Frank Joseph Cherne Iii

List of Publications by Year
in descending order

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29	797	687363 13	677142 22
papers	citations	h-index	g-index

29	29	29	327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Unstable Richtmyerâ€“Meshkov growth of solid and liquid metals in vacuum. Journal of Fluid Mechanics, 2012, 703, 60-84.	3.4	208
2	Ejecta source model based on the nonlinear Richtmyer-Meshkov instability. Journal of Applied Physics, 2013, 113, .	2.5	105
3	Use of the Richtmyer-Meshkov Instability to Infer Yield Stress at High-Energy Densities. Physical Review Letters, 2011, 107, 264502.	7.8	90
4	On shock driven jetting of liquid from non-sinusoidal surfaces into a vacuum. Journal of Applied Physics, 2015, 118, .	2.5	67
5	Second shock ejecta measurements with an explosively driven two-shockwave drive. Journal of Applied Physics, 2014, 116, .	2.5	46
6	Shock melting of cerium. Physical Review B, 2010, 81, .	3.2	41
7	Jet formation in cerium metal to examine material strength. Journal of Applied Physics, 2015, 118, .	2.5	41
8	Non-classical nucleation in supercooled nickel. Modelling and Simulation in Materials Science and Engineering, 2004, 12, 1063-1068.	2.0	33
9	A Source Model for Ejecta. Journal of Dynamic Behavior of Materials, 2017, 3, 316-320.	1.7	23
10	Dynamic compression of cerium in the low-pressure Î³ â˜’ Î± region of the phase diagram. Journal of Applied Physics, 2012, 112, .	2.5	20
11	A numerical study of bubble and spike velocities in shock-driven liquid metals. Journal of Applied Physics, 2018, 123, .	2.5	20
12	Phase states of dynamically compressed cerium. Physical Review B, 2011, 84, .	3.2	16
13	Ejecta Production from Second Shock: Numerical Simulations and Experiments. Journal of Dynamic Behavior of Materials, 2017, 3, 265-279.	1.7	16
14	Examining the high-pressure response and shock melting in cerium using optical pyrometry. Physical Review B, 2020, 102, .	3.2	13
15	Dynamic Compression of Iron Single Crystals. AIP Conference Proceedings, 2006, , .	0.4	12
16	Explosively driven two-shockwave tools with applications. Journal of Physics: Conference Series, 2014, 500, 112014.	0.4	10
17	Dynamic experiments to study the Î±â˜’Îµ phase transition in cerium. Journal of Applied Physics, 2020, 127, 095901.	2.5	10
18	Study of cerium phase transitions in shock wave experiments. Journal of Experimental and Theoretical Physics, 2011, 112, 212-219.	0.9	7

#	Article	IF	Citations
19	Dynamical and transport properties of liquid gallium at high pressures. Physical Review E, 2015, 91, 063101.	2.1	7
20	Measurement of the sound velocities behind the shock wave front in tin. Combustion, Explosion and Shock Waves, 2012, 48, 112-118.	0.8	6
21	Measurement of sound velocities and shear strength of cerium under shock compression. Journal of Physics: Conference Series, 2008, 121, 072003.	0.4	4
22	Electronic and atomic structure of liquid potassium via path integral molecular dynamics with non-local quantum exchange. Modelling and Simulation in Materials Science and Engineering, 1996, 4, 137-150.	2.0	1
23	IMPLEMENTATION OF A COMPLEX MULTI-PHASE EQUATION OF STATE FOR CERIUM AND ITS CORRELATION WITH EXPERIMENT. , 2009, , .		1
24	STUDY OF PHASE TRANSITIONS IN CERIUM BY PVDF GAUGE. , 2008, , .		0
25	MEASUREMENT OF SOUND VELOCITIES AND SHEAR STRENGTH OF CERIUM UNDER SHOCK COMPRESSION. , 2008, , .		0
26	EXAMINATION OF THE SPALLATION BEHAVIOR OF CERIUM METAL. , 2008, , .		0
27	MEASUREMENT OF SOUND VELOCITIES IN SHOCK-COMPRESSED TIN UNDER PRESSURES UP TO 150 GPa. , 2009, , .		0
28	Enhancing impact velocity with shock interactions in a restricting die. Journal of Physics: Conference Series, 2014, 500, 142001.	0.4	0
29	Predictions from the equation of state of cerium yield interesting insights into experimental results. , 2009, , .		0