Peng-Sheng Wei

List of Publications by Year
in descending order

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Version: 2024-02-01

108	1,327	304743	434195
papers	citations	22 h-index	31 g-index

109	109	109	541
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Transport processes for a bubble entrapment during horizontal solidification. International Journal of Thermal Sciences, 2022, 172, 107314.	4.9	3
2	Unified algebraic expression of lotus-type pore shape in solid. International Journal of Heat and Mass Transfer, 2022, 185, 122269.	4.8	3
3	The effects of material properties on solute transport during entrapment of a bubble subject to horizontal solidification. International Communications in Heat and Mass Transfer, 2022, 133, 105942.	5.6	1
4	Self-consistent scaling of amplitude and pitch of ripples on a solidified surface. Journal of Manufacturing Processes, 2022, 79, 501-509.	5.9	1
5	Scaling of amplitude and pitch of surface ripples after welding solidification. Science and Technology of Welding and Joining, 2021, 26, 20-27.	3.1	3
6	Analytical expression for isolated pore shape in solid. International Journal of Heat and Mass Transfer, 2021, 167, 120812.	4.8	3
7	Parametric and algebraic study of an isolated pore shape in solid after unidirectional solidification. Journal of Crystal Growth, 2021, 573, 126289.	1.5	3
8	Existence of an isolated pore in solid during unidirectional solidification. Journal of Crystal Growth, 2020, 550, 125889.	1.5	4
9	Using the universal phase diagrams to describe pore shape development in solid for different solidification rates. International Journal of Heat and Mass Transfer, 2020, 158, 119977.	4.8	4
10	Solute segregation due to a bubble entrapped as a pore in solid during unidirectional solidification. International Journal of Heat and Mass Transfer, 2020, 152, 119474.	4.8	5
11	Energy generation on an array of nanoparticles on a surface. , 2020, , .		0
12	Solute convection effects on a bubble entrapped as a pore during unidirectional upward solidification. International Journal of Heat and Mass Transfer, 2019, 135, 62-71.	4.8	8
13	A pair of pore formation affected by convection during unidirectional solidification. AIP Conference Proceedings, 2019, , .	0.4	0
14	Absorption coefficient of water vapor across atmospheric troposphere layer. Heliyon, 2019, 5, e01145.	3.2	16
15	Effects of Bubble Location on Pore Shape in Solid. Journal of Mechanics, 2019, 35, 121-129.	1.4	1
16	Effects of initial contact angle on pore shape in solid. International Journal of Thermal Sciences, 2018, 130, 208-215.	4.9	1
17	Effects of physico-chemical interfacial equilibrium on pore shape in solid. International Journal of Heat and Mass Transfer, 2018, 117, 1-10.	4.8	3
18	Absorption coefficient of carbon dioxide across atmospheric troposphere layer. Heliyon, 2018, 4, e00785.	3.2	24

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19	Effects of solidification rate on pore shape in solid. International Journal of Thermal Sciences, 2017, 115, 79-88.	4.9	10
20	Bond number effects on pore shape in solid. International Journal of Thermal Sciences, 2017, 116, 73-81.	4.9	2
21	Case Study of Ambient Pressure Effects on Pore Shape in Solid. Journal of Thermophysics and Heat Transfer, 2017, 31, 796-804.	1.6	3
22	Effects of supersaturation on pore shape in solid. Journal of Crystal Growth, 2017, 460, 126-133.	1.5	8
23	Existence of Universal Phase Diagrams for Describing General Pore Shape Resulting From an Entrapped Bubble During Solidification. Journal of Heat Transfer, 2016, 138, .	2.1	6
24	Effects of solute concentration in liquid on pore shape in solid. International Journal of Heat and Mass Transfer, 2016, 103, 920-930.	4.8	8
25	Effects of mass transfer coefficient on pore shape in solid. International Journal of Heat and Mass Transfer, 2016, 103, 931-939.	4.8	8
26	The Effects of Drilling Parameters on Pore Size in Keyhole Mode Welding. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	2.2	0
27	Sustaining the inter-wire arc in twin-wire indirect arc welding. Journal of Manufacturing Processes, 2016, 21, 69-74.	5.9	10
28	The Effects of Entrainment on Pore Shape in Keyhole Mode Welding. Journal of Heat Transfer, 2015, 137, .	2.1	2
29	Effects of Entrainment on Incapability of High Intensity Beam Drilling. Journal of Heat Transfer, 2015, 137, .	2.1	1
30	Geometrical Effects of an Entrapped Bubble on Pore Shape in Solid. , 2015, , .		0
31	Workpiece property effects on nugget microstructure determined by heat transfer and solidification rate during resistance spot welding. International Journal of Thermal Sciences, 2014, 86, 421-429.	4.9	17
32	Incapability of Drilling With a High-Power-Density Beam. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 2026-2034.	2.5	0
33	Keyhole collapse during high intensity beam drilling. International Journal of Heat and Mass Transfer, 2014, 79, 300-308.	4.8	4
34	Prediction of pore size in high power density beam welding. International Journal of Heat and Mass Transfer, 2014, 79, 223-232.	4.8	9
35	Electrode geometry effects on microstructure determined by heat transfer and solidification rate during resistance spot welding. International Journal of Heat and Mass Transfer, 2014, 79, 408-416.	4.8	17
36	Effects of electrode contact condition on electrical dynamic resistance during resistance spot welding. Science and Technology of Welding and Joining, 2014, 19, 173-180.	3.1	10

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37	Controlling efficiency of laser drilling. , 2014, , .		0
38	Joint Quality Affected by Electrode Contact Condition During Resistance Spot Welding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 2164-2173.	2.5	8
39	Numerical study of electrode geometry effects on resistance spot welding. Science and Technology of Welding and Joining, 2013, 18, 661-670.	3.1	10
40	Nugget shape control in resistance spot welding. , 2013, , .		2
41	Controlled Efficiency During Drilling With a High Intensity Beam. , 2013, , .		0
42	Effects of Bubble Growth and Solidification Rate on Pore Formation in Solid. , 2012, , .		1
43	Scaling Weld or Melt Pool Shape Affected by Thermocapillary Convection With High Prandtl Numbers. Journal of Heat Transfer, 2012, 134, .	2.1	3
44	Workpiece Property Effect on Resistance Spot Welding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 925-934.	2.5	11
45	Pore Formation in Solid. Journal of Mechanics, 2012, 28, 1-6.	1.4	1
46	Controlling fusion zone shape and peak temperature produced by laser or electron beam. , 2012, , .		0
47	Modeling of pore formation in solid. , 2012, , .		0
48	Transient Thermocapillary Convection in a Molten or Weld Pool. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .	2.2	6
49	Mechanisms of Spiking and Humping in Keyhole Welding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 383-394.	2.5	37
50	Pore shape development from a bubble captured by a solidification front. International Journal of Heat and Mass Transfer, 2012, 55, 8129-8138.	4.8	27
51	Scaling weld or melt pool shape induced by thermocapillary convection. International Journal of Heat and Mass Transfer, 2012, 55, 2328-2337.	4.8	15
52	Electrical contact resistance effect on resistance spot welding. International Journal of Heat and Mass Transfer, 2012, 55, 3316-3324.	4.8	54
53	Curie temperature effects on resistance spot welding. , 2011, , .		1
54	Scale Analysis of Thermocapillary Weld Pool Shape With High Prandtl Number. , 2011, , .		0

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55	Magnetic property effect on transport processes in resistance spot welding. Journal Physics D: Applied Physics, 2011, 44, 325501.	2.8	10
56	Scaling of spiking and humping in keyhole welding. Journal Physics D: Applied Physics, 2011, 44, 245501.	2.8	15
57	Scaling Thermocapillary Surface Velocity in Weld Pool. , 2011, , .		0
58	Thermal Science of Weld Bead Defects: A Review. Journal of Heat Transfer, 2011, 133, .	2.1	36
59	Phase Change Effects on Transport Processes in Resistance Spot Welding. Journal of Mechanics, 2011, 27, 19-26.	1.4	11
60	Spiking and Humping Defects in Laser Welding. , 2010, , .		0
61	Dynamic electrical resistance effects in resistance spot welding. , 2010, , .		3
62	Effects of electrical current on transport processes in resistance spot welding. Science and Technology of Welding and Joining, 2010, 15, 448-456.	3.1	14
63	Mechanism of pore formation in solid. , 2009, , .		0
64	Unsteady heat conduction involving phase changes for an irregular bubble/particle entrapped in a solid during freezing â€“ An extension of the heat-balance integral method. International Journal of Heat and Mass Transfer, 2009, 52, 996-1004.	4.8	5
65	Microbubble or pendant drop control described by a general phase diagram. International Journal of Heat and Mass Transfer, 2009, 52, 1304-1312.	4.8	15
66	The effects of Prandtl number on wavy weld boundary. International Journal of Heat and Mass Transfer, 2009, 52, 3790-3798.	4.8	28
67	Origin of wavy weld boundary. Journal of Applied Physics, 2009, 105, .	2.5	15
68	A Model to Predict Pore Shape in Solid During Solidification. , 2009, , .		0
69	Universal phase and force diagrams for a microbubble or pendant drop in static fluid on a surface. Journal of Applied Physics, 2008, 103, 023515.	2.5	3
70	Universal Force Diagrams of a Microbubble in Static Fluid on a Surface. , 2008, , .		0
71	Three-dimensional temperature field in a line-heater embedded by a spiral electric resistor. Applied Thermal Engineering, 2006, 26, 916-926.	6.0	3
72	Analytical Solution of a Creeping Flow Impinging on a Spherical Cap-Shaped Bubble on a Flat Solid Surface. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 516-523.	2.2	1

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73	The effect of sheath on plasma momentum transport to an electrically biased surface. International Journal of Heat and Mass Transfer, 2005, 48, 2198-2208.	4.8	3
74	Effects of Plasma Parameters on the Temperature Field in a Workpiece Experiencing Solid-Liquid Phase Transition. Journal of Heat Transfer, 2005, 127, 987-994.	2.1	5
75	Plasma energy transport to an electrically biased surface. International Journal of Heat and Mass Transfer, 2004, 47, 4019-4029.	4.8	10
76	Growths of bubble/pore sizes in solid during solidificationâ€"an in situ measurement and analysis. Journal of Crystal Growth, 2004, 270, 662-673.	1.5	38
77	Active solute effects on surface ripples in electron-beam welding solidification. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2003, 34, 421-432.	2.1	20
78	Nucleation of bubbles on a solidification frontâ€"experiment and analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2003, 34, 321-332.	2.1	44
79	Distinct property effects on rapid solidification of a thin liquid layer on a substrate subject to self-consistent melting. Journal of Crystal Growth, 2003, 247, 563-575.	1.5	6
80	Missed joint induced by thermoelectric magnetic field in electron-beam welding dissimilar metalsâ€"Experiment and scale analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2002, 33, 765-773.	2.1	10
81	An analytical self-consistent determination of a bubble with a deformed cap trapped in solid during solidification. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2002, 33, 91-100.	2.1	27
82	Absorption in a paraboloid of revolution-shaped welding or drilling cavity irradiated by a polarized laser beam. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 603-614.	2.1	5
83	Modeling Dynamic Electrical Resistance During Resistance Spot Welding. Journal of Heat Transfer, 2001, 123, 576-585.	2.1	58
84	Shape of a pore trapped in solid during solidification. International Journal of Heat and Mass Transfer, 2000, 43, 263-280.	4.8	42
85	Fluid-like transport variables in a kinetic collisionless plasma near a surface with ion and electron reflection. IEEE Transactions on Plasma Science, 2000, 28, 1233-1243.	1.3	7
86	Distribution functions of positive ions and electrons in a plasma near a surface. IEEE Transactions on Plasma Science, 2000, 28, 1244-1253.	1.3	9
87	Unsteady marangoni flow in a molten pool when welding dissimilar metals. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2000, 31, 1387-1403.	2.1	44
88	Heat Transfer Coefficient in Rapid Solidification of a Liquid Layer on a Substrate. Journal of Heat Transfer, 2000, 122, 792-800.	2.1	10
89	Fusion Zone Shapes in Electron-Beam Welding Dissimilar Metals. Journal of Heat Transfer, 2000, 122, 626-631.	2.1	16
90	Mass, Momentum, and Energy Transport in a Molten Pool When Welding Dissimilar Metals. Journal of Heat Transfer, 1999, 121, 451-461.	2.1	44

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91	Beam focusing characteristics effect on energy reflection and absorption in a drilling or welding cavity of paraboloid of revolution. International Journal of Heat and Mass Transfer, 1998, 41, 3299-3308.	4.8	30
92	Three-Dimensional Electron-Beam Deflection and Missed Joint in Welding Dissimilar Metals. Journal of Heat Transfer, 1997, 119, 832-839.	2.1	5
93	Energy absorption in a conical cavity truncated by spherical cap subject to a focused high intensity beam. International Journal of Heat and Mass Transfer, 1997, 40, 1895-1905.	4.8	13
94	Three-dimensional analytical temperature field and its application to solidification characteristics in high- or low-power-densitybeam welding. International Journal of Heat and Mass Transfer, 1997, 40, 2283-2292.	4.8	19
95	Transport Phenomena During Resistance Spot Welding. Journal of Heat Transfer, 1996, 118, 762-773.	2.1	45
96	Surface Ripple in Electron-Beam Welding Solidification. Journal of Heat Transfer, 1996, 118, 960-969.	2.1	27
97	Contact melting by a non-isothermal heating surface of arbitrary shape. International Journal of Heat and Mass Transfer, 1995, 38, 3275-3284.	4.8	15
98	Melting Solid Plug Between Two Coaxial Pipes by a Moving Heat Source in the Inner Pipe. Journal of Heat Transfer, 1994, 116, 1028-1033.	2.1	7
99	Three-Dimensional Analytical Temperature Field Around the Welding Cavity Produced by a Moving Distributed High-Intensity Beam. Journal of Heat Transfer, 1993, 115, 848-856.	2.1	29
100	Energy-Beam redistribution and absorption in a drilling or welding cavity. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1992, 23, 505-511.	0.4	19
101	Beam focusing characteristics and alloying element effects on high-intensity electron beam welding. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1992, 23, 81-90.	0.4	22
102	Factors Affecting Nugget Growth With Mushy-Zone Phase Change During Resistance Spot Welding. Journal of Heat Transfer, 1991, 113, 643-649.	2.1	29
103	Electron Beam Deflection When Welding Dissimilar Metals. Journal of Heat Transfer, 1990, 112, 714-720.	2.1	10
104	Axisymmetric Nugget Growth During Resistance Spot Welding. Journal of Heat Transfer, 1990, 112, 309-316.	2.1	44
105	Energy considerations in high-energy beam drilling. International Journal of Heat and Mass Transfer, 1990, 33, 2207-2217.	4.8	48
106	Investigation of High-Intensity Beam Characteristics on Welding Cavity Shape and Temperature Distribution. Journal of Heat Transfer, 1990, 112, 163-169.	2.1	30
107	TEMPERATURE AND VELOCITY DISTRIBUTIONS IN THE LIQUID FLOWING AROUND THE FRONT OF AN ELECTRON BEAM WELDING CAVITY. , 1982, , .		1
108	Pore Formation from Bubble Entrapment by a Solidification Front. American Journal of Heat and Mass Transfer, 0, , .	0.0	3