

Bastian Holst

List of Publications by Year in descending order

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Version: 2024-02-01

24
papers

1,638
citations

471509

17
h-index

713466

21
g-index

24
all docs

24
docs citations

24
times ranked

1117
citing authors

#	ARTICLE	IF	CITATIONS
1	Ab Initio Equation of State Data for Hydrogen, Helium, and Water and the Internal Structure of Jupiter. <i>Astrophysical Journal</i> , 2008, 683, 1217-1228.	4.5	222
2	Thermophysical properties of warm dense hydrogen using quantum molecular dynamics simulations. <i>Physical Review B</i> , 2008, 77, .	3.2	204
3	JUPITER MODELS WITH IMPROVED AB INITIO HYDROGEN EQUATION OF STATE (H-REOS.2). <i>Astrophysical Journal</i> , 2012, 750, 52.	4.5	165
4	Electronic transport coefficients from <i>ab initio</i> simulations and application to dense liquid hydrogen. <i>Physical Review B</i> , 2011, 83, .	3.2	148
5	Demixing of Hydrogen and Helium at Megabar Pressures. <i>Physical Review Letters</i> , 2009, 102, 115701.	7.8	121
6	First-order liquid-liquid phase transition in dense hydrogen. <i>Physical Review B</i> , 2010, 82, .	3.2	121
7	Resolving Ultrafast Heating of Dense Cryogenic Hydrogen. <i>Physical Review Letters</i> , 2014, 112, 105002.	7.8	95
8	Evolution of ac Conductivity in Nonequilibrium Warm Dense Gold. <i>Physical Review Letters</i> , 2013, 110, 135001.	7.8	84
9	Metallization in hydrogen-helium mixtures. <i>Physical Review B</i> , 2011, 84, .	3.2	78
10	COMPTRA04 - a Program Package to Calculate Composition and Transport Coefficients in Dense Plasmas. <i>Contributions To Plasma Physics</i> , 2005, 45, 73-88.	1.1	76
11	Quantum Molecular Dynamics Simulations for the Nonmetal-to-Metal Transition in Fluid Helium. <i>Physical Review Letters</i> , 2007, 98, 190602.	7.8	63
12	Measurement of carbon ionization balance in high-temperature plasma mixtures by temporally resolved X-ray scattering. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2006, 99, 225-237.	2.3	56
13	Measurements of Ionic Structure in Shock Compressed Lithium Hydride from Ultrafast X-Ray Thomson Scattering. <i>Physical Review Letters</i> , 2009, 103, 245004.	7.8	51
14	Ultrafast Short-Range Disorder of Femtosecond-Laser-Heated Warm Dense Aluminum. <i>Physical Review Letters</i> , 2013, 111, 245004.	7.8	41
15	Electrical Conductivity of Noble Gases at High Pressures. <i>Contributions To Plasma Physics</i> , 2005, 45, 61-69.	1.1	39
16	Isentropic compression of hydrogen: Probing conditions deep in planetary interiors. <i>Physical Review B</i> , 2013, 88, .	3.2	27
17	Thomson scattering in dense plasmas with density and temperature gradients. <i>High Energy Density Physics</i> , 2009, 5, 208-211.	1.5	17
18	Two-color Thomson scattering at FLASH. <i>High Energy Density Physics</i> , 2011, 7, 145-149.	1.5	14

#	ARTICLE	IF	CITATIONS
19	Static ion structure factor for dense plasmas: Semi-classical and ab initio calculations. High Energy Density Physics, 2010, 6, 305-310.	1.5	8
20	Metal-Insulator Transition in Dense Hydrogen. Springer Series in Materials Science, 2010, , 63-84.	0.6	3
21	Warm Dense Hydrogen in the Chemical Picture. AIP Conference Proceedings, 2006, , .	0.4	2
22	Giant planets as laboratory for high energy density physics. , 2008, , .		2
23	INTERIOR OF SOLAR AND EXTRASOLAR GIANT PLANETS. , 2009, , .		1
24	NONMETAL-TO-METAL TRANSITION IN WARM DENSE HYDROGEN AND HELIUM. , 2008, , .		0