Mohamed Goune

List of Publications by Year
in descending order

71 papers	2,993 citations	172457 29 h-index	168389 53 g-index
71 all docs	71 docs citations	71 times ranked	2710 citing authors

#	ARTICLE	IF	CITATIONS
1	Dual-Phase Steels: The First Family of Advanced High Strength Steels. , 2022, , 37-62.		3
2	Novel lead-free BCZT-based ceramic with thermally-stable recovered energy density and increased energy storage efficiency. Journal of Materiomics, 2022, 8, 873-881.	5.7	8
3	A flexible self-poled piezocomposite nanogenerator based on H₂(Zr_{0.1}Ti_{0.9})₃O₇ nanowires and polylactic acid biopolymer. Sustainable Energy and Fuels, 2022, 6, 1983-1991.	4.9	12
4	Enhanced near-ambient temperature energy storage and electrocaloric effect in the lead-free BaTi0.89Sn0.11O3 ceramic synthesized by solâ€“gel method. Journal of Materials Science: Materials in Electronics, 2022, 33, 12900-12911.	2.2	5
5	Low-temperature synthesis and characterization of lead-free BaTi0.89Sn0.11O3 piezoelectric powders. Materials Today: Proceedings, 2022, , .	1.8	0
6	Lead-free nanocomposite piezoelectric nanogenerator film for biomechanical energy harvesting. Nano Energy, 2021, 81, 105661.	16.0	79
7	Morphogenesis mechanisms in the hydrothermal growth of lead-free BCZT nanostructured multipods. CrystEngComm, 2021, 23, 5249-5256.	2.6	11
8	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.	3.6	43
9	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.	2.2	31
10	Reflections on the Analysis of Interfaces and Grain Boundaries by Atom Probe Tomography. Microscopy and Microanalysis, 2020, 26, 247-257.	0.4	30
11	Carbon heterogeneities in austenite during Quenching & Partitioning (Q&P) process revealed by in situ High Energy X-Ray Diffraction (HEXRD) experiments. Scripta Materialia, 2020, 181, 108-114.	5.2	9
12	Enhanced dielectric and electrocaloric properties in lead-free rod-like BCZT ceramics. Journal of Advanced Ceramics, 2020, 9, 210-219.	17.4	45
13	Microstructure Evolution and Competitive Reactions during Quenching and Partitioning of a Model Feâ€“Câ€“Mnâ€“Si Alloy. Metals, 2020, 10, 137.	2.3	14
14	The Basics to Better Understand Couplings in Physical Metallurgy. , 2019, , 25-48.		0
15	Time-evolution of microstructure and mechanical behaviour of double annealed medium Mn steel. Materials Science and Technology, 2019, 35, 2076-2083.	1.6	8
16	Phase transitions, energy storage performances and electrocaloric effect of the lead-free Ba0.85Ca0.15Zr0.10Ti0.90O3 ceramic relaxor. Journal of Materials Science: Materials in Electronics, 2019, 30, 6430-6438.	2.2	58
17	Enhancement of dielectric properties of lead-free BCZT ferroelectric ceramics by grain size engineering. Superlattices and Microstructures, 2019, 127, 109-117.	3.1	47
18	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.	4.8	30

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19	Numerical Investigations of the Effects of Substitutional Elements on the Interface Conditions During Partitioning in Quenching and Partitioning Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2568-2572.	2.2	2
20	Hydrothermal Sintering for Densification of Silica. Evidence for the Role of Water. Journal of the European Ceramic Society, 2018, 38, 1860-1870.	5.7	53
21	Carbon diffusivity and kinetics of spinodal decomposition of martensite in a model Fe-Ni-C alloy. Materials Letters, 2018, 214, 213-216.	2.6	17
22	Internal stresses and carbon enrichment in austenite of Quenching and Partitioning steels from high energy X-ray diffraction experiments. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 245-250.	5.6	58
23	Link between Microstructure and Mechanical Behavior of Double Annealed Medium Mn Steel. Materials Science Forum, 2018, 941, 524-529.	0.3	0
24	Contribution of Local Analysis Techniques for the Characterization of Iron and Alloying Elements in Nitrides: Consequences on the Precipitation Process in Feâ€"Si and Feâ€"Cr Nitrided Alloys. Materials, 2018, 11, 1409.	2.9	2
25	Mechanism of porosity formation and influence on mechanical properties in selective laser melting of Ti-6Al-4V parts. Materials and Design, 2018, 156, 480-493.	7.0	90
26	In Situ Investigation of the Iron Carbide Precipitation Process in a Fe-C-Mn-Si Q&P Steel. Materials, 2018, 11, 1087.	2.9	31
27	Critical factors governing the thermal stability of austenite in an ultra-fined grained Medium-Mn steel. Philosophical Magazine Letters, 2017, 97, 125-131.	1.2	24
28	Additive manufacturing of metals: a brief review of the characteristic microstructures and properties of steels, Ti-6Al-4V and high-entropy alloys. Science and Technology of Advanced Materials, 2017, 18, 584-610.	6.1	660
29	Effect of interstitial carbon distribution and nickel substitution on the tetragonality of martensite: A first-principles study. Intermetallics, 2017, 89, 92-99.	3.9	30
30	Mechanism of Si3N4 precipitation in nitrided Fe-Si alloys: A novel example of particle-stimulated-nucleation. Materials Letters, 2017, 189, 25-27.	2.6	6
31	Effects of Q&P Processing Conditions on Austenite Carbon Enrichment Studied by In Situ High-Energy X-ray Diffraction Experiments. Metals, 2017, 7, 232.	2.3	32
32	Mechanism of Austenite Formation from Spheroidized Microstructure in an Intermediate Fe-0.1C-3.5Mn Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3375-3386.	2.2	45
33	Influence of martensite volume fraction and hardness on the plastic behavior of dual-phase steels: Experiments and micromechanical modeling. International Journal of Plasticity, 2016, 80, 187-203.	8.8	87
34	Competitive precipitation of amorphous and crystalline silicon nitride in ferrite: Interaction between structure, morphology, and stress relaxation. Acta Materialia, 2015, 93, 218-234.	7.9	17
35	Microstructural design of new high conductivity â€" high strength Cu-based alloy. Journal of Alloys and Compounds, 2015, 633, 42-47.	5.5	61
36	Overview of the current issues in austenite to ferrite transformation and the role of migrating interfaces therein for low alloyed steels. Materials Science and Engineering Reports, 2015, 92, 1-38.	31.8	136

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37	Microstructure refinement of dual-phase steels with 3.5wt% Mn: Influence on plastic and fracture behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 78-89.	5.6	23
38	Microstructural heterogeneity and its relationship to the strength of martensite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 329-339.	5.6	34
39	Nucleation and growth of carbo-nitride nanoparticles in Î±-Fe-based alloys and associated interfacial process. Nanotechnology Reviews, 2015, 4, .	5.8	7
40	Monitoring tantalum nitride thin film structure by reactive RF magnetron sputtering: Influence of processing parameters. Surface and Coatings Technology, 2015, 284, 192-197.	4.8	14
41	Damage and fracture of dual-phase steels: Influence of martensite volume fraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 646, 322-331.	5.6	104
42	Superledge Model for Interphase Precipitation During Austenite-to-Ferrite Transformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5351-5361.	2.2	22
43	Interphase precipitation in vanadium-alloyed steels: Strengthening contribution and morphological variability with austenite to ferrite transformation. Acta Materialia, 2014, 64, 78-92.	7.9	90
44	Static and dynamical ageing processes at room temperature in a Fe25Ni0.4C virgin martensite: effect of C redistribution at the nanoscale. Philosophical Magazine Letters, 2013, 93, 68-76.	1.2	23
45	Application of interrupted cooling experiments to study the mechanism of bainitic ferrite formation in steels. Acta Materialia, 2013, 61, 4512-4523.	7.9	30
46	Characterization and Modeling of Manganese Effect on Strength and Strain Hardening of Martensitic Carbon Steels. ISIJ International, 2013, 53, 1076-1080.	1.4	44
47	Distribution of Carbon in Martensite During Quenching and Tempering of Dual Phase Steels and Consequences for Damage Properties. ISIJ International, 2013, 53, 1215-1223.	1.4	20
48	Application of the stagnant stage concept for monitoring Mn partitioning at the austenite-ferrite interface in the intercritical region for Feâ€“Mnâ€“C alloys. Philosophical Magazine Letters, 2012, 92, 547-555.	1.2	18
49	Nitride precipitation in compositionally heterogeneous alloys: Nucleation, growth and coarsening during nitriding. Journal of Crystal Growth, 2012, 341, 53-60.	1.5	26
50	Modelling of the interaction between phase transformation and precipitation: Coupled kinetics in microalloyed multiphase steels. Computational Materials Science, 2012, 55, 127-135.	3.0	10
51	Analysis of the stagnant stage in diffusional phase transformations starting from austeniteâ€“ferrite mixtures. Computational Materials Science, 2012, 55, 34-43.	3.0	23
52	A Criterion for the Change from Fast to Slow Regime of Cementite Dissolution in Feâ€“Câ€“Mn Steels. Journal of Materials Science and Technology, 2012, 28, 728-736.	10.7	32
53	Investigation of a Ferrite/Silicon Nitride Composite Concept Aimed at Automotive Applications. Steel Research International, 2012, 83, 590-593.	1.8	14
54	Kinetics of bainite transformation in heterogeneous microstructures. Materials Letters, 2012, 67, 187-189.	2.6	9

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55	Evolution of microstructure and mechanical properties of medium Mn steels during double annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 542, 31-39.	5.6	197
56	Banded structure in Dual Phase steels in relation with the austenite-to-ferrite transformation mechanisms. Journal of Materials Science, 2011, 46, 7026-7038.	3.7	41
57	ALEMI: A Ten-Year History of Discussions of Alloying-Element Interactions with Migrating Interfaces. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3703-3718.	2.2	70
58	Banded structures in dual-phase steels â€" A novel characterization method. International Journal of Materials Research, 2011, 102, 200-207.	0.3	5
59	Transmission electron microscopy investigation of acicular ferrite precipitation in Î³â€²-Fe4N nitride. Materials Characterization, 2010, 61, 1245-1251.	4.4	3
60	QUANTITATIVE ANALYSIS OF BANDED STRUCTURES IN DUAL-PHASE STEELS. Image Analysis and Stereology, 2010, 29, 85.	0.9	13
61	Atom probe tomography evidence of nitrogen excess in the matrix of nitrided Feâ€"Cr. Philosophical Magazine Letters, 2010, 90, 793-800.	1.2	19
62	Sensitivity And Quantitativity In Atom Probe Tomography. Microscopy and Microanalysis, 2009, 15, 258-259.	0.4	1
63	Selecting non-isothermal heat treatment schedules for precipitation hardening systems: An example of coupled processâ€"property optimization. Acta Materialia, 2007, 55, 213-223.	7.9	49
64	Linear stability analysis of a Î³â€²-Fe4N nitride layer growing in pure iron. Computational Materials Science, 2006, 38, 126-135.	3.0	12
65	Study of the effect of cold deformation on the austenite formation. Revue De Metallurgie, 2006, 103, 465-471.	0.3	5
66	Kinetics of vanadium carbonitride precipitation in steel: A computer model. Acta Materialia, 2005, 53, 3359-3367.	7.9	160
67	Precipitation of copper in ferrite: Prediction of the strengthening kinetics. Revue De Metallurgie, 2004, 101, 71-78.	0.3	3
68	Thermodynamic and structural studies on nitrided Feâ€"1.62%Mn and Feâ€"0.56%V alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 23-30.	5.6	31
69	Identification and characterization of a novel Mnâ€"N nitride formed in Feâ€"Mnâ€"N alloy. Journal of Applied Crystallography, 2003, 36, 103-108.	4.5	14
70	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.	5.6	41
71	The Role of Dispersions in Modeling the Kinetics of Phase Transformations. Solid State Phenomena, 0, 172-174, 279-284.	0.3	2