Niloofar Eftekhari

List of Publications by Year
in descending order

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112 papers	2,263 citations	236925 25 h-index	302126 39 g-index
113 all docs	113 docs citations	113 times ranked	1611 citing authors

#	Article	IF	Citations
1	The effects of friction-stir process parameters on the fabrication of Ti/SiC nano-composite surface layer. Surface and Coatings Technology, 2011, 206, 1372-1381.	4.8	107
2	A comparative study on the capability of Johnsonâ€“Cook and Arrhenius-type constitutive equations to describe the flow behavior of Mgâ€“6Alâ€“1Zn alloy. Mechanics of Materials, 2014, 71, 52-61.	3.2	103
3	Hot deformation characterization of duplex low-density steel through 3D processing map development. Materials Characterization, 2015, 107, 293-301.	4.4	73
4	Flow softening and dynamic recrystallization behavior of BT9 titanium alloy: A study using process map development. Journal of Alloys and Compounds, 2017, 695, 1706-1718.	5.5	69
5	Microstructure and superior mechanical properties of a multi-axially forged WE magnesium alloy. Journal of Alloys and Compounds, 2017, 693, 406-413.	5.5	64
6	Modified constitutive analysis and activation energy evolution of a low-density steel considering the effects of deformation parameters. Mechanics of Materials, 2016, 95, 60-70.	3.2	62
7	Effect of the Zenerâ€“Hollomon parameter on the microstructure evolution of dual phase TWIP steel subjected to friction stir processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 15-19.	5.6	61
8	The effect of thermomechanical parameters on the eutectic silicon characteristics in a non-modified cast A356 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 549, 93-99.	5.6	57
9	Constitutive description of high temperature flow behavior of Sanicro-28 super-austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 589, 76-82.	5.6	56
10	The high temperature flow behavior modeling of NiTi shape memory alloy employing phenomenological and physical based constitutive models: A comparative study. Intermetallics, 2014, 53, 140-149.	3.9	55
11	Enhancing the strength and ductility in accumulative back extruded WE43 magnesium alloy through achieving bimodal grain size distribution and texture weakening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 218-229.	5.6	54
12	Hot ductility behavior of an extruded 7075 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 637, 107-122.	5.6	53
13	Reversible dislocation movement, martensitic transformation and nano-twinning during elastic cyclic loading of a metastable high entropy alloy. Acta Materialia, 2020, 185, 474-492.	7.9	48
14	Temperature dependence of plastic deformation mechanisms in a modified transformation-twinning induced plasticity steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 579, 150-156.	5.6	46
15	Strain induced transformation, dynamic recrystallization and texture evolution during hot compression of an extruded Mg-Gd-Y-Zn-Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 778, 139021.	5.6	41
16	Room temperature mechanical properties and microstructure of a low alloyed TRIP-assisted steel subjected to one-step and two-step quenching and partitioning process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 725, 341-349.	5.6	39
17	An investigation into the fracture mechanisms of twinning-induced-plasticity steel sheets under various strain paths. Journal of Materials Processing Technology, 2015, 224, 102-116.	6.3	35
18	The Grain Structure and Phase Transformations of TWIP Steel During Friction Stir Processing. Journal of Materials Engineering and Performance, 2015, 24, 2826-2835.	2.5	32

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19	Latest Developments in Modeling and Characterization of Joining Metal Based Hybrid Materials. Advanced Engineering Materials, 2018, 20, 1800048.	3.5	32
20	An investigation into the mechanical behavior of a new transformation-twinning induced plasticity steel. Materials & Design, 2012, 39, 279-284.	5.1	31
21	Production of in-situ hard Ti/TiN composite surface layers on CP-Ti using reactive friction stir processing under nitrogen environment. Surface and Coatings Technology, 2013, 218, 62-70.	4.8	29
22	In situ identification of elasticâ€“plastic strain distribution in a microalloyed transformation induced plasticity steel using digital image correlation. Optics and Lasers in Engineering, 2014, 54, 79-87.	3.8	29
23	The Correlation of Macrostructure, Microstructure, and Texture with Room Temperature Mechanical Properties of a Twinningâ€Induced Plasticity Automotive Steel after Friction Stir Spot Welding/Processing. Steel Research International, 2018, 89, 1800245.	1.8	29
24	The enhanced static recrystallization kinetics of a non-equiatomic high entropy alloy through the reverse transformation of strain induced martensite. Journal of Alloys and Compounds, 2019, 806, 1550-1563.	5.5	29
25	High Temperature Formability Prediction of Dual Phase Brass Using Phenomenological and Physical Constitutive Models. Journal of Materials Engineering and Performance, 2015, 24, 209-220.	2.5	28
26	High-temperature flow characterization and microstructural evolution of Ti6242 alloy: Yield drop phenomenon. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 673, 346-354.	5.6	26
27	The Mg2Si phase evolution during thermomechanical processing of in-situ aluminum matrix macro-composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 644, 310-317.	5.6	25
28	Flow Characterization of a Duplex near Î± Ti6242 Alloy through Interrelation of Microstructural Evolution, 3D Activation Energy Map, and Processing Map. Advanced Engineering Materials, 2016, 18, 1075-1085.	3.5	25
29	Evolution of microstructure and mechanical properties in a cold deformed nitrogen bearing TRIP-assisted duplex stainless steel after reversion annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 683, 83-89.	5.6	25
30	Polylactic Acid Piezo-Biopolymers: Chemistry, Structural Evolution, Fabrication Methods, and Tissue Engineering Applications. Journal of Functional Biomaterials, 2021, 12, 71.	4.4	25
31	Dynamic restoration of the ferrite and austenite phases during hot compressive deformation of a lean duplex stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139400.	5.6	23
32	Dynamic dissolution and transformation of LPSO phase during thermomechanical processing of a GWZ magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 85-98.	5.6	22
33	Microstructural evolution and mechanical properties of thermomechanically processed AZ31 magnesium alloy reinforced by micro-graphite and nano-graphene particles. Journal of Alloys and Compounds, 2020, 815, 152231.	5.5	22
34	The high temperature mechanical properties and the correlated microstructure/ texture evolutions of a TWIP high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 802, 140600.	5.6	22
35	Transformation and twinning induced plasticity in an advanced high Mn austenitic steel processed by martensite reversion treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 511-519.	5.6	21
36	Dynamic recrystallization behavior of new transformationâ€“twinning induced plasticity steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 397-408.	5.6	20

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37	Approving Restoration Mechanism in 7075 Aluminum Alloy through Constitutive Flow Behavior Modeling. Advanced Engineering Materials, 2016, 18, 989-1000.	3.5	20
38	On the Stacking Fault Energy Evaluation and Deformation Mechanism of Sanicro-28 Super-Austenitic Stainless Steel. Journal of Materials Engineering and Performance, 2015, 24, 2335-2340.	2.5	19
39	Comprehensive Deformation Analysis of a Newly Designed Ni-Free Duplex Stainless Steel with Enhanced Plasticity by Optimizing Austenite Stability. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 3675-3691.	2.2	19
40	The sequential twinning-transformation induced plasticity effects in a thermomechanically processed high Mn austenitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 725, 242-249.	5.6	18
41	Thermal stability of an ultrafine-grained dual phase TWIP steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 5-14.	5.6	17
42	Characterization of twin-like structure in a ferrite-based lightweight steel. Metals and Materials International, 2016, 22, 810-816.	3.4	17
43	The wear induced crystallographic texture transition in Ti-29Nb-14Ta-4.5Zr alloy. Applied Surface Science, 2019, 491, 360-373.	6.1	16
44	Room-temperature micro and macro mechanical properties of the metastable Tiâ€“29Nbâ€“14Taâ€“4.5Zr alloy holding nano-sized precipitates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 771, 138583.	5.6	16
45	An investigation into microstructure and high-temperature mechanical properties of selective laser-melted 316L stainless steel toward the development of hybrid Ampliforge process. International Journal of Advanced Manufacturing Technology, 2020, 110, 383-394.	3.0	16
46	A new insight into LPSO transformation during multi-axial forging in Mg-Gd-Y-Zn-Zr alloy. Materials Letters, 2020, 269, 127625.	2.6	16
47	Unraveling the effect of deformation-induced phase transformation on microstructure and micro-texture evolution of a multi-axially forged Mg-Gd-Y-Zn-Zr alloy containing the LPSO phase. Journal of Materials Research and Technology, 2021, 15, 2088-2101.	5.8	16
48	On the microstructure and RE-texture evolution during hot tensile deformation of Mg-Gd-Y-Zn-Zr alloy. Journal of Materials Research and Technology, 2021, 15, 6974-6989.	5.8	16
49	Evaluating the Hot Deformation Behavior of a Super-Austenitic Steel Through Microstructural and Neural Network Analysis. Journal of Materials Engineering and Performance, 2015, 24, 2412-2421.	2.5	15
50	Hot Deformation and Dynamic Recrystallization of Ti-6Al-7Nb Biomedical Alloy in Single-Phase Î² Region. Journal of Materials Engineering and Performance, 2015, 24, 1799-1808.	2.5	15
51	The enhancement of transformation induced plasticity effect through preferentially oriented substructure development in a high entropy alloy. Intermetallics, 2019, 109, 145-156.	3.9	15
52	An investigation into the polylactic acid texturization through thermomechanical processing and the improved d33 piezoelectric outcome of the fabricated scaffolds. Journal of Materials Research and Technology, 2021, 15, 6356-6366.	5.8	15
53	The microstructure evolution and room temperature deformation behavior of ferrite-based lightweight steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 665, 10-16.	5.6	14
54	The grain boundary character distribution in thermomechanically processed rare earth bearing magnesium alloy. Journal of Alloys and Compounds, 2019, 798, 158-166.	5.5	14

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55	High-Temperature Wear Mechanisms of a Severely Plastic Deformed Al/Mg2Si Composite. Journal of Tribology, 2019, 141, .	1.9	14
56	On the microstructural-textural characterization and deformation analysis of a nano/ultrafine grained Fe-20Cr-8Mn-0.3N duplex alloy with superior mechanical properties. Materials Characterization, 2019, 156, 109878.	4.4	13
57	Outstanding Mild Wear Performance of Tiâ€“29Nbâ€“14Taâ€“4.5Zr Alloy Through Subsurface Grain Refinement and Supporting Effect of Transformation Induced Plasticity. Metals and Materials International, 2020, 26, 467-476.	3.4	13
58	The high temperature deformation behavior of a triplex (ferrite+ austenite+ martensite) low density steel. Journal of Materials Research and Technology, 2021, 13, 1388-1401.	5.8	13
59	On the warm temperature strain accommodation mechanisms of Tiâ€“6Alâ€“4V alloy holding different starting microstructures. Journal of Materials Research and Technology, 2021, 14, 496-506.	5.8	13
60	Effects of ferrite phase characteristics on microstructure and mechanical properties of thermomechanically-processed low-silicon content TRIP-assisted steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 229-236.	5.6	12
61	Processing Map Development through Elaborating Phenomenological and Physical Constitutive Based Models. Advanced Engineering Materials, 2016, 18, 572-581.	3.5	12
62	An investigation into the warm deformation behavior of Tiâ€“6Alâ€“1.5Crâ€“2.5Moâ€“0.5Feâ€“0.3Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 654, 264-270.	5.6	12
63	Grain Refinement through Shear Banding in Severely Plastic Deformed A206 Aluminum Alloy. Advanced Engineering Materials, 2018, 20, 1700502.	3.5	12
64	The effect of nano-size second precipitates on the structure, apatite-inducing ability and in-vitro biocompatibility of Ti-29Nb-14Ta-4.5Zr alloy. Materials Science and Engineering C, 2020, 109, 110561.	7.3	12
65	Decelerated grain growth kinetic and effectiveness of Hall-Petch relationship in a cold-rolled non-equiatomic high entropy alloy. Journal of Alloys and Compounds, 2021, 874, 159849.	5.5	12
66	The enhanced warm temperature ductility of Ti-6Al-4V alloy through strain induced martensite reversion and recrystallization. Materials Letters, 2021, 302, 130405.	2.6	12
67	The Enhanced Shape Memory Effect and Mechanical Properties in Thermomechanically Processed Semiâ€Equiatomic NiTi Shape Memory Alloy. Advanced Engineering Materials, 2016, 18, 251-258.	3.5	11
68	Deformation behavior of a high-plasticity nano/ultrafine-grained N-bearing duplex stainless steel: Twin/twin-like induced plasticity effect. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 637-640.	5.6	11
69	Substructure Development and Deformation Twinning Stimulation through Regulating the Processing Path during Multiâ€Axial Forging of Twinning Induced Plasticity Steel. Advanced Engineering Materials, 2018, 20, 1800453.	3.5	11
70	In-situ frictional grain refinement of Tiâ€“29Nbâ€“14Taâ€“4.5Zr bio-alloy during high-speed sliding wear. Materials Letters, 2020, 261, 127083.	2.6	11
71	Stress-relaxation viewpoint to study the room-temperature cyclic deformation behavior of a low-density steel. International Journal of Fatigue, 2020, 139, 105673.	5.7	11
72	An investigation into the room temperature mechanical properties and microstructural evolution of thermomechanically processed TWIP steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 596, 200-206.	5.6	10

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73	Correlation of Strain Accommodation Factor with the State of Microstructural Components in a Multiphase Steel. ISIJ International, 2015, 55, 2406-2415.	1.4	10
74	Effect of Intercritical Thermomechanical Processing on Austenite Retention and Mechanical Properties in a Multiphase TRIP-Assisted Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 436-449.	2.2	10
75	Surface Modification of Titanium by Producing Ti/TiN Surface Composite Layers via FSP. Acta Metallurgica Sinica (English Letters), 2017, 30, 550-557.	2.9	10
76	Microstructural Evolution and Texture Analysis in a Thermomechanically Processed Low SFE Superâ€Austenitic Steel (Alloyâ€28). Advanced Engineering Materials, 2018, 20, 1700928.	3.5	10
77	Microstructural evolution and mechanical properties of accumulative back extruded duplex (Î±â€˜+â€˜Î²) brass. Materials Characterization, 2019, 152, 101-114.	4.4	10
78	The strain accommodation in Tiâ€“28Nbâ€“12Taâ€“5Zr alloy during warm deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 592, 57-63.	5.6	9
79	Optimum Deformation Criteria and Flow Behavior Description of Boron-Alloyed Steel through Numerical Approach. Steel Research International, 2016, 87, 1657-1669.	1.8	9
80	Effect of Severe Plastic Deformation and Subsequent Silicon Spheroidizing Treatment on the Microstructure and Mechanical Properties of an Alâ€“Siâ€“Mg Alloy. Advanced Engineering Materials, 2017, 19, 1700064.	3.5	9
81	Ductility improvement in AZ31 magnesium alloy using constrained compression testing technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 576, 74-81.	5.6	8
82	High-Temperature Deformation Characteristics of a Î²-Type Ti-29Nb-13Ta-4.6Zr Alloy. Journal of Materials Engineering and Performance, 2016, 25, 1554-1561.	2.5	8
83	Correlation between warm deformation characteristics and mechanical properties of a new TRIP-assisted Feâ€“MNâ€“Ni steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 27-34.	5.6	8
84	Toward Unraveling the High Temperature Microstructure Processing Properties Relationship in a Niâ€Free High Nitrogen Bearing Duplex Stainless Steel. Steel Research International, 2018, 89, 1700532.	1.8	8
85	Dynamic strain aging and twin formation during warm deformation of a novel medium-entropy lightweight steel. Journal of Materials Research and Technology, 2022, 17, 1628-1641.	5.8	8
86	Microstructural evolution and room temperature mechanical properties of AZ31 alloy processed through hot constrained compression. International Journal of Advanced Manufacturing Technology, 2019, 102, 2307-2317.	3.0	7
87	Asymmetrical superelastic behavior of thermomechanically processed semi-equiatomic NiTi alloy in tensile and compressive modes of deformation. Journal of Alloys and Compounds, 2021, 878, 160443.	5.5	7
88	The Microstructure Evolution of a High Zrâ€Containing WE Magnesium Alloy Through Isothermal Semiâ€Solid Treatment. Advanced Engineering Materials, 2015, 17, 1623-1630.	3.5	6
89	High-Temperature Deformation Behavior of a Ti-6Al-7Nb Alloy in Dual-Phase (Î±+Â+ÂÎ²) and Single-Phase (Î²) Regions. Journal of Materials Engineering and Performance, 2016, 25, 46-58.	2.5	6
90	Hybrid metallic composite materials fabricated by sheathed powder compaction. Journal of Materials Science, 2016, 51, 3118-3124.	3.7	6

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91	The Local Characterization of Individual Phase Mechanical Properties Using Nano-Indentation and In Situ Scanning Probe Microscopy in an Advanced High Strength Steel. Steel Research International, 2017, 88, 1600274.	1.8	6
92	Novel analytical approach for evaluating the mechanical properties of friction stir spot joints through constitutive modeling. Engineering Fracture Mechanics, 2019, 216, 106522.	4.3	6
93	The Effect of Martensiteâ€Austenite Constituent Characteristics on the Mechanical Behavior of Quenchedâ€Partitioned Steel at Room Temperature. Steel Research International, 2019, 90, 1800399.	1.8	6
94	Bi-directional ferrite to austenite transformation through warm temperature deformation of a ferrite-based low density steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 821, 141596.	5.6	6
95	Toward superior fatigue and corrosion fatigue crack initiation resistance of Sanicro 28 pipe super austenitic stainless steel. Journal of Materials Research and Technology, 2022, 17, 1672-1685.	5.8	6
96	D03 Ordered Phase Strengthening in Dual Phase Twinning-Induced Plasticity Steel. Journal of Materials Engineering and Performance, 2015, 24, 2085-2090.	2.5	5
97	Characterization of semisolid deformation behavior of a high Zr-containing WE magnesium alloy. Rare Metals, 2022, 41, 4201-4208.	7.1	5
98	EBSD Study of Deformation Microstructure of an Asâ€Homogenized Austenitic Mn Steel after Hot Compression. Advanced Engineering Materials, 2018, 20, 1800327.	3.5	5
99	The Effect of Aging Temperature on Microstructure and Tensile Properties of a Novel Designed Feâ€“12Mnâ€“3Ni Maragingâ€TRIP Steel. Steel Research International, 2019, 90, 1800282.	1.8	5
100	Tribological Performance and Electrochemical Behavior of Tiâ€29Nbâ€14Taâ€4.5Zr Alloy in Simulated Physiological Solution. Advanced Engineering Materials, 2020, 22, 1900758.	3.5	5
101	Inner Architecture of Bonded Splats under Combined High Pressure and Shear. Advanced Engineering Materials, 2016, 18, 501-505.	3.5	4
102	Qualitative and Quantitative Analysis of Thermomechanical Behavior of an Al4SrÂDispersed In Situ Composite. Journal of Materials Engineering and Performance, 2017, 26, 1236-1244.	2.5	4
103	Duality in dislocation density-superelasticity correlation in a TNTZ bio alloy processed by cold rolling and subsequent annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 782, 139181.	5.6	4
104	The correlation of austenite stability and sequence of strain accommodation during room temperature deformation of a duplex lightweight steel. Journal of Materials Research and Technology, 2021, 13, 1923-1932.	5.8	4
105	Microstructural evolution and corrosion behavior of Sanicro 28 during thermomechanical processing. Materials Today Communications, 2020, 24, 101228.	1.9	4
106	Nanoscale partitioning of Mn between austenite and martensite revealed by Curie temperature variations. Philosophical Magazine Letters, 2018, 98, 55-63.	1.2	3
107	The Shear Punch Jump Testâ€”a Novel Application of a Small Specimen Testing Technique for Rapid Evaluation of Deformation Mechanisms. Experimental Mechanics, 2015, 55, 1569-1573.	2.0	2
108	Effect of Post-deformation Annealing Treatment on the Microstructural Evolution of a Cold-Worked Corrosion-Resistant Superalloy (CRSA) Steel. Journal of Materials Engineering and Performance, 2018, 27, 1168-1176.	2.5	2

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109	Throughput study of diffusion along the twin boundaries in Mg-5Sn-0.3Li as-cast alloy and its effect on the homogenization during hot deformation. Materials Letters, 2020, 281, 128446.	2.6	2
110	The valuation of microstructural evolution in a thermo-mechanically processed transformation-twinning induced plasticity steel during strain hardening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 799-810.	5.6	1
111	Comparing the mechanical properties, microstructure, texture and in-vitro degradation behavior of TNTZ/nano-fluorapatite composite and TNTZ bioalloy. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 117, 104402.	3.1	1
112	Microstructural-constraint induced ferrite refinement during compressive deformation of a triplex ferrite-based low density steel. Vacuum, 2021, 193, 110534.	3.5	1