Ashwin Chinnayya

List of Publications by Year
in descending order

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40 papers	929 citations	430874 18 h-index	454955 30 g-index
40 all docs	40 docs citations	40 times ranked	549 citing authors

#	Article	IF	Citations
1	On the use of immersed boundary methods for shock/obstacle interactions. Journal of Computational Physics, 2011, 230, 1731-1748.	3.8	130
2	Modelling detonation waves in heterogeneous energetic materials. Journal of Computational Physics, 2004, 196, 490-538.	3.8	110
3	Modelling detonation waves in condensed energetic materials: multiphase CJ conditions and multidimensional computations. Shock Waves, 2009, 19, 377-401.	1.9	62
4	A computational study of the interaction of gaseous detonations with a compressible layer. Physics of Fluids, 2017, 29, .	4.0	57
5	Blast wave mitigation by dry aqueous foams. Shock Waves, 2013, 23, 39-53.	1.9	48
6	Numerical Study of Compressible Mixing Layers Using High-Order WENO Schemes. Journal of Scientific Computing, 2011, 47, 170-197.	2.3	47
7	Modelling compressible dense and dilute two-phase flows. Physics of Fluids, 2017, 29, .	4.0	45
8	Pressure relaxation procedures for multiphase compressible flows. International Journal for Numerical Methods in Fluids, 2005, 49, 1-56.	1.6	43
9	Numerical study of shock propagation and attenuation in narrow tubes including friction and heat losses. Computers and Fluids, 2010, 39, 1711-1721.	2.5	36
10	Macro-mechanical modelling of blast wave mitigation in foams. Part I: review of available experiments and models. Shock Waves, 2013, 23, 5-23.	1.9	33
11	Computational study of detonation wave propagation in narrow channels. Physics of Fluids, 2013, 25, .	4.0	31
12	Numerical analysis of the mean structure of gaseous detonation with dilute water spray. Journal of Fluid Mechanics, 2020, 887, .	3.4	27
13	Mean structure of one-dimensional unstable detonations with friction. Journal of Fluid Mechanics, 2014, 743, 503-533.	3.4	26
14	Influence of the chemical modeling on the quenching limits of gaseous detonation waves confined by an inert layer. Combustion and Flame, 2020, 218, 247-259.	5.2	24
15	Application of the dynamic model of Saeman to an industrial rotary kiln incinerator: Numerical and experimental results. Waste Management, 2010, 30, 1188-1195.	7.4	21
16	On the viscous boundary layer of weakly unstable detonations in narrow channels. Computers and Fluids, 2019, 179, 449-458.	2.5	21
17	The influence of the equation of state on the cellular structure of gaseous detonations. Physics of Fluids, 2021, 33, .	4.0	20
18	Ethyleneâ€“air detonation in water spray. Shock Waves, 2016, 26, 561-572.	1.9	19

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19	Shock waves in sprays: numerical study of secondary atomization and experimental comparison. Shock Waves, 2016, 26, 403-415.	1.9	19
20	Transient simulation of a two-phase loop thermosyphon with a model out of thermodynamic equilibrium. International Journal of Heat and Mass Transfer, 2017, 108, 2321-2332.	4.8	16
21	Analysis of shock-wave propagation in aqueous foams using shock tube experiments. Physics of Fluids, 2015, 27, .	4.0	14
22	Thermodynamic analysis and numerical resolution of a turbulent - fully ionized plasma flow model. Shock Waves, 2003, 13, 283-297.	1.9	12
23	Computation of the mean hydrodynamic structure of gaseous detonations with losses. Shock Waves, 2020, 30, 645-669.	1.9	12
24	Effect of incident laser sheet orientation on the OH-PLIF imaging of detonations. Shock Waves, 2020, 30, 689-702.	1.9	12
25	Characterization of pneumatic transportation of pulverised coal in a horizontal pipeline through measurement and computational modelling. Fuel, 2009, 88, 2348-2356.	6.4	9
26	Numerical analysis on behavior of dilute water droplets in detonation. Proceedings of the Combustion Institute, 2021, 38, 3709-3716.	3.9	7
27	Computational study of non-ideal and mildly-unstable detonation waves. Computers and Fluids, 2015, 119, 47-57.	2.5	6
28	Numerical study of 3D gaseous detonations in a square channel. Aerotecnica Missili & Spazio, 2018, 97, 96-102.	0.9	5
29	Investigation of JWL Equation of State for Detonation Products at Low Pressure With Radio Interferometry. Propellants, Explosives, Pyrotechnics, 2018, 43, 1157-1163.	1.6	5
30	Experimental study and global model of PAH formation from coal combustion. Journal of the Energy Institute, 2007, 80, 12-21.	5.3	4
31	Modeling of aqueous foam blast wave attenuation. EPJ Web of Conferences, 2010, 10, 00035.	0.3	3
32	Numerical Investigation on Characteristic Lengths for Gaseous Detonation with Dilute Water Spray. , 2019, , .		2
33	Effect of friction and heat losses on the mean structure of one-dimensional detonations. AIP Conference Proceedings, 2013, , .	0.4	1
34	Secondary Atomization on Two-Phase Shock Wave Structure. , 2012, , 95-100.		1
35	Blast Wave Attenuation by Dry Aqueous Foams. , 2012, , 93-98.		1
36	Numerical Study of Detonation Wave Propagation in Narrow Channels. , 2012, , 385-390.		0

#	Article	IF	Citations
37	Numerical Modelling of Shock-Wave Propagation in a Shock Tube Filled with Aqueous Foam. , 2015, , 1511-1516.		0
38	Emission spectroscopy for monitoring condensed carbon in detonation products of oxygen-deficient high explosives. AIP Conference Proceedings, 2018, , .	0.4	0
39	Experimental Investigation of Shock-Wave Propagation in Aqueous Foam. , 2015, , 1487-1492.		0
40	CAPTURE OF PARTICLES DISPERSED BY DETONATION USING AN AQUEOUS FOAM CONFINEMENT. , 2018, , .		0