Niloofar Eftekhari

List of Publications by Citations

112 papers	1,583 citations	21 h-index	34 g-index
113 ext. papers	1,877 ext. citations	4 avg, IF	5.27 L-index

#	Paper	IF	Citations
112	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	4.4	91
111	A comparative study on the capability of Johnson□Cook and Arrhenius-type constitutive equations to describe the flow behavior of Mg□Al□Zn alloy. *Mechanics of Materials*, **2014**, 71, 52-61	3.3	72
110	Hot deformation characterization of duplex low-density steel through 3D processing map development. *Materials Characterization*, **2015**, 107, 293-301	3.9	57
109	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	5.7	57
108	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	5.3	54
107	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	5.3	51
106	Effect of the Zener□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	5.3	48
105	Microstructure and superior mechanical properties of a multi-axially forged WE magnesium alloy. *Journal of Alloys and Compounds*, **2017**, 693, 406-413	5.7	47
104	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	3.5	46
103	Hot ductility behavior of an extruded 7075 aluminum alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 637, 107-122	5.3	44
102	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	3.3	44
101	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	5.3	34
100	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	5.3	33
99	Reversible dislocation movement, martensitic transformation and nano-twinning during elastic cyclic loading of a metastable high entropy alloy. *Acta Materialia*, **2020**, 185, 474-492	8.4	30
98	The Grain Structure and Phase Transformations of TWIP Steel During Friction Stir Processing. *Journal of Materials Engineering and Performance*, **2015**, 24, 2826-2835	1.6	29
97	An investigation into the mechanical behavior of a new transformation-twinning induced plasticity steel. *Materials & Design*, **2012**, 39, 279-284		28
96	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	5.3	27

95	The Correlation of Macrostructure, Microstructure, and Texture with Room Temperature Mechanical Properties of a Twinning-Induced Plasticity Automotive Steel after Friction Stir Spot Welding/Processing. *Steel Research International*, **2018**, 89, 1800245	1.6	27
94	In situ identification of elastic□plastic strain distribution in a microalloyed transformation induced plasticity steel using digital image correlation. *Optics and Lasers in Engineering*, **2014**, 54, 79-87	4.6	27
93	Latest Developments in Modeling and Characterization of Joining Metal Based Hybrid Materials. *Advanced Engineering Materials*, **2018**, 20, 1800048	3.5	26
92	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	4.4	24
91	High Temperature Formability Prediction of Dual Phase Brass Using Phenomenological and Physical Constitutive Models. *Journal of Materials Engineering and Performance*, **2015**, 24, 209-220	1.6	21
90	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	5.3	21
89	Dynamic recrystallization behavior of new transformation□winning induced plasticity steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2014**, 607, 397-408	5.3	20
88	Flow Characterization of a Duplex near □Ti6242 Alloy through Interrelation of Microstructural Evolution, 3D Activation Energy Map, and Processing Map. *Advanced Engineering Materials*, **2016**, 18, 1075-1085	3.5	19
87	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	5.3	18
86	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	1.6	18
85	Approving Restoration Mechanism in 7075 Aluminum Alloy through Constitutive Flow Behavior Modeling. *Advanced Engineering Materials*, **2016**, 18, 989-1000	3.5	18
84	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	5.7	16
83	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	5.3	16
82	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	5.3	15
81	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	1.6	15
80	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	5.3	15
79	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	5.3	14
78	Hot Deformation and Dynamic Recrystallization of Ti-6Al-7Nb Biomedical Alloy in Single-Phase □ Region. *Journal of Materials Engineering and Performance*, **2015**, 24, 1799-1808	1.6	14

77	Thermal stability of an ultrafine-grained dual phase TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 638, 5-14	5.3	14
76	Characterization of twin-like structure in a ferrite-based lightweight steel. *Metals and Materials International*, **2016**, 22, 810-816	2.4	14
75	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	5.3	14
74	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	5.3	14
73	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	2.3	13
72	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	5.3	12
71	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	5.7	12
70	Grain Refinement through Shear Banding in Severely Plastic Deformed A206 Aluminum Alloy. *Advanced Engineering Materials*, **2018**, 20, 1700502	3.5	11
69	Processing Map Development through Elaborating Phenomenological and Physical Constitutive Based Models. *Advanced Engineering Materials*, **2016**, 18, 572-581	3.5	11
68	An investigation into the warm deformation behavior of Ti□Al□1.5Cr□2.5Mo□0.5Fe□0.3Si alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2016**, 654, 264-270	5.3	11
67	Room-temperature micro and macro mechanical properties of the metastable Ti□29Nb□14Ta□4.5Zr alloy holding nano-sized precipitates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 771, 138583	5.3	11
66	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	2.3	10
65	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	5.3	10
64	Correlation of Strain Accommodation Factor with the State of Microstructural Components in a Multiphase Steel. *ISIJ International*, **2015**, 55, 2406-2415	1.7	10
63	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	5.3	10
62	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	5.3	10
61	Surface Modification of Titanium by Producing Ti/TiN Surface Composite Layers via FSP. *Acta Metallurgica Sinica (English Letters)*, **2017**, 30, 550-557	2.5	9
60	The wear induced crystallographic texture transition in Ti-29Nb-14Ta-4.5Zr alloy. *Applied Surface Science*, **2019**, 491, 360-373	6.7	9

59	The grain boundary character distribution in thermomechanically processed rare earth bearing magnesium alloy. *Journal of Alloys and Compounds*, **2019**, 798, 158-166	5.7	9
58	The enhancement of transformation induced plasticity effect through preferentially oriented substructure development in a high entropy alloy. *Intermetallics*, **2019**, 109, 145-156	3.5	9
57	Microstructural Evolution and Texture Analysis in a Thermomechanically Processed Low SFE Super-Austenitic Steel (Alloy-28). *Advanced Engineering Materials*, **2018**, 20, 1700928	3.5	9
56	The Enhanced Shape Memory Effect and Mechanical Properties in Thermomechanically Processed Semi-Equiatomic NiTi Shape Memory Alloy. *Advanced Engineering Materials*, **2016**, 18, 251-258	3.5	8
55	Substructure Development and Deformation Twinning Stimulation through Regulating the Processing Path during Multi-Axial Forging of Twinning Induced Plasticity Steel. *Advanced Engineering Materials*, **2018**, 20, 1800453	3.5	8
54	High-Temperature Wear Mechanisms of a Severely Plastic Deformed Al/Mg2Si Composite. *Journal of Tribology*, **2019**, 141,	1.8	8
53	Correlation between warm deformation characteristics and mechanical properties of a new TRIP-assisted Fe□MN□i steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 649, 27-34	5.3	7
52	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	5.3	7
51	Toward Unraveling the High Temperature Microstructure Processing Properties Relationship in a Ni-Free High Nitrogen Bearing Duplex Stainless Steel. *Steel Research International*, **2018**, 89, 1700532	1.6	7
50	High-Temperature Deformation Characteristics of a □Type Ti-29Nb-13Ta-4.6Zr Alloy. *Journal of Materials Engineering and Performance*, **2016**, 25, 1554-1561	1.6	7
49	The strain accommodation in Ti□8Nb□2Ta□Zr alloy during warm deformation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 592, 57-63	5.3	7
48	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	5.3	7
47	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
46	Optimum Deformation Criteria and Flow Behavior Description of Boron-Alloyed Steel through Numerical Approach. *Steel Research International*, **2016**, 87, 1657-1669	1.6	7
45	Effect of Severe Plastic Deformation and Subsequent Silicon Spheroidizing Treatment on the Microstructure and Mechanical Properties of an Al□i□Mg Alloy . *Advanced Engineering Materials*, **2017**, 19, 1700064	3.5	6
44	Novel analytical approach for evaluating the mechanical properties of friction stir spot joints through constitutive modeling. *Engineering Fracture Mechanics*, **2019**, 216, 106522	4.2	6
43	The Microstructure Evolution of a High Zr-Containing WE Magnesium Alloy Through Isothermal Semi-Solid Treatment. *Advanced Engineering Materials*, **2015**, 17, 1623-1630	3.5	6
42	A new insight into LPSO transformation during multi-axial forging in Mg-Gd-Y-Zn-Zr alloy. *Materials Letters*, **2020**, 269, 127625	3.3	6

41	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	1.6	6
40	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	3.2	6
39	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	3.9	5
38	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	3.2	5
37	D03 Ordered Phase Strengthening in Dual Phase Twinning-Induced Plasticity Steel. *Journal of Materials Engineering and Performance*, **2015**, 24, 2085-2090	1.6	5
36	High-Temperature Deformation Behavior of a Ti-6Al-7Nb Alloy in Dual-Phase (+) and Single-Phase ( ) Regions. *Journal of Materials Engineering and Performance*, **2016**, 25, 46-58	1.6	5
35	Hybrid metallic composite materials fabricated by sheathed powder compaction. *Journal of Materials Science*, **2016**, 51, 3118-3124	4.3	5
34	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	8.3	5
33	In-situ frictional grain refinement of Ti29Nb14Ta4.5Zr bio-alloy during high-speed sliding wear. *Materials Letters*, **2020**, 261, 127083	3.3	5
32	The high temperature deformation behavior of a triplex (ferrite+ austenite+ martensite) low density steel. *Journal of Materials Research and Technology*, **2021**, 13, 1388-1401	5.5	5
31	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	5.3	5
30	Qualitative and Quantitative Analysis of Thermomechanical Behavior of an Al4Sr Dispersed In Situ Composite. *Journal of Materials Engineering and Performance*, **2017**, 26, 1236-1244	1.6	4
29	Inner Architecture of Bonded Splats under Combined High Pressure and Shear. *Advanced Engineering Materials*, **2016**, 18, 501-505	3.5	4
28	Outstanding Mild Wear Performance of Ti29Nb14Ta4.5Zr Alloy Through Subsurface Grain Refinement and Supporting Effect of Transformation Induced Plasticity. *Metals and Materials International*, **2020**, 26, 467-476	2.4	4
27	Microstructural evolution and mechanical properties of accumulative back extruded duplex (+) brass. *Materials Characterization*, **2019**, 152, 101-114	3.9	3
26	Nanoscale partitioning of Mn between austenite and martensite revealed by Curie temperature variations. *Philosophical Magazine Letters*, **2018**, 98, 55-63	1	3
25	Tribological Performance and Electrochemical Behavior of Ti-29Nb-14Ta-4.5Zr Alloy in Simulated Physiological Solution. *Advanced Engineering Materials*, **2020**, 22, 1900758	3.5	3
24	EBSD Study of Deformation Microstructure of an As-Homogenized Austenitic Mn Steel after Hot Compression. *Advanced Engineering Materials*, **2018**, 20, 1800327	3.5	3

23	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	5.7	3
22	Polylactic Acid Piezo-Biopolymers: Chemistry, Structural Evolution, Fabrication Methods, and Tissue Engineering Applications.. *Journal of Functional Biomaterials*, **2021**, 12,	4.8	3
21	The Shear Punch Jump Test□ Novel Application of a Small Specimen Testing Technique for Rapid Evaluation of Deformation Mechanisms. *Experimental Mechanics*, **2015**, 55, 1569-1573	2.6	2
20	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	5.3	2
19	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	1.6	2
18	The Effect of Aging Temperature on Microstructure and Tensile Properties of a Novel Designed Fe□12Mn□Ni Maraging-TRIP Steel. *Steel Research International*, **2019**, 90, 1800282	1.6	2
17	The Effect of Martensite-Austenite Constituent Characteristics on the Mechanical Behavior of Quenched-Partitioned Steel at Room Temperature. *Steel Research International*, **2019**, 90, 1800399	1.6	2
16	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	5.3	2
15	On the warm temperature strain accommodation mechanisms of Ti□Al□V alloy holding different starting microstructures. *Journal of Materials Research and Technology*, **2021**, 14, 496-506	5.5	2
14	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	5.5	1
13	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, 6974-6974	5.5	1
12	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	5.5	1
11	Microstructural evolution and corrosion behavior of Sanicro 28 during thermomechanical processing. *Materials Today Communications*, **2020**, 24, 101228	2.5	1
10	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	3.3	1
9	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	5.5	1
8	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	5.7	1
7	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	5.5	1
6	The enhanced warm temperature ductility of Ti-6Al-4V alloy through strain induced martensite reversion and recrystallization. *Materials Letters*, **2021**, 302, 130405	3.3	1

5	Microstructural-constraint induced ferrite refinement during compressive deformation of a triplex ferrite-based low density steel. *Vacuum*, **2021**, 193, 110534	3.7	1
4	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	5.5	0
3	Characterization of semisolid deformation behavior of a high Zr-containing WE magnesium alloy. *Rare Metals*, **2018**, 1	5.5	
2	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	4.1	
1	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	5.3	