Daniel J Savage

List of Publications by Year
in descending order

18 papers	565 citations	687363 13 h-index	940533 16 g-index
19 all docs	19 docs citations	19 times ranked	331 citing authors

#	Article	IF	Citations
1	In-situ high-energy X-ray diffraction and crystal plasticity modeling to predict the evolution of texture, twinning, lattice strains and strength during loading and reloading of beryllium. International Journal of Plasticity, 2022, 150, 103217.	8.8	19
2	An automated procedure built on MTEX for reconstructing deformation twin hierarchies from electron backscattered diffraction datasets of heavily twinned microstructures. Materials Characterization, 2021, 171, 110808.	4.4	6
3	Through-Thickness Microstructure Characterization in a Centrifugally Cast Austenitic Stainless Steel Nuclear Reactor Primary Loop Pipe Using Time-of-Flight Neutron Diffraction. Quantum Beam Science, 2021, 5, 12.	1.2	0
4	Identification of crystal plasticity model parameters by multi-objective optimization integrating microstructural evolution and mechanical data. Computer Methods in Applied Mechanics and Engineering, 2021, 379, 113747.	6.6	31
5	A crystal plasticity finite element model embedding strain-rate sensitivities inherent to deformation mechanisms: Application to alloy AZ31. International Journal of Plasticity, 2021, 143, 103031.	8.8	35
6	Processing of Dilute Mgâ€“Znâ€“Mnâ€“Ca Alloy/Nb Multilayers by Accumulative Roll Bonding. Advanced Engineering Materials, 2020, 22, 1900673.	3.5	11
7	Microstructure and texture evolution in Mg/Nb layered materials made by accumulative roll bonding. International Journal of Plasticity, 2020, 125, 1-26.	8.8	50
8	Non-acid, alcohol-based electropolishing enables high-quality electron backscatter diffraction characterization of titanium and its alloys: Application to pure Ti and Ti-6Al-4V. Materials Characterization, 2020, 166, 110406.	4.4	28
9	Mechanical behavior and texture evolution of WE43 magnesium-rare earth alloy in Split-Hopkinson Pressure Bar and Taylor Impact Cylinder Testing. International Journal of Impact Engineering, 2020, 143, 103589.	5.0	19
10	Mechanical response, twinning, and texture evolution of WE43 magnesium-rare earth alloy as a function of strain rate: Experiments and multi-level crystal plasticity modeling. International Journal of Plasticity, 2019, 120, 180-204.	8.8	88
11	An automated procedure for geometry creation and finite element mesh generation: Application to explicit grain structure models and machining distortion. Computational Materials Science, 2018, 141, 269-281.	3.0	34
12	Validation of recent analytical dilatational models for porous polycrystals using crystal plasticity finite element models with Schmid and non-Schmid activation laws. Mechanics of Materials, 2018, 126, 148-162.	3.2	16
13	Coupled texture and non-Schmid effects on yield surfaces of body-centered cubic polycrystals predicted by a crystal plasticity finite element approach. International Journal of Solids and Structures, 2017, 109, 22-32.	2.7	39
14	Dilational Response of Voided Polycrystals. Jom, 2017, 69, 942-947.	1.9	6
15	The plasticity of highly oriented nano-layered Zr/Nb composites. Acta Materialia, 2016, 115, 189-203.	7.9	60
16	Computer implementations of iterative and non-iterative crystal plasticity solvers on high performance graphics hardware. Computational Mechanics, 2015, 56, 677-690.	4.0	41
17	Towards Computationally Tractable Simulations of Metal Forming Processes With Evolving Microstructures. , 2014, , .		1
18	A high-performance computational framework for fast crystal plasticity simulations. Computational Materials Science, 2014, 83, 101-106.	3.0	81