Rostislav Hrubiak

List of Publications by Year
in descending order

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22	543	759233 12	642732 23
papers	citations	h-index	g-index

24	24	24	893
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	New developments in laser-heated diamond anvil cell with in situ synchrotron x-ray diffraction at High Pressure Collaborative Access Team. Review of Scientific Instruments, 2015, 86, 072201.	1.3	90
2	The laser micro-machining system for diamond anvil cell experiments and general precision machining applications at the High Pressure Collaborative Access Team. Review of Scientific Instruments, 2015, 86, 072202.	1.3	80
3	Origins of ultralow velocity zones through slab-derived metallic melt. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5547-5551.	7.1	55
4	Microstructures define melting of molybdenum at high pressures. Nature Communications, 2017, 8, 14562.	12.8	55
5	The thermodynamics of several elements at high pressure. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2011, 35, 72-81.	1.6	36
6	Principal component analysis on properties of binary and ternary hydrides and a comparison of metal versus metal hydride properties. Journal of Alloys and Compounds, 2009, 478, 731-735.	5.5	24
7	Semiconducting cubic titanium nitride in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Th</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">P</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>structure. Physical Review Materials, 2018, 2, .	2.4	24
8	The structural and optical properties of ZnO bulk and nanocrystals under high pressure. High Pressure Research, 2012, 32, 354-363.	1.2	23
9	High P-T phase transitions and P-V-T equation of state of hafnium. Journal of Applied Physics, 2012, 111, .	2.5	22
10	Multimode scanning X-ray diffraction microscopy for diamond anvil cell experiments. Review of Scientific Instruments, 2019, 90, 025109.	1.3	19
11	A CO2 laser heating system for in situ high pressure-temperature experiments at HPCAT. Review of Scientific Instruments, 2018, 89, 083901.	1.3	18
12	Pressure-induced structural transition in chalcopyrite ZnSiP2. Applied Physics Letters, 2017, 110, 182106.	3.3	17
13	Surprising Stability of Cubane under Extreme Pressure. Journal of Physical Chemistry Letters, 2018, 9, 2031-2037.	4.6	12
14	Highâ€pressure, highâ€temperature equations of state using nanofabricated controlledâ€geometry Ni/SiO₂/Ni double hotâ€plate samples. Geophysical Research Letters, 2015, 42, 10,239.	4.0	11
15	High-pressure high-temperature synthesis and thermal equation of state of high-entropy transition metal boride. AIP Advances, 2021, 11, .	1.3	11
16	Experimental melting curve of zirconium metal to 37 GPa. Journal of Physics Condensed Matter, 2020, 32, 355402.	1.8	10
17	Mapping the nebular condensates and the chemical composition of the terrestrial planets. Earth and Planetary Science Letters, 2014, 393, 113-119.	4.4	9
18	Thermochemical reactions of Al-based intermetallic composites to AlN. Combustion and Flame, 2019, 200, 115-124.	5.2	7

#	Article	IF	Citations
19	High-Entropy Borides under Extreme Environment of Pressures and Temperatures. Materials, 2022, 15, 3239.	2.9	7
20	Real time study of grain enlargement in zirconium under room-temperature compression across the Î± to Ï‰ phase transition. Scientific Reports, 2019, 9, 15712.	3.3	4
21	Laser-assisted processing of Ni-Al-Co-Ti under high pressure. Materials and Manufacturing Processes, 2017, 32, 1606-1611.	4.7	3
22	Coexistence of vitreous and crystalline phases of H ₂ O at ambient temperature. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	3