

Janis Priede

List of Publications by Year in descending order

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papers

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all docs

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59
times ranked

419
citing authors

#	ARTICLE	IF	CITATIONS
1	Helical magnetorotational instability in a Taylor-Couette flow with strongly reduced Ekman pumping. <i>Physical Review E</i> , 2009, 80, 066303.	2.1	70
2	Convective, absolute, and global instabilities of thermocapillary-buoyancy convection in extended layers. <i>Physical Review E</i> , 1997, 56, 4187-4199.	2.1	49
3	Linear stability of Hunt's flow. <i>Journal of Fluid Mechanics</i> , 2010, 649, 115-134.	3.4	43
4	The influence of current collectors on Taylor instability and electro-vortex flows in liquid metal batteries. <i>Physics of Fluids</i> , 2015, 27, .	4.0	41
5	Contactless electromagnetic phase-shift flowmeter for liquid metals. <i>Measurement Science and Technology</i> , 2011, 22, 055402.	2.6	37
6	Single-magnet rotary flowmeter for liquid metals. <i>Journal of Applied Physics</i> , 2011, 110, 034512.	2.5	33
7	Force-free and contactless sensor for electromagnetic flowrate measurements. <i>Magneto hydrodynamics</i> , 2009, 45, 451-458.	0.3	29
8	Three-dimensional linear stability analysis of the flow in a liquid spherical droplet driven by an alternating magnetic field. <i>Physics of Fluids</i> , 2003, 15, 668-678.	4.0	27
9	Inductionless magnetorotational instability in a Taylor-Couette flow with a helical magnetic field. <i>Physical Review E</i> , 2007, 75, 047303.	2.1	26
10	Effect of melt convection on the secondary dendritic arm spacing in peritectic Nd-Fe-B alloy. <i>Journal of Alloys and Compounds</i> , 2009, 480, 295-298.	5.5	26
11	Electromagnetic levitation: A new technology for high rate physical vapour deposition of coatings onto metallic strip. <i>Surface and Coatings Technology</i> , 2007, 202, 1189-1193.	4.8	24
12	Absolute versus convective helical magnetorotational instability in a Taylor-Couette flow. <i>Physical Review E</i> , 2009, 79, 046310.	2.1	22
13	Linear stability of magnetohydrodynamic flow in a perfectly conducting rectangular duct. <i>Journal of Fluid Mechanics</i> , 2012, 708, 111-127.	3.4	20
14	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.	2.1	19
15	Influence of thermal boundary conditions on the stability of thermocapillary-driven convection at low Prandtl numbers. <i>Physics of Fluids</i> , 1997, 9, 1621-1634.	4.0	18
16	Magnetic field controlled FZ single crystal growth of intermetallic compounds. <i>Journal of Crystal Growth</i> , 2005, 275, e1533-e1538.	1.5	18
17	Experimental model of the interfacial instability in aluminium reduction cells. <i>Europhysics Letters</i> , 2009, 88, 24001.	2.0	18
18	Inviscid helical magnetorotational instability in cylindrical Taylor-Couette flow. <i>Physical Review E</i> , 2011, 84, 066314.	2.1	18

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19	Modelling of Electromagnetic Levitation - Consequences on Non-contact Physical Properties Measurements. High Temperature Materials and Processes, 2008, 27, 439-448.	1.4	17
20	Linear stability of magnetohydrodynamic flow in a square duct with thin conducting walls. Journal of Fluid Mechanics, 2016, 788, 129-146.	3.4	15
21	Influence of growth parameters and melt convection on the solid-liquid interface during RF-floating zone crystal growth of intermetallic compounds. Journal of Crystal Growth, 2001, 223, 577-587.	1.5	14
22	Breakdown of Burton-Prim-Slichter approach and lateral solute segregation in radially converging flows. Journal of Crystal Growth, 2005, 285, 261-269.	1.5	14
23	Experimental and numerical study of anomalous thermocapillary convection in liquid gallium. Physics of Fluids, 1999, 11, 3331-3339.	4.0	13
24	Spin-up instability of electromagnetically levitated spherical bodies. IEEE Transactions on Magnetics, 2000, 36, 349-353.	2.1	13
25	Boundary-Integral method for calculating poloidal axisymmetric AC magnetic fields. IEEE Transactions on Magnetics, 2006, 42, 301-308.	2.1	13
26	Hydrothermal wave instability of thermocapillary-driven convection in a coplanar magnetic field. Journal of Fluid Mechanics, 1997, 347, 141-169.	3.4	12
27	Oscillatory instability of electromagnetically levitated solid bodies. IEEE Transactions on Magnetics, 2000, 36, 354-357.	2.1	12
28	Hydrothermal wave instability of thermocapillary-driven convection in a transverse magnetic field. Journal of Fluid Mechanics, 2000, 404, 211-250.	3.4	11
29	Tailoring the microstructure and mechanical properties of Ti-Al alloy using a novel electromagnetic stirring method. Scripta Materialia, 2006, 55, 1143-1146.	5.2	10
30	Homopolar oscillating-disc dynamo driven by parametric resonance. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 584-587.	2.1	9
31	Oscillations of weakly viscous conducting liquid drops in a strong magnetic field. Journal of Fluid Mechanics, 2011, 671, 399-416.	3.4	9
32	Capacitance matrix technique for avoiding spurious eigenmodes in the solution of hydrodynamic stability problems by Chebyshev collocation method. Journal of Computational Physics, 2013, 238, 210-216.	3.8	9
33	Stability analysis of an electromagnetically levitated sphere. Journal of Applied Physics, 2006, 100, 054911.	2.5	7
34	Weakly nonlinear stability analysis of magnetohydrodynamic channel flow using an efficient numerical approach. Physics of Fluids, 2013, 25, .	4.0	7
35	Stability of an electromagnetically levitated spherical sample in a set of coaxial circular loops. IEEE Transactions on Magnetics, 2005, 41, 2089-2101.	2.1	6
36	Basic flow and its three-dimensional linear stability in a small spherical droplet spinning in an alternating magnetic field. Physics of Fluids, 2007, 19, .	4.0	6

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37	The effect of finite-conductivity Hartmann walls on the linear stability of Hunt's flow. <i>Journal of Fluid Mechanics</i> , 2017, 822, 880-891.	3.4	6
38	Concept of a next-generation electromagnetic phase-shift flowmeter for liquid metals. <i>Flow Measurement and Instrumentation</i> , 2019, 65, 128-135.	2.0	6
39	Pseudo-magnetorotational instability in a Taylor-Dean flow between electrically connected cylinders. <i>Physical Review E</i> , 2009, 79, 066314.	2.1	5
40	Controlling melt convection—an innovation potential for concerted microstructure evolution of Nd-Fe-B alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 413-414, 302-305.	5.6	4
41	Edge pinch instability of liquid metal sheet in a transverse high-frequency ac magnetic field. <i>Physical Review E</i> , 2006, 73, 066303.	2.1	4
42	Matched asymptotic solution for the solute boundary layer in a converging axisymmetric stagnation point flow. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 216-225.	4.8	4
43	Convective controlled crystal-melt interface using two-phase radio-frequency electromagnetic heating. <i>Journal of Materials Science</i> , 2010, 45, 2228-2232.	3.7	4
44	Feasible homopolar dynamo with sliding liquid-metal contacts. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2013, 377, 2093-2096.	2.1	4
45	Velocity measurements in the liquid metal flow driven by a two-phase inductor. <i>Experiments in Fluids</i> , 2013, 54, 1.	2.4	4
46	Magnetic field controlled floating-zone single crystal growth of intermetallic compounds. <i>European Physical Journal: Special Topics</i> , 2013, 220, 227-241.	2.6	4
47	Alternative transient eddy-current flowmetering methods for liquid metals. <i>Flow Measurement and Instrumentation</i> , 2019, 65, 150-157.	2.0	4
48	Fractality of metal pad instability threshold in rectangular cells. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	4
49	Hydrothermal wave instability of thermocapillary driven convection in a plane layer subjected to a uniform magnetic field. <i>Advances in Space Research</i> , 1995, 16, 55-58.	2.6	3
50	Metamorphosis of helical magnetorotational instability in the presence of axial electric current. <i>Physical Review E</i> , 2015, 91, 033014.	2.1	3
51	Microstructure evolution of Nd-Fe-B alloys in consideration of magnetohydrodynamics. <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, E1855-E1856.	2.3	2
52	Edge pinch instability of oblate liquid metal drops in a transverse AC magnetic field. <i>Journal of Fluid Mechanics</i> , 2011, 676, 218-236.	3.4	2
53	Two-dimensional nonlinear travelling waves in magnetohydrodynamic channel flow. <i>Journal of Fluid Mechanics</i> , 2014, 760, 387-406.	3.4	2
54	Elementary model of internal electromagnetic pinch-type instability. <i>Journal of Fluid Mechanics</i> , 2017, 816, 705-718.	3.4	2

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55	Influence of melt convection on microstructure evolution of Nd-Fe-B alloys using a forced crucible rotation technique. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 3277-3280.	0.8	1
56	Paradox of inductionless magnetorotational instability. <i>Journal of Physics: Conference Series</i> , 2007, 64, 012011.	0.4	1
57	Tailored Magnetic Fields in the Melt Extraction of Metallic Filaments. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009, 40, 337-344.	2.1	1
58	Kontaktlose Durchflussmessung in Metallschmelzen. <i>TM Technisches Messen</i> , 2012, 79, 389-393.	0.7	0
59	Effect of Varying Melt Convection on Microstructure Evolution of Nd ₂ Fe ₁₄ B and TiAl Peritectic Alloys. , 0, , 245-261.		0