Arpan Das

List of Publications by Year in descending order

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55	1,698	361296	302012
papers	citations	20 h-index	39 g-index

55	55	55	1256
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental investigation on martensitic transformation and fracture morphologies of austenitic stainless steel. International Journal of Plasticity, 2009, 25, 2222-2247.	4.1	171
2	Morphologies and characteristics of deformation induced martensite during tensile deformation of 304 LN stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 283-286.	2.6	162
3	Revisiting Stacking Fault Energy of Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 748-768.	1.1	109
4	Geometry of dimples and its correlation with mechanical properties in austenitic stainless steel. Scripta Materialia, 2008, 59, 1014-1017.	2.6	103
5	Analysis of deformation induced martensitic transformation in stainless steels. Materials Science and Technology, 2011, 27, 366-370.	0.8	90
6	Estimation of deformation induced martensite in austenitic stainless steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 529, 9-20.	2.6	74
7	Morphologies and characteristics of deformation induced martensite during low cycle fatigue behaviour of austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7909-7914.	2.6	71
8	Cyclic plastic behaviour of primary heat transport piping materials: Influence of loading schemes on hysteresis loop. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6858-6869.	2.6	66
9	Reactive diffusion in the roll bonded ironâ€“aluminum system. Materials Letters, 2006, 60, 1758-1761.	1.3	58
10	Correlation of Fractographic Features with Mechanical Properties in Systematically Varied Microstructures of Cu-Strengthened High-Strength Low-Alloy Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3138-3146.	1.1	44
11	Correspondence of fracture surface features with mechanical properties in 304LN stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 98-105.	2.6	38
12	Automatic characterization of fracture surfaces of AISI 304LN stainless steel using image texture analysis. Measurement: Journal of the International Measurement Confederation, 2012, 45, 1140-1150.	2.5	35
13	Martensiteâ€“Void Interaction. Scripta Materialia, 2013, 68, 514-517.	2.6	35
14	Stress induced creep cavity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 598, 28-33.	2.6	34
15	Magnetic properties of cyclically deformed austenite. Journal of Magnetism and Magnetic Materials, 2014, 361, 232-242.	1.0	32
16	Connection between deformation-induced dislocation substructures and martensite formation in stainless steel. Philosophical Magazine Letters, 2011, 91, 664-675.	0.5	31
17	Stability of austenite and quasi-adiabatic heating during high-strain-rate deformation of twinning-induced plasticity steels. Scripta Materialia, 2010, 62, 5-8.	2.6	28
18	Fracture-property correlation in copper-strengthened high-strength low-alloy steel. Scripta Materialia, 2008, 59, 681-683.	2.6	27

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19	Grain boundary engineering: fatigue fracture. Philosophical Magazine, 2017, 97, 867-916.	0.7	27
20	Dry Sliding Wear Characteristics of Gravity Die-Cast Magnesium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2270-2283.	1.1	22
21	Ductile fracture micro-mechanisms of high strength low alloy steels. Materials & Design, 2014, 54, 1002-1009.	5.1	21
22	Characterization of micrographs and fractographs of Cu-strengthened HSLA steel using image texture analysis. Measurement: Journal of the International Measurement Confederation, 2014, 47, 130-144.	2.5	20
23	Fractographic correlations with mechanical properties in ferritic martensitic steels. Surface Topography: Metrology and Properties, 2017, 5, 045006.	0.9	20
24	Dry sliding wear characteristics of rheocast Mgâ€“Sn based alloys. Materials & Design, 2014, 54, 820-830.	5.1	19
25	Fracture complexity of pressure vessel steels. Philosophical Magazine, 2017, 97, 3084-3141.	0.7	19
26	Effect of large strains on grain boundary character distribution in AISI 304L austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 454-455, 239-244.	2.6	18
27	Crystallographicvariant selectionof martensite at high stress/strain. Philosophical Magazine, 2015, 95, 2210-2227.	0.7	18
28	Dislocation configurations through austenite grain misorientations. International Journal of Fatigue, 2015, 70, 473-479.	2.8	18
29	Spatial Martensite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 484-489.	2.6	18
30	Cyclic plasticity induced transformation of austenitic stainless steels. Materials Characterization, 2019, 149, 1-25.	1.9	18
31	Structureâ€“wear-property correlation. Materials & Design, 2013, 47, 557-565.	5.1	17
32	Contribution of deformation-induced martensite to fracture appearance of austenitic stainless steel. Materials Science and Technology, 2016, 32, 1366-1373.	0.8	17
33	Characterization of bond coat in a thermal barrier coated superalloy used in combustor liners of aero engines. Materials Characterization, 2006, 57, 199-209.	1.9	16
34	Estimation of damage in high strength steels. Applied Soft Computing Journal, 2013, 13, 1033-1041.	4.1	16
35	Effect of notch geometry on fracture features. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 641, 210-214.	2.6	16
36	Elucidating microstructure of spinodal copper alloy through annealing. Materials Characterization, 2016, 120, 152-158.	1.9	15

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37	Crystallographicvariant selectionof martensite during fatigue deformation. Philosophical Magazine, 2015, 95, 844-860.	0.7	14
38	Effect of Stress State on Fracture Features. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1425-1432.	1.1	14
39	Analysis of Damage Accumulations in High Strength Low Alloy Steels under Monotonic Deformation. Procedia Engineering, 2013, 55, 786-792.	1.2	13
40	Slip System Activity During Cyclic Plasticity. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2927-2930.	1.1	12
41	Correlation of fracture features with mechanical properties as a function of strain rate in zirconium alloys. International Journal of Materials Research, 2016, 107, 184-188.	0.1	12
42	Intervention of martensite variants on the spatial aspect of microvoids. Materials Research Express, 2016, 3, 066501.	0.8	11
43	Effect of Cooling Rate on the Microstructure of a Pressure Vessel Steel. Metallography, Microstructure, and Analysis, 2019, 8, 795-805.	0.5	10
44	Stress/Strain Induced Void?. Archives of Computational Methods in Engineering, 2021, 28, 1795-1852.	6.0	10
45	Calculation of Crystallographic Texture of BCC Steels During Cold Rolling. Journal of Materials Engineering and Performance, 2017, 26, 2708-2720.	1.2	9
46	Calculation of ductility from pearlite microstructure. Materials Science and Technology, 2018, 34, 1046-1063.	0.8	8
47	Fracture mechanisms of spinodal alloys. Philosophical Magazine, 2018, 98, 3007-3033.	0.7	8
48	Resurgence of texture in cyclically deformed austenite. Materials Characterization, 2017, 123, 315-327.	1.9	7
49	Structural Integrity and Uncertainty in Creep Damage Assessment of Service Exposed Reformer Tubes. Procedia Engineering, 2014, 86, 858-869.	1.2	5
50	Fractal-property correlation of hierarchical 3D nanolayered Î±/Î²-Zr networks. Scripta Materialia, 2022, 218, 114833.	2.6	5
51	Evolution of grain-boundary character distribution during iterative processing of an austenitic stainless steel. Philosophical Magazine Letters, 2008, 88, 407-414.	0.5	4
52	Effect of rare earth elements on tribological behaviour of magnesium alloys. Tribology - Materials, Surfaces and Interfaces, 2012, 6, 147-154.	0.6	4
53	Enigma of dislocation patterning due to slip in fatigued austenite. International Journal of Damage Mechanics, 2018, 27, 218-237.	2.4	4
54	Tessellated dimple geometry of high entropy alloy. Materials Chemistry and Physics, 2022, 290, 126434.	2.0	4

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55	Tackling Flow Stress of Zirconium Alloys. Archives of Computational Methods in Engineering, 2021, 28, 2103-2131.	6.0	1