

# Sunil Rawat

## List of Publications by Year in descending order

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Version: 2024-02-01

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	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
2	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
3	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
4	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
5	Integrated experimental and computational studies of deformation of single crystal copper at high strain rates. Journal of Applied Physics, 2014, 116, .	1.1	21
6	Effect of multiaxial loading on evolution of $\langle 10\bar{1}0 \rangle$ twinning in magnesium single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 256-269.	2.6	21
7	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
8	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
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	Multi-scale Computational Approach for Modelling Spallation at High Strain Rates in Single-Crystal Materials. Procedia Engineering, 2017, 173, 1177-1184.	1.2	14
11	Multiscale simulations of damage of perfect crystal Cu at high strain rates. Pramana - Journal of Physics, 2014, 83, 265-272.	0.9	12
12	Strain-rate effect on plasticity and $\beta$ -phase transformation in single crystal titanium: A molecular dynamics study. Mechanics of Materials, 2020, 148, 103529.	1.7	6
13	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
14	$\{101\}_2$ twinning in single-crystal titanium under shock loading. Philosophical Magazine, 2021, 101, 836-850.	0.7	4
15	Neutron diffraction measurements of dislocation density in copper crystals deformed at high strain rate. AIP Conference Proceedings, 2013, , .	0.3	2
16	Activation of slip systems and shape changes during deformation of single crystal copper: A molecular dynamics study. AIP Conference Proceedings, 2013, , .	0.3	2
17	Evolution of voids in single-crystal iron under uniaxial, biaxial and triaxial loading conditions. Philosophical Magazine, 2020, 100, 2068-2090.	0.7	2
18	Molecular Dynamics Simulations of Crystal Copper: Bulk Modulus and Shocks. , 2011, , .		1

#	ARTICLE	IF	CITATIONS
19	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
20	Evolution dynamics of voids in single crystal copper under triaxial loading condition. Philosophical Magazine, 2021, 101, 1119-1143.	0.7	1
21	Effect of Temperature on the Void Nucleation and Growth Parameters for Single Crystal Copper. , 2011, , .		0
22	Reduction in spall threshold due to non-contact impact: A molecular dynamics study. , 2012, , .		0
23	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
24	Fracture during high-velocity impact of copper plates: a molecular dynamics study. Journal of Physics: Conference Series, 2012, 377, 012104.	0.3	0
25	Twinning assisted $\beta$ to $\alpha'$ phase transformation in titanium single crystal. AIP Conference Proceedings, 2017, , .	0.3	0
26	Damage evolution in single crystal iron at high strain rate:A molecular dynamics study. Pramana - Journal of Physics, 2021, 95, 1.	0.9	0