

Soran Biroasca

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

1,432
citations

361045

20
h-index

360668

35
g-index

40
all docs

40
docs citations

40
times ranked

1182
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of β^2 grain growth on variant selection and texture memory effect during $\beta \rightarrow \beta'$ phase transformation in Ti-6Al-4V. <i>Acta Materialia</i> , 2012, 60, 1048-1058.	3.8	142
2	Electron backscatter diffraction study of dislocation content of a macrozone in hot-rolled Ti-6Al-4V alloy. <i>Scripta Materialia</i> , 2010, 62, 639-642.	2.6	130
3	The dislocation behaviour and GND development in a nickel based superalloy during creep. <i>International Journal of Plasticity</i> , 2019, 118, 252-268.	4.1	126
4	A combined approach to microstructure mapping of an Al-Li AA2199 friction stir weld. <i>Acta Materialia</i> , 2011, 59, 3002-3011.	3.8	115
5	A quantitative approach to study the effect of local texture and heterogeneous plastic strain on the deformation micromechanism in RR1000 nickel-based superalloy. <i>Acta Materialia</i> , 2014, 74, 110-124.	3.8	99
6	The influence of rolling temperature on texture evolution and variant selection during $\beta \rightarrow \beta'$ phase transformation in Ti-6Al-4V. <i>Acta Materialia</i> , 2012, 60, 6013-6024.	3.8	77
7	3-D observations of short fatigue crack interaction with lamellar and duplex microstructures in a two-phase titanium alloy. <i>Acta Materialia</i> , 2011, 59, 1510-1522.	3.8	65
8	The effects of microstructure and microtexture generated during solidification on deformation micromechanism in IN713C nickel-based superalloy. <i>Acta Materialia</i> , 2018, 148, 391-406.	3.8	61
9	The effect of strain distribution on microstructural developments during forging in a newly developed nickel base superalloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 654, 317-328.	2.6	59
10	Three-dimensional characterization of fatigue cracks in Ti-6246 using X-ray tomography and electron backscatter diffraction. <i>Acta Materialia</i> , 2009, 57, 5834-5847.	3.8	58
11	The effects of grain size, dendritic structure and crystallographic orientation on fatigue crack propagation in IN713C nickel-based superalloy. <i>International Journal of Plasticity</i> , 2020, 125, 150-168.	4.1	58
12	The hierarchy of microstructure parameters affecting the tensile ductility in centrifugally cast and forged Ti-834 alloy during high temperature exposure in air. <i>Acta Materialia</i> , 2016, 117, 51-67.	3.8	46
13	The nucleation and growth of β phase in nickel-based superalloy during long-term thermal exposure. <i>Acta Materialia</i> , 2020, 185, 493-506.	3.8	34
14	Microstructural and microtextural characterization of oxide scale on steel using electron backscatter diffraction. <i>Journal of Microscopy</i> , 2004, 213, 235-240.	0.8	33
15	A SANS and APT study of precipitate evolution and strengthening in a maraging steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 702, 414-424.	2.6	31
16	Microstructural mechanisms and advanced characterization of long and small fatigue crack growth in cast A356-T61 aluminum alloys. <i>International Journal of Fatigue</i> , 2017, 97, 202-213.	2.8	30
17	Phase determination and microstructure of oxide scales formed on steel at high temperature. <i>Journal of Microscopy</i> , 2005, 217, 122-129.	0.8	28
18	The deformation behaviour of hard and soft grains in RR1000 nickel-based superalloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 82, 012033.	0.3	25

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19	The Effect of a Two-Stage Heat-Treatment on the Microstructural and Mechanical Properties of a Maraging Steel. <i>Materials</i> , 2017, 10, 1346.	1.3	24
20	Mechanistic approach of Goss abnormal grain growth in electrical steel: Theory and argument. <i>Acta Materialia</i> , 2020, 185, 370-381.	3.8	24
21	Disparity in recrystallization of $\hat{1}\pm$ - & $\hat{1}^3$ -fibers and its impact on Cube texture formation in non-oriented electrical steel. <i>Acta Materialia</i> , 2021, 216, 117141.	3.8	21
22	Texture evolution in grain-oriented electrical steel during hot band annealing and cold rolling. <i>Journal of Microscopy</i> , 2008, 230, 414-423.	0.8	19
23	Crystallographic orientation influence on slip system activation and deformation mechanisms in Waspaloy during in-situ mechanical loading. <i>Journal of Alloys and Compounds</i> , 2021, 865, 158548.	2.8	19
24	A study of low cycle fatigue life and its correlation with microstructural parameters in IN713C nickel based superalloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 718, 19-32.	2.6	18
25	Deformation mechanisms of IN713C nickel based superalloy during Small Punch Testing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 650, 422-431.	2.6	17
26	Nanostructure characterisation of flow-formed Cr-Mo-V steel using transmission Kikuchi diffraction technique. <i>Ultramicroscopy</i> , 2015, 153, 1-8.	0.8	15
27	Crystallographic Orientation Relationship with Geometrically Necessary Dislocation Accumulation During High-Temperature Deformation in RR1000 Nickel-Based Superalloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 534-539.	1.1	14
28	Oxide formation and alloying elements enrichment on TRIP steel surface during intercritical annealing. <i>Journal of Microscopy</i> , 2008, 230, 424-434.	0.8	11
29	Blanking induced damage in thin 3.2% silicon steel sheets. <i>Production Engineering</i> , 2020, 14, 53-64.	1.1	10
30	On the correlation between magnetic domain and crystallographic grain orientation in grain oriented electrical steels. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 494, 165772.	1.0	5
31	Phase identification of oxide scale on low carbon steel. <i>Materials at High Temperatures</i> , 2005, 22, 179-184.	0.5	5
32	Microstructure and phases structure in nickel-based superalloy IN713C after solidification. <i>Materials Characterization</i> , 2021, 182, 111566.	1.9	5
33	Phase identification of oxide scale on low carbon steel. <i>Materials at High Temperatures</i> , 2005, 22, 179-184.	0.5	3
34	Microstructure evolution and phase transformation in a nickel-based superalloy with varying Ti/Al ratios: Part 1 - Microstructure evolution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 831, 142228.	2.6	3
35	Study of Scale Growth on Steel Substrates Using Electron Back Scatter Diffraction. <i>Materials Science Forum</i> , 2003, 426-432, 3611-3616.	0.3	2
36	The \hat{I}_n -plot, a multicomponent 1-D pole figure plot, to quantify the heterogeneity of plastic deformation. <i>Materials Characterization</i> , 2020, 160, 110114.	1.9	0

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37	Superalloys II. , 0, , .		0
38	Microstructure evolution and phase transformation in a nickel-based superalloy with varying Ti/Al ratios: Part 2 – Phase transformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142229.	2.6	0