

Damien Touret

List of Publications by Year in descending order

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42
papers

1,729
citations

331259

21
h-index

288905

40
g-index

47
all docs

47
docs citations

47
times ranked

1050
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase-field modeling of microstructure evolution: Recent applications, perspectives and challenges. <i>Progress in Materials Science</i> , 2022, 123, 100810.	16.0	69
2	Multiscale simulation of powder-bed fusion processing of metallic alloys. <i>Computational Materials Science</i> , 2022, 209, 111383.	1.4	22
3	Convective effects on columnar dendritic solidification – A multiscale dendritic needle network study. <i>Acta Materialia</i> , 2022, 234, 118035.	3.8	11
4	Multiscale prediction of microstructure length scales in metallic alloy casting. <i>Acta Materialia</i> , 2021, 207, 116686.	3.8	22
5	Comparing mesoscopic models for dendritic growth. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 861, 012002.	0.3	7
6	Three-dimensional needle network model for dendritic growth with fluid flow. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 861, 012049.	0.3	3
7	Demonstration of transmission high energy electron microscopy. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	0
8	Multiscale dendritic needle network model of alloy solidification with fluid flow. <i>Computational Materials Science</i> , 2019, 162, 206-227.	1.4	18
9	Demonstration of transmission high energy electron microscopy. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	13
10	Thermal-field effects on interface dynamics and microstructure selection during alloy directional solidification. <i>Acta Materialia</i> , 2018, 150, 139-152.	3.8	30
11	Growth competition between columnar dendritic grains – Cellular automaton versus phase field modeling. <i>Acta Materialia</i> , 2018, 155, 286-301.	3.8	61
12	Modeling of additive manufacturing processes for metals: Challenges and opportunities. <i>Current Opinion in Solid State and Materials Science</i> , 2017, 21, 198-206.	5.6	299
13	Microstructure selection in thin-sample directional solidification of an Al-Cu alloy: In situ X-ray imaging and phase-field simulations. <i>Acta Materialia</i> , 2017, 129, 203-216.	3.8	131
14	Experimental observation of oscillatory cellular patterns in three-dimensional directional solidification. <i>Physical Review E</i> , 2017, 95, 012803.	0.8	18
15	Convection Effects During Bulk Transparent Alloy Solidification in DECLIC-DSI and Phase-Field Simulations in Diffusive Conditions. <i>Jom</i> , 2017, 69, 1280-1288.	0.9	7
16	From Solidification Processing to Microstructure to Mechanical Properties: A Multi-scale X-ray Study of an Al-Cu Alloy Sample. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 5529-5546.	1.1	18
17	Grain growth competition during thin-sample directional solidification of dendritic microstructures: A phase-field study. <i>Acta Materialia</i> , 2017, 122, 220-235.	3.8	100
18	Three-dimensional dendritic needle network model for alloy solidification. <i>Acta Materialia</i> , 2016, 120, 240-254.	3.8	48

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19	Time-Resolved In Situ Measurements During Rapid Alloy Solidification: Experimental Insight for Additive Manufacturing. <i>Jom</i> , 2016, 68, 985-999.	0.9	53
20	In Situ X-Ray Observations of Dendritic Fragmentation During Directional Solidification of a Sn-Bi Alloy. <i>Jom</i> , 2016, 68, 170-177.	0.9	24
21	Atomistic to continuum modeling of solidification microstructures. <i>Current Opinion in Solid State and Materials Science</i> , 2016, 20, 25-36.	5.6	89
22	Oscillatory cellular patterns in three-dimensional directional solidification. <i>Physical Review E</i> , 2015, 92, 042401.	0.8	39
23	Imaging the Rapid Solidification of Metallic Alloys in the TEM. <i>Microscopy and Microanalysis</i> , 2015, 21, 469-470.	0.2	0
24	Dynamical microstructure formation in 3D directional solidification of transparent model alloys: in situ characterization in DECLIC Directional Solidification Insert under diffusion transport in microgravity. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012077.	0.3	8
25	Initial transient behavior in directional solidification of a bulk transparent model alloy in a cylinder. <i>Acta Materialia</i> , 2015, 85, 362-377.	3.8	40
26	X-Ray Imaging and Controlled Solidification of Al-Cu Alloys Toward Microstructures by Design. <i>Advanced Engineering Materials</i> , 2015, 17, 454-459.	1.6	34
27	Three-Dimensional Multiscale Modeling of Dendritic Spacing Selection During Al-Si Directional Solidification. <i>Jom</i> , 2015, 67, 1776-1785.	0.9	29
28	Three-dimensional Dendritic Needle Network model with application to Al-Cu directional solidification experiments. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012082.	0.3	20
29	Growth competition of columnar dendritic grains: A phase-field study. <i>Acta Materialia</i> , 2015, 82, 64-83.	3.8	191
30	Initial dynamics of a solid-liquid interface within a thermal gradient. <i>Scripta Materialia</i> , 2014, 88, 29-32.	2.6	10
31	Columnar-to-Equiaxed Transition in Solidification Processing of AlSi7 Alloys in Microgravity the CETSOL Project. <i>Materials Science Forum</i> , 2014, 790-791, 12-21.	0.3	10
32	Spatiotemporal Dynamics of Oscillatory Cellular Patterns in Three-Dimensional Directional Solidification. <i>Physical Review Letters</i> , 2013, 110, 226102.	2.9	72
33	Multiscale dendritic needle network model of alloy solidification. <i>Acta Materialia</i> , 2013, 61, 6474-6491.	3.8	60
34	Multi-scale needle-network model of complex dendritic microstructure formation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012095.	0.3	7
35	Neutron diffraction analysis and solidification modeling of Impulse-Atomized Al-36 wt%Ni. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012060.	0.3	1
36	Containerless Solidification and Characterization of Industrial Alloys (NEQUISOL). <i>Journal of Physics: Conference Series</i> , 2011, 327, 012007.	0.3	2

#	ARTICLE	IF	CITATIONS
37	Gas atomization of Al-Ni powders: Solidification modeling and neutron diffraction analysis. Acta Materialia, 2011, 59, 6658-6669.	3.8	48
38	Multiple non-equilibrium phase transformations: Modeling versus electro-magnetic levitation experiment. Acta Materialia, 2011, 59, 4665-4677.	3.8	39
39	Prediction of Solidification Paths for Fe-Cr Alloys by a Multiphase Segregation Model Coupled to Thermodynamic Equilibrium Calculations. ISIJ International, 2010, 50, 1859-1866.	0.6	11
40	A generalized segregation model for concurrent dendritic, peritectic and eutectic solidification. Acta Materialia, 2009, 57, 2066-2079.	3.8	58
41	Effect of Thermal Drift on the Initial Transient Behavior in Directional Solidification of a Bulk Transparent Model Alloy. , 0, , 21-30.		0
42	Integrating In Situ x-Ray Imaging, Energy Dispersive Spectroscopy, and Calculated Phase Diagram Analysis of Solute Segregation During Solidification of an Al-Ag Alloy. Jom, 0, , 1.	0.9	0