

Mohamed Goune

List of Publications by Year in descending order

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71
papers

2,993
citations

172207

29
h-index

168136

53
g-index

71
all docs

71
docs citations

71
times ranked

2710
citing authors

#	ARTICLE	IF	CITATIONS
1	Additive manufacturing of metals: a brief review of the characteristic microstructures and properties of steels, Ti-6Al-4V and high-entropy alloys. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 584-610.	2.8	660
2	Evolution of microstructure and mechanical properties of medium Mn steels during double annealing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 542, 31-39.	2.6	197
3	Kinetics of vanadium carbonitride precipitation in steel: A computer model. <i>Acta Materialia</i> , 2005, 53, 3359-3367.	3.8	160
4	Overview of the current issues in austenite to ferrite transformation and the role of migrating interfaces therein for low alloyed steels. <i>Materials Science and Engineering Reports</i> , 2015, 92, 1-38.	14.8	136
5	Damage and fracture of dual-phase steels: Influence of martensite volume fraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 646, 322-331.	2.6	104
6	Interphase precipitation in vanadium-alloyed steels: Strengthening contribution and morphological variability with austenite to ferrite transformation. <i>Acta Materialia</i> , 2014, 64, 78-92.	3.8	90
7	Mechanism of porosity formation and influence on mechanical properties in selective laser melting of Ti-6Al-4V parts. <i>Materials and Design</i> , 2018, 156, 480-493.	3.3	90
8	Influence of martensite volume fraction and hardness on the plastic behavior of dual-phase steels: Experiments and micromechanical modeling. <i>International Journal of Plasticity</i> , 2016, 80, 187-203.	4.1	87
9	Lead-free nanocomposite piezoelectric nanogenerator film for biomechanical energy harvesting. <i>Nano Energy</i> , 2021, 81, 105661.	8.2	79
10	ALEMI: A Ten-Year History of Discussions of Alloying-Element Interactions with Migrating Interfaces. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 3703-3718.	1.1	70
11	Microstructural design of new high conductivity & high strength Cu-based alloy. <i>Journal of Alloys and Compounds</i> , 2015, 633, 42-47.	2.8	61
12	Internal stresses and carbon enrichment in austenite of Quenching and Partitioning steels from high energy X-ray diffraction experiments. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 710, 245-250.	2.6	58
13	Phase transitions, energy storage performances and electrocaloric effect of the lead-free Ba _{0.85} Ca _{0.15} Zr _{0.10} Ti _{0.90} O ₃ ceramic relaxor. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6430-6438.	1.1	58
14	Hydrothermal Sintering for Densification of Silica. Evidence for the Role of Water. <i>Journal of the European Ceramic Society</i> , 2018, 38, 1860-1870.	2.8	53
15	Selecting non-isothermal heat treatment schedules for precipitation hardening systems: An example of coupled process&property optimization. <i>Acta Materialia</i> , 2007, 55, 213-223.	3.8	49
16	Enhancement of dielectric properties of lead-free BCZT ferroelectric ceramics by grain size engineering. <i>Superlattices and Microstructures</i> , 2019, 127, 109-117.	1.4	47
17	Mechanism of Austenite Formation from Spheroidized Microstructure in an Intermediate Fe-0.1C-3.5Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 3375-3386.	1.1	45
18	Enhanced dielectric and electrocaloric properties in lead-free rod-like BCZT ceramics. <i>Journal of Advanced Ceramics</i> , 2020, 9, 210-219.	8.9	45

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19	Characterization and Modeling of Manganese Effect on Strength and Strain Hardening of Martensitic Carbon Steels. ISIJ International, 2013, 53, 1076-1080.	0.6	44
20	Thermally-stable high energy storage performances and large electrocaloric effect over a broad temperature span in lead-free BCZT ceramic. RSC Advances, 2020, 10, 30746-30755.	1.7	43
21	Numerical modeling of interstitial diffusion in binary systems. Application to iron nitriding. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 302, 246-257.	2.6	41
22	Banded structure in Dual Phase steels in relation with the austenite-to-ferrite transformation mechanisms. Journal of Materials Science, 2011, 46, 7026-7038.	1.7	41
23	Microstructural heterogeneity and its relationship to the strength of martensite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 329-339.	2.6	34
24	A Criterion for the Change from Fast to Slow Regime of Cementite Dissolution in Fe-C-Mn Steels. Journal of Materials Science and Technology, 2012, 28, 728-736.	5.6	32
25	Effects of Q&P Processing Conditions on Austenite Carbon Enrichment Studied by In Situ High-Energy X-ray Diffraction Experiments. Metals, 2017, 7, 232.	1.0	32
26	Thermodynamic and structural studies on nitrided Fe-1.62%Mn and Fe-0.56%V alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 23-30.	2.6	31
27	In Situ Investigation of the Iron Carbide Precipitation Process in a Fe-C-Mn-Si Q&P Steel. Materials, 2018, 11, 1087.	1.3	31
28	Structural, dielectric, and ferroelectric properties of lead-free BCZT ceramics elaborated by low-temperature hydrothermal processing. Journal of Materials Science: Materials in Electronics, 2020, 31, 10096-10104.	1.1	31
29	Application of interrupted cooling experiments to study the mechanism of bainitic ferrite formation in steels. Acta Materialia, 2013, 61, 4512-4523.	3.8	30
30	Effect of interstitial carbon distribution and nickel substitution on the tetragonality of martensite: A first-principles study. Intermetallics, 2017, 89, 92-99.	1.8	30
31	Very-low temperature synthesis of pure and crystalline lead-free Ba .85 Ca .15 Zr .1 Ti .9 O 3 ceramic. Ceramics International, 2018, 44, 10997-11000.	2.3	30
32	Reflections on the Analysis of Interfaces and Grain Boundaries by Atom Probe Tomography. Microscopy and Microanalysis, 2020, 26, 247-257.	0.2	30
33	Nitride precipitation in compositionally heterogeneous alloys: Nucleation, growth and coarsening during nitriding. Journal of Crystal Growth, 2012, 341, 53-60.	0.7	26
34	Critical factors governing the thermal stability of austenite in an ultra-fined grained Medium-Mn steel. Philosophical Magazine Letters, 2017, 97, 125-131.	0.5	24
35	Analysis of the stagnant stage in diffusional phase transformations starting from austenite-ferrite mixtures. Computational Materials Science, 2012, 55, 34-43.	1.4	23
36	Static and dynamical ageing processes at room temperature in a Fe ₂₅ Ni _{0.4} C virgin martensite: effect of C redistribution at the nanoscale. Philosophical Magazine Letters, 2013, 93, 68-76.	0.5	23

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37	Microstructure refinement of dual-phase steels with 3.5wt% Mn: Influence on plastic and fracture behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 638, 78-89.	2.6	23
38	Superledge Model for Interphase Precipitation During Austenite-to-Ferrite Transformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5351-5361.	1.1	22
39	Distribution of Carbon in Martensite During Quenching and Tempering of Dual Phase Steels and Consequences for Damage Properties. <i>ISIJ International</i> , 2013, 53, 1215-1223.	0.6	20
40	Atom probe tomography evidence of nitrogen excess in the matrix of nitrated Fe-Cr. <i>Philosophical Magazine Letters</i> , 2010, 90, 793-800.	0.5	19
41	Application of the stagnant stage concept for monitoring Mn partitioning at the austenite-ferrite interface in the intercritical region for Fe-Mn-C alloys. <i>Philosophical Magazine Letters</i> , 2012, 92, 547-555.	0.5	18
42	Competitive precipitation of amorphous and crystalline silicon nitride in ferrite: Interaction between structure, morphology, and stress relaxation. <i>Acta Materialia</i> , 2015, 93, 218-234.	3.8	17
43	Carbon diffusivity and kinetics of spinodal decomposition of martensite in a model Fe-Ni-C alloy. <i>Materials Letters</i> , 2018, 214, 213-216.	1.3	17
44	Identification and characterization of a novel Mn-N nitride formed in Fe-Mn-N alloy. <i>Journal of Applied Crystallography</i> , 2003, 36, 103-108.	1.9	14
45	Investigation of a Ferrite/Silicon Nitride Composite Concept Aimed at Automotive Applications. <i>Steel Research International</i> , 2012, 83, 590-593.	1.0	14
46	Monitoring tantalum nitride thin film structure by reactive RF magnetron sputtering: Influence of processing parameters. <i>Surface and Coatings Technology</i> , 2015, 284, 192-197.	2.2	14
47	Microstructure Evolution and Competitive Reactions during Quenching and Partitioning of a Model Fe-C-Mn-Si Alloy. <i>Metals</i> , 2020, 10, 137.	1.0	14
48	QUANTITATIVE ANALYSIS OF BANDED STRUCTURES IN DUAL-PHASE STEELS. <i>Image Analysis and Stereology</i> , 2010, 29, 85.	0.4	13
49	Linear stability analysis of a γ -Fe ₄ N nitride layer growing in pure iron. <i>Computational Materials Science</i> , 2006, 38, 126-135.	1.4	12
50	A flexible self-poled piezocomposite nanogenerator based on H ₂ (Zr _{0.1} Ti _{0.9}) ₃ O ₇ nanowires and polylactic acid biopolymer. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1983-1991.	2.5	12
51	Morphogenesis mechanisms in the hydrothermal growth of lead-free BCZT nanostructured multipods. <i>CrystEngComm</i> , 2021, 23, 5249-5256.	1.3	11
52	Modelling of the interaction between phase transformation and precipitation: Coupled kinetics in microalloyed multiphase steels. <i>Computational Materials Science</i> , 2012, 55, 127-135.	1.4	10
53	Kinetics of bainite transformation in heterogeneous microstructures. <i>Materials Letters</i> , 2012, 67, 187-189.	1.3	9
54	Carbon heterogeneities in austenite during Quenching & Partitioning (Q&P) process revealed by in situ High Energy X-Ray Diffraction (HEXRD) experiments. <i>Scripta Materialia</i> , 2020, 181, 108-114.	2.6	9

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55	Time-evolution of microstructure and mechanical behaviour of double annealed medium Mn steel. <i>Materials Science and Technology</i> , 2019, 35, 2076-2083.	0.8	8
56	Novel lead-free BCZT-based ceramic with thermally-stable recovered energy density and increased energy storage efficiency. <i>Journal of Materiomics</i> , 2022, 8, 873-881.	2.8	8
57	Nucleation and growth of carbo-nitride nanoparticles in $\hat{\mu}$ -Fe-based alloys and associated interfacial process. <i>Nanotechnology Reviews</i> , 2015, 4, .	2.6	7
58	Mechanism of Si_3N_4 precipitation in nitrated Fe-Si alloys: A novel example of particle-stimulated-nucleation. <i>Materials Letters</i> , 2017, 189, 25-27.	1.3	6
59	Study of the effect of cold deformation on the austenite formation. <i>Revue De Metallurgie</i> , 2006, 103, 465-471.	0.3	5
60	Banded structures in dual-phase steels – A novel characterization method. <i>International Journal of Materials Research</i> , 2011, 102, 200-207.	0.1	5
61	Enhanced near-ambient temperature energy storage and electrocaloric effect in the lead-free $\text{BaTi}_{0.89}\text{Sn}_{0.11}\text{O}_3$ ceramic synthesized by sol-gel method. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 12900-12911.	1.1	5
62	Precipitation of copper in ferrite: Prediction of the strengthening kinetics. <i>Revue De Metallurgie</i> , 2004, 101, 71-78.	0.3	3
63	Transmission electron microscopy investigation of acicular ferrite precipitation in $\hat{\mu}$ - Fe_4N nitride. <i>Materials Characterization</i> , 2010, 61, 1245-1251.	1.9	3
64	Dual-Phase Steels: The First Family of Advanced High Strength Steels. , 2022, , 37-62.		3
65	The Role of Dispersions in Modeling the Kinetics of Phase Transformations. <i>Solid State Phenomena</i> , 0, 172-174, 279-284.	0.3	2
66	Numerical Investigations of the Effects of Substitutional Elements on the Interface Conditions During Partitioning in Quenching and Partitioning Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 2568-2572.	1.1	2
67	Contribution of Local Analysis Techniques for the Characterization of Iron and Alloying Elements in Nitrides: Consequences on the Precipitation Process in Fe-Si and Fe-Cr Nitrided Alloys. <i>Materials</i> , 2018, 11, 1409.	1.3	2
68	Sensitivity And Quantitativity In Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2009, 15, 258-259.	0.2	1
69	Link between Microstructure and Mechanical Behavior of Double Annealed Medium Mn Steel. <i>Materials Science Forum</i> , 2018, 941, 524-529.	0.3	0
70	The Basics to Better Understand Couplings in Physical Metallurgy. , 2019, , 25-48.		0
71	Low-temperature synthesis and characterization of lead-free $\text{BaTi}_{0.89}\text{Sn}_{0.11}\text{O}_3$ piezoelectric powders. <i>Materials Today: Proceedings</i> , 2022, , .	0.9	0