

# Marc Seefeldt

## List of Publications by Year in descending order

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53  
papers

883  
citations

623734

14  
h-index

477307

29  
g-index

54  
all docs

54  
docs citations

54  
times ranked

1031  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanostructured titanium-based materials for medical implants: Modeling and development. <i>Materials Science and Engineering Reports</i> , 2014, 81, 1-19.	31.8	214
2	Multiscale modelling of the plastic anisotropy and deformation texture of polycrystalline materials. <i>European Journal of Mechanics, A/Solids</i> , 2006, 25, 634-648.	3.7	95
3	Modeling work hardening of pearlitic steels by phenomenological and Taylor-type micromechanical models. <i>Acta Materialia</i> , 2006, 54, 1029-1040.	7.9	71
4	Low cycle fatigue behavior of a modified 9Cr-1Mo ferritic-martensitic steel in lead-bismuth eutectic at 350°C: Effects of oxygen concentration in the liquid metal and strain rate. <i>Corrosion Science</i> , 2015, 94, 377-391.	6.6	60
5	Multiscale investigation of quasi-brittle fracture characteristics in a 9Cr-1Mo ferritic-martensitic steel embrittled by liquid lead-bismuth under low cycle fatigue. <i>Corrosion Science</i> , 2016, 102, 137-152.	6.6	49
6	EBSD study of the substructure development with cold deformation of dual phase steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 947-953.	5.6	36
7	The stress field of an array of parallel dislocation pile-ups: Implications for grain boundary hardening and excess dislocation distributions. <i>Acta Materialia</i> , 2010, 58, 4344-4353.	7.9	35
8	Effect of liquid metal embrittlement on low cycle fatigue properties and fatigue crack propagation behavior of a modified 9Cr-1Mo ferritic-martensitic steel in an oxygen-controlled lead-bismuth eutectic environment at 350 °C. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 618, 406-415.	5.6	33
9	Temperature dependence of liquid metal embrittlement susceptibility of a modified 9Cr-1Mo steel under low cycle fatigue in lead-bismuth eutectic at 160-450°C. <i>Journal of Nuclear Materials</i> , 2016, 468, 289-298.	2.7	31
10	Single Point Incremental Forming of an Aged AL-Cu-Mg Alloy: Influence of Pre-heat Treatment and Warm Forming. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 2478-2488.	2.5	26
11	Taylor ambiguity in BCC polycrystals: a non-problem if substructural anisotropy is considered. <i>Scripta Materialia</i> , 2001, 45, 1349-1356.	5.2	21
12	Selective Area Growth of InP and Defect Elimination on Si (001) Substrates. <i>Journal of the Electrochemical Society</i> , 2011, 158, H645.	2.9	21
13	Deformation banding in a Nb polycrystal deformed by successive compression tests. <i>Acta Materialia</i> , 2012, 60, 4349-4358.	7.9	19
14	Analysis of the variation in nanohardness of pearlitic steel: Influence of the interplay between ferrite crystal orientation and cementite morphology. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 616, 99-106.	5.6	19
15	Three Nb single crystals processed by equal-channel angular pressing—Part II: Mesoscopic bands. <i>Acta Materialia</i> , 2013, 61, 4504-4511.	7.9	13
16	A New Analytical Approach for the Velocity Field in Rolling Processes and Its Application in Through-Thickness Texture Prediction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 948-961.	2.2	13
17	Three Nb single crystals processed by equal-channel angular pressing—Part I: Dislocation substructure. <i>Acta Materialia</i> , 2013, 61, 4490-4503.	7.9	12
18	EBSD characterization of an ECAP deformed Nb single crystal. <i>Journal of Materials Science</i> , 2010, 45, 4672-4681.	3.7	11

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19	Investigation of pearlite structure by means of electron backscatter diffraction and image analysis of SEM micrographs with an application of the Hough transform. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 483-484, 716-718.	5.6	10
20	Multi-scale material modelling to predict the material anisotropy of multi-phase steels. <i>Computational Materials Science</i> , 2019, 160, 382-396.	3.0	8
21	Determination of the structure and orientation of nanometer-sized precipitates in matrix materials via transmission diffraction signals emitted by bulk samples in the Scanning Electron Microscope. <i>Materials Characterization</i> , 2020, 166, 110454.	4.4	8
22	The Application of Multiscale Modelling for the Prediction of Plastic Anisotropy and Deformation Textures. <i>Materials Science Forum</i> , 2005, 495-497, 31-44.	0.3	7
23	Texture Evolution during Cold Rolling of Low and High Carbon Steel. Measurement and Simulation. <i>Materials Science Forum</i> , 2005, 495-497, 369-374.	0.3	7
24	A probabilistic derivation of the effect of grain size on the dislocation free path in a deforming polycrystal. <i>Scripta Materialia</i> , 2010, 62, 590-593.	5.2	7
25	Auger electron spectroscopy study of semiconductor surfaces: Effect of cleaning in inert atmosphere. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 041227.	1.2	7
26	Modeling grain fragmentation and deformation textures for titanium using a combined approach of the viscoplastic self-consistent model and a shear fluctuation model. <i>Journal of Materials Science</i> , 2017, 52, 8132-8148.	3.7	7
27	Modelling of Plastic Deformation by Means of Dislocation-Disclination Dynamics. <i>Solid State Phenomena</i> , 2002, 87, 93-112.	0.3	6
28	Grain Subdivision and Local Texture Evolution Studied by Means of a Coupled Substructure-Texture Evolution Model. <i>Materials Science Forum</i> , 2002, 408-412, 433-438.	0.3	5
29	The Application of Multiscale Modelling for the Prediction of Plastic Anisotropy and Deformation Textures. <i>Materials Science Forum</i> , 2007, 550, 13-22.	0.3	4
30	Mesoscopic EBSD Analysis and Mesomechanical Behavior of Ridging or Roping in AA6XXX Alloys. <i>Materials Science Forum</i> , 0, 702-703, 955-958.	0.3	4
31	Direct micro-to-macro modelling of the cold rolling of pearlitic steel. <i>MATEC Web of Conferences</i> , 2016, 80, 02008.	0.2	4
32	Neutron and X-Ray Diffraction Analysis of Residual Stresses in Cold-Rolled Pearlitic Steel Sheet. <i>Materials Science Forum</i> , 2006, 524-525, 375-380.	0.3	3
33	Modelling and Characterisation of the Texture Development in the Fusion Zone of An Austenitic Weld. <i>Steel Research International</i> , 2011, 82, 911-917.	1.8	3
34	Disclination Patterning under Steady-State Creep at Intermediate Temperatures. <i>Solid State Phenomena</i> , 2002, 87, 221-226.	0.3	2
35	Towards a description of complex pearlite structures. <i>International Journal of Materials Research</i> , 2005, 96, 1032-1037.	0.8	2
36	Modeling of distortions after carburization and quenching processes of large gears. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 035002.	2.0	2

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37	Evolution of Residual Micro Phase and Orientation Dependent Stresses during Cold Wire Drawing. Materials Science Forum, 0, 768-769, 327-334.	0.3	2
38	Experimental Study on the Influence of Grain Boundaries on the Subdivision Behaviour of Al-3%Mg Polycrystals during Cold Deformation Using Electron Backscatter Diffraction. Materials Science Forum, 2005, 495-497, 1025-1030.	0.3	1
39	Grain Subdivision of a Nb Polycrystal Deformed by Successive Compression Tests. Materials Science Forum, 2010, 667-669, 373-378.	0.3	1
40	Synchrotron Diffraction Study of the Cementite Phase in Cold Drawn Pearlitic Steel Wires. Materials Science Forum, 0, 768-769, 380-387.	0.3	1
41	Yield locus prediction using statistical and RVE-based fast Fourier transform crystal plasticity models and validation for drawing steels. Journal of Physics: Conference Series, 2018, 1063, 012051.	0.4	1
42	Unravelling Anisotropy Evolution during Spiral Pipe Forming: a Multiscale Approach. Procedia Manufacturing, 2020, 47, 1434-1441.	1.9	1
43	Orientation Fragmentation in Copper, Nickel and Aluminum: A Comparative Study of the Nucleation Process. Materials Science Forum, 2005, 495-497, 945-954.	0.3	0
44	Multiscale Modelling of Plastic Deformation of Polycrystals: Implementation of Texture-Based Anisotropy in Engineering Applications (FE Codes for Forming, Prediction of Forming Limit Curves). Materials Science Forum, 2007, 539-543, 3454-3459.	0.3	0
45	Neutron Diffraction Analysis of Load Transfer in DP 600 Steel During <i>In Situ</i> Tensile Tests. Materials Science Forum, 0, 681, 31-36.	0.3	0
46	Calculation of macroscopic elasto-plastic anisotropy based on an analytical expression of the Orientation Distribution Function in the case of fibre textures. Computational Materials Science, 2013, 68, 263-270.	3.0	0
47	Automatic Meshing Method for Optimisation of the Fusion Zone Dimensions in Finite Element Models of Welds. Materials Science Forum, 0, 768-769, 597-604.	0.3	0
48	Online Use of Physically Based Plasticity Models for Steady State Cold Rolling Processes. Journal of Materials Engineering and Performance, 2014, 23, 391-401.	2.5	0
49	Influence of Texture on Welding Stress Calculations. Steel Research International, 2014, 85, 314-323.	1.8	0
50	A numerical multi-scale model to predict macroscopic material anisotropy of multi-phase steels from crystal plasticity material definitions. AIP Conference Proceedings, 2017, , .	0.4	0
51	Load transfer and strain gradients in pearlite investigated by means of in-situ neutron diffraction. IOP Conference Series: Materials Science and Engineering, 2019, 580, 012024.	0.6	0
52	A Pattern Processing Method to Map Nanoscale Phases by EBSD. Microscopy and Microanalysis, 2022, , 1-7.	0.4	0
53	Towards a description of complex pearlite structures. International Journal of Materials Research, 2022, 96, 1032-1037.	0.3	0