6	13
153	Distribution of Chromium Contamination and Microbial Activity in Soil Aggregates. <i>Journal of Environmental Quality</i> , 2003, 32, 541.	1.0	8
154	Distribution of Chromium Contamination and Microbial Activity in Soil Aggregates. <i>Journal of Environmental Quality</i> , 2003, 32, 541-549.	1.0	41
155	Melting studies of indium: determination of the structure and density of melts at high pressures and high temperatures. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 10533-10540.	0.7	21
156	Copper speciation in vapor-phase fluid inclusions from the Mole Granite, Australia. <i>American Mineralogist</i> , 2002, 87, 1360-1364.	0.9	55
157	Microfluorescence and Microtomography Analyses of Heterogeneous Earth and Environmental Materials. <i>Reviews in Mineralogy and Geochemistry</i> , 2002, 49, 429-483.	2.2	79
158	8. Microfluorescence and Microtomography Analyses of Heterogeneous Earth and Environmental Materials. , 2002, , 429-484.		26
159	Strontium heterogeneity and speciation in coral aragonite: implications for the strontium paleothermometer. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 2669-2676.	1.6	62
160	Characterization of Fe Plaque and Associated Metals on the Roots of Mine-Waste Impacted Aquatic Plants. <i>Environmental Science & Technology</i> , 2001, 35, 3863-3868.	4.6	366
161	Chromium Diffusion and Reduction in Soil Aggregates. <i>Environmental Science & Technology</i> , 2001, 35, 3169-3174.	4.6	70
162	Evidence of heterovalent europium in zoned Llaguna apatite using wavelength dispersive XANES. <i>American Mineralogist</i> , 2001, 86, 697-700.	0.9	54

#	ARTICLE	IF	CITATIONS
163	EXAFS analysis using FEFF and FEFFIT. Journal of Synchrotron Radiation, 2001, 8, 96-100.	1.0	549
164	A study of the coordination environment in aqueous cadmium-thiol complexes by EXAFS spectroscopy: experimental vs theoretical standards. Journal of Synchrotron Radiation, 2001, 8, 669-671.	1.0	12
165	IFEFFIT: interactive XAFS analysis and FEFF fitting. Journal of Synchrotron Radiation, 2001, 8, 322-324.	1.0	2,695
166	Growth induced magnetic and chemical anisotropy in CoPt ₃ alloy films. Journal of Synchrotron Radiation, 2001, 8, 880-882.	1.0	5
167	X-Ray Absorption Spectroscopy of Strontium(II) Coordination. Journal of Colloid and Interface Science, 2000, 222, 184-197.	5.0	84
168	Structure of the Hydrated -Al ₂ O ₃ (0001) Surface. Science, 2000, 288, 1029-1033.	6.0	520
169	CHEMICAL SPECIATION OF GOLD IN ARSENOPYRITE. Canadian Mineralogist, 2000, 38, 1265-1281.	0.3	124
170	Combined EXAFS and first-principles theory study of Pb _{1-x} GexTe. Physical Review B, 1999, 60, 14632-14642.	1.1	25
171	Micro-beam X-ray absorption and fluorescence spectroscopies at GSECARS: APS beamline 13ID. Journal of Synchrotron Radiation, 1999, 6, 353-355.	1.0	42
172	Micro-XAS studies with sorbed plutonium on tuff. Journal of Synchrotron Radiation, 1999, 6, 350-352.	1.0	20
173	Estimation of measurement uncertainties in XAFS data. Journal of Synchrotron Radiation, 1999, 6, 264-265.	1.0	46
174	A web-based library of XAFS data on model compounds. Journal of Synchrotron Radiation, 1999, 6, 276-277.	1.0	21
175	Inclusion of local structure effects in theoretical x-ray resonant scattering amplitudes using ab initio x-ray-absorption spectra calculations. Physical Review B, 1998, 58, 11215-11225.	1.1	109
176	Dynamically figured Kirkpatrick Baez x-ray microfocusing optics. , 1998, , .		108
177	Hydration of Bromide Ion in Supercritical Water: An X-ray Absorption Fine Structure and Molecular Dynamics Study. Journal of Physical Chemistry A, 1997, 101, 9632-9640.	1.1	89
178	XAFS Measurements of Rb-O Bonds in Ambient and Supercritical Water. European Physical Journal Special Topics, 1997, 7, C2-1007-C2-1008.	0.2	1
179	Separated Anomalous Scattering Amplitudes for the Inequivalent Cu Sites in YBa ₂ Cu ₃ O _{7-δ} using DAFS. European Physical Journal Special Topics, 1997, 7, C2-745-C2-747.	0.2	1
180	Co-Refinement of Diffraction Anomalous Fine-Structure Data. European Physical Journal Special Topics, 1997, 7, C2-759-C2-760.	0.2	1

#	ARTICLE	IF	CITATIONS
181	High-pressure, capillary x-ray absorption fine structure cell for studies of liquid and supercritical fluid solutions. Review of Scientific Instruments, 1996, 67, 2843-2845.	0.6	27
182	Rubidium ion hydration in ambient and supercritical water. Journal of Chemical Physics, 1996, 105, 2161-2166.	1.2	122
183	Single and multiple scattering XAFS in BaZrO ₃ : A comparison between theory and experiment. Physica B: Condensed Matter, 1995, 208-209, 151-153.	1.3	19
184	Analysis of multiple-scattering XAFS data using theoretical standards. Physica B: Condensed Matter, 1995, 208-209, 154-156.	1.3	662
185	The UWXAFS analysis package: philosophy and details. Physica B: Condensed Matter, 1995, 208-209, 117-120.	1.3	734
186	Order disorder elements in antiferrodistortive phase transitions. Physica B: Condensed Matter, 1995, 208-209, 325-326.	1.3	5
187	Buckled crystalline structure of disordered mixed salts. Physica B: Condensed Matter, 1995, 208-209, 334-336.	1.3	11
188	The temperature dependence of substitutional impurities in Ag as measured by XAFS. Physica B: Condensed Matter, 1995, 208-209, 369-370.	1.3	3
189	Analysis of DAFS fine structure and background. Physica B: Condensed Matter, 1995, 208-209, 145-147.	1.3	18
190	Are Nanophase Grain Boundaries Anomalous?. Physical Review Letters, 1995, 75, 3874-3877.	2.9	111
191	Local structural distortions below and above the antiferrodistortive phase transition. Physical Review Letters, 1994, 72, 1352-1355.	2.9	47
192	Solving the structure of disordered mixed salts. Physical Review B, 1994, 49, 11662-11674.	1.1	58
193	Local Structural Distortions below and above the Antiferrodistortive Phase Transition. Physical Review Letters, 1994, 72, 3132-3132.	2.9	0
194	Structural disorder in oxygen perovskite crystals. Physica C: Superconductivity and Its Applications, 1993, 209, 55-58.	0.6	12
195	Near-edge x-ray-absorption fine structure of Pb: A comparison of theory and experiment. Physical Review B, 1993, 47, 14126-14131.	1.1	812
196	Multiple-scattering x-ray-absorption fine-structure analysis and thermal expansion of alkali halides. Physical Review B, 1993, 48, 12449-12458.	1.1	66
197	Anomalous temperature behavior of Sn impurities. Physical Review B, 1993, 47, 14032-14043.	1.1	13
198	Buckled crystalline structure of mixed ionic salts. Physical Review Letters, 1993, 71, 3485-3488.	2.9	54

#	ARTICLE	IF	CITATIONS
199	Anomalous Temperature Behavior of Impurities in Lead and Silver Hosts. Japanese Journal of Applied Physics, 1993, 32, 628.	0.8	1
200	An Improved Background Removal Method for XAFS. Japanese Journal of Applied Physics, 1993, 32, 125.	0.8	14
201	Cation Exchange in Smectites as a New Approach to Mineral Carbonation. Frontiers in Climate, 0, 4, .	1.3	9