

Sven Eckert

List of Publications by Year in descending order

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Version: 2024-02-01

196
papers

4,238
citations

134610

34
h-index

182931

54
g-index

204
all docs

204
docs citations

204
times ranked

1760
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics and length scales in vertical convection of liquid metals. Journal of Fluid Mechanics, 2022, 932, .	1.4	11
2	Predicting concurrent structural mechanical mechanisms during microstructure evolution. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210149.	1.6	4
3	Large-Scale Test Facility for Modeling Bubble Behavior and Liquid Metal Two-Phase Flows in a Steel Ladle. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2022, 53, 1703-1720.	1.0	4
4	Laboratory Investigation of Tomography-Controlled Continuous Steel Casting. Sensors, 2022, 22, 2195.	2.1	6
5	MHT-X: offline multiple hypothesis tracking with algorithm X. Experiments in Fluids, 2022, 63, 1.	1.1	3
6	Jump rope vortex flow in liquid metal Rayleigh-Bénard convection in a cuboid container of aspect ratio. Journal of Fluid Mechanics, 2022, 932, .	1.4	14
7	Collapse of Coherent Large Scale Flow in Strongly Turbulent Liquid Metal Convection. Physical Review Letters, 2022, 128, 164501.	2.9	18
8	Ultrasound Localization Microscopy in Liquid Metal Flows. Applied Sciences (Switzerland), 2022, 12, 4517.	1.3	2
9	Contactless Inductive Flow Tomography for Real-Time Control of Electromagnetic Actuators in Metal Casting. Sensors, 2022, 22, 4155.	2.1	4
10	Particle tracking velocimetry in liquid gallium flow around a cylindrical obstacle. Experiments in Fluids, 2022, 63, .	1.1	2
11	$\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle l \langle \text{mml:mi} \rangle n \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle \hat{\alpha} \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle \text{ measurements of dendrite tip shape selection in a metallic alloy. Physical Review Materials, 2022, 6, .$	1.0	1
12	Transition from steady to oscillating convection rolls in Rayleigh-Bénard convection under the influence of a horizontal magnetic field. Physical Review Fluids, 2021, 6, .	1.0	15
13	Free-fall velocities and heat transport enhancement in liquid metal magneto-convection. Journal of Fluid Mechanics, 2021, 915, .	1.4	13
14	Generation of Reverse Meniscus Flow by Applying An Electromagnetic Brake. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 3193-3207.	1.0	21
15	Development of a high-speed ultrasonic tomography system for measurements of rising bubbles in a horizontal cross-section. Measurement: Journal of the International Measurement Confederation, 2021, 182, 109654.	2.5	18
16	Ultrasound Image Velocimetry with Adaptive Beamforming for Modal Measurements in Liquid Metal Convection. , 2021, , .		0
17	Impact of the Electromagnetic Brake Position on the Flow Structure in a Slab Continuous Casting Mold: An Experimental Parameter Study. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 61-78.	1.0	24
18	X-ray Radioscopic Visualization of Bubbly Flows Injected Through a Top Submerged Lance into a Liquid Metal. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 124-139.	1.0	26

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19	The integration of structural mechanics into microstructure solidification modelling. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012054.	0.3	2
20	Observation of side arm splitting studied by high resolution X-ray radiography. International Journal of Materials Research, 2020, 111, 11-16.	0.1	3
21	In situ observation of directional solidification in Ga-In alloy under a transverse DC magnetic field. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012025.	0.3	3
22	Magnetic Effects on Microstructure and Solute Plume Dynamics of Directionally Solidifying Ga-In Alloy. Jom, 2020, 72, 3645-3651.	0.9	13
23	Experimental Validation of an Inductive System for Magnesium Level Detection in a Titanium Reduction Reactor. Sensors, 2020, 20, 6798.	2.1	2
24	Flow regimes of Rayleigh-Bénard convection in a vertical magnetic field. Journal of Fluid Mechanics, 2020, 894, .	1.4	30
25	CFD Modeling and Experimental Validation of Top-Submerged-Lance Gas Injection in Liquid Metal. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 1509-1525.	1.0	21
26	Simultaneous optical measurement of temperature and velocity fields in solidifying liquids. Experiments in Fluids, 2020, 61, 1.	1.1	14
27	X-ray particle tracking velocimetry in liquid foam flow. Soft Matter, 2020, 16, 2093-2103.	1.2	11
28	Combined measurement of velocity and temperature in liquid metal convection. Journal of Fluid Mechanics, 2019, 876, 1108-1128.	1.4	47
29	Experimental investigations of bubble chains in a liquid metal under the influence of a horizontal magnetic field. International Journal of Multiphase Flow, 2019, 121, 103111.	1.6	11
30	Pool CFD modelling: lessons from the SESAME project. Nuclear Engineering and Design, 2019, 355, 110343.	0.8	13
31	A Parallel Cellular Automata Lattice Boltzmann Method for Convection-Driven Solidification. Jom, 2019, 71, 48-58.	0.9	25
32	Tracking of Particles in Froth Using Neutron Imaging. Chemie-Ingenieur-Technik, 2019, 91, 1001-1007.	0.4	6
33	Spectral random masking: a novel dynamic masking technique for PIV in multiphase flows. Experiments in Fluids, 2019, 60, 1.	1.1	11
34	Thermal dependence of large-scale freckle defect formation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180206.	1.6	16
35	Experimental investigation of bubble breakup in bubble chains rising in a liquid metal. International Journal of Multiphase Flow, 2019, 116, 39-50.	1.6	23
36	Flow Control in the Model of a Continuous Caster by Using Contactless Inductive Flow Tomography. Minerals, Metals and Materials Series, 2019, , 49-58.	0.3	0

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37	Experimental Study of the Mold Flow Induced by a Swirling Flow Nozzle and Electromagnetic Stirring for Continuous Casting of Round Blooms. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 716-731.	1.0	17
38	Measurement techniques for liquid metal based nuclear coolants. , 2019, , 147-155.		1
39	Euler-Euler modeling and X-ray measurement of oscillating bubble chain in liquid metals. International Journal of Multiphase Flow, 2019, 110, 218-237.	1.6	21
40	Transition from convection rolls to large-scale cellular structures in turbulent Rayleigh-Bénard convection in a liquid metal layer. Physical Review Fluids, 2019, 4, .	1.0	13
41	Coarsening evolution of dendritic sidearms: From synchrotron experiments to quantitative modeling. Acta Materialia, 2018, 146, 176-186.	3.8	26
42	Neutron imaging of froth structure and particle motion. Minerals Engineering, 2018, 119, 126-129.	1.8	19
43	Visualization of bubble coalescence in bubble chains rising in a liquid metal. International Journal of Multiphase Flow, 2018, 105, 159-169.	1.6	42
44	Single bubble rise in GaInSn in a horizontal magnetic field. International Journal of Multiphase Flow, 2018, 104, 32-41.	1.6	20
45	Local Lorentz force and ultrasound Doppler velocimetry in a vertical convection liquid metal flow. Experiments in Fluids, 2018, 59, 1.	1.1	4
46	Visualization of the global flow structure in a modified Rayleigh-Bénard setup using contactless inductive flow tomography. Flow Measurement and Instrumentation, 2018, 62, 269-280.	1.0	17
47	Visualisation of the large scale circulation in Rayleigh-Bénard convection using contactless inductive flow tomography. IOP Conference Series: Materials Science and Engineering, 2018, 424, 012007.	0.3	0
48	Effect of time-modulated magnetic fields on the solidification structure and extrusion properties of wrought aluminum alloys. IOP Conference Series: Materials Science and Engineering, 2018, 424, 012039.	0.3	0
49	Experimental study on the behaviour of the submerged jet in a cold liquid metal model for continuous casting of round blooms under the influence of rotating magnetic fields. IOP Conference Series: Materials Science and Engineering, 2018, 424, 012005.	0.3	0
50	Do rotating magnetic fields unconditionally lead to grain refinement? A case study for directionally solidified Al-10wt%Cu alloys. Materialia, 2018, 3, 326-337.	1.3	12
51	Inductive System for Reliable Magnesium Level Detection in a Titanium Reduction Reactor. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 2089-2096.	1.0	11
52	Euler-Euler simulation and X-ray measurement of bubble chain in a shallow container filled with liquid metals. Chemical Engineering Science, 2018, 192, 288-305.	1.9	16
53	Transition between quasi-two-dimensional and three-dimensional Rayleigh-Bénard convection in a horizontal magnetic field. Physical Review Fluids, 2018, 3, .	1.0	28
54	The effect of pulsed electrical currents on the formation of macrosegregation in solidifying Al-Si hypoeutectic phases. International Journal of Cast Metals Research, 2017, 30, 13-19.	0.5	5

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55	Phased Array Ultrasound System for Planar Flow Mapping in Liquid Metals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 1327-1335.	1.7	27
56	Fragmentation-driven grain refinement in directional solidification of AlCu10wt-% alloy at low pulling speeds. Acta Materialia, 2017, 126, 236-250.	3.8	42
57	Experimental and Numerical Modeling of Fluid Flow Processes in Continuous Casting: Results from the LIMMCAST-Project. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012019.	0.3	13
58	Investigations of fluid flow effects on dendritic solidification: Consequences on fragmentation, macrosegregation and the influence of electromagnetic stirring. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012005.	0.3	9
59	Instabilities and spin-up behaviour of a rotating magnetic field driven flow in a rectangular cavity. Physics of Fluids, 2017, 29, 114104.	1.6	10
60	Inductive detection of the free surface of liquid metals. Measurement Science and Technology, 2017, 28, 115301.	1.4	4
61	Validation of X-ray radiography for characterization of gas bubbles in liquid metals. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012009.	0.3	20
62	The DRESHDYN project: planned experiments and present status. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 123-126.	0.2	1
63	Experimental Investigations of Rotary Electromagnetic Mould Stirring in Continuous Casting Using a Cold Liquid Metal Model. ISIJ International, 2017, 57, 468-477.	0.6	22
64	Modelling and simulation of a copper slag cleaning process improved by electromagnetic stirring. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012007.	0.3	1
65	Combined experimental and numerical analysis of a bubbly liquid metal flow. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012006.	0.3	9
66	Contactless inductive flow tomography: basic principles and first applications in the experimental modelling of continuous casting. IOP Conference Series: Materials Science and Engineering, 2016, 143, 012023.	0.3	3
67	Contactless Inductive Bubble Detection in a Liquid Metal Flow. Sensors, 2016, 16, 63.	2.1	15
68	Numeric simulations of a liquid metal model of a bloom caster under the effect of rotary electromagnetic stirring. IOP Conference Series: Materials Science and Engineering, 2016, 143, 012027.	0.3	5
69	Experimental study on directional solidification of Al-Si alloys under the influence of electric currents. IOP Conference Series: Materials Science and Engineering, 2016, 143, 012021.	0.3	1
70	Regular flow reversals in Rayleigh-Bénard convection in a horizontal magnetic field. Physical Review E, 2016, 93, 043109.	0.8	30
71	Solidification of pure aluminium affected by a pulsed electrical field and electromagnetic stirring. Journal of Materials Science, 2016, 51, 2153-2159.	1.7	27
72	Dependency of structure, mechanical and electrical properties on rotating magnetic field in the Bi-Sn-Ag ternary eutectic alloy. International Journal of Materials Research, 2016, 107, 362-371.	0.1	11

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73	Investigations of electrically driven liquid metal flows using an ultrasound Doppler flow mapping system. <i>Flow Measurement and Instrumentation</i> , 2016, 48, 64-73.	1.0	14
74	Liquid Metal Modelling of Flow Phenomena in the Continuous Casting Process of Steel. , 2016, , 19-26.		0
75	Thermohydraulic safety issues for liquid metal cooled systems. <i>Kerntechnik</i> , 2016, 81, 188-191.	0.2	0
76	In situ visualisation of dendritic growth in solidifying Ga-In alloys. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, s156-s156.	0.0	0
77	Modular Ultrasound Array Doppler Velocimeter with FPGA-based Signal Processing for Real-time Flow Mapping in Liquid Metal. <i>Physics Procedia</i> , 2015, 70, 537-540.	1.2	2
78	Simulation of Channel Segregation During Directional Solidification of In-75wt%PctGa. Qualitative Comparison with In Situ Observations. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 4886-4897.	1.1	36
79	Effect of rotating magnetic field on the microstructures and physical properties of Al-Cu-Co ternary eutectic alloy. <i>Journal of Alloys and Compounds</i> , 2015, 647, 471-480.	2.8	29
80	Inductive detection of gas bubbles in a liquid metal flow: A contactless and non invasive methode. , 2015, , .		0
81	Flow Visualization by Means of Contactless Inductive Flow Tomography in the Presence of a Magnetic Brake. <i>Journal for Manufacturing Science and Production</i> , 2015, 15, 41-48.	0.1	6
82	Recent LIMMCAST Results on the Modeling of Steel Casting. <i>Journal for Manufacturing Science and Production</i> , 2015, 15, 131-139.	0.1	0
83	Effect of Single-Ruler Electromagnetic Braking (EMBr) Location on Transient Flow in Continuous Casting. <i>Journal for Manufacturing Science and Production</i> , 2015, 15, 93-104.	0.1	9
84	The effect of natural and forced melt convection on dendritic solidification in Ga-In alloys. <i>Journal of Crystal Growth</i> , 2015, 417, 1-8.	0.7	72
85	Detection of gas entrainment into liquid metals. <i>Nuclear Engineering and Design</i> , 2015, 294, 16-23.	0.8	18
86	Physical modelling of temperature fluctuations in a high aspect ratio model of the Czochralski crystal growth. <i>Journal of Crystal Growth</i> , 2015, 432, 69-77.	0.7	16
87	Electrophysical and structure-sensitive properties of liquid Ga-In alloys. <i>International Journal of Materials Research</i> , 2015, 106, 66-71.	0.1	18
88	Observation of dendritic growth under the influence of forced convection. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012080.	0.3	4
89	The effects of natural, forced and thermoelectric magnetohydrodynamic convection during the solidification of thin sample alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012018.	0.3	7
90	Visualization of Liquid Metal Two-phase Flows in a Physical Model of the Continuous Casting Process of Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 700-710.	1.0	53

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91	URANS Simulation of Continuous Casting Mold Flow: Assessment of Revised Turbulence Models. Steel Research International, 2015, 86, 400-410.	1.0	15
92	Ultrasound Doppler flow measurements in a liquid column under the influence of a strong axial current. Magnetohydrodynamics, 2015, 51, 249-256.	0.5	6
93	Numerical and experimental investigation of the contactless inductive flow tomography in the presence of strong static magnetic fields. Magnetohydrodynamics, 2015, 51, 461-472.	0.5	9
94	X-ray Observations Showing the Effect of Fluid Flow on Dendritic Solidification in Ga-In Alloys. , 2015, , 241-248.		1
95	Melt Flow and Grain Refinement in Al-Si Alloys Solidified under the Influence of Applied Electric Currents. , 2015, , 33-38.		0
96	Contactless flow rate measurements in metallic melts. TM Technisches Messen, 2014, 81, 70-79.	0.3	0
97	Visualization of the Flow in a Mold of Continuous Casting by Contactless Inductive Flow Tomography and Mutual Inductance Tomography. Steel Research International, 2014, 85, 1266-1273.	1.0	11
98	Use of Cold Liquid Metal Models for Investigations of the Fluid Flow in the Continuous Casting Process. Steel Research International, 2014, 85, 1283-1290.	1.0	8
99	Thermophysical Properties of the Liquid Ga-In-Sn Eutectic Alloy. Journal of Chemical & Engineering Data, 2014, 59, 757-763.	1.0	223
100	Contact-less magneto-elastic torsional sensor based on phase-shift measurements. Measurement Science and Technology, 2014, 25, 075901.	1.4	0
101	The relevance of melt convection to grain refinement in Al-Si alloys solidified under the impact of electric currents. Acta Materialia, 2014, 79, 327-338.	3.8	126
102	3-D microstructural model of freckle formation validated using in situ experiments. Acta Materialia, 2014, 79, 168-180.	3.8	95
103	The magnetic flywheel flow meter: Theoretical and experimental contributions. Applied Physics Letters, 2014, 104, 223504.	1.5	10
104	Inertial wave dynamics in a rotating liquid metal. Journal of Fluid Mechanics, 2014, 753, 472-498.	1.4	10
105	Experimental and numerical modelling of the fluid flow in the continuous casting of steel. European Physical Journal: Special Topics, 2013, 220, 151-166.	1.2	9
106	Chimney Formation in Solidifying Ga-25wt pct In Alloys Under the Influence of Thermosolutal Melt Convection. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3797-3808.	1.1	75
107	Flow measurements in liquid metals by means of the ultrasonic Doppler method and local potential probes. European Physical Journal: Special Topics, 2013, 220, 25-41.	1.2	14
108	Gas bubble detection in liquid metals by means of the ultrasound transit-time-technique. European Physical Journal: Special Topics, 2013, 220, 53-62.	1.2	20

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109	Application of X-ray radioscopic methods for characterization of two-phase phenomena and solidification processes in metallic melts. <i>European Physical Journal: Special Topics</i> , 2013, 220, 63-77.	1.2	37
110	Electromagnetic melt flow control during solidification of metallic alloys. <i>European Physical Journal: Special Topics</i> , 2013, 220, 123-137.	1.2	60
111	Two-dimensional ultrasound Doppler velocimeter for flow mapping of unsteady liquid metal flows. <i>Ultrasonics</i> , 2013, 53, 691-700.	2.1	27
112	Prediction of Mortality and the Need for Neonatal Extracorporeal Membrane Oxygenation Therapy by 3â€Dimensional Sonography and Magnetic Resonance Imaging in Fetuses With Congenital Diaphragmatic Hernias. <i>Journal of Ultrasound in Medicine</i> , 2013, 32, 981-988.	0.8	16
113	Numerical modeling of bubble-driven liquid metal flows with external static magnetic field. <i>International Journal of Multiphase Flow</i> , 2013, 48, 32-45.	1.6	33
114	Thermophysical properties of the liquid Pb84.1Au15.9 eutectic alloy. <i>Journal of Nuclear Materials</i> , 2013, 434, 291-295.	1.3	4
115	Novel ultrasound array measurement system for flow mapping of complex liquid metal flows. <i>European Physical Journal: Special Topics</i> , 2013, 220, 43-52.	1.2	19
116	Influence of magnetic fields on the behavior of bubbles in liquid metals. <i>European Physical Journal: Special Topics</i> , 2013, 220, 167-183.	1.2	20
117	Dual-plane ultrasound flow measurements in liquid metals. <i>Measurement Science and Technology</i> , 2013, 24, 055302.	1.4	22
118	Spin-up of a magnetically driven tornado-like vortex. <i>Journal of Fluid Mechanics</i> , 2013, 736, 641-662.	1.4	18
119	Messtechnik in der Magneto hydrodynamik. <i>TM Technisches Messen</i> , 2012, 79, 387-388.	0.3	0
120	Flow control during solidification of SnPb-alloys using time-modulated AC magnetic fields. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 27, 012053.	0.3	3
121	Messung von Geschwindigkeitsfeldern in FlÃ¼ssigmetallen mit der Ultraschall-Doppler Methode. <i>TM Technisches Messen</i> , 2012, 79, 410-416.	0.3	2
122	In situ X-ray monitoring of convection effects on segregation freckle formation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012035.	0.3	11
123	Adjustment and verification of macroscopic melt flow during solidification by means of various AC magnetic fields. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012047.	0.3	1
124	Observation of segregation freckle formation under the influence of melt convection. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 27, 012085.	0.3	9
125	Radial solidification of Al-Si alloys in the presence of a rotating magnetic field. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012048.	0.3	1
126	Liquid metal experiments with swirling flow submerged entry nozzle. <i>Ironmaking and Steelmaking</i> , 2012, 39, 1-9.	1.1	23

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127	Flow oscillations driven by a rotating magnetic field in liquid metal columns with an upper free surface. <i>Journal of Crystal Growth</i> , 2012, 339, 52-60.	0.7	7
128	Mixing Enhancement in Gas-Stirred Melts by Rotating Magnetic Fields. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012, 43, 1454-1464.	1.0	10
129	The impact of melt flow on the grain orientation in solidifying metal alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 27, 012051.	0.3	4
130	Effect of an Electromagnetic Brake on the Turbulent Melt Flow in a Continuous-Casting Mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012, 43, 954-972.	1.0	53
131	On the formation of Taylorâ€œGÃ¼rtler vortices in RMF-driven spin-up flows. <i>Experiments in Fluids</i> , 2012, 52, 1-10.	1.1	15
132	DRESDYN – a new facility for MHD experiments with liquid sodium. <i>Magnetohydrodynamics</i> , 2012, 48, 103-114.	0.5	21
133	Flow structures arising from melt stirring by means of modulated rotating magnetic fields. <i>Magnetohydrodynamics</i> , 2012, 48, 213-220.	0.5	8
134	Influence of Different Rotation Angles in Assessment of Lung Volumes by 3-Dimensional Sonography in Comparison to Magnetic Resonance Imaging in Healthy Fetuses. <i>Journal of Ultrasound in Medicine</i> , 2011, 30, 819-825.	0.8	7
135	Assessment of Lung Volume by 3-Dimensional Sonography and Magnetic Resonance Imaging in Fetuses With Congenital Diaphragmatic Hernias. <i>Journal of Ultrasound in Medicine</i> , 2011, 30, 1539-1545.	0.8	13
136	Measurement technique developments for LBE flows. <i>Journal of Nuclear Materials</i> , 2011, 415, 396-403.	1.3	16
137	Experimental Investigation of the Flow in a Continuous-Casting Mold under the Influence of a Transverse, Direct Current Magnetic Field. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2011, 42, 68-80.	1.0	78
138	Intermittent Behavior Caused by Surface Oxidation in a Liquid Metal Flow Driven by a Rotating Magnetic Field. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2011, 42, 1188-1200.	1.0	19
139	Combined Electromagnetic Tomography for Determining Two-phase Flow Characteristics in the Submerged Entry Nozzle and in the Mold of a Continuous Casting Model. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2011, 42, 1201-1210.	1.0	59
140	Two-dimensional ultrasound Doppler velocimeter for velocity field measurements of liquid metal flows. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011, 11, 649-650.	0.2	0
141	Efficiency of a DC magnetic field used for braking the flow within a continuous casting mould. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2011, 11, 661-662.	0.2	0
142	Surface tension and density of liquid Biâ€œPb, Biâ€œSn and Biâ€œPbâ€œSn eutectic alloys. <i>Surface Science</i> , 2011, 605, 1034-1042.	0.8	65
143	Some Recent Developments in the Field of Measuring Techniques and Instrumentation for Liquid Metal Flows. <i>Journal of Nuclear Science and Technology</i> , 2011, 48, 490-498.	0.7	13
144	Some Recent Developments in the Field of Measuring Techniques and Instrumentation for Liquid Metal Flows. <i>Journal of Nuclear Science and Technology</i> , 2011, 48, 490-498.	0.7	2

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145	A7.2 - Two-Dimensional Ultrasound Doppler Velocimeter for Investigations of Liquid Metal Flows. , 2011, , .		1
146	Experimental Modeling of the Continuous Casting Process of Steel Using Low Melting Point Metal Alloysâ€”the LIMMCAST Program. ISIJ International, 2010, 50, 1134-1141.	0.6	97
147	Measurements of an unsteady liquid metal flow during spin-up driven by a rotating magnetic field. Experiments in Fluids, 2010, 48, 233-244.	1.1	36
148	Visualization of freckle formation induced by forced melt convection in solidifying Galn alloys. Materials Letters, 2010, 64, 1340-1343.	1.3	45
149	Ultrasound Doppler system for two-dimensional flow mapping in liquid metals. Flow Measurement and Instrumentation, 2010, 21, 402-409.	1.0	31
150	Thermophysical properties of liquid tinâ€”bismuth alloys. International Journal of Materials Research, 2010, 101, 839-844.	0.1	25
151	Experimental and numerical modeling of the steel flow in a continuous casting mould under the influence of a transverse DC magnetic field. Magnetohydrodynamics, 2010, 46, 437-448.	0.5	7
152	The impact of turbulent flow on the solidification of metal alloys driven by a rotating magnetic field. International Journal of Cast Metals Research, 2009, 22, 236-239.	0.5	5
153	Observation of dendritic growth and fragmentation in Gaâ€”In alloys by X-ray radioscopy. International Journal of Cast Metals Research, 2009, 22, 30-33.	0.5	8
154	Use of time-modulated AC magnetic fields for melt flow control during unidirectional solidification. International Journal of Cast Metals Research, 2009, 22, 78-81.	0.5	5
155	Structure Sensitive Properties of Liquid Alâ€”Si Alloys. International Journal of Thermophysics, 2009, 30, 1400-1410.	1.0	32
156	The Impact of a Vertically Travelling Magnetic Field on the Flow in a Cylindrical Liquid Metal Bubble Plume. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2009, 40, 700-711.	1.0	7
157	Grain size control in Alâ€”Si alloys by grain refinement and electromagnetic stirring. Journal of Alloys and Compounds, 2009, 487, 163-172.	2.8	68
158	Solidification of a binary metal alloy in a turbulent melt flow driven by AC magnetic fields. , 2009, , .		0
159	Some physical data of the near eutectic liquid leadâ€”bismuth. Journal of Nuclear Materials, 2008, 373, 335-342.	1.3	30
160	Measurement of electrical conductivity of Pbâ€”Bi alloys in the meltingâ€”solidification region. Journal of Nuclear Materials, 2008, 376, 363-365.	1.3	3
161	X-Ray Radioscopic Visualization of the Solutal Convection during Solidification of a Ga-30 Wt Pct In Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 613-623.	1.1	69
162	Density, Viscosity, and Electrical Conductivity of Hypoeutectic Al-Cu Liquid Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 3040-3045.	1.1	77

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