Javad Mostaghimi

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8616824/publications.pdf

Version: 2024-02-01

125 papers	2,976 citations	201385 27 h-index	189595 50 g-index
128 all docs	128 docs citations	128 times ranked	1830 citing authors

#	Article	IF	Citations
1	The 2016 Thermal Spray Roadmap. Journal of Thermal Spray Technology, 2016, 25, 1376-1440.	1.6	243
2	Two-dimensional electromagnetic field effects in induction plasma modelling. Plasma Chemistry and Plasma Processing, 1989, 9, 25-44.	1.1	178
3	Plasma-particle interaction effects in induction plasma modeling under dense loading conditions. International Journal of Heat and Mass Transfer, 1985, 28, 1327-1336.	2.5	156
4	A twoâ€temperature model of the inductively coupled rf plasma. Journal of Applied Physics, 1987, 61, 1753-1760.	1.1	149
5	Formation of fingers around the edges of a drop hitting a metal plate with high velocity. Journal of Fluid Mechanics, 2004, 510, 353-373.	1.4	125
6	Heating of powders in an r.f. inductively coupled plasma under dense loading conditions. Plasma Chemistry and Plasma Processing, 1987, 7, 29-52.	1.1	107
7	Parametric study of the flow and temperature fields in an inductively coupled r.f. plasma torch. Plasma Chemistry and Plasma Processing, 1984, 4, 199-217.	1.1	90
8	Study of Corrosion Behavior of Arc Sprayed Aluminum Coating on Mild Steel. Journal of Thermal Spray Technology, 2012, 21, 1195-1202.	1.6	82
9	Dynamics of Splat Formation in Plasma Spray Coating Process. Plasma Chemistry and Plasma Processing, 2002, 22, 59-84.	1.1	80
10	Thermal Plasma Sources: How Well are They Adopted to Process Needs?. Plasma Chemistry and Plasma Processing, 2015, 35, 421-436.	1.1	73
11	Effect of frequency on local thermodynamic equilibrium conditions in an inductively coupled argon plasma at atmospheric pressure. Journal of Applied Physics, 1990, 68, 2643-2648.	1.1	71
12	Modeling the impact of a molten metal droplet on a solid surface using variable interfacial thermal contact resistance. Journal of Materials Science, 2007, 42, 9-18.	1.7	66
13	A fast response thermocouple for internal combustion engine surface temperature measurements. Experimental Thermal and Fluid Science, 2010, 34, 183-189.	1.5	59
14	Second order accurate volume tracking based on remapping for triangular meshes. Journal of Computational Physics, 2003, 188, 100-122.	1.9	51
15	Investigation of Splat Curling up in Thermal Spray Coatings. Journal of Thermal Spray Technology, 2006, 15, 531-536.	1.6	50
16	Synthesis of single-walled carbon nanotubes by induction thermal plasma. Nano Research, 2009, 2, 800.	5.8	49
17	AN ANALYSIS OF THE COMPUTER MODELING OF THE FLOW AND TEMPERATURE FIELDS IN AN INDUCTIVELY COUPLED PLASMA. Numerical Heat Transfer, 1985, 8, 187-201.	0.5	46
18	Computer simulation of argon-nitrogen and argon-oxygen inductively coupled plasmas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 369-386.	1.5	46

#	Article	IF	Citations
19	Application of a two-dimensional model in the simulation of an analytical inductively coupled plasma discharge. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1989, 44, 657-666.	1.5	43
20	Superhydrophobic Ceramic Coatings by Solution Precursor Plasma Spray. Scientific Reports, 2016, 6, 24670.	1.6	43
21	Superhydrophobic ceramic coating: Fabrication by solution precursor plasma spray and investigation of wetting behavior. Journal of Colloid and Interface Science, 2018, 523, 35-44.	5.0	43
22	A volume-of-fluid interfacial flow solver with advected normals. Computers and Fluids, 2010, 39, 1401-1410.	1.3	39
23	Efficient one-step fabrication of ceramic superhydrophobic coatings by solution precursor plasma spray. Materials Letters, 2018, 211, 24-27.	1.3	37
24	New smoothed particle hydrodynamics (SPH) formulation for modeling heat conduction with solidification and melting. Numerical Heat Transfer, Part B: Fundamentals, 2017, 71, 299-312.	0.6	35
25	Splat formation in plasma-spray coating process. Pure and Applied Chemistry, 2002, 74, 441-445.	0.9	33
26	Two-Temperature Model for the Simulation of Atmospheric-Pressure Helium ICPs. Applied Spectroscopy, 1995, 49, 1390-1402.	1.2	32
27	Fabrication of micro-/nano-structured superhydrophobic ceramic coating with reversible wettability via a novel solution precursor vacuum plasma spray process. Materials and Design, 2018, 160, 974-984.	3.3	31
28	Computer simulation of atmospheric-pressure helium inductively coupled plasma discharges. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1993, 48, 789-807.	1.5	28
29	Numerical Study of Suspension Plasma Spraying. Journal of Thermal Spray Technology, 2017, 26, 12-36.	1.6	28
30	Effects of laser surface remelting on the molten salt corrosion resistance of yttria-stabilized zirconia coatings. Ceramics International, 2018, 44, 22645-22655.	2.3	28
31	Modeling Residual Stress Development in Thermal Spray Coatings: Current Status and Way Forward. Journal of Thermal Spray Technology, 2017, 26, 1115-1145.	1.6	27
32	Effect of Substrate Temperature on Splashing of Molten Tin Droplets. Journal of Heat Transfer, 2004, 126, 445-452.	1.2	25
33	The Impact of a Partially Molten YSZ Particle. Journal of Thermal Spray Technology, 2009, 18, 957-964.	1.6	24
34	Control of the hydrophobicity of rare earth oxide coatings deposited by solution precursor plasma spray by hydrocarbon adsorption. Journal of Materials Science and Technology, 2021, 62, 107-118.	5.6	24
35	A comparison of hyperbolic and parabolic models of phase change of a pure metal. International Journal of Heat and Mass Transfer, 2009, 52, 1177-1184.	2.5	23
36	Applying Contact Angle to a Two-Dimensional Multiphase Smoothed Particle Hydrodynamics Model. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	23

#	Article	IF	Citations
37	Study of 3-D mixing of a cold jet with a transverse plasma stream. International Journal of Heat and Mass Transfer, 1993, 36, 3897-3907.	2.5	20
38	Plasma Sprayed Coating Using Mullite and Mixed Alumina/Silica Powders. Journal of Thermal Spray Technology, 2012, 21, 825-830.	1.6	20
39	Formation of liquid sheets by deposition of droplets on a surface. Journal of Colloid and Interface Science, 2014, 418, 292-299.	5.0	20
40	Fabrication of Superhydrophobic Ceramic Coatings via Solution Precursor Plasma Spray Under Atmospheric and Low-Pressure Conditions. Journal of Thermal Spray Technology, 2019, 28, 242-254.	1.6	20
41	Mathematical modelling of the 3-D mixing in an induction plasma reactor. International Journal of Heat and Mass Transfer, 1993, 36, 3909-3919.	2.5	19
42	Application of Compressible Volume of Fluid Model in Simulating the Impact and Solidification of Hollow Spherical ZrO2 Droplet on a Surface. Journal of Thermal Spray Technology, 2017, 26, 1959-1981.	1.6	19
43	Three-Dimensional Modeling of an Inductively Coupled Plasma Torch for Spectroscopic Analysis. IEEE Transactions on Plasma Science, 2008, 36, 1040-1041.	0.6	18
44	Plasma assisted decomposition and reforming of greenhouse gases: A review of current status and emerging trends. Renewable and Sustainable Energy Reviews, 2022, 161, 112343.	8.2	18
45	Modeling fragmentation of plasma-sprayed particles impacting on a solid surface at room temperature. Comptes Rendus - Mecanique, 2007, 335, 351-356.	2.1	17
46	Accurate implementation of forcing terms for two-phase flows into SIMPLE algorithm. International Journal of Multiphase Flow, 2012, 45, 40-52.	1.6	17
47	Thermocapillary migration of a deformable droplet. International Journal of Heat and Mass Transfer, 2014, 73, 616-626.	2.5	17
48	Adhesion of tin droplets impinging on a stainless steel plate: effect of substrate temperature and roughness. Science and Technology of Advanced Materials, 2003, 4, 173-181.	2.8	16
49	Recovery of Cu and valuable metals from E-waste using thermal plasma treatment. Jom, 2011, 63, 24-28.	0.9	16
50	Study of TLP bonding of Ti-6Al-4V alloy produced by vacuum plasma spray forming and forging. Materials and Design, 2017, 121, 355-366.	3.3	16
51	Characteristics and control mechanism of melting process under extra magnetic force fields. Applied Thermal Engineering, 2020, 167, 114704.	3.0	16
52	A New Highly Efficient High-Power DC Plasma Torch. IEEE Transactions on Plasma Science, 2008, 36, 1068-1069.	0.6	15
53	A stochastic coating model to predict the microstructure of plasma sprayed zirconia coatings. Modelling and Simulation in Materials Science and Engineering, 2008, 16, 065006.	0.8	15
54	3D modeling and analysis of the thermo-mechanical behavior of metal foam heat sinks. International Journal of Thermal Sciences, 2017, 116, 199-213.	2.6	15

#	Article	IF	Citations
55	From lotus effect to petal effect: Tuning the water adhesion of non-wetting rare earth oxide coatings. Journal of the European Ceramic Society, 2020, 40, 1692-1702.	2.8	15
56	Creep Behavior of Plasma-Sprayed Zirconia Thermal Barrier Coatings. Journal of the American Ceramic Society, 2007, 90, 2873-2878.	1.9	13
57	3D Modeling of Transport Phenomena and the Injection of the Solution Droplets in the Solution Precursor Plasma Spraying. Journal of Thermal Spray Technology, 2007, 16, 736-743.	1.6	13
58	Conical Torch: The Next-Generation Inductively Coupled Plasma Source for Spectrochemical Analysis. Analytical Chemistry, 2018, 90, 3036-3044.	3.2	13
59	Splats Formation, Interaction and Residual Stress Evolution in Thermal Spray Coating Using a Hybrid Computational Model. Journal of Thermal Spray Technology, 2019, 28, 359-377.	1.6	13
60	Effect of Substrate Concave Pattern on Splat Formation of Yttria-Stabilized Zirconia in Atmospheric Plasma Spraying. Journal of Thermal Spray Technology, 2009, 18, 609-618.	1.6	12
61	A Novel ICP Torch with Conical Geometry. Plasma Chemistry and Plasma Processing, 2019, 39, 359-376.	1.1	12
62	Prediction of flow characteristics in fibrous porous medium using a novel modeling algorithm and lattice Boltzmann method. Chemical Engineering Science, 2020, 221, 115647.	1.9	12
63	Microstructure and Creep Behavior of Plasma-Sprayed Yttria Stabilized Zirconia Thermal Barrier Coatings. Journal of Thermal Spray Technology, 2008, 17, 244-253.	1.6	11
64	Analysis of the Microstructure of Thermal Spray Coatings: A Modeling Approach. Journal of Thermal Spray Technology, 2010, 19, 736-744.	1.6	11
65	Coating solidification mechanism during plasma-sprayed filling the laser textured grooves. International Journal of Heat and Mass Transfer, 2019, 142, 118451.	2.5	11
66	Charging time and energy storage rate analysis of fin effect inside the horizontal tube for thermal energy storage. Journal of Cleaner Production, 2020, 273, 123030.	4.6	11
67	Fast and Highâ€Throughput Synthesis of Mediumâ€and Highâ€Entropy Alloys Using Radio Frequency Inductively Coupled Plasma. Advanced Engineering Materials, 2021, 23, 2001116.	1.6	11
68	An Investigation of Metal and Ceramic Thermal Barrier Coatings in a Spark-Ignition Engine. SAE International Journal of Engines, 0, 3, 115-125.	0.4	10
69	Time-resolved particle image velocimetry and 3D simulations of single particles in the new conical ICP torch. Journal of Analytical Atomic Spectrometry, 2019, 34, 469-479.	1.6	10
70	On the optimal heat source location of partially heated energy storage process using the newly developed simplified enthalpy based lattice Boltzmann method. Applied Energy, 2020, 275, 115387.	5.1	10
71	Measurement of Surface Tension, Viscosity, and Density at High Temperatures by Free-Fall Drop Oscillation. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2008, 39, 280-290.	1.0	9
72	Splat formation mechanism of droplet-filled cold-textured groove during plasma spraying. Applied Thermal Engineering, 2020, 173, 115239.	3.0	9

#	Article	IF	Citations
73	Modeling Injection of Dense Liquid Sprays in Radio Frequency Inductively Coupled Plasmas. Plasma Chemistry and Plasma Processing, 2005, 25, 193-214.	1.1	8
74	Effects of conical nozzle and its geometry on properties of an inductively coupled plasma jet used for optical fabrication. Applied Thermal Engineering, 2018, 128, 785-794.	3.0	8
75	High-Sensitivity and High-Speed Single-Particle Inductively Coupled Plasma Spectrometry with the Conical Torch. Analytical Chemistry, 2020, 92, 11786-11794.	3.2	8
76	The electrochemical hydrogen storage properties of Ti0.72Zr0.28Mn1.6V0.4 alloy synthesized by vacuum plasma spraying and vacuum copper boat induction melting: A comparative study. International Journal of Hydrogen Energy, 2015, 40, 15569-15577.	3.8	7
77	Bubble entrapment and escape from sprayed paint films. Progress in Organic Coatings, 2016, 97, 153-165.	1.9	7
78	Understanding the correlations between the mechanical robustness, coating structures and surface composition for highly-/super-hydrophobic ceramic coatings. Surface and Coatings Technology, 2019, 378, 124929.	2.2	7
79	Analytical performance of the Conical torch in axially viewed inductively coupled plasma optical emission spectroscopy. Journal of Analytical Atomic Spectrometry, 2019, 34, 2126-2135.	1.6	7
80	The Effect of Undercooling on Solidification of YSZ Splats. Journal of Thermal Spray Technology, 2008, 17, 646-654.	1.6	6
81	Preliminary Testing of Metal-Based Thermal Barrier Coating in a Spark-Ignition Engine. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	0.5	6
82	Radio Frequency Thermal Plasma: The Cutting Edge Technology in Production of Single-Walled Carbon Nanotubes. Journal of Thermal Science and Technology, 2011, 6, 307-322.	0.6	6
83	Effects of injection angle on the measurement of surface tension coefficient by drop weight method. Physics and Chemistry of Liquids, 2011, 49, 32-51.	0.4	6
84	Sporicidal efficacy of thermal-sprayed copper alloy coating. Canadian Journal of Microbiology, 2017, 63, 384-391.	0.8	6
85	Modeling interfacial heat transfer from single or multiple deforming droplets. International Journal of Computational Fluid Dynamics, 2005, 19, 105-113.	0.5	5
86	AEROSOL CHARACTERIZATION OF CONCENTRIC PNEUMATIC NEBULIZER USED IN INDUCTIVELY COUPLED PLASMAÂ—MASS SPECTROMETRY (ICP-MS). Atomization and Sprays, 2010, 20, 415-433.	0.3	5
87	The effect of porosity on the hot corrosion failure of thermal barrier coatings. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 075001.	0.8	5
88	Nonlinear enthalpy transformation for transient convective phase change in Smoothed Particle Hydrodynamics (SPH). Numerical Heat Transfer, Part B: Fundamentals, 2021, 79, 255-277.	0.6	5
89	COALESCENCE AND AGGLOMERATION OF DROPLETS SPRAYED ON A SUBSTRATE. Atomization and Sprays, 2017, 27, 81-94.	0.3	5
90	Analysis of an RF induction plasma torch with a permeable ceramic wall. Canadian Journal of Chemical Engineering, 1989, 67, 929-936.	0.9	4

#	Article	IF	Citations
91	Effect of ammonia gas addition to the synthesis environment of single-walled carbon nanotubes on their surface chemistry. Chemical Engineering Journal, 2013, 230, 80-92.	6.6	4
92	Arc welding, plasma cutting and plasma spraying. Journal Physics D: Applied Physics, 2013, 46, 220301.	1.3	4
93	Droplet Impact and Solidification in Plasma Spraying. , 2018, , 2967-3008.		4
94	Torch Simulator: An analytical model for rapid prediction of inductively coupled plasma parameters. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 180, 106182.	1.5	4
95	Analytical performance of the Conical torch in inductively coupled plasma optical emission spectroscopy operating methanol and 1-propanol solutions. Journal of Analytical Atomic Spectrometry, 2020, 35, 2956-2963.	1.6	4
96	A three-dimensional analysis of drying of a single suspension droplet in high rate evaporation processes. International Journal of Heat and Mass Transfer, 2020, 157, 119791.	2.5	4
97	Thermal Spray Coating: A New Way of Protecting Wood. BioResources, 2016, 12, .	0.5	3
98	Heat Transfer During High Temperature Gas Flow Through Metal Foam Heat Exchangers. Journal of Heat Transfer, 2017, 139, .	1.2	3
99	Heat Transfer in DC AND RF Plasma Torches. , 2017, , 1-76.		3
100	Preliminary Testing of Metal-Based Thermal Barrier Coating in a Spark-Ignition Engine. , 2009, , .		3
101	Columnar-structured thermal barrier coatings deposited via the water-based suspension plasma spray process. Journal Physics D: Applied Physics, 2022, 55, 204001.	1.3	3
102	Thermal Behavior of Aluminum Alloy Metal Foam Heat Sinks: A Computational and Experimental Approach. , 2015, , .		2
103	Numerical Analysis of Buckling of a Single Suspension Droplet. Journal of Thermal Spray Technology, 2020, 29, 344-357.	1.6	2
104	A Novel Radio-Frequency Inductively Coupled Plasma Torch for Material Processing. Plasma Chemistry and Plasma Processing, 2021, 41, 1547.	1.1	2
105	Simulation of Supersonic High-Pressure Gas Atomizer for Metal Powder Production. Journal of Thermal Spray Technology, 2021, 30, 1968-1994.	1.6	2
106	Application of Multiphase Particle Methods in Atomization and Breakup Regimes of Liquid Jets. , 2014, , .		2
107	Numerical Simulation of Solid Particle Ablation in Thermal Plasmas using CIPâ€VOF Method. IEEJ Transactions on Electrical and Electronic Engineering, 2009, 4, 488-496.	0.8	1
108	Analytical and Numerical Modeling of Conductive and Convective Heat Transfer Through Open-Cell Metal Foams. , 2012, , .		1

#	Article	IF	Citations
109	Droplet Impact: A GPU Based Smoothed Particle Hydrodynamics (SPH) Approach. , 2012, , .		1
110	The Effect of Heat Treatment on Mechanical Properties of Thermally Sprayed Sandwich Structure Beams. Journal of Thermal Spray Technology, 2016, 25, 105-112.	1.6	1
111	Heat Transfer in DC and RF Plasma Torches. , 2018, , 2523-2597.		1
112	Effect of Ni and Zn Elements on the Microstructure and Antibacterial Properties of Cu Coatings. Journal of Engineering Materials and Technology, Transactions of the ASME, 2020, 142, .	0.8	1
113	Droplet Impact and Solidification in Plasma Spraying. , 2017, , 1-42.		1
114	Interaction of Shock and Expansion Wave With Solid Particles in Supersonic Flows. , 2002, , 399.		0
115	A Numerical Model for Flow Simulation in Spray Nozzles. , 2004, , .		0
116	Modeling of continuous synthesis of single-walled carbon nanotubes by RF induction thermal plasma. , 2008, , .		0
117	CFD Simulation of Single-walled Carbon Nanotube Growth in an RF Induction Thermal Plasma Process. , 2011, , .		0
118	An Analytical Technique for Optimization of Mechanical Performance of Foam Core Sandwich Structures. Materials Science Forum, 0, 706-709, 1373-1378.	0.3	0
119	Mono-Disperse Spray Generation by a Flow Focusing Atomizer: A Numerical Study. , 2012, , .		0
120	Spray Impingement Fundamentals. , 2017, , 177-220.		0
121	Volume Tracking on Triangular Meshes. , 2002, , .		0
122	Effect of Interfacial Heat Transfer on Molten Tin Jet Breakup in an Oil Tank. , 2004, , .		0
123	MODELING LARGE-SCALE SYNTHESIS OF SINGLE-WALLED CARBON NANOTUBES BY INDUCTION THERMAL PLASMA. High Temperature Material Processes, 2010, 14, 45-61.	0.2	0
124	High Temperature Metal Foam Heat Exchanger. , 2014, , .		0
125	Surface Tension-Driven Flows within Drying Paint Films. , 2014, , .		0