

Kerstin Eckert

List of Publications by Year in descending order

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160
papers

3,466
citations

126708

33
h-index

197535

49
g-index

166
all docs

166
docs citations

166
times ranked

1978
citing authors

#	ARTICLE	IF	CITATIONS
1	Entrance effects in a radial Hele-Shaw cell: Numerical and experimental study. <i>Chemical Engineering Journal</i> , 2022, 428, 131146.	6.6	7
2	On the electrodeposition of conically nano-structured nickel layers assisted by a capping agent. <i>Journal of Electroanalytical Chemistry</i> , 2022, 904, 115935.	1.9	7
3	Localization of rare earth ions in an inhomogeneous magnetic field toward their magnetic separation. <i>Journal of Rare Earths</i> , 2022, 40, 1598-1605.	2.5	3
4	Magnetic Separation of Rare-Earth Ions: Property Database and Kelvin Force Distribution. <i>Journal of Physical Chemistry C</i> , 2022, 126, 2226-2233.	1.5	3
5	Experimental techniques to study protein-surfactant interactions: New insights into competitive adsorptions via drop subphase and interface exchange. <i>Advances in Colloid and Interface Science</i> , 2022, 301, 102601.	7.0	18
6	Effects of gravity modulation on the dynamics of a radial reaction front. <i>Chemical Engineering Science</i> , 2022, 257, 117703.	1.9	6
7	On the prospects of magnetic-field-assisted electrodeposition of nano-structured ferromagnetic layers. <i>Electrochimica Acta</i> , 2022, 420, 140422.	2.6	15
8	Protein enrichment by foam Fractionation: Experiment and modeling. <i>Chemical Engineering Science</i> , 2022, 256, 117715.	1.9	17
9	Measurements of dendrite tip shape selection in a metallic alloy. <i>Physical Review Materials</i> , 2022, 6, .	1.0	1
10	Pulse Reverse Plating of Copper Micro-Structures in Magnetic Gradient Fields. <i>Magnetochemistry</i> , 2022, 8, 66.	1.0	3
11	Euler-Euler/RANS modeling of solid-liquid flow in stirred tanks: A comprehensive model validation. <i>Minerals Engineering</i> , 2022, 185, 107679.	1.8	1
12	Magnetic-field-assisted electrodeposition of metal to obtain conically structured ferromagnetic layers. <i>Electrochimica Acta</i> , 2021, 365, 137374.	2.6	23
13	Detection of the pulp-froth interface using the ultrasound transit time technique. <i>Minerals Engineering</i> , 2021, 160, 106679.	1.8	1
14	Dynamics of single hydrogen bubbles at Pt microelectrodes in microgravity. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 11818-11830.	1.3	20
15	Magnetic separation of rare-earth ions: Transport processes and pattern formation. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	6
16	Convective instability in sheared foam. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	8
17	Effect of deposition current density on the Co-Ni/SiO ₂ alloy composite coatings using scanning jet electrodeposition. <i>Surface Topography: Metrology and Properties</i> , 2021, 9, 015027.	0.9	6
18	Oscillatory Copper Deposition on Conical Iron Electrodes in a Nonuniform Magnetic Field. <i>Magnetochemistry</i> , 2021, 7, 46.	1.0	5

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19	Magnetically Induced Aggregation of Iron Oxide Nanoparticles for Carrier Flotation Strategies. ACS Applied Materials & Interfaces, 2021, 13, 20830-20844.	4.0	19
20	Interfacial flow of a surfactant-laden interface under asymmetric shear flow. Journal of Colloid and Interface Science, 2021, 599, 837-848.	5.0	6
21	Experimental and numerical investigations of Ni-Co-SiO ₂ alloy films deposited by magnetic-field-assisted jet plating. Surface and Coatings Technology, 2021, 423, 127583.	2.2	11
22	Dynamics of adsorption of CTAB-Silica nanoparticle complexes: New experiments and modeling approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 629, 127448.	2.3	5
23	Solid-liquid flow in stirred tanks: a CFD-grade experimental investigation. Chemical Engineering Science, 2021, 245, 116743.	1.9	9
24	Enzymatic Hydrolysis of Triglycerides at the Water-Oil Interface Studied via Interfacial Rheology Analysis of Lipase Adsorption Layers. Langmuir, 2021, 37, 12919-12928.	1.6	9
25	High-Gradient Magnetic Separation of Compact Fluorescent Lamp Phosphors: Elucidation of the Removal Dynamics in a Rotary Permanent Magnet Separator. Minerals (Basel, Switzerland), 2021, 11, 1116.	0.8	8
26	Interfacial Behavior of Particle-Laden Bubbles under Asymmetric Shear Flow. Langmuir, 2021, 37, 13244-13254.	1.6	7
27	The influence of negatively charged silica nanoparticles on the surface properties of anionic surfactants: electrostatic repulsion or the effect of ionic strength?. Physical Chemistry Chemical Physics, 2020, 22, 2238-2248.	1.3	37
28	Application of Positron Emission Particle Tracking (PEPT) to measure the bubble-particle interaction in a turbulent and dense flow. Minerals Engineering, 2020, 156, 106410.	1.8	18
29	Dynamics of Competitive Adsorption of Lipase and Ionic Surfactants at the Water-Air Interface. Langmuir, 2020, 36, 12010-12022.	1.6	16
30	The thermocapillary effect on gas bubbles growing on electrodes of different sizes. Electrochimica Acta, 2020, 353, 136461.	2.6	28
31	Oscillatory surface deformation of paramagnetic rare-earth solutions driven by an inhomogeneous magnetic field. Physical Review E, 2020, 101, 062601.	0.8	4
32	Stability criterion for the magnetic separation of rare-earth ions. Physical Review E, 2020, 101, 013109.	0.8	6
33	X-ray particle tracking velocimetry in liquid foam flow. Soft Matter, 2020, 16, 2093-2103.	1.2	11
34	Salt Effects on Formation and Stability of Colloidal Gas Aphrons Produced by Anionic and Zwitterionic Surfactants in Xanthan Gum Solution. Colloids and Interfaces, 2020, 4, 9.	0.9	9
35	Formation of Structured Membranes by Coacervation of Xanthan Gum with CTAB Surfactants. Langmuir, 2019, 35, 13624-13635.	1.6	4
36	Influence of microscopic precipitate structures on macroscopic pattern formation in reactive flows in a confined geometry. Physical Chemistry Chemical Physics, 2019, 21, 2910-2918.	1.3	13

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37	Dancing performance of organic droplets in aqueous surfactant solutions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 566, 141-147.	2.3	16
38	Cytocompatible, Injectable, and Electroconductive Soft Adhesives with Hybrid Covalent/Noncovalent Dynamic Network. <i>Advanced Science</i> , 2019, 6, 1802077.	5.6	84
39	Mass transfer and electrolyte flow during electrodeposition on a conically shaped electrode under the influence of a magnetic field. <i>Journal of Electroanalytical Chemistry</i> , 2019, 842, 203-213.	1.9	18
40	Tracking of Particles in Froth Using Neutron Imaging. <i>Chemie-Ingenieur-Technik</i> , 2019, 91, 1001-1007.	0.4	6
41	Bio-compatible flotation of <i>Chlorella vulgaris</i> : Study of zeta potential and flotation efficiency. <i>Algal Research</i> , 2019, 44, 101705.	2.4	27
42	Oscillating Hydrogen Bubbles at Pt Microelectrodes. <i>Physical Review Letters</i> , 2019, 123, 214503.	2.9	45
43	Thermocapillary convection during hydrogen evolution at microelectrodes. <i>Electrochimica Acta</i> , 2019, 297, 929-940.	2.6	45
44	Measurements of Gas Phase Velocity in Liquid Metal by Means of Ultrasonic Pulse-Echo Method. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 1-12.	0.3	1
45	Reversibly Assembled Electroconductive Hydrogel via a Host-Guest Interaction for 3D Cell Culture. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 7715-7724.	4.0	69
46	Noncovalently Assembled Electroconductive Hydrogel. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 14418-14425.	4.0	50
47	Coarsening evolution of dendritic sidearms: From synchrotron experiments to quantitative modeling. <i>Acta Materialia</i> , 2018, 146, 176-186.	3.8	26
48	Neutron imaging of froth structure and particle motion. <i>Minerals Engineering</i> , 2018, 119, 126-129.	1.8	19
49	Ultrasonic measurements of the bulk flow field in foams. <i>Physical Review E</i> , 2018, 97, 013113.	0.8	12
50	Marangoni convection at electrogenerated hydrogen bubbles. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11542-11548.	1.3	71
51	Single bubble rise in GaInSn in a horizontal magnetic field. <i>International Journal of Multiphase Flow</i> , 2018, 104, 32-41.	1.6	20
52	Experimental studies of two-phase liquid metal-gas chain flow with ultrasonic echo pulse method and in the magnetic field of permanent magnets. <i>MATEC Web of Conferences</i> , 2018, 240, 03003.	0.1	1
53	Adaptive Micromixer Based on the Solutocapillary Marangoni Effect in a Continuous-Flow Microreactor. <i>Micromachines</i> , 2018, 9, 600.	1.4	18
54	Information transmission by Marangoni-driven relaxation oscillations at droplets. <i>Soft Matter</i> , 2018, 14, 9250-9262.	1.2	3

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55	Smart Tomographic Sensors for Advanced Industrial Process Control TOMOCON. <i>Chemie-Ingenieur-Technik</i> , 2018, 90, 1238-1239.	0.4	4
56	Do rotating magnetic fields unconditionally lead to grain refinement? A case study for directionally solidified Al-10wt%Cu alloys. <i>Materialia</i> , 2018, 3, 326-337.	1.3	12
57	A novel method for measuring flotation recovery by means of 4D particle tracking velocimetry. <i>Minerals Engineering</i> , 2018, 124, 116-122.	1.8	13
58	Fragmentation-driven grain refinement in directional solidification of AlCu10wt-% alloy at low pulling speeds. <i>Acta Materialia</i> , 2017, 126, 236-250.	3.8	42
59	Complex Patterns and Elementary Structures of Solutal Marangoni Convection: Experimental and Numerical Studies. <i>Advances in Mathematical Fluid Mechanics</i> , 2017, , 445-488.	0.1	0
60	Meniscus Asymmetry and Chemo-Marangoni Convection in Capillaries. <i>Chemical Engineering and Technology</i> , 2017, 40, 2067-2074.	0.9	3
61	Investigations of fluid flow effects on dendritic solidification: Consequences on fragmentation, macrosegregation and the influence of electromagnetic stirring. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 228, 012005.	0.3	9
62	General evolution equation for the specific interface area of dendrites during alloy solidification. <i>Acta Materialia</i> , 2017, 140, 87-96.	3.8	42
63	The influence of interface curvature on solutal Marangoni convection in the Hele-Shaw cell. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 1064-1073.	2.5	9
64	Evaporation-Assisted Magnetic Separation of Rare-Earth Ions in Aqueous Solutions. <i>Journal of Physical Chemistry C</i> , 2017, 121, 24576-24587.	1.5	21
65	Growth and detachment of single hydrogen bubbles in a magnetohydrodynamic shear flow. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	28
66	Numerical simulation of mass transfer and convection near a hydrogen bubble during water electrolysis in a magnetic field. <i>Magnetohydrodynamics</i> , 2017, 53, 193-200.	0.5	3
67	Measurements of the diameter of rising gas bubbles by means of the ultrasound transit time technique. <i>Magnetohydrodynamics</i> , 2017, 53, 383-392.	0.5	5
68	The eruptive regime of mass-transfer-driven Rayleigh-Marangoni convection. <i>Journal of Fluid Mechanics</i> , 2016, 791, .	1.4	5
69	On the Electrolyte Convection around a Hydrogen Bubble Evolving at a Microelectrode under the Influence of a Magnetic Field. <i>Journal of the Electrochemical Society</i> , 2016, 163, E248-E257.	1.3	44
70	Interplay of the Open Circuit Potential-Relaxation and the Dissolution Behavior of a Single H ₂ Bubble Generated at a Pt Microelectrode. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15137-15146.	1.5	9
71	Self-Pinning on a Liquid Surface. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 520-524.	2.1	5
72	Heat transfer enhancement in magnetic cooling by means of magnetohydrodynamic convection. <i>International Journal of Refrigeration</i> , 2016, 62, 166-176.	1.8	8

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73	Dendrite fragmentation in alloy solidification due to sidearm pinch-off. <i>Physical Review E</i> , 2015, 92, 060401.	0.8	37
74	A new method for mixing of suspended superparamagnetic beads using variable electromagnetic fields. <i>Engineering in Life Sciences</i> , 2015, 15, 727-732.	2.0	5
75	Evolution of specific interface area in dendritic alloy solidification. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012072.	0.3	3
76	Space- and time-resolved interferometric measurements of the thermal boundary layer at a periodically magnetized gadolinium plate. <i>International Journal of Refrigeration</i> , 2015, 56, 246-255.	1.8	7
77	Measuring the diameter of rising gas bubbles by means of the ultrasound transit time technique. <i>Nuclear Engineering and Design</i> , 2015, 291, 64-70.	0.8	13
78	Dynamics of Single Hydrogen Bubbles at a Platinum Microelectrode. <i>Langmuir</i> , 2015, 31, 8184-8193.	1.6	93
79	Relaxation oscillations of solutal Marangoni convection at curved interfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 481, 633-643.	2.3	24
80	Solutal Marangoni convection in a Hele-Shaw geometry: Impact of orientation and gap width. <i>European Physical Journal: Special Topics</i> , 2015, 224, 261-276.	1.2	12
81	Detection of gas entrainment into liquid metals. <i>Nuclear Engineering and Design</i> , 2015, 294, 16-23.	0.8	18
82	Linear stability analysis of the convective flow in a spherical gap with $\hat{\eta}=0.714$. <i>International Journal of Heat and Mass Transfer</i> , 2015, 80, 266-273.	2.5	7
83	Magnetic separation of Dy(III) ions from homogeneous aqueous solutions. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	34
84	Magnetic Separation of Paramagnetic Ions From Initially Homogeneous Solutions. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	1.2	9
85	Pattern formation and mass transfer under stationary solutal Marangoni instability. <i>Advances in Colloid and Interface Science</i> , 2014, 206, 344-371.	7.0	53
86	Convective dynamics of traveling autocatalytic fronts in a modulated gravity field. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 26279-26287.	1.3	22
87	Influence of the Prandtl number on the stability of convective flows between non-isothermal concentric spheres. <i>International Journal of Heat and Mass Transfer</i> , 2013, 66, 154-163.	2.5	4
88	Electromagnetic flow control in metallurgy, crystal growth and electrochemistry. <i>European Physical Journal: Special Topics</i> , 2013, 220, 1-8.	1.2	13
89	Gas bubble detection in liquid metals by means of the ultrasound transit-time-technique. <i>European Physical Journal: Special Topics</i> , 2013, 220, 53-62.	1.2	20
90	Optical velocity measurements of electrolytic boundary layer flows influenced by magnetic fields. <i>European Physical Journal: Special Topics</i> , 2013, 220, 79-89.	1.2	7

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91	Electromagnetic melt flow control during solidification of metallic alloys. European Physical Journal: Special Topics, 2013, 220, 123-137.	1.2	60
92	The initial transient of natural convection during copper electrolysis in the presence of an opposing Lorentz force: Current dependence. European Physical Journal: Special Topics, 2013, 220, 303-312.	1.2	12
93	On the transition from cellular to wavelike patterns during solutal Marangoni convection. European Physical Journal: Special Topics, 2013, 219, 121-130.	1.2	10
94	On the homogenization of the thickness of Cu deposits by means of MHD convection within small dimension cells. Electrochemistry Communications, 2013, 36, 80-83.	2.3	15
95	Multiscale structures in solutal Marangoni convection: Three-dimensional simulations and supporting experiments. Physics of Fluids, 2013, 25, .	1.6	26
96	Influence of magnetic fields on the behavior of bubbles in liquid metals. European Physical Journal: Special Topics, 2013, 220, 167-183.	1.2	20
97	Structured electrodeposition in magnetic gradient fields. European Physical Journal: Special Topics, 2013, 220, 287-302.	1.2	39
98	Pattern Formation Emerging from Stationary Solutal Marangoni Instability: A Roadmap Through the Underlying Hierarchic Structures. Understanding Complex Systems, 2013, , 105-121.	0.3	2
99	Introduction to the Focus Issue: Chemo-Hydrodynamic Patterns and Instabilities. Chaos, 2012, 22, 037101.	1.0	43
100	Radial solidification of Al-Si alloys in the presence of a rotating magnetic field. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012048.	0.3	1
101	Enrichment of Paramagnetic Ions from Homogeneous Solutions in Inhomogeneous Magnetic Fields. Journal of Physical Chemistry Letters, 2012, 3, 3559-3564.	2.1	33
102	A + B $\hat{=}$ C reaction fronts in Hele-Shaw cells under modulated gravitational acceleration. Physical Chemistry Chemical Physics, 2012, 14, 7337.	1.3	22
103	Flow oscillations driven by a rotating magnetic field in liquid metal columns with an upper free surface. Journal of Crystal Growth, 2012, 339, 52-60.	0.7	7
104	Chemo-Marangoni convection driven by an interfacial reaction: Pattern formation and kinetics. Chaos, 2012, 22, 037112.	1.0	36
105	Mixing Enhancement in Gas-Stirred Melts by Rotating Magnetic Fields. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 1454-1464.	1.0	10
106	Influence of an axial magnetic field on the stability of convective flows between non-isothermal concentric spheres. International Journal of Heat and Mass Transfer, 2012, 55, 7520-7531.	2.5	5
107	Free dendrite growth under modulated flow in pure substances: two-dimensional phase-field simulations. IOP Conference Series: Materials Science and Engineering, 2012, 27, 012045.	0.3	5
108	Growth of a free dendrite in pure substances under modulated flow conditions. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012106.	0.3	2

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109	Relaxation oscillations between Marangoni cells and double diffusive fingers in a reactive liquid-liquid system. <i>Chemical Engineering Science</i> , 2012, 68, 530-540.	1.9	19
110	Lorentz-force-driven convection during copper magnetoelectrolysis in the presence of a supporting buoyancy force. <i>Electrochimica Acta</i> , 2012, 69, 209-219.	2.6	32
111	Convective Mixing Induced by Acid-Base Reactions. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9739-9744.	1.2	53
112	How to obtain structured metal deposits from diamagnetic ions in magnetic gradient fields?. <i>Electrochemistry Communications</i> , 2011, 13, 946-950.	2.3	29
113	Influence of an axial magnetic field on the stability of spherical Couette flows with different gap widths. <i>Acta Mechanica</i> , 2011, 219, 255-268.	1.1	24
114	A wavelet and Zernike-polynomial-based shearing interferometry approach to analyse hydrodynamic instabilities at interfaces. <i>Acta Astronautica</i> , 2011, 68, 707-716.	1.7	10
115	Hydrogen evolution under the influence of a magnetic field. <i>Electrochimica Acta</i> , 2011, 56, 2665-2675.	2.6	146
116	Velocity measurements inside the concentration boundary layer during copper-magneto-electrolysis using a novel laser Doppler profile sensor. <i>Electrochimica Acta</i> , 2011, 56, 6150-6156.	2.6	14
117	Contactless Mixing of Liquid Metals. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2010, 41, 94-111.	1.0	12
118	Oscillatory Lorentz-force-driven flows during potentiostatic current oscillations in magnetic fields. <i>Electrochemistry Communications</i> , 2010, 12, 1576-1580.	2.3	13
119	The impact of turbulent flow on the solidification of metal alloys driven by a rotating magnetic field. <i>International Journal of Cast Metals Research</i> , 2009, 22, 236-239.	0.5	5
120	Use of time-modulated AC magnetic fields for melt flow control during unidirectional solidification. <i>International Journal of Cast Metals Research</i> , 2009, 22, 78-81.	0.5	5
121	The Use of Steady Electromagnetic Fields to Control the Columnar Solidification of Binary-Metal Alloys. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009, 40, 317-327.	1.0	4
122	Desorption of hydrogen from an electrode surface under influence of an external magnetic field - In-situ microscopic observations. <i>Electrochemistry Communications</i> , 2009, 11, 425-429.	2.3	61
123	Pulse magnetoelectrolysis. <i>Electrochemistry Communications</i> , 2009, 11, 318-322.	2.3	10
124	On the decay of the Lorentz-force-driven convection in vertical concentration stratification during magnetoelectrolysis. <i>Electrochimica Acta</i> , 2009, 54, 7056-7065.	2.6	17
125	Dendrite fragmentation by catastrophic elastic remelting. <i>Acta Materialia</i> , 2009, 57, 657-665.	3.8	38
126	Efficient Melt Stirring Using Pulse Sequences of a Rotating Magnetic Field: Part II. Application to Solidification of Al-Si Alloys. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2008, 39, 304-316.	1.0	109

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127	The concentration field during transient natural convection between vertical electrodes in a small-aspect-ratio cell. <i>Journal of Electroanalytical Chemistry</i> , 2008, 613, 97-107.	1.9	27
128	The start-up of natural convection during copper electrolysis in the presence of an opposing Lorentz force. <i>Electrochimica Acta</i> , 2008, 54, 352-359.	2.6	24
129	Spin-up and spin-down dynamics of a liquid metal driven by a single rotating magnetic field pulse. <i>European Journal of Mechanics, B/Fluids</i> , 2008, 27, 177-201.	1.2	10
130	A novel Hele-Shaw cell design for the analysis of hydrodynamic instabilities in liquid-liquid systems. <i>Chemical Engineering Science</i> , 2008, 63, 3560-3563.	1.9	44
131	Convective Instability in a Liquid-Liquid System Due to Complexation with a Crown Ether. <i>Journal of Physical Chemistry A</i> , 2008, 112, 7357-7364.	1.1	11
132	On Three-Dimensional Magnetic Field Effects during Metal Deposition in Cuboid Cells. <i>ECS Transactions</i> , 2008, 13, 9-13.	0.3	5
133	An Impact of a Low Voltage Steady Electrical Current on the Solidification of a Binary Metal Alloy: A Numerical Study. <i>Steel Research International</i> , 2007, 78, 402-408.	1.0	12
134	Confinement of paramagnetic ions under magnetic field influence: Lorentz versus concentration gradient force based explanations. <i>Electrochemistry Communications</i> , 2007, 9, 2479-2483.	2.3	49
135	Controlled retardation of electrochemical Rayleigh-Bénard convection during copper electrolysis. <i>Journal of Electroanalytical Chemistry</i> , 2007, 611, 241-249.	1.9	10
136	Orientation-dependent Hydrodynamic Instabilities from Chemo-Marangoni Cells to Large Scale Interfacial Deformations. <i>Chinese Journal of Chemical Engineering</i> , 2007, 15, 748-753.	1.7	21
137	Copper deposition and dissolution in seemingly parallel electric and magnetic fields: Lorentz force distributions and flow configurations. <i>Journal of Solid State Electrochemistry</i> , 2007, 11, 687-701.	1.2	28
138	Efficient Melt Stirring Using Pulse Sequences of a Rotating Magnetic Field: Part I. Flow Field in a Liquid Metal Column. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2007, 38, 977-988.	1.0	66
139	RANS Modelling of Turbulent Flows Driven by a Travelling Magnetic Field. , 2007, , 745-745.		1
140	Acceleration of reaction fronts by hydrodynamic instabilities in immiscible systems. <i>Chemical Engineering Science</i> , 2006, 61, 5523-5533.	1.9	38
141	Numerical study of a laminar melt flow driven by a rotating magnetic field in enclosed cylinders with different aspect ratios. <i>Acta Mechanica</i> , 2006, 186, 17-35.	1.1	19
142	A numerical study of unidirectional solidification of a binary metal alloy under influence of a rotating magnetic field. <i>International Journal of Heat and Mass Transfer</i> , 2006, 49, 1501-1515.	2.5	82
143	Rotating magnetic field-driven flows in conductive inhomogeneous media: Part I—Numerical study. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2006, 37, 349-359.	1.0	13
144	Secondary Instabilities in Surface-Tension-Driven Bénard-Marangoni Convection. <i>Springer Tracts in Modern Physics</i> , 2006, , 163-176.	0.1	2

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145	Application of a rotating magnetic field during directional solidification of Pb-Sn alloys: Consequences on the CET. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 413-414, 211-216.	2.6	44
146	Control of chemo-hydrodynamic pattern formation by external localized cooling. <i>Europhysics Letters</i> , 2005, 69, 746-752.	0.7	29
147	Spin-up of a liquid metal flow driven by a rotating magnetic field in a finite cylinder: A numerical and an analytical study. <i>Physics of Fluids</i> , 2005, 17, 067101.	1.6	53
148	Chemical pattern formation driven by a neutralization reaction. I. Mechanism and basic features. <i>Physics of Fluids</i> , 2004, 16, 385-399.	1.6	75
149	Measurement and Calculation of Heat Exchanger Performance Using Film Method. , 2004, , .		0
150	Modeling and measurements of heat transfer phenomena in two-phase PbSn alloy solidification in an external magnetic field. <i>Journal of Thermal Science</i> , 2003, 12, 357-362.	0.9	2
151	Numerical and analytical study of rotating flow in an enclosed cylinder under an axial magnetic field. <i>Acta Mechanica</i> , 2003, 164, 175-188.	1.1	14
152	Convection in two-layer systems with an anomalous thermocapillary effect. <i>Physical Review E</i> , 2000, 62, 3619-3631.	0.8	8
153	Plume and Finger Regimes Driven by an Exothermic Interfacial Reaction. <i>Physical Review Letters</i> , 1999, 82, 4436-4439.	2.9	77
154	Nonbound dislocations in hexagonal patterns: pentagon lines in surface-tension-driven Bénard convection. <i>Physical Review E</i> , 1999, 60, 4117-4124.	0.8	5
155	21. Experimentelle und numerische Untersuchungen zu Instabilitäten beim reaktiven Stoffübergang an einer ebenen fluiden Phasengrenze im vertikalen Spalt. <i>Chemie-Ingenieur-Technik</i> , 1999, 71, 945-945.	0.4	0
156	Stochastic geometry of polygonal networks: An alternative approach to the hexagon-square transition in Bénard convection. <i>Physical Review E</i> , 1998, 58, 3458-3468.	0.8	12
157	Square cells in surface-tension-driven Bénard convection: experiment and theory. <i>Journal of Fluid Mechanics</i> , 1998, 356, 155-197.	1.4	97
158	Secondary instability in surface-tension-driven Bénard convection. <i>Physical Review E</i> , 1995, 52, R5772-R5775.	0.8	50
159	Carrier Flotation: State of the Art and its Potential for the Separation of Fine and Ultrafine Mineral Particles. <i>Materials Science Forum</i> , 0, 959, 125-133.	0.3	17
160	Numerical Study of the Influence of an Applied Electrical Potential on the Solidification of a Binary Metal Alloy. , 0, , 296-308.		2