

Ali Dolatabadi

List of Publications by Year in descending order

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Version: 2024-02-01

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	The 2016 Thermal Spray Roadmap. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 1376-1440.	1.6	243
2	Energy Budget of Liquid Drop Impact at Maximum Spreading: Numerical Simulations and Experiments. <i>Langmuir</i> , 2016, 32, 1279-1288.	1.6	90
3	Assessment of CFD Modeling via Flow Visualization in Cold Spray Process. <i>Journal of Thermal Spray Technology</i> , 2009, 18, 934-943.	1.6	72
4	Coalescence-induced jumping of micro-droplets on heterogeneous superhydrophobic surfaces. <i>Physics of Fluids</i> , 2017, 29, .	1.6	70
5	Developing hydrophobic and superhydrophobic TiO ₂ coatings by plasma spraying. <i>Surface and Coatings Technology</i> , 2016, 289, 29-36.	2.2	68
6	Dynamics of droplet coalescence in response to increasing hydrophobicity. <i>Physics of Fluids</i> , 2012, 24, .	1.6	66
7	A Three-Dimensional Analysis of the Cold Spray Process: The Effects of Substrate Location and Shape. <i>Journal of Thermal Spray Technology</i> , 2007, 16, 634-642.	1.6	63
8	HVOF sprayed coatings of nano-agglomerated tungsten-carbide/cobalt powders for water droplet erosion application. <i>Wear</i> , 2015, 330-331, 338-347.	1.5	62
9	Induced Detachment of Coalescing Droplets on Superhydrophobic Surfaces. <i>Langmuir</i> , 2012, 28, 1290-1303.	1.6	61
10	Effective Parameters in Axial Injection Suspension Plasma Spray Process of Alumina-Zirconia Ceramics. <i>Journal of Thermal Spray Technology</i> , 2008, 17, 685-691.	1.6	57
11	Shear driven droplet shedding and coalescence on a superhydrophobic surface. <i>Physics of Fluids</i> , 2015, 27, .	1.6	55
12	A Comprehensive Review on Fluid Dynamics and Transport of Suspension/Liquid Droplets and Particles in High-Velocity Oxygen-Fuel (HVOF) Thermal Spray. <i>Coatings</i> , 2015, 5, 576-645.	1.2	54
13	On the numerical modeling of supercooled micro-droplet impact and freezing on superhydrophobic surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 193-202.	2.5	51
14	Effect of Superhydrophobic Coating on the Anti-Icing and Deicing of an Airfoil. <i>Journal of Aircraft</i> , 2017, 54, 490-499.	1.7	46
15	A Numerical Study of Suspension Injection in Plasma-Spraying Process. <i>Journal of Thermal Spray Technology</i> , 2014, 23, 3-13.	1.6	45
16	Shear Driven Droplet Shedding on Surfaces with Various Wettabilities. <i>SAE International Journal of Aerospace</i> , 0, 6, 459-464.	4.0	42
17	Anti-icing performance and durability of suspension plasma sprayed TiO ₂ coatings. <i>Cold Regions Science and Technology</i> , 2019, 159, 1-12.	1.6	42
18	Numerical Modeling of Suspension HVOF Spray. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 451-464.	1.6	41

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19	Effects of dynamic contact angle on numerical modeling of electrowetting in parallel plate microchannels. <i>Microfluidics and Nanofluidics</i> , 2010, 8, 47-56.	1.0	39
20	Phase Formation and Transformation in Alumina/YSZ Nanocomposite Coating Deposited by Suspension Plasma Spray Process. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 787-795.	1.6	38
21	Durability of superhydrophobic duplex coating systems for aerospace applications. <i>Surface and Coatings Technology</i> , 2020, 401, 126249.	2.2	38
22	A numerical analysis of air entrapment during droplet impact on an immiscible liquid film. <i>International Journal of Multiphase Flow</i> , 2020, 124, 103175.	1.6	36
23	Numerical Simulation of the Breakup of Elliptical Liquid Jet in Still Air. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2013, 135, .	0.8	35
24	A comprehensive model for predicting droplet freezing features on a cold substrate. <i>Journal of Fluid Mechanics</i> , 2019, 859, 566-585.	1.4	34
25	A Three-Dimensional Analysis of the Suspension Plasma Spray Impinging on a Flat Substrate. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 11.	1.6	32
26	Effect of a cylindrical shroud on particle conditions in high velocity oxy-fuel spray process. <i>Science and Technology of Advanced Materials</i> , 2002, 3, 245-255.	2.8	30
27	A Review on Suspension Thermal Spray Patented Technology Evolution. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 1579-1605.	1.6	29
28	Concurrent Droplet Coalescence and Solidification on Surfaces With Various Wettabilities. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2015, 137, .	0.8	27
29	Instability of elliptic liquid jets: Temporal linear stability theory and experimental analysis. <i>Physics of Fluids</i> , 2014, 26, .	1.6	26
30	High-speed droplet impingement on dry and wetted substrates. <i>Physics of Fluids</i> , 2020, 32, .	1.6	26
31	Effect of Substrate and Its Shape on in-Flight Particle Characteristics in Suspension Plasma Spraying. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 44-54.	1.6	25
32	Comparative Study of Biodiesel and Diesel Jets in Gaseous Crossflow. <i>Journal of Propulsion and Power</i> , 2013, 29, 1292-1302.	1.3	24
33	Supercooled Water Droplet Impacting Superhydrophobic Surfaces in the Presence of Cold Air Flow. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 130.	1.3	22
34	Icephobic performance of superhydrophobic coatings: A numerical analysis. <i>International Journal of Heat and Mass Transfer</i> , 2019, 136, 1327-1337.	2.5	22
35	Predictive Model of Supercooled Water Droplet Pinning/Repulsion Impacting a Superhydrophobic Surface: The Role of the Gas-Liquid Interface Temperature. <i>Langmuir</i> , 2017, 33, 1816-1825.	1.6	20
36	Engineering surface texture and hierarchical morphology of suspension plasma sprayed TiO ₂ coatings to control wetting behavior and superhydrophobic properties. <i>Surface and Coatings Technology</i> , 2017, 329, 139-148.	2.2	20

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37	Simulation of Particle-Shock Interaction in a High Velocity Oxygen Fuel Process. Journal of Thermal Spray Technology, 2006, 15, 481-487.	1.6	19
38	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
39	SPH Simulation of Rivulet Dynamics on Surfaces with Various Wettabilities. SAE International Journal of Aerospace, 0, 8, 160-173.	4.0	18
40	Behaviour of a Moving Droplet under Electrowetting Actuation: Numerical Simulation. Canadian Journal of Chemical Engineering, 2006, 84, 17-21.	0.9	17
41	Dense Particulate Flow in a Cold Gas Dynamic Spray System. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	17
42	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
43	Numerical Simulations of Polymer Solution Droplet Impact on Surfaces of Different Wettabilities. Processes, 2019, 7, 798.	1.3	17
44	Experimental study of droplet shedding on laser-patterned substrates. Physics of Fluids, 2019, 31, .	1.6	17
45	Three-Dimensional Modeling of Cold Spray for Additive Manufacturing. Journal of Thermal Spray Technology, 2020, 29, 38-50.	1.6	17
46	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
47	Modeling of Suspension Plasma Spraying Process Including Arc Movement Inside the Torch. Journal of Thermal Spray Technology, 2019, 28, 1105-1125.	1.6	16
48	Breakup of elliptical liquid jets in gaseous crossflows at low Weber numbers. Journal of Visualization, 2019, 22, 259-271.	1.1	16
49	A comparison of bioinspired slippery and superhydrophobic surfaces: Micro-droplet impact. Physics of Fluids, 2021, 33, .	1.6	16
50	New Attachment for Controlling Gas Flow in the HVOF Process. Journal of Thermal Spray Technology, 2005, 14, 91-99.	1.6	15
51	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
52	Numerical modeling of aerosol deposition process. Surface and Coatings Technology, 2019, 370, 269-287.	2.2	14
53	Thermal Cycling of Suspension Plasma Sprayed Aluminaâ€‹YSZâ€‹ Coatings Containing Amorphous Phases. Journal of the American Ceramic Society, 2012, 95, 2614-2621.	1.9	13
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	Thermally sprayed metal matrix composite coatings as heating systems. Applied Thermal Engineering, 2021, 196, 117321.	3.0	13
56	Hollow droplet impact on a solid surface. International Journal of Multiphase Flow, 2021, 143, 103740.	1.6	13
57	HVOF and HVOF Coatings of Agglomerated Tungsten Carbide-Cobalt Powders for Water Droplet Erosion Application. Journal of Thermal Spray Technology, 2016, 25, 1711-1723.	1.6	12
58	Numerical investigation of air mediated droplet bouncing on flat surfaces. AIP Advances, 2017, 7, 095003.	0.6	12
59	Droplet Mobility on Slippery Lubricant Impregnated and Superhydrophobic Surfaces under the Effect of Air Shear Flow. Langmuir, 2021, 37, 6278-6291.	1.6	12
60	Bouncing of cloud-sized microdroplets on superhydrophobic surfaces. Physics of Fluids, 2020, 32, 122118.	1.6	11
61	Three-Dimensional Modeling of Suspension Plasma Spraying with Arc Voltage Fluctuations. Journal of Thermal Spray Technology, 2018, 27, 1465-1490.	1.6	9
62	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
63	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
64	Impact dynamics of supercooled microdroplets on water-repellent coatings. Thin Solid Films, 2019, 688, 137309.	0.8	8
65	Synthesis and thermal stability of (Co,Ni)O solid solutions. Journal of the American Ceramic Society, 2019, 102, 5063-5070.	1.9	8
66	Suspension plasma spray deposition of Co _x Ni _{1-x} O coatings. Surface and Coatings Technology, 2020, 399, 126168.	2.2	8
67	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
68	A Comparative Study of YSZ Suspensions and Coatings. Coatings, 2019, 9, 188.	1.2	7
69	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
70	TiB ₂ Deposited on Graphite by Suspension Plasma Spray as Al Wettable Cathode. Journal of Thermal Spray Technology, 2021, 30, 1535-1543.	1.6	7
71	Investigating the in-flight droplets' atomization in suspension plasma-sprayed coating. International Journal of Heat and Mass Transfer, 2022, 182, 121969.	2.5	7
72	Effect of Using Liquid Feedstock in a High Pressure Cold Spray Nozzle. Journal of Thermal Spray Technology, 2011, 20, 307-316.	1.6	6

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73	In situ ice growth kinetics on water-repellent coatings under atmospheric icing conditions. Surface and Coatings Technology, 2020, 399, 126136.	2.2	6
74	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
75	Shear Driven Rivulet Dynamics on Surfaces With Various Wettabilities. , 2014, , .		5
76	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
77	Heat Transfer in Suspension Plasma Spraying. , 2018, , 2923-2966.		4
78	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
79	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
80	A Wind Tunnel Experimental Study of Icing on NACA0012 Aircraft Airfoil with Silicon Compounds Modified Polyurethane Coatings. Materials, 2021, 14, 5687.	1.3	3
81	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
82	Behavior of a moving droplet under electrowetting actuation in microchannel. , 0, , .		2
83	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
84	Engineered Three-Dimensional Electrodes by HVOF Process for Hydrogen Production. Journal of Thermal Spray Technology, 2016, 25, 1561-1569.	1.6	2
85	PENETRATION OF AERATED SUSPENSION SPRAY IN A GASEOUS CROSSFLOW. Atomization and Sprays, 2018, 28, 91-110.	0.3	2
86	A novel suspension transport method: Viscoplastic lubrication of high-density fluids. Journal of Non-Newtonian Fluid Mechanics, 2021, 287, 104449.	1.0	2
87	Impact of Density on the Behavior of Suspension Plasma-Sprayed TiB ₂ Coatings in the Presence of Molten Aluminum. Journal of Thermal Spray Technology, 2022, 31, 1499-1507.	1.6	2
88	Heat Transfer in Suspension Plasma Spraying. , 2017, , 1-44.		1
89	10.1063/5.0020977.1. , 2020, , .		0
90	10.1063/5.0020977.2. , 2020, , .		0