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List of Publications by Year in descending order

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72 papers	2,531 citations	147801 31 h-index	197818 49 g-index
73 all docs	73 docs citations	73 times ranked	1701 citing authors

#	Article	IF	Citations
1	Review of A2B2O7 pyrochlore response to irradiation and pressure. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2951-2959.	1.4	202
2	Probing disorder in isometric pyrochlore and related complex oxides. Nature Materials, 2016, 15, 507-511.	27.5	164
3	Single-ion tracks in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Gd</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2009, 79, .	3.2	126
4	Enhanced radiation resistance of nanocrystalline pyrochlore Gd2(Ti0.65Zr0.35)2O7. Applied Physics Letters, 2009, 94, .	3.3	98
5	Nanoscale phase transitions under extreme conditions within an ion track. Journal of Materials Research, 2010, 25, 1344-1351.	2.6	87
6	Nanoscale manipulation of the properties of solids at high pressure with relativistic heavy ions. Nature Materials, 2009, 8, 793-797.	27.5	85
7	A Critical Review of Existing Criteria for the Prediction of Pyrochlore Formation and Stability. Inorganic Chemistry, 2018, 57, 12093-12105.	4.0	78
8	Redox response of actinide materials to highly ionizing radiation. Nature Communications, 2015, 6, 6133.	12.8	72
9	Advances in understanding of swift heavy-ion tracks in complex ceramics. Current Opinion in Solid State and Materials Science, 2015, 19, 39-48.	11.5	66
10	Structural response of titanate pyrochlores to swift heavy ion irradiation. Acta Materialia, 2016, 117, 207-215.	7.9	64
11	Response of Gd2Ti2O7 and La2Ti2O7 to swift-heavy ion irradiation and annealing. Acta Materialia, 2015, 93, 1-11.	7.9	62
12	Similar local order in disordered fluorite and aperiodic pyrochlore structures. Acta Materialia, 2018, 144, 60-67.	7.9	60
13	Thermal annealing mechanisms of latent fission tracks: Apatite vs. zircon. Earth and Planetary Science Letters, 2011, 302, 227-235.	4.4	58
14	Role of composition, bond covalency, and short-range order in the disordering of stannate pyrochlores by swift heavy ion irradiation. Physical Review B, 2016, 94, .	3.2	53
15	Phase Transitions in Solids Stimulated by Simultaneous Exposure to High Pressure and Relativistic Heavy Ions. Physical Review Letters, 2006, 96, 195701.	7.8	51
16	Inversion in Mg_{1â€“x}Ni_xAl₂O₄ Spinel: New Insight into Local Structure. Journal of the American Chemical Society, 2017, 139, 10395-10402.	13.7	50
17	Thermal annealing of unetched fission tracks in apatite. Earth and Planetary Science Letters, 2012, 321-322, 121-127.	4.4	49
18	Swift heavy ion track formation in Gd2Zr2â”Ti O7 pyrochlore: Effect of electronic energy loss. Nuclear Instruments & Methods in Physics Research B, 2014, 336, 102-115.	1.4	48

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19	Grain size effects on irradiated CeO2, ThO2, and UO2. Acta Materialia, 2018, 160, 47-56.	7.9	45
20	Irradiation-induced stabilization of zircon (ZrSiO4) at high pressure. Earth and Planetary Science Letters, 2008, 269, 291-295.	4.4	44
21	Forging Fast Ion Conducting Nanochannels with Swift Heavy Ions: The Correlated Role of Local Electronic and Atomic Structure. Journal of Physical Chemistry C, 2017, 121, 975-981.	3.1	44
22	Structural response of A2TiO5 (A = La, Nd, Sm, Gd) to swift heavy ion irradiation. Acta Materialia, 2012, 60, 4477-4486.	7.9	42
23	Amorphization of nanocrystalline monoclinic ZrO2 by swift heavy ion irradiation. Physical Chemistry Chemical Physics, 2012, 14, 12295.	2.8	42
24	Ion-irradiation-induced structural transitions in orthorhombic Ln2TiO5. Acta Materialia, 2013, 61, 4191-4199.	7.9	41
25	Defect accumulation in ThO2 irradiated with swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 169-173.	1.4	41
26	Phase transformations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ln</mml:mi><mml:mn>2</mml:mn></mml:r mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>materials irradiated with swift heavy ions. Physical Review B, 2015, 92, .	3.2	41
27	Fission tracks simulated by swift heavy ions at crustal pressures and temperatures. Earth and Planetary Science Letters, 2008, 274, 355-358.	4.4	40
28	Characterization of ion-induced radiation effects in nuclear materials using synchrotron x-ray techniques. Journal of Materials Research, 2015, 30, 1366-1379.	2.6	36
29	Defect accumulation in swift heavy ion-irradiated CeO₂ and ThO₂. Journal of Materials Chemistry A, 2017, 5, 12193-12201.	10.3	36
30	Swift heavy ion-induced amorphization of CaZrO3 perovskite. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 271-276.	1.4	33
31	Thermodynamic and structural evolution of Dy2Ti2O7 pyrochlore after swift heavy ion irradiation. Acta Materialia, 2018, 145, 227-234.	7.9	33
32	Swift heavy ion-induced phase transformation in Gd2O3. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 121-125.	1.4	31
33	Disorder in Ho₂Ti_{2â^'x}Zr_xO₇: pyrochlore to defect fluorite solid solution series. RSC Advances, 2020, 10, 34632-34650.	3.6	31
34	Liquid-like phase formation in Gd2Zr2O7 by extremely ionizing irradiation. Journal of Applied Physics, 2009, 105, .	2.5	30
35	Effect of orientation on ion track formation in apatite and zircon. American Mineralogist, 2014, 99, 1127-1132.	1.9	26
36	Swift heavy ion irradiation-induced amorphization of La2Ti2O7. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 145-149.	1.4	25

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37	In situ defect annealing of swift heavy ion irradiated CeO₂ and ThO₂ using synchrotron X-ray diffraction and a hydrothermal diamond anvil cell. Journal of Applied Crystallography, 2015, 48, 711-717.	4.5	25
38	Chemical ordering in substituted fluorite oxides: a computational investigation of Ho2Zr2O7 and RE2Th2O7 (RE=Ho, Y, Gd, Nd, La). Scientific Reports, 2016, 6, 38772.	3.3	23
39	Fundamental Phenomena and Applications of Swift Heavy Ion Irradiations. , 2020, , 485-516.		23
40	Porous fission fragment tracks in fluorapatite. Physical Review B, 2010, 82, .	3.2	22
41	Amorphization of Ta2O5 under swift heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 25-33.	1.4	22
42	Multi-scale simulation of structural heterogeneity of swift-heavy ion tracks in complex oxides. Journal of Physics Condensed Matter, 2013, 25, 135001.	1.8	21
43	Review of Swift Heavy Ion Irradiation Effects in CeO2. Quantum Beam Science, 2021, 5, 19.	1.2	21
44	Displacive radiation-induced structural contraction in nanocrystalline ZrN. Applied Physics Letters, 2012, 101, 041904.	3.3	18
45	The Effect of Heavy Ion Irradiation on the Forward Dissolution Rate of Borosilicate Glasses Studied In Situ and Real Time by Fluid-Cell Raman Spectroscopy. Materials, 2019, 12, 1480.	2.9	18
46	Effect of doping on the radiation response of conductive Nbâ€“SrTiO3. Nuclear Instruments & Methods in Physics Research B, 2013, 302, 40-47.	1.4	17
47	Thermodynamics of radiation induced amorphization and thermal annealing of Dy2Sn2O7 pyrochlore. Acta Materialia, 2018, 155, 386-392.	7.9	17
48	Thermodynamic and structural evolution of mechanically milled and swift heavy ion irradiated Er2Ti2O7 pyrochlore. Acta Materialia, 2019, 181, 309-317.	7.9	16
49	Local order of orthorhombic weberite-type Y3TaO7 as determined by neutron total scattering and density functional theory calculationsâœ°. Acta Materialia, 2020, 196, 704-709.	7.9	16
50	Effects of irradiation temperature on the response of CeO2, ThO2, and UO2 to highly ionizing radiation. Journal of Nuclear Materials, 2019, 525, 83-91.	2.7	15
51	Insights on dramatic radial fluctuations in track formation by energetic ions. Scientific Reports, 2016, 6, 27196.	3.3	14
52	Advanced characterization technique for mechanochemically synthesized materials: neutron total scattering analysis. Journal of Materials Science, 2018, 53, 13400-13410.	3.7	13
53	Review of recent experimental results on the behavior of actinide-bearing oxides and related materials in extreme environments. Progress in Nuclear Energy, 2018, 104, 342-358.	2.9	12
54	Structure and bulk modulus of Ln-doped UO2 (LnÂ= La, Nd) at high pressure. Journal of Nuclear Materials, 2017, 490, 28-33.	2.7	11

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55	Radiation-induced disorder in compressed lanthanide zirconates. Physical Chemistry Chemical Physics, 2018, 20, 6187-6197.	2.8	10
56	Swift-heavy ion irradiation response and annealing behavior of A2TiO5 (A = Nd, Gd, and Yb). Journal of Solid State Chemistry, 2018, 258, 108-116.	2.9	10
57	C₆₀ and U ion irradiation of Gd₂Ti_xZr_{2â^'x}O₇ pyrochlore. Journal of Materials Research, 2015, 30, 2456-2466.	2.6	9
58	Combined high pressure and heavy-ion irradiation: a novel approach. Journal of Synchrotron Radiation, 2009, 16, 773-777.	2.4	7
59	Thermal defect annealing of swift heavy ion irradiated ThO2. Nuclear Instruments & Methods in Physics Research B, 2017, 405, 15-21.	1.4	6
60	A₂TiO₅ (A = Dy, Gd, Er, Yb) at High Pressure. Inorganic Chemistry, 2018, 57, 2269-2277.	4.0	6
61	Advanced Experimental Technique for Radiation Damage Effects in Nuclear Waste Forms: Neutron Total Scattering Analysis. MRS Advances, 2018, 3, 1735-1747.	0.9	5
62	Radiation damage and thermal annealing in tunnel structured hollandite materials. Acta Materialia, 2021, 206, 116598.	7.9	5
63	Local ordering in disordered Nd Zr1-O2-0.5 pyrochlore as observed using neutron total scattering. Acta Materialia, 2022, 225, 117590.	7.9	4
64	Characterization of zirconium carbide microspheres synthesized via internal gelation. Journal of Nuclear Materials, 2021, 557, 153218.	2.7	3
65	Swift heavy ion irradiation of diamond powder. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 262-265.	1.4	2
66	Synchrotron x-ray diffraction analysis of gadolinium and lanthanum titanate oxides irradiated by xenon and tantalum swift heavy ions. Materials Research Society Symposia Proceedings, 2015, 1743, 26.	0.1	2
67	Mineral Defects. Encyclopedia of Earth Sciences Series, 2016, , 1-5.	0.1	2
68	Annealing of ion tracks in apatite under pressure characterized in situ by small angle x-ray scattering. Scientific Reports, 2020, 10, 1367.	3.3	2
69	Characterization of Radiation Effects and Ion Tracks with Spallation Neutron Probes. Nuclear Physics News, 2020, 30, 16-19.	0.4	1
70	Phase transformation and chemical decomposition of nanocrystalline SnO2 under heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 10-19.	1.4	0
71	Radiation-induced modifications in copper oxide growth. Journal of Radioanalytical and Nuclear Chemistry, 2021, 327, 123-131.	1.5	0
72	Mineral Defects. Encyclopedia of Earth Sciences Series, 2018, , 932-936.	0.1	0