

Michael Selzer

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Progress Report on Phase Separation in Polymer Solutions. <i>Advanced Materials</i> , 2019, 31, e1806733.	21.0	83
2	Calibration of a multi-phase field model with quantitative angle measurement. <i>Journal of Materials Science</i> , 2016, 51, 1788-1797.	3.7	52
3	Phase-field study of grain boundary tracking behavior in crack-seal microstructures. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 1709-1723.	3.1	38
4	Kadi4Mat: A Research Data Infrastructure for Materials Science. <i>Data Science Journal</i> , 2021, 20, .	1.3	36
5	A Lattice-Boltzmann model to simulate the growth of dendritic and eutectic microstructures under the influence of fluid flow. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 1197-1205.	1.5	19
6	Modeling fracture cementation processes in calcite limestone: a phase-field study. <i>Geothermal Energy</i> , 2018, 6, .	1.9	19
7	Wide-blocky veins explained by dependency of crystal growth rate on fracture surface type: Insights from phase-field modeling. <i>Geology</i> , 2021, 49, 641-646.	4.4	19
8	Electromigration-Induced Surface Drift and Slit Propagation in Polycrystalline Interconnects: Insights from Phase-Field Simulations. <i>Physical Review Applied</i> , 2018, 9, .	3.8	18
9	How do chemical patterns affect equilibrium droplet shapes?. <i>Soft Matter</i> , 2020, 16, 6115-6127.	2.7	18
10	Quartz Cementation in Polycrystalline Sandstone: Insights From Phase-Field Simulations. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB019137.	3.4	18
11	Equilibrium droplet shapes on chemically patterned surfaces: theoretical calculation, phase-field simulation, and experiments. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 1077-1086.	9.4	18
12	Three-Dimensional Phase-Field Investigation of Pore Space Cementation and Permeability in Quartz Sandstone. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 6378-6396.	3.4	17
13	Investigation of Equilibrium Droplet Shapes on Chemically Striped Patterned Surfaces Using Phase-Field Method. <i>Langmuir</i> , 2019, 35, 8500-8516.	3.5	16
14	Droplets on chemically patterned surface: A local free-energy minima analysis. <i>Physical Review E</i> , 2019, 100, 041102.	2.1	15
15	Multiphase-field modelling of concurrent grain growth and coarsening in complex multicomponent systems. <i>Journal of Materials Science and Technology</i> , 2020, 45, 215-229.	10.7	14
16	Computational modeling of calcite cementation in saline limestone aquifers: a phase-field study. <i>Geothermal Energy</i> , 2017, 5, .	1.9	13
17	A two-dimensional phase-field study on dendritic growth competition under convective conditions. <i>Computational Materials Science</i> , 2021, 186, 109964.	3.0	13
18	Phase-field simulations of grain boundary grooving under diffusive-convective conditions. <i>Acta Materialia</i> , 2021, 204, 116497.	7.9	13

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19	Explainable Artificial Intelligence for Mechanics: Physics-Explaining Neural Networks for Constitutive Models. <i>Frontiers in Materials</i> , 2022, 8, .	2.4	13
20	Phase-Field Study of Electromigration-Induced Shape Evolution of a Transgranular Finger-Like Slit. <i>Journal of Electronic Materials</i> , 2019, 48, 182-193.	2.2	12
21	Quantitative Phase-Field Modeling of Faceted Crystal Dissolution Processes. <i>Crystal Growth and Design</i> , 2021, 21, 3266-3279.	3.0	12
22	Electric-field-induced lamellar to hexagonally perforated lamellar transition in diblock copolymer thin films: kinetic pathways. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 25609-25620.	2.8	11
23	A Stochastic Study of Flow Anisotropy and Channelling in Open Rough Fractures. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 233-249.	5.4	11
24	Formation of wide-blocky calcite veins by extreme growth competition. <i>Journal of the Geological Society</i> , 2021, 178, .	2.1	9
25	Quadrjunctions-stunted grain growth in duplex microstructure: A multiphase-field analysis. <i>Scripta Materialia</i> , 2020, 182, 16-20.	5.2	8
26	Kinematics of Crystal Growth in Single-Phase Syntaxial Veins in Limestone – A Phase-Field Study. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022106.	3.4	7
27	Generating FAIR research data in experimental tribology. <i>Scientific Data</i> , 2022, 9, .	5.3	7
28	Numerical study on solutal Marangoni instability in finite systems with a miscibility gap. <i>Physics of Fluids</i> , 2014, 26, 124102.	4.0	5
29	Influence of melt convection on the morphological evolution of seaweed structures: Insights from phase-field simulations. <i>Computational Materials Science</i> , 2019, 170, 109196.	3.0	5
30	Machine Learning Assisted Design of Experiments for Solid State Electrolyte Lithium Aluminum Titanium Phosphate. <i>Frontiers in Materials</i> , 2022, 9, .	2.4	5
31	Wicking in Porous Polymeric Membranes: Determination of an Effective Capillary Radius to Predict the Flow Behavior in Lateral Flow Assays. <i>Membranes</i> , 2022, 12, 638.	3.0	4
32	Managing FAIR Tribological Data Using Kadi4Mat. <i>Data</i> , 2022, 7, 15.	2.3	3
33	Geometric flow control in lateral flow assays: Macroscopic single-phase modeling. <i>Physics of Fluids</i> , 2022, 34, .	4.0	3
34	Microstructural transition in monotectic alloys: A phase-field study. <i>International Journal of Heat and Mass Transfer</i> , 2020, 159, 120096.	4.8	2
35	Morphological stability of rod-shaped continuous phases. <i>Acta Materialia</i> , 2020, 192, 20-29.	7.9	2
36	A Two-Dimensional Phase-Field Investigation on Unidirectionally Solidified Tip-Splitting Microstructures. <i>Metals</i> , 2022, 12, 376.	2.3	2

#	ARTICLE	IF	CITATIONS
37	Workflow concepts to model nonlinear mechanics with computational intelligence. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	2
38	Computational Determination of Macroscopic Mechanical and Thermal Material Properties for Different Morphological Variants of Cast Iron. Metals, 2021, 11, 1588.	2.3	1
39	3D Simulation Environment for Haptic Sensor and Actor Components in the Cockpit. ATZ Worldwide, 2009, 111, 40-45.	0.1	0
40	Underdamped capillary wave caused by solutal Marangoni convection in immiscible liquids. Journal of Materials Science, 2016, 51, 1820-1828.	3.7	0
41	10.1063/1.4902355.2. , 2014, , .		0