Ali Dolatabadi

List of Publications by Year
in descending order

90 papers	2,258 citations	218592 26 h-index	265120 42 g-index
90 all docs	90 docs citations	90 times ranked	1604 citing authors

#	Article	IF	Citations
1	Investigating the in-flight droplets' atomization in suspension plasma-sprayed coating. International Journal of Heat and Mass Transfer, 2022, 182, 121969.	2.5	7
2	Impact of Density on the Behavior of Suspension Plasma-Sprayed TiB2 Coatings in the Presence of Molten Aluminum. Journal of Thermal Spray Technology, 2022, 31, 1499-1507.	1.6	2
3	Modeling of liquid detachment and fragmentation during the impact of plasma spray particles on a cold substrate. International Journal of Heat and Mass Transfer, 2022, 189, 122718.	2.5	3
4	A Machine Learning Approach for Predicting the Maximum Spreading Factor of Droplets upon Impact on Surfaces with Various Wettabilities. Processes, 2022, 10, 1141.	1.3	8
5	A novel suspension transport method: Viscoplastic lubrication of high-density fluids. Journal of Non-Newtonian Fluid Mechanics, 2021, 287, 104449.	1.0	2
6	A comparison of bioinspired slippery and superhydrophobic surfaces: Micro-droplet impact. Physics of Fluids, 2021, 33, .	1.6	16
7	Thermal Spray Coating on Polymeric Composite for De-Icing and Anti-Icing Applications. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2021, 143, .	1.3	7
8	Droplet Mobility on Slippery Lubricant Impregnated and Superhydrophobic Surfaces under the Effect of Air Shear Flow. Langmuir, 2021, 37, 6278-6291.	1.6	12
9	TiB2 Deposited on Graphite by Suspension Plasma Spray as Al Wettable Cathode. Journal of Thermal Spray Technology, 2021, 30, 1535-1543.	1.6	7
10	Quantitative analysis of rivulet/ice formation on a heated airfoil by Color-Coded Point Projection method. Cold Regions Science and Technology, 2021, 188, 103298.	1.6	4
11	A Wind Tunnel Experimental Study of Icing on NACA0012 Aircraft Airfoil with Silicon Compounds Modified Polyurethane Coatings. Materials, 2021, 14, 5687.	1.3	3
12	Thermally sprayed metal matrix composite coatings as heating systems. Applied Thermal Engineering, 2021, 196, 117321.	3.0	13
13	Hollow droplet impact on a solid surface. International Journal of Multiphase Flow, 2021, 143, 103740.	1.6	13
14	Three-Dimensional Modeling of Cold Spray for Additive Manufacturing. Journal of Thermal Spray Technology, 2020, 29, 38-50.	1.6	17
15	A numerical analysis of air entrapment during droplet impact on an immiscible liquid film. International Journal of Multiphase Flow, 2020, 124, 103175.	1.6	36
16	High-speed droplet impingement on dry and wetted substrates. Physics of Fluids, 2020, 32, .	1.6	26
17	Durability of superhydrophobic duplex coating systems for aerospace applications. Surface and Coatings Technology, 2020, 401, 126249.	2.2	38
18	Modeling the effect of droplet shape and solid concentration on the suspension plasma spraying. International Journal of Heat and Mass Transfer, 2020, 161, 120317.	2.5	9

#	Article	IF	Citations
19	Bouncing of cloud-sized microdroplets on superhydrophobic surfaces. Physics of Fluids, 2020, 32, 122118.	1.6	11
20	Suspension plasma spray deposition of CoxNi1-xO coatings. Surface and Coatings Technology, 2020, 399, 126168.	2.2	8
21	In situ ice growth kinetics on water-repellent coatings under atmospheric icing conditions. Surface and Coatings Technology, 2020, 399, 126136.	2.2	6
22	10.1063/5.0020977.1. , 2020, , .		0
23	10.1063/5.0020977.2. , 2020, , .		0
24	Modeling of Suspension Plasma Spraying Process Including Arc Movement Inside the Torch. Journal of Thermal Spray Technology, 2019, 28, 1105-1125.	1.6	16
25	A Review on Suspension Thermal Spray Patented Technology Evolution. Journal of Thermal Spray Technology, 2019, 28, 1579-1605.	1.6	29
26	Impact dynamics of supercooled microdroplets on water-repellent coatings. Thin Solid Films, 2019, 688, 137309.	0.8	8
27	Numerical modeling of aerosol deposition process. Surface and Coatings Technology, 2019, 370, 269-287.	2.2	14
28	A Comparative Study of YSZ Suspensions and Coatings. Coatings, 2019, 9, 188.	1.2	7
29	Analysis of Scattering Light from In-flight Particles in Suspension Plasma Spray for Size Measurement. Journal of Thermal Spray Technology, 2019, 28, 678-689.	1.6	5
30	Icephobic performance of superhydrophobic coatings: A numerical analysis. International Journal of Heat and Mass Transfer, 2019, 136, 1327-1337.	2.5	22
31	Synthesis and thermal stability of (Co,Ni)O solid solutions. Journal of the American Ceramic Society, 2019, 102, 5063-5070.	1.9	8
32	Numerical Simulations of Polymer Solution Droplet Impact on Surfaces of Different Wettabilities. Processes, 2019, 7, 798.	1.3	17
33	Experimental study of droplet shedding on laser-patterned substrates. Physics of Fluids, 2019, 31, .	1.6	17
34	Anti-icing performance and durability of suspension plasma sprayed TiO2 coatings. Cold Regions Science and Technology, 2019, 159, 1-12.	1.6	42
35	Breakup of elliptical liquid jets in gaseous crossflows at low Weber numbers. Journal of Visualization, 2019, 22, 259-271.	1.1	16
36	A comprehensive model for predicting droplet freezing features on a cold substrate. Journal of Fluid Mechanics, 2019, 859, 566-585.	1.4	34

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37	Numerical Study of Suspension HVOF Spray and Particle Behavior Near Flat and Cylindrical Substrates. Journal of Thermal Spray Technology, 2018, 27, 59-72.	1.6	16
38	Three-Dimensional Modeling of Suspension Plasma Spraying with Arc Voltage Fluctuations. Journal of Thermal Spray Technology, 2018, 27, 1465-1490.	1.6	9
39	PENETRATION OF AERATED SUSPENSION SPRAY IN A GASEOUS CROSSFLOW. Atomization and Sprays, 2018, 28, 91-110.	0.3	2
40	Heat Transfer in Suspension Plasma Spraying. , 2018, , 2923-2966.		4
41	On the numerical modeling of supercooled micro-droplet impact and freezing on superhydrophobic surfaces. International Journal of Heat and Mass Transfer, 2018, 127, 193-202.	2.5	51
42	On the trajectory of nonturbulent liquid jets in subsonic crossflows at different density ratios. Theoretical and Applied Mechanics Letters, 2018, 8, 277-283.	1.3	4
43	Coalescence-induced jumping of micro-droplets on heterogeneous superhydrophobic surfaces. Physics of Fluids, 2017, 29, .	1.6	70
44	Predictive Model of Supercooled Water Droplet Pinning/Repulsion Impacting a Superhydrophobic Surface: The Role of the Gasâ€“Liquid Interface Temperature. Langmuir, 2017, 33, 1816-1825.	1.6	20
45	Effect of Superhydrophobic Coating on the Anti-Icing and Deicing of an Airfoil. Journal of Aircraft, 2017, 54, 490-499.	1.7	46
46	Engineering surface texture and hierarchical morphology of suspension plasma sprayed TiO 2 coatings to control wetting behavior and superhydrophobic properties. Surface and Coatings Technology, 2017, 329, 139-148.	2.2	20
47	Numerical investigation of air mediated droplet bouncing on flat surfaces. AIP Advances, 2017, 7, 095003.	0.6	12
48	Supercooled Water Droplet Impacting Superhydrophobic Surfaces in the Presence of Cold Air Flow. Applied Sciences (Switzerland), 2017, 7, 130.	1.3	22
49	Heat Transfer in Suspension Plasma Spraying. , 2017, , 1-44.		1
50	The 2016 Thermal Spray Roadmap. Journal of Thermal Spray Technology, 2016, 25, 1376-1440.	1.6	243
51	Engineered Three-Dimensional Electrodes by HVOF Process for Hydrogen Production. Journal of Thermal Spray Technology, 2016, 25, 1561-1569.	1.6	2
52	Effect of Substrate and Its Shape on in-Flight Particle Characteristics in Suspension Plasma Spraying. Journal of Thermal Spray Technology, 2016, 25, 44-54.	1.6	25
53	Shear-driven droplet coalescence and rivulet formation. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 793-803.	1.1	17
54	Penetration and breakup of liquid jet in transverse free air jet with application in suspension-solution thermal sprays. Materials and Design, 2016, 110, 425-435.	3.3	13

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55	HVOF and HVAF Coatings of Agglomerated Tungsten Carbide-Cobalt Powders for Water Droplet Erosion Application. Journal of Thermal Spray Technology, 2016, 25, 1711-1723.	1.6	12
56	Three-dimensional electrode coatings for hydrogen production manufactured by combined atmospheric and suspension plasma spray. Surface and Coatings Technology, 2016, 291, 348-355.	2.2	8
57	Developing hydrophobic and superhydrophobic TiO2 coatings by plasma spraying. Surface and Coatings Technology, 2016, 289, 29-36.	2.2	68
58	Energy Budget of Liquid Drop Impact at Maximum Spreading: Numerical Simulations and Experiments. Langmuir, 2016, 32, 1279-1288.	1.6	90
59	Numerical Modeling of Suspension HVOF Spray. Journal of Thermal Spray Technology, 2016, 25, 451-464.	1.6	41
60	Fabrication of nickel electrode coatings by combination of atmospheric and suspension plasma spray processes. Surface and Coatings Technology, 2016, 285, 68-76.	2.2	14
61	A Three-Dimensional Analysis of the Suspension Plasma Spray Impinging on a Flat Substrate. Journal of Thermal Spray Technology, 2015, 24, 11.	1.6	32
62	A Comprehensive Review on Fluid Dynamics and Transport of Suspension/Liquid Droplets and Particles in High-Velocity Oxygen-Fuel (HVOF) Thermal Spray. Coatings, 2015, 5, 576-645.	1.2	54
63	Concurrent Droplet Coalescence and Solidification on Surfaces With Various Wettabilities. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	27
64	Shear driven droplet shedding and coalescence on a superhydrophobic surface. Physics of Fluids, 2015, 27, .	1.6	55
65	HVOF sprayed coatings of nano-agglomerated tungsten-carbide/cobalt powders for water droplet erosion application. Wear, 2015, 330-331, 338-347.	1.5	62
66	Instability of elliptic liquid jets: Temporal linear stability theory and experimental analysis. Physics of Fluids, 2014, 26, .	1.6	26
67	A Numerical Study of Suspension Injection in Plasma-Spraying Process. Journal of Thermal Spray Technology, 2014, 23, 3-13.	1.6	45
68	Electrocatalytically Active Nickel-Based Electrode Coatings Formed by Atmospheric and Suspension Plasma Spraying. Journal of Thermal Spray Technology, 2014, 23, 220-226.	1.6	18
69	Shear Driven Rivulet Dynamics on Surfaces With Various Wettabilities. , 2014, , .		5
70	Comparative Study of Biodiesel and Diesel Jets in Gaseous Crossflow. Journal of Propulsion and Power, 2013, 29, 1292-1302.	1.3	24
71	Numerical Simulation of the Breakup of Elliptical Liquid Jet in Still Air. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	0.8	35
72	Dynamics of droplet coalescence in response to increasing hydrophobicity. Physics of Fluids, 2012, 24, .	1.6	66

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73	Induced Detachment of Coalescing Droplets on Superhydrophobic Surfaces. Langmuir, 2012, 28, 1290-1303.	1.6	61
74	Thermal Cycling of Suspension Plasma Sprayed Aluminaâ€‹<scp>‹scp›YSZ‹/scp›‹/scp› Coatings Containing Amorphous Phases. Journal of the American Ceramic Society, 2012, 95, 2614-2621.	1.9	13
75	Effect of Using Liquid Feedstock in a High Pressure Cold Spray Nozzle. Journal of Thermal Spray Technology, 2011, 20, 307-316.	1.6	6
76	Effects of dynamic contact angle on numerical modeling of electrowetting in parallel plate microchannels. Microfluidics and Nanofluidics, 2010, 8, 47-56.	1.0	39
77	Phase Formation and Transformation in Alumina/YSZ Nanocomposite Coating Deposited by Suspension Plasma Spray Process. Journal of Thermal Spray Technology, 2010, 19, 787-795.	1.6	38
78	Assessment of CFD Modeling via Flow Visualization in Cold Spray Process. Journal of Thermal Spray Technology, 2009, 18, 934-943.	1.6	72
79	Effective Parameters in Axial Injection Suspension Plasma Spray Process of Alumina-Zirconia Ceramics. Journal of Thermal Spray Technology, 2008, 17, 685-691.	1.6	57
80	Dense Particulate Flow in a Cold Gas Dynamic Spray System. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	17
81	Impact of Occupant Modelling on the Prediction of Airflow around Occupants in a Ventilated Room. International Journal of Ventilation, 2007, 6, 129-144.	0.2	2
82	A Three-Dimensional Analysis of the Cold Spray Process: The Effects of Substrate Location and Shape. Journal of Thermal Spray Technology, 2007, 16, 634-642.	1.6	63
83	Simulation of Particle-Shock Interaction in a High Velocity Oxygen Fuel Process. Journal of Thermal Spray Technology, 2006, 15, 481-487.	1.6	19
84	Behaviour of a Moving Droplet under Electrowetting Actuation: Numerical Simulation. Canadian Journal of Chemical Engineering, 2006, 84, 17-21.	0.9	17
85	New Attachment for Controlling Gas Flow in the HVOF Process. Journal of Thermal Spray Technology, 2005, 14, 91-99.	1.6	15
86	Effect of a cylindrical shroud on particle conditions in high velocity oxy-fuel spray process. Science and Technology of Advanced Materials, 2002, 3, 245-255.	2.8	30
87	Behavior of a moving droplet under electrowetting actuation in microchannel. , 0, , .		2
88	Dynamic Impact Behavior of Water Droplet on a Superhydrophobic Surface in the Presence of Stagnation Flow. Applied Mechanics and Materials, 0, 232, 267-272.	0.2	5
89	Shear Driven Droplet Shedding on Surfaces with Various Wettabilities. SAE International Journal of Aerospace, 0, 6, 459-464.	4.0	42
90	SPH Simulation of Rivulet Dynamics on Surfaces with Various Wettabilities. SAE International Journal of Aerospace, 0, 8, 160-173.	4.0	18