

# Ryan E Baumbach

## List of Publications by Year in descending order

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45  
papers

954  
citations

623574

14  
h-index

454834

30  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1496  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cyclopentadienyl coordination induces unexpected ionic Am-N bonding in an americium bipyridyl complex. <i>Nature Communications</i> , 2022, 13, 201.	5.8	8
2	Electronic Tuning in URu <sub>2</sub> Si <sub>2</sub> Through Ru to Pt Chemical Substitution. <i>Frontiers in Electronic Materials</i> , 2022, 2, .	1.6	1
3	Structures and Magnetic Properties of K <sub>2</sub> Pd <sub>4</sub> U <sub>6</sub> S <sub>17</sub> , K <sub>2</sub> Pt <sub>4</sub> U <sub>6</sub> S <sub>17</sub> , Rb <sub>2</sub> Pt <sub>4</sub> U <sub>6</sub> S <sub>17</sub> , and Cs <sub>2</sub> Pt <sub>4</sub> U <sub>6</sub> S <sub>17</sub> Synthesized Using the Boron-Chalcogen Mixture Method. <i>Inorganic Chemistry</i> , 2022, 61, 10502-10508.	1.9	5
4	Layer- and gate-tunable spin-orbit coupling in a high-mobility few-layer semiconductor. <i>Science Advances</i> , 2021, 7, .	4.7	16
5	Fantastic $n = 4$ : Ce <sub>5</sub> Co <sub>4+x</sub> Ge <sub>13</sub> Y <sub>n</sub> of the A <sub>n</sub> +1M <sub>n</sub> X <sub>3n</sub> +1 homologous series. <i>Journal of Chemical Physics</i> , 2021, 154, 114707.	1.2	3
6	Unexpected Hydride: Ce <sub>4</sub> B <sub>2</sub> C <sub>2</sub> H <sub>2.42</sub> , a Stuffed Variant of the Nd <sub>2</sub> BC Structure Type. <i>Crystal Growth and Design</i> , 2021, 21, 5164-5171.	1.4	3
7	An <sub>1.33</sub> T <sub>4</sub> Al <sub>8</sub> Si <sub>2</sub> (An = Ce, Th, U, Np; T = Ni, Co): Actinide Intermetallics with Disordered Gd <sub>1+x</sub> Fe <sub>4</sub> Si <sub>10</sub> Structure Type Grown from Metal Flux. <i>Inorganic Chemistry</i> , 2021, 60, 13062-13070.	1.9	1
8	Using Redox-Active Ligands to Generate Actinide Ligand Radical Species. <i>Inorganic Chemistry</i> , 2021, 60, 15242-15252.	1.9	19
9	Understanding the Stabilization and Tunability of Divalent Europium 2.2.2B Cryptates. <i>Inorganic Chemistry</i> , 2021, 60, 7815-7826.	1.9	16
10	Creation of an unexpected plane of enhanced covalency in cerium(III) and berkelium(III) terpyridyl complexes. <i>Nature Communications</i> , 2021, 12, 7230.	5.8	11
11	Synthesis of a d2 kagome lattice antiferromagnet, (CH <sub>3</sub> NH <sub>3</sub> ) <sub>2</sub> NaV <sub>3</sub> F <sub>12</sub> . <i>Chemical Science</i> , 2020, 11, 11811-11817.	3.7	2
12	Superstructures and Superconductivity Linked with Pd Intercalation in Nb <sub>2</sub> Pd <sub>x</sub> Se <sub>5</sub> . <i>Chemistry of Materials</i> , 2020, 32, 8361-8366.	3.2	1
13	Employing Lewis Acidity to Generate Bimetallic Lanthanide Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 8642-8646.	1.9	4
14	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.	4.7	33
15	Magnesium-Based Flux Growth and Structural Relationships of a Large Family of Tetrelide Semimetals. <i>Crystal Growth and Design</i> , 2020, 20, 2632-2643.	1.4	0
16	A Novel Magnetic Material by Design: Observation of Yb <sup>3+</sup> with Spin-1/2 in Yb <sub>x</sub> Pt <sub>5</sub> P. <i>ACS Central Science</i> , 2020, 6, 2023-2030.	5.3	8
17	Structural, Electronic, and Thermal Properties of CdSnAs <sub>2</sub> . <i>Inorganic Chemistry</i> , 2020, 59, 3079-3084.	1.9	5
18	Flux Synthesis of MgNi <sub>2</sub> Bi <sub>4</sub> and Its Structural Relationship to NiBi <sub>3</sub> . <i>Inorganic Chemistry</i> , 2020, 59, 3452-3458.	1.9	2

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19	Influence of hydrostatic pressure on hidden order, the Kondo lattice, and magnetism in URu <sub>2</sub> Si <sub>2</sub> xPx. Physical Review B, 2020, 102, .	1.1	2
20	Electronic and magnetic properties of EuNi <sub>2</sub> Sb <sub>2</sub> structural variants. Journal of Physics Condensed Matter, 2020, 32, 315801.	0.7	2
21	Structural Disorder in Intermetallic Boride Pr <sub>21</sub> M <sub>16</sub> Te <sub>6</sub> B <sub>30</sub> (M = Mn, Fe): A Transition Metal Cluster and Its Evil Twin. Inorganic Chemistry, 2020, 59, 2484-2494.	1.9	2
22	U <sub>1.33</sub> T <sub>4</sub> Al <sub>8</sub> Si <sub>2</sub> (T = Ni, Co): Complex Uranium Silicides Grown from Aluminum/Gallium Flux Mixtures. Inorganic Chemistry, 2019, 58, 12209-12217.	1.9	7
23	A novel cage for actinides: A <sub>6</sub> W <sub>4</sub> Al <sub>43</sub> (A = U and Pu). Journal of Physics Condensed Matter, 2019, 31, 165601.	0.7	1
24	Enhanced thermoelectric performance of heavy-fermion compounds Yb <sub>2</sub> Zn <sub>20</sub> (TM = Co, Rh, Ir) at low temperatures. Science Advances, 2019, 5, eaaw6183.	4.7	11
25	Electronic, Magnetic, and Theoretical Characterization of (NH <sub>4</sub> ) <sub>4</sub> UF <sub>8</sub> , a Simple Molecular Uranium(IV) Fluoride. Inorganic Chemistry, 2019, 58, 637-647.	1.9	12
26	One-dimensional tellurium chains: Crystal structure and thermodynamic properties of PrCu <sub>x</sub> Te <sub>2</sub> (x = 0, 1). Journal of Physics Condensed Matter, 2018, 30, 165601.	1.4	1
27	Uncovering the Origin of Divergence in the CsM(CrO <sub>4</sub> ) <sub>2</sub> (M = La, Pr, Nd, Sm). Journal of the American Chemical Society, 2018, 140, 1674-1685.	6.6	14
28	U <sub>8</sub> Al <sub>19</sub> Si <sub>6</sub> , A Uranium Aluminide Silicide with a Stuffed Supercell Grown from Aluminum Flux. Chemistry of Materials, 2018, 30, 3806-3812.	3.2	2
29	Incipient class II mixed valency in a plutonium solid-state compound. Nature Chemistry, 2017, 9, 856-861.	6.6	28
30	Phase diagram of URu <sub>2</sub> xFe <sub>x</sub> Si <sub>2</sub> in high magnetic fields. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9826-9831.	3.3	12
31	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. Inorganic Chemistry, 2017, 56, 9772-9780.	1.9	21
32	Electronic Structure and Properties of Berkelium Iodates. Journal of the American Chemical Society, 2017, 139, 13361-13375.	6.6	25
33	Single Crystal Growth of URu <sub>2</sub> Si <sub>2</sub> by the Modified Bridgman Technique. Crystals, 2016, 6, 128.	1.0	4
34	Quasi-particle interference of heavy fermions in resonant x-ray scattering. Science Advances, 2016, 2, e1601086.	4.7	4
35	Anomalous local magnetism in the 4f-localized ferromagnets CeRu <sub>2</sub> X <sub>2</sub> B (X = Al, Ga) revealed by using ZF- <sup>1</sup> / <sub>4</sub> SR. Journal of the Korean Physical Society, 2016, 68, 1200-1205.	0.3	0
36	Monomers, Dimers, and Helices: Complexities of Cerium and Plutonium Phenanthrolinecarboxylates. Inorganic Chemistry, 2016, 55, 4373-4380.	1.9	17

#	ARTICLE	IF	CITATIONS
37	Characterization of berkelium(III) dipicolinate and borate compounds in solution and the solid state. Science, 2016, 353, .	6.0	86
38	Emergence of californium as the second transitional element in the actinide series. Nature Communications, 2015, 6, 6827.	5.8	108
39	Single-Crystal Growth of a Perovskite Ruthenate $\text{SrRuO}_3$ by the Floating-Zone Method. Crystal Growth and Design, 2015, 15, 5573-5577.	1.4	24
40	Straightforward Reductive Routes to Air-Stable Uranium(III) and Neptunium(III) Materials. Inorganic Chemistry, 2014, 53, 7455-7466.	1.9	12
41	Dimensional and Coordination Number Reductions in a Large Family of Lanthanide Tellurite Sulfates. Inorganic Chemistry, 2014, 53, 8555-8564.	1.9	16
42	Visualizing nodal heavy fermion superconductivity in $\text{CeCoIn}_5$ . Nature Physics, 2013, 9, 474-479.	6.5	174
43	Crystal structure, magnetism and transport properties of $\text{Ce}_3\text{Ni}_{25.75}\text{Ru}_{3.16}\text{Al}_{4.1}\text{B}_{10}$ . Journal of Solid State Chemistry, 2013, 205, 154-159.	1.4	1
44	Visualizing heavy fermions emerging in a quantum critical Kondo lattice. Nature, 2012, 486, 201-206.	13.7	176
45	Non-Fermi Liquid Regimes and Superconductivity in the Low Temperature Phase Diagrams of Strongly Correlated d- and f-Electron Materials. Journal of Low Temperature Physics, 2010, 161, 4-54.	0.6	54