

Anna Machová

List of Publications by Year in descending order

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27
papers

454
citations

687363

13
h-index

713466

21
g-index

27
all docs

27
docs citations

27
times ranked

210
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomistic simulation of stacking fault formation in bcc iron. <i>Modelling and Simulation in Materials Science and Engineering</i> , 1999, 7, 949-974.	2.0	57
2	Influence of crack orientation on the ductile–brittle behavior in Fe–3 wt.% Si single crystals. <i>Materials Characterization</i> , 2007, 58, 892-900.	4.4	46
3	Effect of T-stress on dislocation emission in iron. <i>Scripta Materialia</i> , 2004, 50, 483-487.	5.2	33
4	Ductile–brittle behavior of (001)[110] nano-cracks in bcc iron. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 387-389, 414-418.	5.6	31
5	3D atomistic simulation of fatigue behavior of a ductile crack in bcc iron. <i>International Journal of Fatigue</i> , 2011, 33, 1182-1188.	5.7	31
6	3D atomistic studies of fatigue behaviour of edge crack (001) in bcc iron loaded in mode I and II. <i>International Journal of Fatigue</i> , 2014, 66, 11-19.	5.7	29
7	Reconciliation of continuum and atomistic models for the ductile versus brittle response of iron. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007, 15, 65-83.	2.0	28
8	Stress calculations on the atomistic level. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2001, 9, 327-337.	2.0	25
9	Crack-induced stress, dislocations and acoustic emission by 3-D atomistic simulations in bcc iron. <i>Acta Materialia</i> , 2009, 57, 4065-4073.	7.9	19
10	3D atomistic simulation of fatigue behavior of a ductile crack in bcc iron loaded in mode II. <i>Computational Materials Science</i> , 2012, 61, 12-19.	3.0	19
11	Tension–shear coupling in slip and decohesion of iron crystals. <i>Scripta Materialia</i> , 2003, 49, 1163-1167.	5.2	18
12	3D atomistic simulation of fatigue behaviour of cracked single crystal of bcc iron loaded in mode III. <i>International Journal of Fatigue</i> , 2011, 33, 1564-1573.	5.7	16
13	Residual stress in Fe–Cu alloys at 0 and 600 K. <i>Computational Materials Science</i> , 2002, 24, 535-543.	3.0	14
14	3D atomistic simulation of the interaction between a ductile crack and a Cu nanoprecipitate. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009, 17, 035008.	2.0	12
15	Crack growth in single crystals of α -iron (3 wt.% Si). <i>European Physical Journal D</i> , 1998, 48, 1589-1606.	0.4	11
16	Crack Orientation versus Ductile-Brittle Behavior in 3D Atomistic Simulations. <i>Materials Science Forum</i> , 2008, 567-568, 61-64.	0.3	11
17	Crack growth in Fe–2.7 wt% Si single crystals under cyclic loading and 3D atomistic results in bcc iron. <i>International Journal of Fatigue</i> , 2016, 87, 63-70.	5.7	10
18	Crack growth in Fe-Si (2 wt%) single crystals on macroscopic and atomistic level. <i>Results in Physics</i> , 2019, 14, 102450.	4.1	9

#	ARTICLE	IF	CITATIONS
19	Brittleâ€“ductile behavior in bcc iron containing Copper nano-particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 574-577.	5.6	8
20	Dislocation emission and crack growth in 3D bcc iron crystals under biaxial loading by atomistic simulations. Journal of Applied Physics, 2019, 126, .	2.5	7
21	A Model for Crack-Induced Nucleation of Dislocations, Complex Stacking Faults and Twins. Materials Science Forum, 2005, 482, 17-24.	0.3	5
22	Crack Orientation versus Ductile-Brittle Behavior in 3D Atomistic Simulations. Materials Science Forum, 0, , 61-64.	0.3	5
23	Growth of 3D edge cracks in mode I and T-stress on the atomistic level. Computational Materials Science, 2017, 138, 315-322.	3.0	4
24	Sample Geometry and the Brittle-Ductile Behavior of Edge Cracks in 3D Atomistic Simulations by Molecular Dynamics. Solid State Phenomena, 0, 258, 45-48.	0.3	2
25	Thermal Activation and Ductile vs. Brittle Behavior of Microcracks in 3D BCC Iron Crystals under Biaxial Loading by Atomistic Simulations. Metals, 2020, 10, 1525.	2.3	2
26	Ductile-brittle transition at edge cracks (001)[110] in BCC iron under different loading rates in mode I: a 3D atomistic study. Materials Research Express, 2022, 9, 036508.	1.6	2
27	Ductile-Brittle Behavior of Microcracks in 3D. Materials Science Forum, 2005, 482, 131-134.	0.3	0