

Håkan Hallberg

List of Publications by Year in descending order

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39
papers

1,023
citations

361045

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31
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docs citations

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times ranked

827
citing authors

#	ARTICLE	IF	CITATIONS
1	Grain boundary stiffness based on phase field crystal simulations. <i>Materials Letters</i> , 2022, 318, 132178.	1.3	3
2	Evaluation of grain boundary energy, structure and stiffness from phase field crystal simulations. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2022, 30, 014002.	0.8	9
3	Grain boundary and particle interaction: Enveloping and pass-through mechanisms studied by 3D phase field crystal simulations. <i>Materials and Design</i> , 2022, 220, 110845.	3.3	8
4	A constitutive model for the flow stress behavior and microstructure evolution in aluminum alloys under hot working conditions “ with application to AA6099. <i>Applied Mathematical Modelling</i> , 2020, 81, 253-262.	2.2	7
5	Transient nucleation in selective laser melting of Zr-based bulk metallic glass. <i>Materials and Design</i> , 2020, 195, 108958.	3.3	24
6	Modelling of the Mechanical Response in 304 Austenitic Steel during Laser Shock Peening and Conventional Shot Peening. <i>Procedia Manufacturing</i> , 2020, 47, 450-457.	1.9	6
7	Differences in phase transformation in laser peened and shot peened 304 austenitic steel. <i>International Journal of Mechanical Sciences</i> , 2020, 176, 105535.	3.6	14
8	Phase field modelling allotropic transformation of solid solution. <i>Computers, Materials and Continua</i> , 2020, 62, 1289-1302.	1.5	0
9	Peel testing of a packaging material laminate studied by in-situ X-ray tomography and cohesive zone modeling. <i>International Journal of Adhesion and Adhesives</i> , 2019, 95, 102428.	1.4	4
10	Modeling of nucleation and growth in glass-forming alloys using a combination of classical and phase-field theory. <i>Computational Materials Science</i> , 2019, 165, 167-179.	1.4	6
11	Modeling of grain growth under fully anisotropic grain boundary energy. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019, 27, 045002.	0.8	26
12	Diagonally implicit Runge-Kutta (DIRK) integration applied to finite strain crystal plasticity modeling. <i>Computational Mechanics</i> , 2018, 62, 1429-1441.	2.2	4
13	Crystal plasticity modeling of microstructure influence on fatigue crack initiation in extruded Al6082-T6 with surface irregularities. <i>International Journal of Fatigue</i> , 2018, 111, 16-32.	2.8	43
14	Evidence of 3D strain gradients associated with tin whisker growth. <i>Scripta Materialia</i> , 2018, 144, 1-4.	2.6	21
15	Cohesive zone modeling of crack propagation influenced by martensitic phase transformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 564-573.	2.6	3
16	Microstructure and Property Modifications of Cold Rolled IF Steel by Local Laser Annealing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 4786-4802.	1.1	5
17	An extended vertex and crystal plasticity framework for efficient multiscale modeling of polycrystalline materials. <i>International Journal of Solids and Structures</i> , 2017, 125, 150-160.	1.3	11
18	Prediction of the residual state in 304 austenitic steel after laser shock peening “ Effects of plastic deformation and martensitic phase transformation. <i>International Journal of Mechanical Sciences</i> , 2016, 111-112, 24-34.	3.6	24

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19	Recrystallization and texture evolution during hot rolling of copper, studied by a multiscale model combining crystal plasticity and vertex models. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016, 24, 075004.	0.8	24
20	Investigation of microstructure evolution during self-annealing in thin Cu films by combining mesoscale level set and ab initio modeling. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 90, 160-178.	2.3	24
21	Coupled diffusion-deformation multiphase field model for elastoplastic materials applied to the growth of Cu ₆ Sn ₅ . <i>Acta Materialia</i> , 2016, 108, 98-109.	3.8	30
22	A combined crystal plasticity and graph-based vertex model of dynamic recrystallization at large deformations. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015, 23, 045011.	0.8	26
23	Stability of grain boundary texture during isothermal grain growth in UO ₂ considering anisotropic grain boundary properties. <i>Journal of Nuclear Materials</i> , 2015, 465, 664-673.	1.3	11
24	Investigation of faceted void morphologies in UO ₂ by phase field modelling. <i>Journal of Nuclear Materials</i> , 2015, 467, 113-120.	1.3	9
25	Accelerating crystal plasticity simulations using GPU multiprocessors. <i>International Journal for Numerical Methods in Engineering</i> , 2014, 100, 111-135.	1.5	22
26	Microstructure evolution during dynamic discontinuous recrystallization in particle-containing Cu. <i>Computational Materials Science</i> , 2014, 84, 327-338.	1.4	33
27	Influence of anisotropic grain boundary properties on the evolution of grain boundary character distribution during grain growth—a 2D level set study. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014, 22, 085005.	0.8	36
28	A modified level set approach to 2D modeling of dynamic recrystallization. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 085012.	0.8	57
29	Influence of process parameters on grain refinement in AA1050 aluminum during cold rolling. <i>International Journal of Mechanical Sciences</i> , 2013, 66, 260-272.	3.6	27
30	Microstructure evolution influenced by dislocation density gradients modeled in a reaction-diffusion system. <i>Computational Materials Science</i> , 2013, 67, 373-383.	1.4	17
31	Crack tip transformation zones in austenitic stainless steel. <i>Engineering Fracture Mechanics</i> , 2012, 79, 266-280.	2.0	21
32	A Note on the Kelvin Effect in 100Cr6 Steel with Application to Identification of the Elastoplastic Limit. <i>ISRN Thermodynamics</i> , 2012, 2012, 1-4.	0.6	0
33	Approaches to Modeling of Recrystallization. <i>Metals</i> , 2011, 1, 16-48.	1.0	137
34	Modeling of continuous dynamic recrystallization in commercial-purity aluminum. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 1126-1134.	2.6	85
35	Thermo-mechanically coupled model of diffusionless phase transformation in austenitic steel. <i>International Journal of Solids and Structures</i> , 2010, 47, 1580-1591.	1.3	21
36	Simulation of discontinuous dynamic recrystallization in pure Cu using a probabilistic cellular automaton. <i>Computational Materials Science</i> , 2010, 49, 25-34.	1.4	117

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37	Model Describing Material-Dependent Deformation Behavior in High-Velocity Metal Forming Processes. <i>Journal of Engineering Mechanics - ASCE</i> , 2009, 135, 345-357.	1.6	8
38	A constitutive model for the formation of martensite in austenitic steels under large strain plasticity. <i>International Journal of Plasticity</i> , 2007, 23, 1213-1239.	4.1	100
39	Modeling of Crack Behavior in Austenitic Steel Influenced by Martensitic Phase Transformation. <i>Key Engineering Materials</i> , 0, 452-453, 637-640.	0.4	0