

# John McCloy

## List of Publications by Year in descending order

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184  
papers

4,054  
citations

147566

31  
h-index

168136

53  
g-index

194  
all docs

194  
docs citations

194  
times ranked

4189  
citing authors

#	ARTICLE	IF	CITATIONS
1	Materials and processes for the effective capture and immobilization of radioiodine: A review. Journal of Nuclear Materials, 2016, 470, 307-326.	1.3	437
2	Combined Charge Carrier Transport and Photoelectrochemical Characterization of BiVO <sub>4</sub> Single Crystals: Intrinsic Behavior of a Complex Metal Oxide. Journal of the American Chemical Society, 2013, 135, 11389-11396.	6.6	435
3	Glass-ceramics for nuclear-waste immobilization. MRS Bulletin, 2017, 42, 233-240.	1.7	91
4	Electrical transport properties of Ti-doped Fe $\frac{O}{O_3}$ epitaxial films. Physical Review B, 2011, 84, .	1.1	85
5	Cold crucible induction melter studies for making glass ceramic waste forms: A feasibility assessment. Journal of Nuclear Materials, 2014, 444, 481-492.	1.3	82
6	Anisotropic small-polaron hopping in W:BiVO <sub>4</sub> single crystals. Applied Physics Letters, 2015, 106, .	1.5	75
7	Magnetic analysis of commercial hematite, magnetite, and their mixtures. AIP Advances, 2018, 8, .	0.6	69
8	Magnetic properties of double perovskite La <sub>2</sub> BMnO <sub>6</sub> (B = Ni or Co) nanoparticles. Nanoscale, 2013, 5, 4720.	2.8	66
9	Challenges with vitrification of Hanford High-Level Waste (HLW) to borosilicate glass – An overview. Journal of Non-Crystalline Solids: X, 2019, 4, 100033.	0.5	65
10	Rhenium Solubility in Borosilicate Nuclear Waste Glass: Implications for the Processing and Immobilization of Technetium-99. Environmental Science & Technology, 2012, 46, 12616-12622.	4.6	62
11	Iodine solubility in a low-activity waste borosilicate glass at 1000°C. Journal of Nuclear Materials, 2014, 452, 178-188.	1.3	60
12	Recycled concrete and brick powders as supplements to Portland cement for more sustainable concrete. Journal of Cleaner Production, 2022, 364, 132651.	4.6	59
13	Effects of Temperature, Pressure, and Metal Promoter on the Recrystallized Structure and Optical Transmission of Chemical Vapor Deposited Zinc Sulfide. Journal of the American Ceramic Society, 2009, 92, 1725-1731.	1.9	57
14	Hysteresis in single and polycrystalline iron thin films: Major and minor loops, first order reversal curves, and Preisach modeling. Journal of Magnetism and Magnetic Materials, 2015, 395, 361-375.	1.0	57
15	Size Dependence of Inter- and Intracluster Interactions in Core-Shell Iron-Iron Oxide Nanoclusters. Journal of Physical Chemistry C, 2012, 116, 12875-12885.	1.5	55
16	Structural model of homogeneous As <sub>2</sub> S glasses derived from Raman spectroscopy and high-resolution XPS. Philosophical Magazine, 2010, 90, 4489-4501.	0.7	52
17	Structure, electrical characteristics, and high-temperature stability of aerosol jet printed silver nanoparticle films. Journal of Applied Physics, 2016, 120, .	1.1	52
18	Glass-bonded iodosodalite waste form for immobilization of 129I. Journal of Nuclear Materials, 2018, 504, 109-121.	1.3	50

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19	Wet chemical synthesis of apatite-based waste forms – A novel room temperature method for the immobilization of radioactive iodine. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14331-14342.	5.2	43
20	Nepheline crystallization in boron-rich aluminosilicate glasses as investigated by multi-nuclear NMR, Raman, & Mössbauer spectroscopies. <i>Journal of Non-Crystalline Solids</i> , 2015, 409, 149-165.	1.5	42
21	Nepheline Crystallization in Nuclear Waste Glasses: Progress Toward Acceptance of High-Alumina Formulations. <i>International Journal of Applied Glass Science</i> , 2011, 2, 201-214.	1.0	41
22	Tellurite glass as a waste form for mixed alkali-chloride waste streams: Candidate materials selection and initial testing. <i>Journal of Nuclear Materials</i> , 2012, 424, 29-37.	1.3	41
23	Compositional Dependence of Solubility/Retention of Molybdenum Oxides in Aluminoborosilicate-Based Model Nuclear Waste Glasses. <i>Journal of Physical Chemistry B</i> , 2018, 122, 1714-1729.	1.2	41
24	Understanding the structural origin of crystalline phase transformations in nepheline (NaAlSiO <sub>4</sub> )-based glass-ceramics. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2859-2878.	1.9	40
25	Redox-dependent solubility of technetium in low activity waste glass. <i>Journal of Nuclear Materials</i> , 2014, 449, 173-180.	1.3	37
26	Elucidating the Effect of Iron Speciation (Fe <sup>2+</sup> /Fe <sup>3+</sup> ) on Crystallization Kinetics of Sodium Aluminosilicate Glasses. <i>Journal of the American Ceramic Society</i> , 2016, 99, 2306-2315.	1.9	36
27	Raman analysis of perrhenate and pertechnetate in alkali salts and borosilicate glasses. <i>Journal of Raman Spectroscopy</i> , 2014, 45, 139-147.	1.2	35
28	Impact of rare earth ion size on the phase evolution of MoO <sub>3</sub> -containing aluminoborosilicate glass-ceramics. <i>Journal of Nuclear Materials</i> , 2018, 510, 539-550.	1.3	35
29	Crystallization of iron-containing sodium aluminosilicate glasses in the NaAlSiO <sub>4</sub> -NaFeSiO <sub>4</sub> join. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 2504-2524.	1.4	33
30	Synthesis and characterization of iodosodalite. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2273-2284.	1.9	33
31	Photoluminescence in Chemical Vapor Deposited ZnS: insight into electronic defects. <i>Optical Materials Express</i> , 2013, 3, 1273.	1.6	31
32	Lanthanum modification of crystalline phases and residual glass in augite glass ceramics produced with industrial solid wastes. <i>Journal of Non-Crystalline Solids</i> , 2019, 524, 119638.	1.5	31
33	Structural analysis of some sodium and alumina rich high-level nuclear waste glasses. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 674-679.	1.5	30
34	Luminescence of undoped commercial ZnS crystals: A critical review and new evidence on the role of impurities using photoluminescence and electrical transient spectroscopy. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	29
35	Crystallization behavior of iron- and boron-containing nepheline (Na <sub>2</sub> O·Al <sub>2</sub> O <sub>3</sub> ·2SiO <sub>2</sub> ) based model high-level nuclear waste glasses. <i>Journal of the American Ceramic Society</i> , 2019, 102, 1101-1121.	1.9	28
36	Nepheline structural and chemical dependence on melt composition. <i>American Mineralogist</i> , 2016, 101, 266-276.	0.9	27

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37	Sublattice Magnetic Relaxation in Rare Earth Iron Garnets. IEEE Transactions on Magnetics, 2013, 49, 4253-4256.	1.2	26
38	Chemical Trends in Solid Alkali Perchnetates. Inorganic Chemistry, 2017, 56, 2533-2544.	1.9	26
39	Ultrafast Fabrication of Thermoelectric Films by Pulsed Light Sintering of Colloidal Nanoparticles on Flexible and Rigid Substrates. Advanced Engineering Materials, 2019, 21, 1800800.	1.6	26
40	Vitrification of wastes: from unwanted to controlled crystallization, a review. Comptes Rendus - Geoscience, 2022, 354, 121-160.	0.4	26
41	Structure of Rhenium-Containing Sodium Borosilicate Glass. International Journal of Applied Glass Science, 2013, 4, 42-52.	1.0	25
42	Solution-Derived, Chloride-Containing Minerals as a Waste Form for Alkali Chlorides. Journal of the American Ceramic Society, 2012, 95, 3115-3123.	1.9	24
43	Structural dependence of crystallization in glasses along the nepheline (NaAlSi <sub>4</sub> ) - eucryptite (LiAlSi <sub>4</sub> ) join. Journal of the American Ceramic Society, 2018, 101, 2840-2855.	1.9	24
44	Structure-optical property correlations of arsenic sulfide glasses in visible, infrared, and sub-millimeter regions. Journal of Non-Crystalline Solids, 2010, 356, 1288-1293.	1.5	23
45	Radiation effects in physical aging of binary As-S and As-Se glasses. Journal of Thermal Analysis and Calorimetry, 2011, 103, 213-218.	2.0	23
46	Oxidation and anion lattice defect signatures of hypostoichiometric lanthanide-doped UO <sub>2</sub> . Journal of Nuclear Materials, 2020, 530, 151959.	1.3	23
47	High-Temperature Thermodynamics of Cerium Silicates, A-Ce <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> , and Ce <sub>4.67</sub> (SiO <sub>4</sub> ) <sub>3</sub> O. ACS Earth and Space Chemistry, 2020, 4, 2129-2143.	1.2	23
48	Electronic and optical properties of Zn-doped $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> Czochralski single crystals. Journal of Applied Physics, 2021, 129, .	1.1	23
49	The Predictive Power of Electronic Polarizability for Tailoring the Refractivity of High-Index Glasses: Optical Basicity Versus the Single Oscillator Model. Journal of the American Ceramic Society, 2010, 93, 1650-1662.	1.9	22
50	Zn acceptors in $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> crystals. Journal of Applied Physics, 2021, 129, .	1.1	22
51	Structure and Chemistry in Halide Lead-Tellurite Glasses. Journal of Physical Chemistry C, 2013, 117, 3456-3466.	1.5	21
52	Exchange bias in core-shell iron-iron oxide nanoclusters. Journal of Applied Physics, 2013, 113, 17D715.	1.1	21
53	Gallium vacancy formation in oxygen annealed $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub> . Journal of Applied Physics, 2021, 129, .	1.1	21
54	Millimeter-wave dielectric properties of single-crystal ferroelectric and dielectric materials. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 18-29.	1.7	20

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55	Crystallization of Rhenium Salts in a Simulated Low-Activity Waste Borosilicate Glass. Journal of the American Ceramic Society, 2013, 96, 1150-1157.	1.9	20
56	Magnetization and susceptibility of ion-irradiated granular magnetite films. Physical Review B, 2011, 83, .	1.1	19
57	Impact of hydrogen and oxygen defects on the lattice parameter of chemical vapor deposited zinc sulfide. Journal of Applied Physics, 2013, 113, .	1.1	19
58	Investigation of magnetic signatures and microstructures for heat-treated ferritic/martensitic HT-9 alloy. Acta Materialia, 2013, 61, 3285-3296.	3.8	19
59	Iodosodalite synthesis with hot isostatic pressing of precursors produced from aqueous and hydrothermal processes. Journal of Nuclear Materials, 2020, 538, 152222.	1.3	18
60	Thermal properties of sodium borosilicate glasses as a function of sulfur content. Journal of the American Ceramic Society, 2020, 103, 3610-3619.	1.9	18
61	A MnO <sub>x</sub> enhanced atomically dispersed iron-nitrogen-carbon catalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2022, 10, 5981-5989.	5.2	18
62	Polycrystalline yttrium aluminum garnet (YAG) for IR transparent missile domes and windows. , 2007, , .		17
63	Magnetic behavior of Ni and Co doped CuMn <sub>2</sub> O <sub>4</sub> spinels. Journal of Applied Physics, 2012, 111, .	1.1	17
64	Design considerations for high-Q bandpass microwave oscillator sensors based upon resonant amplification. Applied Physics Letters, 2014, 104, .	1.5	17
65	The use of positrons to survey alteration layers on synthetic nuclear waste glasses. Journal of Nuclear Materials, 2017, 490, 75-84.	1.3	17
66	Iodosodalite Waste Forms from Low-Temperature Aqueous Process. MRS Advances, 2018, 3, 1093-1103.	0.5	17
67	Synthesis of greigite (Fe <sub>3</sub> S <sub>4</sub> ) particles via a hydrothermal method. AIP Advances, 2019, 9, .	0.6	17
68	Compensation of Shallow Donors by Gallium Vacancies in Monoclinic $\text{Fe}_2\text{O}_3$ - $\text{Ga}_2\text{O}_3$ Physical Review Applied, 2021, 15, .		17
69	Ferromagnetic resonance of micro- and nano-sized hexagonal ferrite powders at millimeter waves. Journal of Applied Physics, 2012, 111, .	1.1	16
70	Effect of extended defects on photoluminescence of gallium oxide and aluminum gallium oxide epitaxial films. Scientific Reports, 2022, 12, 3243.	1.6	16
71	Alloyed $\text{Fe}_2(\text{Al}_{1-x}\text{Ga}_x)_2\text{O}_3$ bulk Czochralski single $\text{Fe}_2(\text{Al}_{0.1}\text{Ga}_{0.9})_2\text{O}_3$ and polycrystals	1.1	16
72	Methods for prediction of refractive index in glasses for the infrared. Proceedings of SPIE, 2011, , .	0.8	15

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73	Scintillation and luminescence in transparent colorless single and polycrystalline bulk ceramic ZnS. Journal of Luminescence, 2015, 157, 416-423.	1.5	15
74	Boron-speciation and aluminosilicate crystallization in alkali boroaluminosilicate glasses along the NaAl <sub>1-x</sub> B <sub>x</sub> SiO <sub>4</sub> and LiAl <sub>1-x</sub> B <sub>x</sub> SiO <sub>4</sub> joins. Journal of Non-Crystalline Solids, 2019, 506, 58-67.	1.5	15
75	Chemical Vapor Deposited Zinc Sulfide. , 2013, , .		15
76	International development of chemical vapor deposited zinc sulfide. , 2007, , .		14
77	In Situ Study of Nanostructure and Electrical Resistance of Nanocluster Films Irradiated with Ion Beams. Advanced Functional Materials, 2014, 24, 6210-6218.	7.8	14
78	Infrared-transparent glass ceramics: An exploratory study. Journal of Non-Crystalline Solids, 2015, 410, 160-173.	1.5	14
79	Electrical and Magnetic Properties Modification in Heavy Ion Irradiated Nanograin Ni <sub>x</sub> Co <sub>3-x</sub> O <sub>4</sub> Films. Journal of Physical Chemistry C, 2015, 119, 22465-22476.	1.5	14
80	Modeling and experimental determination of physical properties of GexGaySe1-x-y chalcogenide glasses II: Optical and thermal properties. Journal of Non-Crystalline Solids, 2019, 511, 115-124.	1.5	14
81	Modeling and experimental determination of physical properties of Gex-Gay-Se1-x-y chalcogenide glasses I: Structure and mechanical properties. Journal of Non-Crystalline Solids, 2019, 510, 192-199.	1.5	14
82	Role of short range order on crystallization of tectosilicate glasses: A diffraction study. Journal of Non-Crystalline Solids, 2019, 505, 131-143.	1.5	14
83	Ion irradiation of Fe-Fe oxide core-shell nanocluster films: Effect of interface on stability of magnetic properties. Journal of Applied Physics, 2013, 114, .	1.1	13
84	Spectroscopic and neutron detection properties of rare earth and titanium doped LiAlO <sub>2</sub> single crystals. Journal of Luminescence, 2017, 190, 242-248.	1.5	13
85	Preâ€Viking Swedish hillfort glass: A prospective longâ€term alteration analogue for vitrified nuclear waste. International Journal of Applied Glass Science, 2018, 9, 540-554.	1.0	13
86	Gamma Radiation Effects on Physical, Optical, and Structural Properties of Binary Asâ€S Glasses. Journal of the American Ceramic Society, 2012, 95, 1048-1055.	1.9	12
87	Computational and experimental investigations of magnetic domain structures in patterned magnetic thin films. Journal Physics D: Applied Physics, 2015, 48, 305001.	1.3	12
88	A dataâ€driven approach for predicting nepheline crystallization in highâ€level waste glasses. Journal of the American Ceramic Society, 2020, 103, 4913-4924.	1.9	12
89	Alternatives to Cobalt: Vanadate Glass and Glass-Ceramic Structures as Cathode Materials for Rechargeable Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 629-638.	3.2	12
90	Photodarkening and dopant segregation in Cu-doped Î²-Ga <sub>2</sub> O <sub>3</sub> Czochralski single crystals. Journal of Crystal Growth, 2022, 578, 126419.	0.7	12

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91	Ga-doped ZnO grown by pulsed laser deposition in H <sub>2</sub> : The roles of Ga and H. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, 03A102.	0.9	11
92	Crystallization study of rare earth and molybdenum containing nuclear waste glass ceramics. Journal of the American Ceramic Society, 2019, 102, 5149-5163.	1.9	11
93	Partitioning of rare earths in multiphase nuclear waste glass-ceramics. International Journal of Applied Glass Science, 2020, 11, 660-675.	1.0	11
94	Benefits of using multiple Raman laser wavelengths for characterizing defects in a UO <sub>2</sub> matrix. Journal of Raman Spectroscopy, 2022, 53, 988-1002.	1.2	11
95	Magnetotransport properties of high quality Co:ZnO and Mn:ZnO single crystal pulsed laser deposition films: Pitfalls associated with magnetotransport on high resistivity materials. Review of Scientific Instruments, 2010, 81, 063902.	0.6	10
96	Anisotropy in structural and optical properties of chemical vapor deposited ZnS. , 2011, , .		10
97	Use of first order reversal curve measurements to understand Barkhausen noise emission in nuclear steel. AIP Conference Proceedings, 2013, , .	0.3	10
98	Percolation behavior of Ag in Ge <sub>16</sub> Sb <sub>12</sub> Se <sub>72</sub> glassy matrix and its impact on corresponding ionic conductivity. Journal of Alloys and Compounds, 2019, 782, 375-383.	2.8	10
99	Effect of Ti <sup>4+</sup> on the structure of nepheline (NaAlSiO <sub>4</sub> ) glass. Geochimica Et Cosmochimica Acta, 2020, 290, 333-351.	1.6	10
100	Structure of NaFeSiO <sub>4</sub> , NaFeSi <sub>2</sub> O <sub>6</sub> , and NaFeSi <sub>3</sub> O <sub>8</sub> glasses and glass-ceramics. American Mineralogist, 2020, 105, 1375-1384.	0.9	10
101	In situ pair distribution function analysis of crystallizing Fe-silicate melts. Journal of Materials Science, 2021, 56, 5637-5657.	1.7	10
102	Magnetization Measurements and XMCD Studies on Ion Irradiated Iron Oxide and Core-Shell Iron/Iron-Oxide Nanomaterials. IEEE Transactions on Magnetics, 2014, 50, 1-5.	1.2	9
103	Formation of Technetium Salts in Hanford Low-Activity Waste Glass. Journal of the American Ceramic Society, 2016, 99, 3924-3931.	1.9	9
104	Properties of Pertechnic Acid. Inorganic Chemistry, 2019, 58, 14015-14023.	1.9	9
105	Structural properties of alumina-doped lithium borovanadate glasses and glass-ceramics. Journal of Non-Crystalline Solids, 2019, 521, 119551.	1.5	9
106	Reproduction of melting behavior for vitrified hillforts based on amphibolite, granite, and basalt lithologies. Scientific Reports, 2021, 11, 1272.	1.6	9
107	Thermodynamic non-ideality and disorder heterogeneity in actinide silicate solid solutions. Npj Materials Degradation, 2021, 5, .	2.6	9
108	Process optimization of caustic scrubber and iodine-129 immobilization in sodalite-based waste forms. MRS Advances, 2022, 7, 110-116.	0.5	9

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109	Infrared-transmitting glass-ceramics: a review. Proceedings of SPIE, 2013, , .	0.8	8
110	Effect of Li, Fe, and B Addition on the Crystallization Behavior of Sodium Aluminosilicate Glasses as Analogues for Hanford High Level Waste Glasses. MRS Advances, 2017, 2, 549-555.	0.5	8
111	Zinc-hydrogen and zinc-iridium pairs in $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2021, 119, .	1.5	8
112	Improved Nd distribution in Czochralski grown YAG crystals by implementation of the accelerated crucible rotation technique. Optical Materials Express, 2020, 10, 632.	1.6	8
113	Cu <sup>2+</sup> and Cu <sup>3+</sup> acceptors in $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> crystals: A magnetic resonance and optical absorption study. Journal of Applied Physics, 2022, 131, .	1.1	8
114	Structure and thermodynamics of calcium rare earth silicate oxyapatites, Ca <sub>2</sub> RE <sub>8</sub> (SiO <sub>4</sub> ) <sub>6</sub> O <sub>2</sub> (RE=Pr, Tb, Tm, Yb, Lu, Sc, Er, Ho, Gd, Sm, Eu, Dy, Nd, Ce, La). Journal of Applied Physics, 2019, 125, 083501.	0.3	8
115	Variability in chemical vapor deposited zinc sulfide: assessment of legacy and international CVD ZnS materials. Proceedings of SPIE, 2009, , .	0.8	7
116	Oxide shell reduction and magnetic property changes in core-shell Fe nanoclusters under ion irradiation. Journal of Applied Physics, 2014, 115, 17B507.	1.1	7
117	Sol-gel synthesis of iodosalite precursors and subsequent consolidation with a glass binder made from oxides and sol-gel routes. Journal of Sol-Gel Science and Technology, 2020, 96, 564-575.	1.1	7
118	Persistent Room-Temperature Photodarkening in Cu-Doped $\hat{2}$ -Ga <sub>2</sub> O <sub>3</sub> Crystals. Physical Review Letters, 2022, 128, 077402.	1.1	7
119	Thermal and gamma-ray induced relaxation in As <sup>3+</sup> S glasses: modelling and experiment. Journal Physics D: Applied Physics, 2011, 44, 395402.	1.3	6
120	The effect of concentration on the structure and crystallinity of a cementitious waste form for caustic wastes. Journal of Nuclear Materials, 2013, 437, 332-340.	1.3	6
121	Regenerative feedback resonant circuit to detect transient changes in electromagnetic properties of semi-insulating materials. Review of Scientific Instruments, 2013, 84, 084703.	0.6	6
122	Wet Chemical and UV-Vis Spectrometric Iron Speciation in Quenched Low and Intermediate Level Nuclear Waste Glasses. Materials Research Society Symposia Proceedings, 2015, 1744, 93-100.	0.1	6
123	High Temperature Physical and Chemical Stability and Oxidation Reaction Kinetics of Ni-Cr Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 4018-4028.	1.5	6
124	Multiphase magnetic systems: Measurement and simulation. Journal of Applied Physics, 2018, 123, 023902.	1.1	6
125	Structure and properties of Na <sub>5</sub> FeSi <sub>4</sub> O <sub>12</sub> crystallized from 5Na <sub>2</sub> O-Fe <sub>2</sub> O <sub>3</sub> -8SiO <sub>2</sub> glass. Acta Crystallographica Section C, Structural Chemistry, 2018, 74, 1595-1602.	0.2	6
126	Frontiers in natural and un-natural glasses: An interdisciplinary dialogue and review. Journal of Non-Crystalline Solids: X, 2019, 4, 100035.	0.5	6



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127	Ion irradiation induced changes in defects of iron thin films: Electron microscopy and positron annihilation spectroscopy. <i>Journal of Nuclear Materials</i> , 2019, 526, 151774.	1.3	6
128	Glass structure and crystallization in boro-alumino-silicate glasses containing rare earth and transition metal cations: a US-UK collaborative program. <i>MRS Advances</i> , 2019, 4, 1029-1043.	0.5	6
129	Syntheses and Crystal Structures of Rare-Earth Oxyapatites $\text{Ca}_2\text{RE}_8(\text{SiO}_4)_6\text{O}_2$ (RE = Pr, Tb, Ho, Tm). <i>Journal of Chemical Crystallography</i> , 2021, 51, 293-300.	0.5	6
130	Atomic-scale characterization of structural and electronic properties of Hf doped $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$ . <i>Applied Physics Letters</i> , 2021, 119, .	1.5	6
131	Correlating Sulfur Solubility with Short-to-Intermediate Range Ordering in the Structure of Borosilicate Glasses. <i>Journal of Physical Chemistry C</i> , 2022, 126, 655-674.	1.5	6
132	Size effects on gamma radiation response of magnetic properties of barium hexaferrite powders. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	5
133	Rapid assessment of mid-infrared refractive index anisotropy using a prism coupler: chemical vapor deposited ZnS. <i>Optics Letters</i> , 2012, 37, 1403.	1.7	5
134	Millimeter-Wave Absorption as a Quality Control Tool for M-Type Hexaferrite Nanopowders. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 546-551.	1.2	5
135	Exchange bias in polycrystalline magnetite films made by ion-beam assisted deposition. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	5
136	Niche Partitioning of Microbial Communities at an Ancient Vitrified Hillfort: Implications for Vitrified Radioactive Waste Disposal. <i>Geomicrobiology Journal</i> , 2021, 38, 36-56.	1.0	5
137	Applying laboratory methods for durability assessment of vitrified material to archaeological samples. <i>Npj Materials Degradation</i> , 2021, 5, .	2.6	5
138	Electronic and ionic conductivity in $\hat{\text{I}}^2\text{-Ga}_2\text{O}_3$ single crystals. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	5
139	Effects of domain, grain, and magnetic anisotropy distributions on magnetic permeability: Monte-Carlo approach. <i>Journal of Applied Physics</i> , 2012, 112, 023904.	1.1	4
140	Frequency dependent optical and dielectric properties of zinc sulfide in Terahertz regime. <i>Infrared Physics and Technology</i> , 2014, 65, 67-71.	1.3	4
141	A Sampling Method for Semi-Quantitative and Quantitative Electron Microprobe Analysis of Glass Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 2015, 1744, 101-106.	0.1	4
142	Effects of aging time and temperature of Fe-1wt.%Cu on magnetic Barkhausen noise and FORC. <i>AIP Advances</i> , 2016, 6, 055935.	0.6	4
143	Effect of defects, magnetocrystalline anisotropy, and shape anisotropy on magnetic structure of iron thin films by magnetic force microscopy. <i>AIP Advances</i> , 2017, 7, .	0.6	4
144	Structural Characterization of Ternary Salt Melts for Low Activity Waste Applications. <i>MRS Advances</i> , 2019, 4, 1045-1056.	0.5	4

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145	Structures of fluoride containing aluminosilicate low activity nuclear waste glasses: A molecular dynamics simulations study. <i>Journal of Non-Crystalline Solids</i> , 2020, 550, 120379.	1.5	4
146	Chromium and vanadium incorporation in sulfate-containing sodium aluminoborosilicate glass. <i>MRS Advances</i> , 2021, 6, 138-148.	0.5	4
147	Assessment of positrons for defect studies in CeO <sub>2</sub> materials. <i>MRS Advances</i> , 2021, 6, 119-124.	0.5	4
148	Magnetic stability of He <sup>+</sup> -ion irradiated FeO+Fe <sub>3</sub> N granular films. <i>Journal of Applied Physics</i> , 2011, 109, 07E324.	1.1	4
149	Characterization of vacancy type defects in irradiated UO <sub>2</sub> and CeO <sub>2</sub> . <i>MRS Advances</i> , 2022, 7, 123-127.	0.5	4
150	Scoping studies for low-temperature melting ZnO+Bi <sub>2</sub> O <sub>3</sub> +(B <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> ) binder glass. <i>MRS Advances</i> , 2022, 7, 90-94.	0.5	4
151	Simultaneous measurement of temperature and emissivity of lunar regolith simulant using dual-channel millimeter-wave radiometry. <i>Review of Scientific Instruments</i> , 2011, 82, 054703.	0.6	3
152	Structure and magnetic properties of irradiated Fe-Fe oxide core-shell nanoclusters. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	3
153	Synthesis and Characterization of 5- and 6- Coordinated Alkali Peractinates. <i>MRS Advances</i> , 2017, 2, 525-542.	0.5	3
154	Tetragonal-Like Phase in Core-Shell Iron Iron-Oxide Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11794-11803.	1.5	3
155	Structural characterization of ZnSO <sub>4</sub> -K <sub>2</sub> SO <sub>4</sub> -NaCl glasses. <i>Journal of Non-Crystalline Solids</i> , 2019, 524, 119639.	1.5	3
156	Machine learning to predict refractory corrosion during nuclear waste vitrification. <i>MRS Advances</i> , 2021, 6, 131-137.	0.5	3
157	Structure of amorphous aluminosilicates obtained from mineral transformation: Potential path for partial remediation of alkaline bauxite residues. <i>Environmental Advances</i> , 2021, 6, 100136.	2.2	3
158	Impact of non-framework cation mixing on the structure and crystallization behavior of model high-level waste glasses. <i>Journal of the American Ceramic Society</i> , 2022, 105, 3967-3985.	1.9	3
159	Major to trace element imaging and analysis of iron age glasses using stage scanning in the analytical dual beam microscope (tandem). <i>Heritage Science</i> , 2022, 10, .	1.0	3
160	Millimeter wave rheometry: theory and experiment. <i>Rheologica Acta</i> , 2011, 50, 125-130.	1.1	2
161	Nepheline Crystallization in High-Alumina High-Level Waste Glass. <i>Materials Research Society Symposia Proceedings</i> , 2015, 1744, 85-91.	0.1	2
162	Meso-scale magnetic signatures for nuclear reactor steel irradiation embrittlement monitoring. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
163	Evaluation of undoped ZnS single crystal materials for x-ray imaging applications. Proceedings of SPIE, 2017, , .	0.8	2
164	Compositional Imaging and Analysis of Late Iron Age Glass from the Broborg Vitrified Hillfort, Sweden. Microscopy and Microanalysis, 2018, 24, 2134-2135.	0.2	2
165	Relationship between nanostructure-magnetic property induced by temperature for iron oxide nanoparticles in vacuum, Ar and O <sub>2</sub> environments. Journal of Magnetism and Magnetic Materials, 2020, 498, 166158.	1.0	2
166	Archaeomagnetic dating of vitrified Broborg hillfort in southeast Uppsala, Sweden. Journal of Archaeological Science: Reports, 2020, 31, 102311.	0.2	2
167	Growth and defect characterization of doped and undoped $\hat{1}^2$ -Ga <sub>2</sub> O <sub>3</sub> crystals. , 2022, , .		2
168	Semi-empirical scattering model for chemical vapor deposited zinc sulfide. , 2009, , .		1
169	The effect of metal on the formation of multispectral zinc sulfide. Proceedings of SPIE, 2009, , .	0.8	1
170	Transmittance measurements on micro- and nano-sized ferrite powders in millimeter waves. , 2011, , .		1
171	Challenges and Solutions for Handling and Characterizing Alkali-Tc-Oxide Salts. MRS Advances, 2018, 3, 1191-1200.	0.5	1
172	Jean Kempite, Ca <sub>5</sub> (AsO <sub>4</sub> ) <sub>2</sub> (AsO <sub>3</sub> OH) <sub>2</sub> (H <sub>2</sub> O) <sub>7</sub> , a new arsenate mineral from the Mohawk Mine, Keweenaw County, Michigan, USA. Mineralogical Magazine, 2020, 84, 959-969.	0.6	1
173	<i>In situ</i> crystallization and magnetic measurement of hexaferrite glass-ceramics. AIP Advances, 2021, 11, .	0.6	1
174	Melt Growth of High-Resolution CdZnTe Detectors. , 2022, , 265-284.		1
175	A comparative study on the effect of Zr, Sn, and Ti on the crystallization behavior of nepheline glass. Journal of Non-Crystalline Solids, 2021, 569, 120970.	1.5	1
176	Assessment of the reason for the vitrification of a wall at a hillfort. The example of Broborg in Sweden. Journal of Archaeological Science: Reports, 2022, 43, 103459.	0.2	1
177	High Temperature Millimeter Wave Radiometric and Interferometric Measurements of Slag-Refractory Interaction for Application to Coal Gasifiers. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1337-1349.	1.2	0
178	Spectral study of oxide-shell in core-shell iron nanoclusters. , 2015, , .		0
179	Chemometric analyses of XANES data collected on <sup>99</sup> Tc bearing silicate glasses. Journal of Radioanalytical and Nuclear Chemistry, 2018, 316, 17-27.	0.7	0
180	Method Development for High Temperature In-Situ Neutron Diffraction Measurements of Glass Crystallization on Cooling from Melt. MRS Advances, 2019, 4, 1009-1019.	0.5	0

#	ARTICLE	IF	CITATIONS
181	Computational and experimental identification of hydrogen defect vibrational modes in zinc sulfide. Journal of Applied Physics, 2019, 126, 173101.	1.1	0
182	Low Temperature Sequential Melting and Anion Retention in Simplified Low Activity Waste. MRS Advances, 2020, 5, 195-206.	0.5	0
183	Spin and Ferroic Glasses. Springer Handbooks, 2019, , 687-718.	0.3	0
184	Multivariate analysis: An essential for studying complex glasses. Journal of the American Ceramic Society, 2022, 105, 7196-7210.	1.9	0