

# 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	The Geochemical Evolution of Anorthosite Residual Magmas in the Laramie Anorthosite Complex, Wyoming. <i>Journal of Petrology</i> , 1996, 37, 637-660.	2.8	100
2	Title is missing!. <i>Bulletin of the Geological Society of America</i> , 1996, 108, 1357.	3.3	98
3	High-Al gabbros in the Laramie Anorthosite Complex, Wyoming: implications for the composition of melts parental to Proterozoic anorthosite. <i>Contributions To Mineralogy and Petrology</i> , 1995, 119, 166-180.	3.1	94
4	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
5	The valence-fluctuating ground state of plutonium. <i>Science Advances</i> , 2015, 1, e1500188.	10.3	89
6	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
7	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
8	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
9	Delocalization and occupancy effects of 5f orbitals in plutonium intermetallics using L <sub>3</sub> -edge resonant X-ray emission spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 194, 57-65.	1.7	37
10	Temperature dependence of elastic moduli of polycrystalline $\hat{1}^2$ plutonium. <i>Physical Review B</i> , 2011, 84, .	3.2	30
11	The Evolution of Troctolitic and High Al Basaltic Magmas in Proterozoic Anorthosite 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
12	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
13	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
14	On the fcc $\rightarrow$ monoclinic martensite transformation in a Pu $\hat{1}$ 1.7 at.% Ga alloy. <i>Acta Materialia</i> , 2006, 54, 1917-1925.	7.9	24
15	Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor $\text{PuCoGa}_5$ Probed via the Dynamics of Photoinduced Quasiparticles. <i>Physical Review Letters</i> , 2010, 104, 227002.	7.8	23
16	Lattice constants and anisotropic microstrain at low temperature in $^{242}\text{Pu}\hat{1}$ Ga alloys. <i>Philosophical Magazine</i> , 2005, 85, 2007-2025.	1.6	21
17	Self-irradiation damage to the local structure of plutonium and plutonium intermetallics. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	20
18	Quantifying structural damage from self-irradiation in a plutonium superconductor. <i>Physical Review B</i> , 2007, 76, .	3.2	19

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19	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
20	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
21	Crystal Structure and Thermodynamic Stability of Ba/Ti-Substituted Pollucites for Radioactive Cs/Ba Immobilization. <i>Journal of the American Ceramic Society</i> , 2015, 98, 2634-2640.	3.8	15
22	In situ MeV ion beam analysis of ceramic surfaces modified by 100-400 keV ion irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1996, 118, 766-771.	1.4	14
23	Petrology of the Early Proterozoic Burakovsky layered intrusion, southern Karelia, Russia: mineral and whole-rock major-element chemistry. <i>Canadian Journal of Earth Sciences</i> , 1997, 34, 390-406.	1.3	14
24	Radiation response of FeTiO <sub>3</sub> , MgTiO <sub>3</sub> , and $\gamma$ -Al <sub>2</sub> O <sub>3</sub> . <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 253, 131-134.	5.6	14
25	Anisotropic Spin Fluctuations and Superconductivity in $\epsilon$ -115-Heavy Fermion Compounds: Co <sup>59</sup> NMR Study in PuCoGa <sub>5</sub> . <i>Physical Review Letters</i> , 2010, 105, 217002.	7.8	14
26	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
27	Superconductivity in plutonium compounds. <i>Physica C: Superconductivity and Its Applications</i> , 2015, 514, 184-188.	1.2	13
28	Single crystal growth of plutonium compounds from molten metal fluxes. <i>Philosophical Magazine</i> , 2012, 92, 2466-2491.	1.6	12
29	Initial electron backscattered diffraction observations of a plutonium alloy. <i>Scripta Materialia</i> , 2001, 45, 1107-1115.	5.2	11
30	Self-irradiation damage and $\delta$ localization in PuCoGa <sub>5</sub> . <i>Journal of Alloys and Compounds</i> , 2007, 444-445, 119-123.	5.5	10
31	Pu Electronic Structure and Photoelectron Spectroscopy. <i>Journal of Physics: Conference Series</i> , 2011, 273, 012023.	0.4	10
32	Ion irradiation damage in ilmenite at 100 K. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1997, 127-128, 629-633.	1.4	8
33	Radiation effects in corundum structure derivatives. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 141, 461-466.	1.4	8
34	Ion irradiation damage in geikielite (MgTiO <sub>3</sub> ). <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1998, 78, 713-725.	0.6	8
35	Unconventional $\gamma$ -phase stabilization in Pu-Ga alloys. <i>Journal of Nuclear Materials</i> , 2009, 385, 95-98.	2.7	8
36	Magnetic order in Pu <sub>2</sub> M <sub>3</sub> Si <sub>5</sub> (M = Co, Ni). <i>Journal of Physics Condensed Matter</i> , 2011, 23, 094223.	1.8	7

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37	Weak itinerant antiferromagnetism in PuIn <sub>3</sub> explored using <sup>115</sup> In nuclear quadrupole resonance. Journal of Physics Condensed Matter, 2014, 26, 036001.	1.8	7
38	Electron backscatter diffraction of a plutonium-gallium alloy. Journal of Nuclear Materials, 2003, 312, 67-75.	2.7	6
39	Phase-field modeling of coring structure evolution in Pu-Ga alloys. Acta Materialia, 2007, 55, 3641-3648.	7.9	6
40	Possible two-band superconductivity in PuRhGa <sub>5</sub> and CeRhIn <sub>5</sub> . Journal of Alloys and Compounds, 2009, 488, 554-557.	5.5	6
41	Polycrystalline gamma-plutonium's elastic moduli versus temperature. Journal of the Acoustical Society of America, 2010, 127, 741-745.	1.1	6
42	Microscopic properties of the heavy-fermion superconductor PuCoIn <sub>5</sub> explored by nuclear quadrupole resonance. New Journal of Physics, 2014, 16, 053019.	2.9	6
43	Modeling of structural and compositional homogenization of plutonium-1 weight percent gallium alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 649-659.	2.2	5
44	5f Electronic Structure and Fermiology of Pu Materials. Materials Research Society Symposia Proceedings, 2010, 1264, 1.	0.1	5
45	Extended nuclear quadrupole resonance study of the heavy-fermion superconductor PuCoGa <sub>5</sub> . Physical Review B, 2016, 94, .	3.2	5
46	The alpha prime to delta reversion transformation in Pu-Ga alloys. Jom, 2003, 55, 28-30.	1.9	4
47	$\ln^2$ : A computational and experimental investigation. Physical Review B, 2012, 86, .	3.2	4
48	Detecting low concentrations of plutonium hydride with magnetization measurements. Journal of Applied Physics, 2015, 117, .	2.5	4
49	Radiation Damage Effects in Ferroelectric LiTaO <sub>3</sub> Single Crystals. Materials Research Society Symposia Proceedings, 1997, 504, 159.	0.1	3
50	Pu neutron scattering studies of Magnetism and structure. Journal of Nuclear Materials, 2009, 385, 35-37.	2.7	3
51	Detection and quantification of residual $\hat{\pm}$ -phase in $\hat{\pm}$ -stabilized plutonium. IOP Conference Series: Materials Science and Engineering, 2010, 9, 012020.	0.6	3
52	Shubnikov-de Haas oscillation in PuIn <sub>3</sub> . Journal of the Korean Physical Society, 2013, 63, 380-382.	0.7	3
53	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
54	Effect of Elastic Anisotropy and Inhomogeneity on Coring Structure Evolution in Pu-Ga Alloys Phase-field modeling. Journal of Computer-Aided Materials Design, 2007, 14, 389-402.	0.7	2

#	ARTICLE	IF	CITATIONS
55	Phase Transitions in Pure Plutonium. Materials Research Society Symposia Proceedings, 2012, 1444, 159.	0.1	2
56	The $\delta$ - $\epsilon$ phase transformation in plutonium. Acta Materialia, 2013, 61, 2895-2908.	7.9	2
57	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
58	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
59	Thermophysical properties of coexistent phases of plutonium. IOP Conference Series: Materials Science and Engineering, 2010, 9, 012096.	0.6	1
60	Electronic Structure, Localization and $f$ Occupancy in Pu Materials. Materials Research Society Symposia Proceedings, 2012, 1444, 123.	0.1	1
61	Mineral-Chemical and Isotopic Variations in Apollo 16 Impact-Melt Breccias. International Geology Review, 1998, 40, 784-804.	2.1	0
62	Microstructure and Thermophysical Characterization of Mixed Oxide Fuels. Materials Research Society Symposia Proceedings, 2009, 1215, 1.	0.1	0
63	A moving target: Responding to magnetic and structural disorder in lanthanide- and actinide-based superconductors. IOP Conference Series: Materials Science and Engineering, 2010, 9, 012087.	0.6	0