

Ashkan Salamat

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

1,722
citations

411340

20
h-index

312153

41
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51
all docs

51
docs citations

51
times ranked

2311
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersion interactions in proposed covalent superhydride superconductors. <i>Physical Review B</i> , 2022, 105, .	1.1	2
2	Deviation between quartzâ€inâ€garnet elastic geobarometry and equilibriumâ€based pressureâ€temperature modelling in Barrovian metamorphic rocks. <i>Journal of Metamorphic Geology</i> , 2022, 40, 1067-1086.	1.6	2
3	Pressure-driven symmetry transitions in dense $H₂O</sub>$ ice. <i>Physical Review B</i> , 2022, 105, .	1.1	9
4	Pressure-induced metallization and 3d-like behavior in $Tc₂$. <i>Chemical Communications</i> , 2022, , .	2.2	0
5	Carbon content drives high temperature superconductivity in a carbonaceous sulfur hydride below 100 GPa. <i>Chemical Communications</i> , 2022, 58, 9064-9067.	2.2	7
6	Coexistence of metamagnetism and slow relaxation of magnetization in ammonium hexafluoridorthenate. <i>RSC Advances</i> , 2021, 11, 6353-6360.	1.7	6
7	Synthesis and chemical stability of technetium nitrides. <i>Chemical Communications</i> , 2021, 57, 8079-8082.	2.2	3
8	Synthesis of Yttrium Superhydride Superconductor with a Transition Temperature up to 262ÅK by Catalytic Hydrogenation at High Pressures. <i>Physical Review Letters</i> , 2021, 126, 117003.	2.9	165
9	Decoupling Lattice and Magnetic Instabilities in Frustrated $CuMnO₂$. <i>Inorganic Chemistry</i> , 2021, 60, 6004-6015.	1.9	7
10	Implications of an improved water equation of state for water-rich planets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 2825-2832.	1.6	5
11	Equation of State for Natural Almandine, Spessartine, Pyrope Garnet: Implications for Quartz-In-Garnet Elastic Geobarometry. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 458.	0.8	2
12	Colossal Density-Driven Resistance Response in the Negative Charge Transfer Insulator MnS_2 . <i>Physical Review Letters</i> , 2021, 127, 016401.	2.9	11
13	$\hat{\Gamma}_2$ -Technetium: An allotrope with a nonstandard volume-pressure relationship. <i>Physical Review Materials</i> , 2021, 5, .	0.9	2
14	Prevalence of pretransition disordering in the rutile-to- $CaCl_2</math> phase transition of GeO_2</math>. Physical Review B, 2021, 104, .$	1.1	2
15	Optical and electronic solutions for power stabilization of CO2 lasers. <i>Review of Scientific Instruments</i> , 2020, 91, 103003.	0.6	4
16	Response of the mode $\hat{\Gamma}_4^-$ Raman parameters with anisotropic compression: A pressure and temperature dependent Raman study of $\hat{\Gamma}_2^-</math>-Sn. Physical Review B, 2020, 102, .$	1.1	4
17	Anomalous Conductivity in the Rutile Structure Driven by Local Disorder. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5351-5356.	2.1	4
18	Probing disorder in high-pressure cubic tin (IV) oxide: a combined X-ray diffraction and absorption study. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1245-1252.	1.0	8

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19	Electronic origins of the giant volume collapse in the pyrite mineral MnS_2 . Journal of Solid State Chemistry, 2019, 269, 540-546.	1.4	7
20	Simple imaging for the diamond anvil cell: Applications to hard-to-reach places. Review of Scientific Instruments, 2018, 89, 103902.	0.6	7
21	Pressure-tunable Visible-Range Band Gap in the Ionic Spinel Tin Nitride. Angewandte Chemie, 2018, 130, 11797-11802.	1.6	3
22	Covalency is Frustrating: $\text{La}_2\text{Sn}_2\text{O}_7$ and the Nature of Bonding in Pyrochlores under High Pressure-Temperature Conditions. Inorganic Chemistry, 2018, 57, 15051-15061.	1.9	10
23	Pressure-tunable Visible-Range Band Gap in the Ionic Spinel Tin Nitride. Angewandte Chemie - International Edition, 2018, 57, 11623-11628.	7.2	22
24	A CO ₂ laser heating system for <i>in situ</i> high pressure-temperature experiments at HPCAT. Review of Scientific Instruments, 2018, 89, 083901.	0.6	18
25	Postaragonite phases of CaCO_3 at lower mantle pressures. Physical Review Materials, 2018, 2, .	0.6	1
26	Syntheses, Raman spectroscopy and crystal structures of alkali hexafluoridorhenates(IV) revisited. Acta Crystallographica Section E: Crystallographic Communications, 2018, 74, 646-649.	0.2	12
27	10.1063/1.5048316.1., 2018, . .		0
28	Metallic Hydrogen. Journal of Low Temperature Physics, 2017, 187, 4-19.	0.6	2
29	Carbon nitride frameworks and dense crystalline polymorphs. Physical Review B, 2016, 94, .	1.1	51
30	Evidence of a first-order phase transition to metallic hydrogen. Physical Review B, 2016, 93, .	1.1	118
31	The crystal structures of $\text{Mg}_2\text{Fe}_2\text{C}_4\text{O}_{13}$, with tetrahedrally coordinated carbon, and Fe_3O_9 , synthesized at deep mantle conditions. American Mineralogist, 2015, 100, 2001-2004.	0.9	51
32	High-Pressure Annealing of a Prestructured Nanocrystalline Precursor to Obtain Tetragonal and Orthorhombic Polymorphs of Hf_3N_4 . Materials Research Society Symposia Proceedings, 2014, 1655, 1.	0.1	1
33	Structure and compressibility of the high-pressure molecular phase II of carbon dioxide. Physical Review B, 2014, 89, .	1.1	23
34	In situ synchrotron X-ray diffraction in the laser-heated diamond anvil cell: Melting phenomena and synthesis of new materials. Coordination Chemistry Reviews, 2014, 277-278, 15-30.	9.5	37
35	Synthesis of U_3Se_5 and U_3Te_5 type polymorphs of Ta_3N_5 by combining high pressure-temperature pathways with a chemical precursor approach. Chemical Communications, 2014, 50, 10041-10044.	2.2	30
36	Giant pressure-induced volume collapse in the pyrite mineral MnS_2 . Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5106-5110.	3.3	37

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37	Strategies for <i>in situ</i> laser heating in the diamond anvil cell at an X-ray diffraction beamline. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 89-96.	1.0	44
38	High-pressure structural transformations of Sn up to 138 GPa: Angle-dispersive synchrotron x-ray diffraction study. <i>Physical Review B</i> , 2013, 88, .	1.1	54
39	Synthesis of Tetragonal and Orthorhombic Polymorphs of Hf_3N_4 by High-Pressure Annealing of a Prestructured Nanocrystalline Precursor. <i>Journal of the American Chemical Society</i> , 2013, 135, 9503-9511.	6.6	40
40	Structural Transformations and Disorder in Zirconolite ($\text{CaZrTi}_2\text{O}_7$) at High Pressure. <i>Inorganic Chemistry</i> , 2013, 52, 1550-1558.	1.9	40
41	Nitrogen-rich transition metal nitrides. <i>Coordination Chemistry Reviews</i> , 2013, 257, 2063-2072.	9.5	114
42	Identification of new pillared-layered carbon nitride materials at high pressure. <i>Scientific Reports</i> , 2013, 3, 2122.	1.6	15
43	Structure of Polymeric Carbon Dioxide $\text{CO}_2^{\hat{V}}$. <i>Physical Review Letters</i> , 2012, 108, 125701.	2.9	86
44	Materials Properties of Ultra-Incompressible Re_2P . <i>Chemistry of Materials</i> , 2012, 24, 3240-3246.	3.2	15
45	Structure, Bonding, and Phase Relations in $\text{Bi}_2\text{Sn}_2\text{O}_7$ and $\text{Bi}_2\text{Ti}_2\text{O}_7$ Pyrochlores: New Insights from High Pressure and High Temperature Studies. <i>Inorganic Chemistry</i> , 2011, 50, 11905-11913.	1.9	32
46	Dense close-packed phase of tin above 157 GPa observed experimentally via angle-dispersive x-ray diffraction. <i>Physical Review B</i> , 2011, 84, .	1.1	30
47	High-Pressure Behavior and Polymorphism of Titanium Oxynitride Phase $\text{Ti}_{2.85}\text{O}_4\text{N}$. <i>Journal of Physical Chemistry C</i> , 2010, 114, 8546-8551.	1.5	8
48	Tetrahedrally bonded dense C_2 a defective wurtzite structure: X-ray diffraction and Raman scattering results at high pressure and ambient conditions. <i>Physical Review B</i> , 2009, 80, .	1.1	38
49	Pressure-induced structural transformations of the Zintl phase sodium silicide. <i>Journal of Solid State Chemistry</i> , 2009, 182, 2535-2542.	1.4	12