

# Ryan E Baumbach

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5417648/publications.pdf>

Version: 2024-02-01

45  
papers

954  
citations

623734

14  
h-index

454955

30  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1496  
citing authors

#	ARTICLE	IF	CITATIONS
1	Visualizing heavy fermions emerging in a quantum critical Kondo lattice. <i>Nature</i> , 2012, 486, 201-206.	27.8	176
2	Visualizing nodal heavy fermion superconductivity in CeCoIn <sub>5</sub> . <i>Nature Physics</i> , 2013, 9, 474-479.	16.7	174
3	Emergence of californium as the second transitional element in the actinide series. <i>Nature Communications</i> , 2015, 6, 6827.	12.8	108
4	Characterization of berkelium(III) dipicolinate and borate compounds in solution and the solid state. <i>Science</i> , 2016, 353, .	12.6	86
5	Non-Fermi Liquid Regimes and Superconductivity in the Low Temperature Phase Diagrams of Strongly Correlated d- and f-Electron Materials. <i>Journal of Low Temperature Physics</i> , 2010, 161, 4-54.	1.4	54
6	One-component order parameter in URu <sub>2</sub> Si <sub>2</sub> uncovered by resonant ultrasound spectroscopy and machine learning. <i>Science Advances</i> , 2020, 6, eaaz4074.	10.3	33
7	Incipient class II mixed valency in a plutonium solid-state compound. <i>Nature Chemistry</i> , 2017, 9, 856-861.	13.6	28
8	Electronic Structure and Properties of Berkelium Iodates. <i>Journal of the American Chemical Society</i> , 2017, 139, 13361-13375.	13.7	25
9	Single-Crystal Growth of a Perovskite Ruthenate SrRuO <sub>3</sub> by the Floating-Zone Method. <i>Crystal Growth and Design</i> , 2015, 15, 5573-5577.	3.0	24
10	Uranium(IV) Chloride Complexes: UCl <sub>6</sub> <sup>2-</sup> and an Unprecedented U(H <sub>2</sub> O) <sub>4</sub> Cl <sub>4</sub> Structural Unit. <i>Inorganic Chemistry</i> , 2017, 56, 9772-9780.	4.0	21
11	Using Redox-Active Ligands to Generate Actinide Ligand Radical Species. <i>Inorganic Chemistry</i> , 2021, 60, 15242-15252.	4.0	19
12	Monomers, Dimers, and Helices: Complexities of Cerium and Plutonium Phenanthrolinecarboxylates. <i>Inorganic Chemistry</i> , 2016, 55, 4373-4380.	4.0	17
13	Dimensional and Coordination Number Reductions in a Large Family of Lanthanide Tellurite Sulfates. <i>Inorganic Chemistry</i> , 2014, 53, 8555-8564.	4.0	16
14	Layer- and gate-tunable spin-orbit coupling in a high-mobility few-layer semiconductor. <i>Science Advances</i> , 2021, 7, .	10.3	16
15	Understanding the Stabilization and Tunability of Divalent Europium 2.2B Cryptates. <i>Inorganic Chemistry</i> , 2021, 60, 7815-7826.	4.0	16
16	Uncovering the Origin of Divergence in the CsM(CrO <sub>4</sub> ) <sub>2</sub> (M = La, Pr, Nd, Sm, Tj) ETQqO <sub>0</sub> 0 rgBT/Overlock 10 Structure Analysis. <i>Journal of the American Chemical Society</i> , 2018, 140, 1674-1685.	13.7	14
17	Straightforward Reductive Routes to Air-Stable Uranium(III) and Neptunium(III) Materials. <i>Inorganic Chemistry</i> , 2014, 53, 7455-7466.	4.0	12
18	Phase diagram of URu <sub>2</sub> Fe <sub>2</sub> Si <sub>2</sub> in high magnetic fields. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9826-9831.	7.1	12

#	ARTICLE	IF	CITATIONS
19	Electronic, Magnetic, and Theoretical Characterization of $(\text{NH}_4)_4\text{UF}_8$ , a Simple Molecular Uranium(IV) Fluoride. <i>Inorganic Chemistry</i> , 2019, 58, 637-647.	4.0	12
20	Enhanced thermoelectric performance of heavy-fermion compounds $\text{Yb}_{2-x}\text{Zn}_{2+x}$ ( $x = \text{Co, Rh, Ir}$ ) at low temperatures. <i>Science Advances</i> , 2019, 5, eaaw6183.	10.3	11
21	Creation of an unexpected plane of enhanced covalency in cerium(III) and berkelium(III) terpyridyl complexes. <i>Nature Communications</i> , 2021, 12, 7230.	12.8	11
22	A Novel Magnetic Material by Design: Observation of $\text{Yb}^{3+}$ with Spin-1/2 in $\text{Yb}_5\text{Pt}_5\text{P}$ . <i>ACS Central Science</i> , 2020, 6, 2023-2030.	11.3	8
23	Cyclopentadienyl coordination induces unexpected ionic Am <sup>N</sup> bonding in an americium bipyridyl complex. <i>Nature Communications</i> , 2022, 13, 201.	12.8	8
24	$\text{U}_{1.33}\text{T}_4\text{Al}_8\text{Si}_2$ (T = Ni, Co): Complex Uranium Silicides Grown from Aluminum/Gallium Flux Mixtures. <i>Inorganic Chemistry</i> , 2019, 58, 12209-12217.	4.0	7
25	Structural, Electronic, and Thermal Properties of $\text{CdSnAs}_2$ . <i>Inorganic Chemistry</i> , 2020, 59, 3079-3084.	4.0	5
26	Structures and Magnetic Properties of $\text{K}_2\text{Pd}_4\text{U}_6\text{S}_{17}$ , $\text{K}_2\text{Pt}_4\text{U}_6\text{S}_{17}$ , $\text{Rb}_2\text{Pt}_4\text{U}_6\text{S}_{17}$ , and $\text{Cs}_2\text{Pt}_4\text{U}_6\text{S}_{17}$ Synthesized Using the Boron-Chalcogen Mixture Method. <i>Inorganic Chemistry</i> , 2022, 61, 10502-10508.	4.0	5
27	Single Crystal Growth of $\text{URu}_2\text{Si}_2$ by the Modified Bridgman Technique. <i>Crystals</i> , 2016, 6, 128.	2.2	4
28	Quasi-particle interference of heavy fermions in resonant x-ray scattering. <i>Science Advances</i> , 2016, 2, e1601086.	10.3	4
29	Employing Lewis Acidity to Generate Bimetallic Lanthanide Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 8642-8646.	4.0	4
30	Fantastic $n = 4$ : $\text{Ce}_5\text{Co}_{4+x}\text{Ge}_{13}\text{Sny}$ of the $\text{A}_{n+1}\text{M}_n\text{X}_{3n+1}$ homologous series. <i>Journal of Chemical Physics</i> , 2021, 154, 114707.	3.0	3
31	Unexpected Hydride: $\text{Ce}_4\text{B}_2\text{C}_2\text{H}_{2.42}$ , a Stuffed Variant of the $\text{Nd}_2\text{BC}$ Structure Type. <i>Crystal Growth and Design</i> , 2021, 21, 5164-5171.	3.0	3
32	$\text{U}_8\text{Al}_{19}\text{Si}_6$ , A Uranium Aluminide Silicide with a Stuffed Supercell Grown from Aluminum Flux. <i>Chemistry of Materials</i> , 2018, 30, 3806-3812.	6.7	2
33	Synthesis of a d2 kagome lattice antiferromagnet, $(\text{CH}_3\text{NH}_3)_2\text{Na}_3\text{F}_{12}$ . <i>Chemical Science</i> , 2020, 11, 11811-11817.	7.4	2
34	Flux Synthesis of $\text{MgNi}_2\text{Bi}_4$ and Its Structural Relationship to $\text{NiBi}_3$ . <i>Inorganic Chemistry</i> , 2020, 59, 3452-3458.	4.0	2
35	Influence of hydrostatic pressure on hidden order, the Kondo lattice, and magnetism in $\text{URu}_2\text{Si}_2\text{xPx}$ . <i>Physical Review B</i> , 2020, 102, .	3.2	2
36	Electronic and magnetic properties of $\text{EuNi}_2\text{Sb}_2$ structural variants. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 315801.	1.8	2

#	ARTICLE	IF	CITATIONS
37	Structural Disorder in Intermetallic Boride $\text{Pr}_{21}\text{M}_{16}\text{Te}_6\text{B}_{30}$ (M = Mn, Fe): A Transition Metal Cluster and Its Evil Twin. <i>Inorganic Chemistry</i> , 2020, 59, 2484-2494.	4.0	2
38	Crystal structure, magnetism and transport properties of $\text{Ce}_3\text{Ni}_{25.75}\text{Ru}_3.16\text{Al}_4.1\text{B}_{10}$ . <i>Journal of Solid State Chemistry</i> , 2013, 205, 154-159.	2.9	1
39	A novel cage for actinides: $\text{A}_6\text{W}_4\text{Al}_{43}$ (A = U and Pu). <i>Journal of Physics Condensed Matter</i> , 2019, 31, 165601.	1.8	1
40	One-dimensional tellurium chains: Crystal structure and thermodynamic properties of $\text{PrCu}_x\text{Te}_2$ (x ~) Tj ETQq0 0 0 ggBT /Overlock 10 Tf	2.9	1
41	Superstructures and Superconductivity Linked with Pd Intercalation in $\text{Nb}_2\text{Pd}_x\text{Se}_5$ . <i>Chemistry of Materials</i> , 2020, 32, 8361-8366.	6.7	1
42	$\text{An}_{1.33}\text{T}_4\text{Al}_8\text{Si}_2$ (An = Ce, Th, U, Np; T = Ni, Co): Actinide Intermetallics with Disordered $\text{Gd}_{1+x}\text{Fe}_4\text{Si}_{10}$ Structure Type Grown from Metal Flux. <i>Inorganic Chemistry</i> , 2021, 60, 13062-13070.	4.0	1
43	Electronic Tuning in $\text{URu}_2\text{Si}_2$ Through Ru to Pt Chemical Substitution. <i>Frontiers in Electronic Materials</i> , 2022, 2, .	3.1	1
44	Anomalous local magnetism in the 4f-localized ferromagnets $\text{CeRu}_2\text{X}_2\text{B}$ (X = Al, Ga) revealed by using ZF- $\mu$ SR. <i>Journal of the Korean Physical Society</i> , 2016, 68, 1200-1205.	0.7	0
45	Magnesium-Based Flux Growth and Structural Relationships of a Large Family of Tetrelide Semimetals. <i>Crystal Growth and Design</i> , 2020, 20, 2632-2643.	3.0	0