Srdjan M Sasic

List of Publications by Year
in descending order

58 papers	1,018 citations	567144 15 h-index	454834 30 g-index
58 all docs	58 docs citations	58 times ranked	921 citing authors

#	Article	IF	Citations
1	Time-series analysis of pressure fluctuations in gasâ€“solid fluidized beds â€“ A review. International Journal of Multiphase Flow, 2011, 37, 403-428.	1.6	268
2	Characterization of fluid dynamics of fluidized beds by analysis of pressure fluctuations. Progress in Energy and Combustion Science, 2007, 33, 453-496.	15.8	115
3	Derivation, simulation and validation of a cohesive particle flow CFD model. AICHE Journal, 2008, 54, 9-19.	1.8	53
4	A novel multigrid technique for Lagrangian modeling of fuel mixing in fluidized beds. Chemical Engineering Science, 2011, 66, 5628-5637.	1.9	36
5	Fluctuations and waves in fluidized bed systems: The influence of the air-supply system. Powder Technology, 2005, 153, 176-195.	2.1	35
6	The crucial role of frictional stress models for simulation of bubbling fluidized beds. Powder Technology, 2015, 270, 68-82.	2.1	29
7	Effects of the Turbulent-to-Laminar Transition in Monolithic Reactors for Automotive Pollution Control. Industrial & Engineering Chemistry Research, 2011, 50, 3194-3205.	1.8	26
8	A Study of Fuel Particle Movement in Fluidized Beds. Industrial & Engineering Chemistry Research, 2013, 52, 5791-5805.	1.8	23
9	Inlet boundary conditions for the simulation of fluid dynamics in gasâ€“solid fluidized beds. Chemical Engineering Science, 2006, 61, 5183-5195.	1.9	22
10	Single- and two-phase numerical models of Dissolved Air Flotation: Comparison of 2D and 3D simulations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 365, 137-144.	2.3	21
11	Rheological properties of dilute suspensions of rigid and flexible fibers. Journal of Non-Newtonian Fluid Mechanics, 2014, 212, 36-46.	1.0	18
12	A study of a flexible fiber model and its behavior in DNS of turbulent channel flow. Acta Mechanica, 2013, 224, 2359-2374.	1.1	16
13	Solute transport and reaction in porous electrodes at high Schmidt numbers. Journal of Fluid Mechanics, 2020, 896, .	1.4	16
14	A multiphase DNS approach for handling solid particles motion with heat transfer. International Journal of Multiphase Flow, 2013, 53, 75-87.	1.6	15
15	Coupled fine-mesh neutronics and thermal-hydraulics â€“ Modeling and implementation for PWR fuel assemblies. Annals of Nuclear Energy, 2015, 84, 244-257.	0.9	15
16	Respiratory droplets interception in fibrous porous media. Physics of Fluids, 2021, 33, 083305.	1.6	15
17	Setting Up a Numerical Model of a DAF Tank: Turbulence, Geometry, and Bubble Size. Journal of Environmental Engineering, ASCE, 2010, 136, 1424-1434.	0.7	14
18	Interaction between a Fluidized Bed and Its Air-Supply System:â€‰ Some Observations. Industrial & Engineering Chemistry Research, 2004, 43, 5730-5737.	1.8	13

#	Article	IF	Citations
19	Design of automotive flow-through catalysts with optimized soot trapping capability. Chemical Engineering Journal, 2010, 165, 934-945.	6.6	13
20	Parametric modelling of time series of pressure fluctuations in gasâ€“solid fluidized beds. Chemical Engineering Science, 2005, 60, 5069-5077.	1.9	12
21	On the continuum modeling of dense granular flow in high shear granulation. Powder Technology, 2014, 268, 339-346.	2.1	12
22	Atomizing industrial gas-liquid flows â€“ Development of an efficient hybrid VOF-LPT numerical framework. International Journal of Heat and Fluid Flow, 2016, 62, 104-113.	1.1	12
23	A novel multiphase DNS approach for handling solid particles in a rarefied gas. International Journal of Multiphase Flow, 2011, 37, 906-918.	1.6	11
24	Heat and mass transfer in automotive catalystsâ€"The influence of turbulent velocity fluctuations. Chemical Engineering Science, 2012, 83, 128-137.	1.9	11
25	Characterization of force networks in a dense high-shear system. Particuology, 2018, 38, 215-221.	2.0	11
26	Direct numerical simulation of a hydrodynamic interaction between settling particles and rising microbubbles. European Journal of Mechanics, B/Fluids, 2014, 43, 65-75.	1.2	10
27	On the dynamics of instabilities in two-fluid models for bubbly flows. Chemical Engineering Science, 2017, 170, 184-194.	1.9	10
28	Selfâ€Cleaning Surfaces for Heat Recovery During Industrial Hydrocarbonâ€Rich Gas Cooling: An Experimental and Numerical Study. AIChE Journal, 2019, 65, 317-325.	1.8	10
29	Turbulent operation of diesel oxidation catalysts for improved removal of particulate matter. Chemical Engineering Science, 2012, 69, 231-239.	1.9	9
30	A model to estimate the size of aggregates formed in a Dissolved Air Flotation unit. Applied Mathematical Modelling, 2013, 37, 3036-3047.	2.2	9
31	The role of thermophoresis in trapping of diesel and gasoline particulate matter. Catalysis Today, 2012, 188, 14-23.	2.2	8
32	Experimental and numerical investigation of the dynamics of loop seals in a largeâ€scale DFB system under hot conditions. AIChE Journal, 2015, 61, 3580-3593.	1.8	8
33	Multiscale rheophysics of nearly jammed granular flows in a high shear system. Powder Technology, 2017, 315, 356-366.	2.1	8
34	Assessing the ability of the Eulerian-Eulerian and the Eulerian-Lagrangian frameworks to capture meso-scale dynamics in bubbly flows. Chemical Engineering Science, 2019, 201, 58-73.	1.9	8
35	Water transport and absorption in pharmaceutical tablets â€“ a numerical study. Meccanica, 2020, 55, 421-433.	1.2	8
36	Pore-Scale Transport and Two-Phase Fluid Structures in Fibrous Porous Layers: Application to Fuel Cells and Beyond. Transport in Porous Media, 2021, 136, 245-270.	1.2	8

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37	A Novel Hybrid Scheme for Making Feasible Numerical Investigations of Industrial Three-Phase Flows with Aggregation. Industrial & Engineering Chemistry Research, 2013, 52, 10022-10027.	1.8	7
38	Design and performance optimization of gravity tables using a combined CFD-DEM framework. Powder Technology, 2017, 318, 423-440.	2.1	7
39	Industrial-Scale Benzene Adsorption: Assessment of a Baseline One-Dimensional Temperature Swing Model against Online Industrial Data. Industrial & Engineering Chemistry Research, 2020, 59, 12239-12249.	1.8	7
40	Heat transfer effects on particle motion under rarefied conditions. International Journal of Heat and Fluid Flow, 2013, 43, 277-284.	1.1	6
41	Behaviour and Stability of the Two-Fluid Model for Fine-Scale Simulations of Bubbly Flow in Nuclear Reactors. International Journal of Chemical Reactor Engineering, 2015, 13, 449-459.	0.6	6
42	A continuum-based multiphase DNS method for studying the Brownian dynamics of soot particles in a rarefied gas. Chemical Engineering Science, 2019, 210, 115229.	1.9	6
43	Self-cleaning compact heat exchangers: The role of two-phase flow patterns in design and optimization. International Journal of Multiphase Flow, 2019, 112, 1-12.	1.6	6
44	Challenges and Opportunities in the Eulerian Approach to Numerical Simulations of Fixed-bed Combustion of Biomass. Procedia Engineering, 2015, 102, 1573-1582.	1.2	5
45	Segregation phenomena in gravity separators: A combined numerical and experimental study. Powder Technology, 2016, 301, 679-693.	2.1	5
46	Ballistic deflection of fibres in decelerating flow. International Journal of Multiphase Flow, 2016, 85, 57-66.	1.6	5
47	Dynamics of fibres in a turbulent flow field â€“ A particle-level simulation technique. International Journal of Heat and Fluid Flow, 2010, 31, 1058-1064.	1.1	4
48	Detailed Simulations of the Effect of Particle Deformation and Particle-fluid Heat Transfer on Particle-particle Interactions in Liquids. Procedia Engineering, 2015, 102, 1563-1572.	1.2	4
49	Particle-level simulations of flocculation in a fiber suspension flowing through a diffuser. Thermal Science, 2017, 21, 573-583.	0.5	4
50	The Knudsen Paradox in Micro-Channel Poiseuille Flows with a Symmetric Particle. Applied Sciences (Switzerland), 2021, 11, 351.	1.3	4
51	On continuum modeling using kineticâ€“frictional models in high shear granulation. Particuology, 2014, 13, 124-127.	2.0	3
52	On continuum modelling of dense inelastic granular flows of relevance for high shear granulation. Powder Technology, 2016, 294, 323-329.	2.1	3
53	Laser-induced vapour bubble as a means for crystal nucleation in supersaturated solutionsâ€"Formulation of a numerical framework. Experimental and Computational Multiphase Flow, 2019, 1, 242-254.	1.9	3
54	Characterization of microcrystalline cellulose spheres and prediction of hopper flow based on a Î¼(I)-rheology model. European Journal of Pharmaceutical Sciences, 2020, 142, 105085.	1.9	2

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55	Numerical simulations of the interaction between a settling particle and a rising microbubble. , 2012, , .		1
56	DNS of Dispersed Multiphase Flows with Heat Transfer and Rarefaction Effects. Journal of Computational Multiphase Flows, 2014, 6, 193-206.	0.8	1
57	DIRECT NUMERICAL SIMULATION OF AN INDIVIDUAL FIBER IN AN ARBITRARY FLOW FIELD-AN IMPLICIT IMMERSED BOUNDARY METHOD. Multiphase Science and Technology, 2009, 21, 169-183.	0.2	1
58	Numerical Investigation of Fiber Flocculation in the Air Flow of an Asymmetric Diffuser. , 2014, , .		0