

Serge Desgreniers

List of Publications by Year in descending order

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65
papers

3,031
citations

185998

28
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161609

54
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67
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67
docs citations

67
times ranked

3155
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitroethane at high density: an experimental and computational vibrational study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9325-9336.	1.3	0
2	In situ X-ray diffraction study of chrysotile at high P&T conditions: transformation to the 3.65Å... phase. <i>Physics and Chemistry of Minerals</i> , 2021, 48, 1.	0.3	0
3	In Situ X-Ray Diffraction Study on Hydrate Formation at Low Temperature in a High Vacuum. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26892-26900.	1.5	5
4	A milestone in the hunt for metallic hydrogen. <i>Nature</i> , 2020, 577, 626-627.	13.7	7
5	Pancakes under Pressure: A Case Study on Isostructural Dithia- and Diselenadiazolyl Radical Dimers. <i>Inorganic Chemistry</i> , 2019, 58, 3550-3557.	1.9	7
6	Benzoquinone-Bridged Heterocyclic Zwitterions as Building Blocks for Molecular Semiconductors and Metals. <i>Inorganic Chemistry</i> , 2018, 57, 4757-4770.	1.9	20
7	High pressure crystal structure of nitroethane. <i>Journal of Chemical Physics</i> , 2018, 149, 224506.	1.2	2
8	Pressure-driven collapse of the relativistic electronic ground state in a honeycomb iridate. <i>Npj Quantum Materials</i> , 2018, 3, .	1.8	36
9	The Power of Packing: Metallization of an Organic Semiconductor. <i>Journal of the American Chemical Society</i> , 2017, 139, 2180-2183.	6.6	48
10	Fine Tuning the Performance of Multiorbital Radical Conductors by Substituent Effects. <i>Journal of the American Chemical Society</i> , 2017, 139, 1625-1635.	6.6	40
11	Base-Metal Nanoparticle-Catalyzed Hydrogen Release from Ammine Yttrium and Lanthanum Borohydrides. <i>Chemistry of Materials</i> , 2017, 29, 742-751.	3.2	4
12	Pushing T_C to 27.5 K in a heavy atom radical ferromagnet. <i>Chemical Communications</i> , 2016, 52, 13877-13880.	2.2	21
13	High pressure&low temperature phase diagram of barium: Simplicity versus complexity. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	9
14	Ambivalent binding between a radical-based pincer ligand and iron. <i>Dalton Transactions</i> , 2015, 44, 10516-10523.	1.6	15
15	Localized nanoclusters formation in PDMS upon irradiation with femtosecond laser. <i>Optical Materials Express</i> , 2015, 5, 858.	1.6	22
16	The Metallic State in Neutral Radical Conductors: Dimensionality, Pressure and Multiple Orbital Effects. <i>Journal of the American Chemical Society</i> , 2015, 137, 14136-14148.	6.6	37
17	Mixing unmixables: Unexpected formation of Li-Cs alloys at low pressure. <i>Science Advances</i> , 2015, 1, e1500669.	4.7	16
18	Pressure induced spin transition revealed by iron M _{2,3} -edge spectroscopy. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	18

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19	High pressure study of a highly energetic nitrogen-rich carbon nitride, cyanuric triazide. Journal of Chemical Physics, 2014, 141, 234506.	1.2	9
20	Dense nitrogen-rich energetic materials: A study of 5,5-bis(1H-tetrazolyl)amine. Journal of Chemical Physics, 2014, 140, 184701.	1.2	9
21	Pressure-Induced Changes on The Electronic Structure and Electron Topology in the Direct FCC to SH Transformation of Silicon. Journal of Physical Chemistry C, 2014, 118, 1161-1166.	1.5	20
22	An unprecedented Collcuboctahedron as the secondary building unit in a Co-based metal-organic framework. Chemical Communications, 2014, 50, 5333-5335.	2.2	41
23	Pressure Induced Phase Transitions and Metallization of a Neutral Radical Conductor. Journal of the American Chemical Society, 2014, 136, 1070-1081.	6.6	72
24	Heat, Pressure and Light-Induced Interconversion of Bisdithiazolyl Radicals and Dimers. Journal of the American Chemical Society, 2014, 136, 8050-8062.	6.6	63
25	Structural phase transitions induced by pressure in ammonium borohydride. Physical Chemistry Chemical Physics, 2012, 14, 7005.	1.3	6
26	A Pressure Induced Structural Dichotomy in Isostructural Bis-1,2,3-thiaselenazolyl Radical Dimers. Crystal Growth and Design, 2012, 12, 4676-4684.	1.4	15
27	Exploiting area detectors to reduce measured Compton scattering via energy selection. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 668, 9-13.	0.7	0
28	From Magnets to Metals: The Response of Tetragonal Bisdiselenazolyl Radicals to Pressure. Journal of the American Chemical Society, 2011, 133, 6051-6060.	6.6	89
29	Metallization of a Hypervalent Radical Dimer: Molecular and Band Perspectives. Journal of the American Chemical Society, 2010, 132, 4876-4886.	6.6	39
30	Hysteretic Spin Crossover between a Bisdithiazolyl Radical and Its Hypervalent π -Dimer. Journal of the American Chemical Society, 2010, 132, 16212-16224.	6.6	102
31	Kaolin polytypes revisited ab initio at 10 GPa. American Mineralogist, 2010, 95, 1117-1120.	0.9	8
32	Structure and dynamics of ammonium borohydride. Chemical Communications, 2010, 46, 9164.	2.2	19
33	Instability of CaLi_2 at high pressure: Theoretical prediction and experimental results. Europhysics Letters, 2009, 86, 56001.	0.7	13
34	Selected techniques in diamond anvil cell crystallography: centring samples using X-ray transmission and rocking powder samples to improve X-ray diffraction image quality. Journal of Synchrotron Radiation, 2009, 16, 83-96.	1.0	24
35	High-density strontium hydride: An experimental and theoretical study. Solid State Communications, 2009, 149, 830-834.	0.9	31
36	Structure and electronic properties of at high pressure. Solid State Communications, 2009, 149, 1944-1946.	0.9	26

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37	High-pressure structures and vibrational spectra of barium fluoride: Results obtained under nearly hydrostatic conditions. <i>Physical Review B</i> , 2009, 79, .	1.1	13
38	Single-Crystal Structural Characterization of the Metallic Phase of Oxygen. <i>Physical Review Letters</i> , 2009, 102, 255503.	2.9	92
39	Heavy Atom Ferromagnets under Pressure: Structural Changes and the Magnetic Response. <i>Journal of the American Chemical Society</i> , 2009, 131, 16012-16013.	6.6	60
40	Pressure effects in lutetium yttrium oxyorthosilicate single crystals. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1268-1275.	1.2	18
41	Electronic structure of μ -oxygen at high pressure: GW calculations. <i>Physical Review B</i> , 2008, 78, .	1.1	8
42	Electron density topology of cubic structure I Xe clathrate hydrate at high pressure. <i>Journal of Chemical Physics</i> , 2008, 129, 244507.	1.2	12
43	Electron density topology of high-pressure $\text{Ba}_8\text{Si}_{46}$ from a combined Rietveld and maximum-entropy analysis. <i>Physical Review B</i> , 2007, 76, .	1.1	20
44	High-pressure phase transition observed in barium hydride. <i>Journal of Applied Physics</i> , 2007, 102, 043520.	1.1	32
45	Structural characterization of $\text{Lu}_{1.8}\text{Y}_{0.2}\text{Si}_5\text{O}_8$ crystals.	1.1	44
46	Observation of an O ₈ molecular lattice in the ϵ phase of solid oxygen. <i>Nature</i> , 2006, 443, 201-204.	13.7	156
47	Structural systematics in the clathrate hydrates under pressure. <i>Canadian Journal of Physics</i> , 2003, 81, 539-544.	0.4	74
48	X-ray Diffraction of Oxygen Under Pressure in a Neon Medium. <i>High Pressure Research</i> , 2002, 22, 13-16.	0.4	2
49	Structural Stability and Phase Transitions in K_8Si_{46} Clathrate under High Pressure. <i>Physical Review Letters</i> , 2002, 89, 195507.	2.9	71
50	Pressure-induced structural changes in ZnS. <i>Physical Review B</i> , 2000, 61, 8726-8733.	1.1	97
51	High-density ZrO_2 and HfO_2 : Crystalline structures and equations of state. <i>Physical Review B</i> , 1999, 59, 8467-8472.	1.1	190
52	High-density phases of ZnO: Structural and compressive parameters. <i>Physical Review B</i> , 1998, 58, 14102-14105.	1.1	402
53	Raman study of single crystal anatase TiO_2 up to 70 GPa. <i>Solid State Communications</i> , 1995, 94, 519-524.	0.9	108
54	XRDA: a program for energy-dispersive X-ray diffraction analysis on a PC. <i>Journal of Applied Crystallography</i> , 1994, 27, 432-434.	1.9	83

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55	High-pressure optical studies on sulfur to 121 GPa: Optical evidence for metallization. Physical Review Letters, 1991, 67, 2998-3001.	2.9	100
56	Optical response of very high density solid oxygen to 132 GPa. The Journal of Physical Chemistry, 1990, 94, 1117-1122.	2.9	198
57	Comment on "Ruby at high pressure. I. Optical line shifts to 156 GPa". Physical Review B, 1990, 42, 9189-9190.	1.1	7
58	Near-infrared photoluminescence bands in diamond. Physical Review B, 1989, 39, 5464-5467.	1.1	11
59	Near-infrared photoluminescence due to nitrogen platelets in type Ia diamonds. Solid State Communications, 1989, 70, 705-708.	0.9	11
60	Tin at high pressure: An energy-dispersive x-ray-diffraction study to 120 GPa. Physical Review B, 1989, 39, 10359-10361.	1.1	91
61	Phase-Transition Studies of Germanium to 1.25 Mbar. Physical Review Letters, 1986, 56, 1944-1947.	2.9	178
62	A Raman spectroscopic study of naphthalene:octafluoronaphthalene at high pressure and low temperature. Journal of Chemical Physics, 1985, 83, 480-485.	1.2	6
63	Temperature and pressure dependence of the electronic structure of tetracyanoquinodimethane crystals and the effect of impurities. Canadian Journal of Physics, 1985, 63, 1513-1517.	0.4	1
64	Temperature dependence of the Raman active phonons in CaWO ₄ , SrWO ₄ and BaWO ₄ . Journal of Physics and Chemistry of Solids, 1984, 45, 1105-1109.	1.9	33
65	The Raman Spectrum of Cd ₃ As ₂ . Journal of Raman Spectroscopy, 1984, 15, 137-138.	1.2	20