

Given Names Deactivated Family Name

List of Publications by Year in descending order

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67
papers

1,615
citations

394286

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315616

38
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68
all docs

68
docs citations

68
times ranked

1218
citing authors

#	ARTICLE	IF	CITATIONS
1	Mathematical modeling of the isothermal impingement of liquid droplets in spraying processes. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1991, 22, 901-914.	1.0	228
2	Fluid flow, heat transfer, and solidification of molten metal droplets impinging on substrates: Comparison of numerical and experimental results. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1992, 23, 701-718.	0.5	160
3	A mathematical model of the spray deposition process. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 71-85.	1.4	137
4	Photovoltaic/thermal solar hybrid system with bifacial PV module and transparent plane collector. Solar Energy Materials and Solar Cells, 2007, 91, 1966-1971.	3.0	88
5	Laminar-turbulent transition in an electromagnetically levitated droplet. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2003, 34, 29-36.	1.0	61
6	The effect of particle size and morphology on the in-flight behavior of particles during high-velocity oxyfuel thermal spraying. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 525-535.	1.0	56
7	Plasma-particle interactions in plasma spraying systems. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1992, 23, 683-693.	0.5	53
8	Modeling of a DC Electric Arc Furnace. Heat Transfer from the Arc.. ISIJ International, 2000, 40, 1089-1097.	0.6	52
9	A numerical study of high-velocity oxygen fuel thermal spraying process. Part I: Gas phase dynamics. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1609-1620.	1.1	39
10	Nanoindentation of BaTiO ₃ : dislocation nucleation and mechanical twinning. Journal Physics D: Applied Physics, 2009, 42, 085502.	1.3	34
11	Physical Modelling of an Aluminium Degassing Operation with Rotating Impellers – A Comparative Hydrodynamic Analysis. Materials and Manufacturing Processes, 2010, 25, 581-591.	2.7	27
12	Characterization of local piezoelectric behavior of ferroelectric GeTe and Ge ₂ Sb ₂ Te ₅ thin films. Journal of Applied Physics, 2012, 112, 052018.	1.1	27
13	A comparison between two different numerical formulations of welding arc simulation. Modelling and Simulation in Materials Science and Engineering, 2003, 11, 675-695.	0.8	26
14	Mechanism of crystallization of oxygen-doped amorphous Ge ₁ Sb ₂ Te ₄ thin films. Journal of Applied Physics, 2004, 96, 1040-1046.	1.1	26
15	Mathematical Modeling of Iron and Steel Making Processes. Modeling of a DC Electric Arc Furnace. Mixing in the Bath.. ISIJ International, 2001, 41, 1146-1155.	0.6	24
16	Mathematical modelling of high velocity oxygen fuel thermal spraying of nanocrystalline materials: an overview. Modelling and Simulation in Materials Science and Engineering, 2003, 11, R1-R31.	0.8	24
17	Mathematical Modeling of Fluid Flow in a Water Physical Model of an Aluminum Degassing Ladle Equipped with an Impeller-Injector. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2013, 44, 423-435.	1.0	24
18	Kinetic Study of the Competitive Growth Between $\hat{\Gamma}_1$ -Al ₂ O ₃ and $\hat{\Gamma}_2$ -Al ₂ O ₃ During the Early Stages of Oxidation of $\hat{\Gamma}_2$ -(Ni,Pt)Al Bond Coat Systems: Effects of Low Oxygen Partial Pressure and Temperature. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 726-738.	1.1	24

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19	Effect of HVOF Processing Parameters on the Properties of NiCoCrAlY Coatings by Design of Experiments. <i>Journal of Thermal Spray Technology</i> , 2014, 23, 950-961.	1.6	22
20	A Numerical Study of the Effects of Electromagnetic Stirring on the Distributions of Temperature and Oxygen Concentration in Silicon Double-Crucible Czochralski Processing. <i>Journal of the Electrochemical Society</i> , 1997, 144, 764-772.	1.3	21
21	First-principles investigation of the Al-Si-Sr ternary system: Ground state determination and mechanical properties. <i>Intermetallics</i> , 2012, 21, 31-44.	1.8	19
22	An analytical model to represent crystallization kinetics in materials with metastable phase formation. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 51-55.	1.5	18
23	Effects of VC additions on the mechanical properties of bimodal WC-Co HVOF thermal sprayed coatings measured by nanoindentation. <i>International Journal of Refractory Metals and Hard Materials</i> , 2015, 48, 167-178.	1.7	18
24	Convergence of a Hydraulic Solver with Pressure-Dependent Demands. <i>Water Resources Management</i> , 2014, 28, 1013-1031.	1.9	17
25	Industrial ecology—The need to rethink the materials cycle: Some problems, solutions, and opportunities in the materials field. <i>Journal of Materials Research</i> , 1995, 10, 2178-2196.	1.2	16
26	A comparison between different numerical formulations for welding arc representations. <i>Journal of Materials Processing Technology</i> , 2004, 155-156, 1634-1640.	3.1	16
27	Structural and electrical properties of Ge ₁ Sb ₂ Te ₄ face centered cubic phase. <i>Journal of Applied Physics</i> , 2008, 104, 103712.	1.1	16
28	Dielectric properties of Ge ₂ Sb ₂ Te ₅ phase-change films. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	16
29	Mathematical Modeling of High Velocity Oxygen Fuel Thermal Spraying: An Overview. <i>Key Engineering Materials</i> , 2001, 197, 1-26.	0.4	15
30	First Stages of Oxidation of Pt-Modified Nickel Aluminide Bond Coat Systems at Low Oxygen Partial Pressure. <i>Oxidation of Metals</i> , 2012, 78, 269-284.	1.0	15
31	Solidification kinetics of a near eutectic Al-Si alloy, unmodified and modified with Sr. <i>Metals and Materials International</i> , 2013, 19, 707-715.	1.8	15
32	Physical Modeling of Fluid Flow in Ladles of Aluminum Equipped with Impeller and Gas Purging For Degassing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2013, 44, 974-983.	1.0	15
33	Mathematical modeling of vapor-plume focusing in electron-beam evaporation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001, 32, 1959-1966.	1.1	14
34	Novel Degasification Design for Aluminum Using an Impeller Degasification Water Physical Model. <i>Materials and Manufacturing Processes</i> , 2012, 27, 556-560.	2.7	14
35	Model for isothermal crystallization kinetics with metastable phase formation. <i>Applied Physics Letters</i> , 2003, 83, 4969-4971.	1.5	13
36	Mass Transfer Study of a Batch Aluminum Degassing Ladle with Multiple Designs of Rotating Impellers. <i>Jom</i> , 2018, 70, 2958-2967.	0.9	13

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37	Cavitation-induced nucleation of zirconium in low earth orbit. Applied Physics Letters, 1999, 74, 2711-2713.	1.5	12
38	Crystallization process in Ge ₂ Sb ₂ Te ₅ amorphous films. Vacuum, 2010, 84, 877-881.	1.6	12
39	Thermodynamics, lattice stability and defect structure of strontium silicides via first-principles calculations. Journal of Alloys and Compounds, 2009, 484, 822-831.	2.8	11
40	Order-of-magnitude scaling of the cathode region in an axisymmetric transferred electric arc. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 547-554.	1.0	10
41	Thermodynamic modeling of the Si-Sr system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2009, 33, 550-556.	0.7	10
42	Mathematical Modeling of High Intensity Electric Arcs Burning in Different Atmospheres. ISIJ International, 2009, 49, 796-803.	0.6	10
43	Effects of the Modification of Processing Parameters on Mechanical Properties of HVOF Cr ₂ C ₃ -25NiCr Coatings. Journal of Thermal Spray Technology, 2015, 24, 938-946.	1.6	10
44	Electrochemical Corrosion of HVOF-Sprayed NiCoCrAlY Coatings in CO ₂ -Saturated Brine. Journal of Thermal Spray Technology, 2016, 25, 1330-1343.	1.6	10
45	Mathematical Modeling of a DC Electric Arc-Dimensionless Representation of a DC Arc. ISIJ International, 2003, 43, 1167-1176.	0.6	9
46	Isothermal phase transformation kinetics in stoichiometric GeSbTe thin films. Journal of Non-Crystalline Solids, 2004, 345-346, 173-177.	1.5	9
47	Thermal Spray Deposition, Phase Stability and Mechanical Properties of La ₂ Zr ₂ O ₇ /LaAlO ₃ Coatings. Journal of Thermal Spray Technology, 2017, 26, 1198-1206.	1.6	9
48	Numerical Analyses of Fluid Dynamics of an Atomization Configuration. Journal of Materials Research, 2002, 17, 156-166.	1.2	8
49	Mathematical modeling of a direct current electric arc: Part I. Analysis of the characteristics of a direct current arc. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2004, 35, 363-372.	1.0	8
50	Structural evolution of B ₂ -NiAl synthesized by high-energy ball milling. Journal of Materials Science, 2013, 48, 265-272.	1.7	8
51	Crystallization kinetics of Ge-Sb-Te alloys with metastable phase formation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 763-766.	2.6	7
52	Some perspectives on the mathematical modelling of materials processing operations. Modelling and Simulation in Materials Science and Engineering, 1994, 2, 809-828.	0.8	6
53	Crystallization and ferroelectric properties of Ge ₄ Sb ₁ Te ₅ films. Journal of Non-Crystalline Solids, 2010, 356, 3026-3031.	1.5	6
54	Structural and electrical properties of Germanium-doped Sb ₇₀ Te ₃₀ eutectic thin films. Journal of Non-Crystalline Solids, 2011, 357, 1610-1614.	1.5	6

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55	Method to Cope with Zero Flows in Newton Solvers for Water Distribution Systems. Journal of Hydraulic Engineering, 2013, 139, 456-459.	0.7	6
56	Influence of dipole-dipole interactions on the angular dependence of ferromagnetic resonance spectra in arrays of Fe/FexOy core/shell nanocubes. European Physical Journal B, 2015, 88, 1.	0.6	6
57	Influence of Oxidation Treatments and Surface Finishing on the Electrochemical Behavior of Ni-20Cr HVOF Coatings. Journal of Materials Engineering and Performance, 2017, 26, 6064-6074.	1.2	6
58	Experimental Study of Mass Transfer Mechanisms for Solute Mixing in a Gasâ€­Stirred Ladle Using the Particle Image Velocimetry and Planar Laserâ€­Induced Fluorescence Techniques. Steel Research International, 2021, 92, 2100241.	1.0	6
59	Mathematical modeling of a direct current electric arc: Part II. Dimensionless representation of a direct current arc. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2004, 35, 373-380.	1.0	5
60	Study of the Isothermal Oxidation Process and Phase Transformations in B2-(Ni,Pt)Al/RENE-N5 System. Metals, 2016, 6, 208.	1.0	5
61	Ab initio study of the electronic, mechanical, and vibrational properties of different Al2Si2Sr crystalline phases. Physical Review B, 2011, 83, .	1.1	4
62	Particle density distribution in a pyramid-shaped quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 1602-1607.	1.3	4
63	Surface oxidation of Ni20Cr/Cr3O2 composite processed by ball milling and HVOF thermal spraying. Vacuum, 2017, 144, 27-35.	1.6	4
64	Optimizing the Performance of a Dualâ€­Injection Gasâ€­Stirred Ladle Using Physical Modeling. Steel Research International, 2022, 93, .	1.0	4
65	Newton thermal analysis of unmodified and strontium modified Al-Si alloys. Metallic Materials, 2021, 51, 211-220.	0.2	1
66	Mathematical Modeling of Pottery Production in Different Industrial Furnaces. Journal of Materials Engineering and Performance, 2008, 17, 633-643.	1.2	0
67	Closure to â€­Method to Cope with Zero Flows in Newton Solvers for Water Distribution Systemsâ€­by Nikolai B. Gorev, Inna F. Kodzhespirov, Yuriy Kovalenko, Eugenio Prokhorov, and Gerardo Trapaga. Journal of Hydraulic Engineering, 2014, 140, 07014004.	0.7	0