Theodore M Besmann

List of Publications by Year
in descending order

36	500	933447 10	713466 21
papers	citations	h-index	g-index

38	38	38	452
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In Situ Determination of Speciation and Local Structure of NaClâ€“SrCl₂ and LiFâ€“ZrF₄ Molten Salts. Journal of Physical Chemistry B, 2022, 126, 1539-1550.	2.6	5
2	Durable Crâ€substituted (Ba,Cs)_{1.33}(Cr,Ti)₈O₁₆ hollandite waste forms with high Cs loading. Journal of the American Ceramic Society, 2022, 105, 4564-4576.	3.8	3
3	Correlational Approach to Predict the Enthalpy of Mixing for Chloride Melt Systems. ACS Omega, 2022, 7, 362-371.	3.5	11
4	Luminescence and Scintillation in the Niobium Doped Oxyfluoride Rb4Ge5O9F6:Nb. Inorganics, 2022, 10, 83.	2.7	4
5	Crystallization of A₃Ln(BO₃)₂ (A = Na, K; Ln = Lanthanide) from a Boric Acid Containing Hydroxide Melt: Synthesis and Investigation of Lanthanide Borates as Potential Nuclear Waste Forms. Inorganic Chemistry, 2022, 61, 11232-11242.	4.0	7
6	Interplay between London Dispersion, Hubbard U, and Metastable States for Uranium Compounds. Journal of Physical Chemistry A, 2021, 125, 2791-2799.	2.5	4
7	Developing Practical Models of Complex Salts for Molten Salt Reactors. Thermo, 2021, 1, 168-178.	1.3	10
8	Dimensional reduction upon calcium incorporation in Cs_{0.3}(Ca_{0.3}Ln_{0.7})PS₄ and Cs_{0.5}(Ca_{0.5}Ln_{0.5})PS₄. CrystEngComm, 2021, 23, 831-840.	2.6	5
9	Targeting complex plutonium oxides by combining crystal chemical reasoning with density-functional theory calculations: the quaternary plutonium oxide Cs2PuSi6O15. Chemical Communications, 2020, 56, 9501-9504.	4.1	5
10	The effect of cesium content on the thermodynamic stability and chemical durability of (Ba , Cs) 1.33 (Al,Ti) 8 O 16 hollandite. Journal of the American Ceramic Society, 2020, 103, 7310-7321.	3.8	5
11	NaGaS₂: An Elusive Layered Compound with Dynamic Water Absorption and Wideâ€Ranging Ionâ€Exchange Properties. Angewandte Chemie, 2020, 132, 10928-10933.	2.0	4
12	Understanding the interface interaction between U3Si2 fuel and SiC cladding. Nature Communications, 2020, 11, 2621.	12.8	11
13	New Rubidium-Containing Mixed-Metal Titanium Hollandites. Crystal Growth and Design, 2020, 20, 2398-2405.	3.0	6
14	Structure and stability of alkali gallates structurally reminiscent of hollandite. Journal of the American Ceramic Society, 2020, 103, 6531-6542.	3.8	1
15	Polymorphism and Molten Nitrate Salt-Assisted Single Crystal to Single Crystal Ion Exchange in the Cesium Ferrogermanate Zeotype: CsFeGeO₄. Inorganic Chemistry, 2020, 59, 9699-9709.	4.0	10
16	Exploring the links between crystal chemistry, cesium retention, thermochemistry and chemical durability in single-phase (Ba,Cs)1.33(Fe,Ti)8O16 hollandite. Journal of Materials Science, 2020, 55, 6401-6416.	3.7	12
17	Complex cobalt silicates and germanates crystallizing in a porous three-dimensional framework structure. CrystEngComm, 2020, 22, 1112-1119.	2.6	8
18	NaGaS 2 : An Elusive Layered Compound with Dynamic Water Absorption and Wideâ€Ranging Ionâ€Exchange Properties. Angewandte Chemie - International Edition, 2020, 59, 10836-10841.	13.8	14

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19	New germanate and mixed cobalt germanate salt inclusion materials: [(Rb6F)(Rb4F)][Ge14O32] and [(Rb6F)(Rb3.1Co0.9F0.96)][Co3.8Ge10.2O30F2]. CrystEngComm, 2020, 22, 8072-8080.	2.6	9
20	Salt-flux synthesis, crystal structure and theoretical characterization of Rb0.74Ga6.62Ti0Â·38O11. Solid State Sciences, 2020, 109, 106394.	3.2	0
21	Observation of the Same New Sheet Topology in Both the Layered Uranyl Oxide-Phosphate Cs11[(UO2)12(PO4)3O13] and the Layered Uranyl Oxyfluoride-Phosphate Rb11[(UO2)12(PO4)3O12F2] Prepared by Flux Crystal Growth. Frontiers in Chemistry, 2019, 7, 583.	3.6	12
22	Flux crystal growth of uranium(<scp>v</scp>) containing oxyfluoride perovskites. Inorganic Chemistry Frontiers, 2019, 6, 3203-3214.	6.0	11
23	Discovery of Cs₂(UO₂)Al₂O₅ by Molten Flux Methods: A Uranium Aluminate Containing Solely Aluminate Tetrahedra as the Secondary Building Unit. Inorganic Chemistry, 2019, 58, 4099-4102.	4.0	7
24	Thermodynamic assessment of the hollandite highâ€level radioactive waste form. Journal of the American Ceramic Society, 2019, 102, 6284-6297.	3.8	6
25	Alkaline earth ion exchange study of pure silica LTA zeolites using periodic first-principles calculations. New Journal of Chemistry, 2019, 43, 16835-16840.	2.8	5
26	Understanding the Polymorphism of A₄[(UO₂)₃(PO₄)₂O₂] (A =) Tj ETQq0 0 0 rgBT /Overlock		
27	A Family of Layered Phosphates Crystallizing in a Rare Geometrical Isomer of the Phosphuranylite Topology: Synthesis, Characterization, and Computational Modeling of A₄[(UO₂)₃O₂(PO₄)₂] (A =) Tj ETQq1 1 0.784314 rgBT	4.0	20
28	Na₂(UO₂)(BO₃): An All-Uranium(V) Borate Synthesized under Mild Hydrothermal Conditions. Inorganic Chemistry, 2018, 57, 4244-4247.	4.0	14
29	Observation of an Unusual Uranyl Cationâ€“Cation Interaction in the Strongly Fluorescent Layered Uranyl Phosphates Rb₆[(UO₂)₇O₄(PO₄)₄] and Cs₆[(UO₂)₇O₄(PO₄)₄]. Inorganic Chemistry, 2018, 57, 3675-3678.	4.0	24
30	Understanding the Stability of Salt-Inclusion Phases for Nuclear Waste-forms through Volume-based Thermodynamics. Scientific Reports, 2018, 8, 15294.	3.3	8
31	Uranium nitride-silicide advanced nuclear fuel: higher efficiency and greater safety. Advances in Applied Ceramics, 2018, 117, s76-s81.	1.1	26
32	Communication: First-principles evaluation of alkali ion adsorption and ion exchange in pure silica LTA zeolite. Journal of Chemical Physics, 2018, 149, 131102.	3.0	9
33	Versatile Uranyl Germanate Framework Hosting 12 Different Alkali Halide 1D Salt Inclusions. Inorganic Chemistry, 2018, 57, 11606-11615.	4.0	29
34	Hierarchical Materials as Tailored Nuclear Waste Forms: A Perspective. Chemistry of Materials, 2018, 30, 4475-4488.	6.7	98
35	Thermochemical Modeling of Oxide Glasses. Journal of the American Ceramic Society, 2002, 85, 2887-2894.	3.8	90
36	Modeling Metallic Halide Local Structures in Salt Melts Using a Genetic Algorithm. Journal of Physical Chemistry C, 0, , .	3.1	0