

IlmÄrs Grants

List of Publications by Year in descending order

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36
papers

614
citations

567281

15
h-index

580821

25
g-index

36
all docs

36
docs citations

36
times ranked

223
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability of axially symmetric flow driven by a rotating magnetic field in a cylindrical cavity. Journal of Fluid Mechanics, 2001, 431, 407-426.	3.4	78
2	Linear three-dimensional instability of a magnetically driven rotating flow. Journal of Fluid Mechanics, 2002, 463, 229-239.	3.4	63
3	Stability of melt flow due to a traveling magnetic field in a closed ampoule. Journal of Crystal Growth, 2004, 269, 630-638.	1.5	58
4	Experimental and numerical results on the fluid flow driven by a traveling magnetic field. Journal of Crystal Growth, 2007, 305, 249-256.	1.5	51
5	Vertical gradient freeze growth of GaAs with a rotating magnetic field. Journal of Crystal Growth, 2002, 245, 237-246.	1.5	46
6	Numerical and experimental modeling of the melt flow in a traveling magnetic field for vertical gradient freeze crystal growth. Journal of Crystal Growth, 2007, 303, 258-261.	1.5	33
7	Experimental study of non-normal nonlinear transition to turbulence in a rotating magnetic field driven flow. Physics of Fluids, 2003, 15, 2803.	4.0	30
8	Experimental observation of swirl accumulation in a magnetically driven flow. Journal of Fluid Mechanics, 2008, 616, 135-152.	3.4	27
9	The suppression of temperature fluctuations by a rotating magnetic field in a high aspect ratio Czochralski configuration. Journal of Crystal Growth, 2007, 308, 290-296.	1.5	22
10	Nanoparticle dispersion in liquid metals by electromagnetically induced acoustic cavitation. Acta Materialia, 2016, 118, 253-259.	7.9	21
11	Vertical gradient freeze growth with external magnetic fields. Journal of Crystal Growth, 2008, 310, 1518-1522.	1.5	20
12	Spin-up of a magnetically driven tornado-like vortex. Journal of Fluid Mechanics, 2013, 736, 641-662.	3.4	18
13	Instability of the melt flow in VGF growth with a traveling magnetic field. Journal of Crystal Growth, 2009, 311, 4255-4264.	1.5	16
14	Physical modelling of temperature fluctuations in a high aspect ratio model of the Czochralski crystal growth. Journal of Crystal Growth, 2015, 432, 69-77.	1.5	16
15	On the formation of Taylor-Görtler vortices in RMF-driven spin-up flows. Experiments in Fluids, 2012, 52, 1-10.	2.4	15
16	Contactless magnetic excitation of acoustic cavitation in liquid metals. Journal of Applied Physics, 2015, 117, 204901.	2.5	15
17	Use of a traveling magnetic field in VGF growth: Flow reversal and resulting dopant distribution. Journal of Crystal Growth, 2008, 310, 3699-3705.	1.5	12
18	Rayleigh-Bénard instability of Czochralski configuration in a transverse magnetic field. Journal of Crystal Growth, 2012, 358, 43-50.	1.5	10

#	ARTICLE	IF	CITATIONS
19	Transition between turbulent magnetically driven flow states in a Rayleigh-Bénard cell. <i>Physics of Fluids</i> , 2012, 24, .	4.0	9
20	Linear and nonlinear stability of a thermally stratified magnetically driven rotating flow in a cylinder. <i>Physical Review E</i> , 2010, 82, 016314.	2.1	8
21	Instability of rotating magnetic field driven flow in a counter-rotating cylinder. <i>Physics of Fluids</i> , 2005, 17, 104102.	4.0	7
22	Linearized solution of quasi-steady Stefan problem in vertical gradient freeze configuration. <i>Journal of Crystal Growth</i> , 1999, 207, 138-147.	1.5	6
23	Physical modelling of Czochralski crystal growth in horizontal magnetic field. <i>Journal of Crystal Growth</i> , 2017, 470, 58-65.	1.5	6
24	Analytical induced force solution in conducting cylindrical bodies and rings due to a rotating finite permanent magnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 497, 165856.	2.3	5
25	Stability of electrically conducting liquid flow driven by a rotating magnetic dipole in a ring channel. <i>Physics of Fluids</i> , 2020, 32, .	4.0	4
26	Effect of superimposed DC magnetic field on an AC induction semi-levitated molten copper droplet. <i>Magnetohydrodynamics</i> , 2015, 51, 437-444.	0.3	4
27	Permanent magnet bottom-stirred swirling flow in coaxial shallow cylindrical containers. <i>Physics of Fluids</i> , 2021, 33, 055127.	4.0	3
28	Application of magnetically driven tornado-like vortex for stirring floating particles into liquid metal. <i>Magnetohydrodynamics</i> , 2015, 51, 419-424.	0.3	3
29	Analytical solution for the diffusion of a capacitor discharge generated magnetic field pulse in a conductor. <i>AIP Advances</i> , 2016, 6, 065014.	1.3	2
30	Rotating magnetic dipole-driven flows in a conducting liquid cylinder. <i>Physics of Fluids</i> , 2021, 33, 055115.	4.0	2
31	Stability of melt flow during magnetic sonication in a floating zone configuration. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	2
32	Contactless generation of cavitation in high temperature liquid metals and its impact on particle dispersion in solidified iron and steel samples. <i>Journal of Materials Processing Technology</i> , 2021, 291, 117041.	6.3	1
33	Contactless Aluminum Degassing System – GalnSn Model Experiments and Numerical Study. <i>Journal of Sustainable Metallurgy</i> , 2021, 7, 1899.	2.3	1
34	10.1063/5.0047240.1. , 2021, , .		0
35	10.1063/5.0002094.1. , 2020, , .		0
36	Model Experiment for Molten Metal Temperature Homogenization with Rotating Permanent Magnet. <i>Jom</i> , 0, , 1.	1.9	0