Sunil Rawat

List of Publications by Year in descending order

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26 papers	263 citations	840585 11 h-index	940416 16 g-index
26 all docs	26 docs citations	26 times ranked	152 citing authors

#	Article	IF	Citations
1	Evolution of microstructural deformation mechanisms under equal-channel angular extrusion loading conditions: a molecular dynamics case study of single crystal titanium. Philosophical Magazine, 2021, 101, 435-449.	0.7	1
2	Evolution dynamics of voids in single crystal copper under triaxial loading condition. Philosophical Magazine, 2021, 101, 1119-1143.	0.7	1
3	Damage evolution in single crystal iron at high strain rate:A molecular dynamics study. Pramana - Journal of Physics, 2021, 95, 1.	0.9	0
4	{101Ì„2} twinning in single-crystal titanium under shock loading. Philosophical Magazine, 2021, 101, 836-850.	0.7	4
5	Effect of temperature on the evolution dynamics of voids in dynamic fracture of single crystal iron: a molecular dynamics study. Philosophical Magazine, 2021, 101, 657-672.	0.7	5
6	Twinning, phase transformation and dislocation evolution in single crystal titanium under uniaxial strain conditions: A molecular dynamics study. Computational Materials Science, 2020, 172, 109325.	1.4	18
7	Strain-rate effect on plasticity and Ï‰-phase transformation in single crystal titanium: A molecular dynamics study. Mechanics of Materials, 2020, 148, 103529.	1.7	6
8	Evolution of voids in single-crystal iron under uniaxial, biaxial and triaxial loading conditions. Philosophical Magazine, 2020, 100, 2068-2090.	0.7	2
9	Evolution of tension twinning in single crystal Ti under compressive uniaxial strain conditions. Computational Materials Science, 2018, 141, 302-312.	1.4	16
10	Molecular dynamics investigation of c-axis deformation of single crystal Ti under uniaxial stress conditions: Evolution of compression twinning and dislocations. Computational Materials Science, 2018, 141, 19-29.	1.4	30
11	Molecular dynamics investigation of void evolution dynamics in single crystal iron at extreme strain rates. Computational Materials Science, 2018, 154, 393-404.	1.4	28
12	Multi-scale Computational Approach for Modelling Spallation at High Strain Rates in Single-Crystal Materials. Procedia Engineering, 2017, 173, 1177-1184.	1.2	14
13	Twinning assisted Î± to Ï‰ phase transformation in titanium single crystal. AIP Conference Proceedings, 2017, , .	0.3	0
14	Compression twinning and structural phase transformation of single crystal titanium under uniaxial compressive strain conditions: Comparison of inter-atomic potentials. Computational Materials Science, 2017, 126, 228-237.	1.4	30
15	Atomic scale investigation of void evolution of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0028.gif" overflow="scroll"><mml:mo>{</mml:mo><mml:mn>10</mml:mn><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><m twinning in magnesium single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 256-269.	2.6	21
16	Integrated experimental and computational studies of deformation of single crystal copper at high strain rates. Journal of Applied Physics, 2014, 116, .	1.1	21
17	Multiscale simulations of damage of perfect crystal Cu at high strain rates. Pramana - Journal of Physics, 2014, 83, 265-272.	0.9	12
18	Neutron diffraction measurements of dislocation density in copper crystals deformed at high strain rate. AIP Conference Proceedings, 2013, , .	0.3	2

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19	Activation of slip systems and shape changes during deformation of single crystal copper: A molecular dynamics study. AIP Conference Proceedings, 2013, , .	0.3	2
20	Reduction in spall threshold due to non-contact impact: A molecular dynamics study. , 2012, , .		0
21	Excitation of characteristic modes of a crystal during solid fracture at high tensile pressure. Journal of Physics: Conference Series, 2012, 377, 012107.	0.3	0
22	Effect of material damage on the spallation threshold of single crystal copper: a molecular dynamics study. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 015012.	0.8	19
23	Fracture during high-velocity impact of copper plates: a molecular dynamics study. Journal of Physics: Conference Series, 2012, 377, 012104.	0.3	0
24	Molecular Dynamics Simulations of Crystal Copper: Bulk Modulus and Shocks. , 2011, , .		1
25	Temperature sensitivity of void nucleation and growth parameters for single crystal copper: a molecular dynamics study. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 025007.	0.8	30
26	Effect of Temperature on the Void Nucleation and Growth Parameters for Single Crystal Copper. , 2011, , .		0