

# Jeremy N Mitchell

## List of Publications by Year in descending order

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63

papers

1,163

citations

430874

18

h-index

395702

33

g-index

64

all docs

64

docs citations

64

times ranked

870

citing authors

#	ARTICLE	IF	CITATIONS
1	Sample seal-and-drop device and methodology for high temperature oxide melt solution calorimetric measurements of PuO <sub>2</sub> . <i>Review of Scientific Instruments</i> , 2019, 90, 044101.	1.3	14
2	Extended nuclear quadrupole resonance study of the heavy-fermion superconductor PuCoGa <sub>5</sub> . <i>Physical Review B</i> , 2016, 94, .	3.2	5
3	Crystal Structure and Thermodynamic Stability of Ba/Ti <sub>1-x</sub> C <sub>x</sub> Substituted Pollucites for Radioactive Cs/Ba Immobilization. <i>Journal of the American Ceramic Society</i> , 2015, 98, 2634-2640.	3.8	15
4	Superconductivity in plutonium compounds. <i>Physica C: Superconductivity and Its Applications</i> , 2015, 514, 184-188.	1.2	13
5	The valence-fluctuating ground state of plutonium. <i>Science Advances</i> , 2015, 1, e1500188.	10.3	89
6	Avoided valence transition in a plutonium superconductor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3285-3289.	7.1	39
7	Detecting low concentrations of plutonium hydride with magnetization measurements. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	4
8	Weak itinerant antiferromagnetism in PuIn <sub>3</sub> explored using <sup>115</sup> In nuclear quadrupole resonance. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 036001.	1.8	7
9	Microscopic properties of the heavy-fermion superconductor PuCoIn <sub>5</sub> explored by nuclear quadrupole resonance. <i>New Journal of Physics</i> , 2014, 16, 053019.	2.9	6
10	Delocalization and occupancy effects of 5f orbitals in plutonium intermetallics using L3-edge resonant X-ray emission spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 194, 57-65.	1.7	37
11	Shubnikov-de Haas oscillation in PuIn <sub>3</sub> . <i>Journal of the Korean Physical Society</i> , 2013, 63, 380-382.	0.7	3
12	The $\hat{I}^2 \leftrightarrow \hat{I}^\pm$ phase transformation in plutonium. <i>Acta Materialia</i> , 2013, 61, 2895-2908.	7.9	2
13	Self-irradiation damage to the local structure of plutonium and plutonium intermetallics. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	20
14	PuPt <sub>2</sub> ( $\text{PuPt}_2$ ) self-irradiation damage to the local structure of plutonium and plutonium intermetallics. <i>Journal of Applied Physics</i> , 2013, 113, .	3.2	4
15	Electronic Structure, Localization and 5f Occupancy in Pu Materials. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1444, 123.	0.1	1
16	Multiconfigurational nature of 5f orbitals in uranium and plutonium intermetallics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 10205-10209.	7.1	94
17	Phase Transitions in Pure Plutonium. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1444, 159.	0.1	2
18	Localized 5f electrons in superconducting PuCoIn <sub>5</sub> : consequences for superconductivity in PuCoGa <sub>5</sub> . <i>Journal of Physics Condensed Matter</i> , 2012, 24, 052206.	1.8	51

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19	Single crystal growth of plutonium compounds from molten metal fluxes. <i>Philosophical Magazine</i> , 2012, 92, 2466-2491.	1.6	12
20	Temperature dependence of elastic moduli of polycrystalline $\beta^2$ plutonium. <i>Physical Review B</i> , 2011, 84, .	3.2	30
21	Pu Electronic Structure and Photoelectron Spectroscopy. <i>Journal of Physics: Conference Series</i> , 2011, 273, 012023.	0.4	10
22	Magnetic order in $\text{Pu}_{2}\text{M}_3\text{Si}_5$ ( $\text{M} = \text{Co, Ni}$ ). <i>Journal of Physics Condensed Matter</i> , 2011, 23, 094223.	1.8	7
23	A moving target: Responding to magnetic and structural disorder in lanthanide- and actinide-based superconductors. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 9, 012087.	0.6	0
24	5f Electronic Structure and Fermiology of Pu Materials. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1264, 1.	0.1	5
25	Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor $\text{PuCoGa}_5$ . <i>Physical Review Letters</i> , 2010, 104, 227002. 78 via the Dynamics of Photoinduced Quasiparticles.	7.8	23
26	Anisotropic Spin Fluctuations and Superconductivity in $\text{PuCoGa}_5$ . <i>Physical Review Letters</i> , 2010, 105, 217002.	7.8	14
27	Polycrystalline gamma-plutonium's elastic moduli versus temperature. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 741-745.	1.1	6
28	Thermophysical properties of coexistent phases of plutonium. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 9, 012096.	0.6	1
29	Detection and quantification of residual $\beta$ -phase in $\beta$ -stabilized plutonium. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 9, 012020.	0.6	3
30	Pu neutron scattering studies – Magnetism and structure. <i>Journal of Nuclear Materials</i> , 2009, 385, 35-37.	2.7	3
31	Unconventional $\beta$ -phase stabilization in $\text{Pu-Ga}$ alloys. <i>Journal of Nuclear Materials</i> , 2009, 385, 95-98.	2.7	8
32	Possible two-band superconductivity in $\text{PuRhGa}_5$ and $\text{CeRhIn}_5$ . <i>Journal of Alloys and Compounds</i> , 2009, 488, 554-557.	5.5	6
33	Microstructure and Thermophysical Characterization of Mixed Oxide Fuels. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1215, 1.	0.1	0
34	Enthalpy of formation of the cubic fluorite phase in the ceria-zirconia system. <i>Journal of Materials Research</i> , 2008, 23, 1105-1112.	2.6	19
35	Quantifying structural damage from self-irradiation in a plutonium superconductor. <i>Physical Review B</i> , 2007, 76, .	3.2	19
36	Self-irradiation damage and 5f localization in $\text{PuCoGa}_5$ . <i>Journal of Alloys and Compounds</i> , 2007, 444-445, 119-123.	5.5	10

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37	Alpha-plutonium's polycrystalline elastic moduli over its full temperature range. <i>Journal of the Acoustical Society of America</i> , 2007, 122, 1994-2001.	1.1	18
38	Phase-field modeling of coring structure evolution in Pu-Ga alloys. <i>Acta Materialia</i> , 2007, 55, 3641-3648.	7.9	6
39	Effect of Elastic Anisotropy and Inhomogeneity on Coring Structure Evolution in Pu-Ga Alloys – Phase-field modeling. <i>Journal of Computer-Aided Materials Design</i> , 2007, 14, 389-402.	0.7	2
40	On the fcc-monoclinic martensite transformation in a Pu-1.7 at.% Ga alloy. <i>Acta Materialia</i> , 2006, 54, 1917-1925.	7.9	24
41	Evidence of transformation bursts during thermal cycling of a Pu-Ga alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 567-577.	2.2	27
42	Lattice constants and anisotropic microstrain at low temperature in $^{242}\text{Pu}$ -Ga alloys. <i>Philosophical Magazine</i> , 2005, 85, 2007-2025.	1.6	21
43	Phase stability and phase transformations in plutonium and plutonium-gallium alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 2267-2278.	2.2	37
44	The alpha prime to delta reversion transformation in Pu-Ga alloys. <i>Jom</i> , 2003, 55, 28-30.	1.9	4
45	Electron backscatter diffraction of a plutonium-gallium alloy. <i>Journal of Nuclear Materials</i> , 2003, 312, 67-75.	2.7	6
46	Modeling of structural and compositional homogenization of plutonium-1 weight percent gallium alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001, 32, 649-659.	2.2	5
47	Modeling of structural and compositional homogenization of plutonium-1 weight percent gallium alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001, 32, 649-659.	2.2	25
48	Initial electron backscattered diffraction observations of a plutonium alloy. <i>Scripta Materialia</i> , 2001, 45, 1107-1115.	5.2	11
49	The Evolution of Troctolitic and High Al Basaltic Magmas in Proterozoic Anorthositic Plutonic Suites and Implications for the Voisey's Bay Massive Ni-Cu Sulfide Deposit. <i>Economic Geology</i> , 2000, 95, 677-701.	3.8	29
50	Radiation effects in corundum structure derivatives. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 141, 461-466.	1.4	8
51	Radiation response of $\text{FeTiO}_3$ , $\text{MgTiO}_3$ , and $\text{Al}_2\text{O}_3$ . <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 253, 131-134.	5.6	14
52	Mineral-Chemical and Isotopic Variations in Apollo 16 Impact-Melt Breccias. <i>International Geology Review</i> , 1998, 40, 784-804.	2.1	0
53	Ion irradiation damage in geikielite ( $\text{MgTiO}_3$ ). <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1998, 78, 713-725.	0.6	8
54	Radiation Damage Effects in Ferroelectric Lato Single Crystals. <i>Materials Research Society Symposia Proceedings</i> , 1997, 504, 159.	0.1	3

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55	Petrology of the Early Proterozoic Burakovskiy layered intrusion, southern Karelia, Russia: mineral and whole-rock major-element chemistry. Canadian Journal of Earth Sciences, 1997, 34, 390-406.		1.3	14
56	Ion irradiation damage in ilmenite at 100 K. Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 629-633.		1.4	8
57	Title is missing!. Bulletin of the Geological Society of America, 1996, 108, 1357.		3.3	98
58	In situ MeV ion beam analysis of ceramic surfaces modified by 100–400 keV ion irradiation. Nuclear Instruments & Methods in Physics Research B, 1996, 118, 766-771.		1.4	14
59	The Geochemical Evolution of Anorthosite Residual Magmas in the Laramie Anorthosite Complex, Wyoming. Journal of Petrology, 1996, 37, 637-660.		2.8	100
60	A Comparative Study of Radiation Damage In Al <sub>2</sub> O <sub>3</sub> , FeTiO <sub>3</sub> , And MgTiO <sub>3</sub> . Materials Research Society Symposia Proceedings, 1995, 396, 173.		0.1	2
61	High-Al gabbros in the Laramie Anorthosite Complex, Wyoming: implications for the composition of melts parental to Proterozoic anorthosite. Contributions To Mineralogy and Petrology, 1995, 119, 166-180.		3.1	94
62	In situ Ion Beam Analysis of Radiation Damage Kinetics in MgTiO <sub>3</sub> Single Crystals at 170-470 K. Materials Research Society Symposia Proceedings, 1995, 396, 161.		0.1	1
63	High-Al gabbros in the Laramie Anorthosite Complex, Wyoming: implications for the composition of melts parental to Proterozoic anorthosite. Contributions To Mineralogy and Petrology, 1995, 119, 166-180.		3.1	2