

Demircan Canadinc

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

2,065
citations

27
h-index

40
g-index

93
ext. papers

2,417
ext. citations

4.3
avg, IF

5.13
L-index

#	Paper	IF	Citations
92	Strain hardening behavior of aluminum alloyed Hadfield steel single crystals. <i>Acta Materialia</i> , 2005 , 53, 1831-1842	8.4	106
91	On the negative strain rate sensitivity of Hadfield steel. <i>Scripta Materialia</i> , 2008 , 59, 1103-1106	5.6	102
90	The role of monotonic pre-deformation on the fatigue performance of a high-manganese austenitic TWIP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 499, 518-524	5.3	101
89	Detwinning in NiTi alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003 , 34, 5-13	2.3	73
88	On deformation behavior of Fe-Mn based structural alloys. <i>Materials Science and Engineering Reports</i> , 2017 , 122, 1-28	30.9	70
87	Shape memory behavior of FeNiCoTi single and polycrystals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002 , 33, 3661-3672	2.3	66
86	Microstructural, mechanical and electrochemical characterization of TiZrTaHfNb and Ti1.5ZrTa0.5Hf0.5Nb0.5 refractory high-entropy alloys for biomedical applications. <i>Intermetallics</i> , 2019 , 113, 106572	3.5	54
85	On the fatigue crack growth-microstructure relationship in ultrafine-grained interstitial-free steel. <i>Journal of Materials Science</i> , 2010 , 45, 4813-4821	4.3	50
84	On the fatigue behavior of ultrafine-grained interstitial-free steel. <i>International Journal of Materials Research</i> , 2006 , 97, 1328-1336	0.5	49
83	On the mechanical response and microstructure evolution of NiCoCr single crystalline medium entropy alloys. <i>Materials Research Letters</i> , 2018 , 6, 442-449	7.4	48
82	Ultra-high temperature multi-component shape memory alloys. <i>Scripta Materialia</i> , 2019 , 158, 83-87	5.6	48
81	Microstructure-mechanical property relationships in ultrafine-grained NbZr. <i>Acta Materialia</i> , 2007 , 55, 6596-6605	8.4	47
80	Estimation of fracture toughness of liver tissue: experiments and validation. <i>Medical Engineering and Physics</i> , 2012 , 34, 882-91	2.4	46
79	On the Microstructural Stability of Ultrafine-Grained Interstitial-Free Steel under Cyclic Loading. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 1946-1955	2.3	45
78	Microstructure and tribological properties of TiTaHfNbZr high entropy alloy coatings deposited on Ti 6Al 4V substrates. <i>Intermetallics</i> , 2019 , 105, 99-106	3.5	44
77	The role of heat treatment on the cyclic stress-strain response of ultrafine-grained interstitial-free steel. <i>International Journal of Fatigue</i> , 2008 , 30, 426-436	5	42
76	Accelerated oxidation in ductile refractory high-entropy alloys. <i>Intermetallics</i> , 2018 , 97, 58-66	3.5	40

75	Monitoring the fatigue-induced damage evolution in ultrafine-grained interstitial-free steel utilizing digital image correlation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 517, 225-234	5.3	38
74	The role of dense dislocation walls on the deformation response of aluminum alloyed hadfield steel polycrystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 454-455, 662-666	5.3	37
73	Effects of upper cycle temperature on the actuation fatigue response of NiTiHf high temperature shape memory alloys. <i>Acta Materialia</i> , 2017 , 138, 185-197	8.4	35
72	Orientation evolution in Hadfield steel single crystals under combined slip and twinning. <i>International Journal of Solids and Structures</i> , 2007 , 44, 34-50	3.1	32
71	Role of applied stress level on the actuation fatigue behavior of NiTiHf high temperature shape memory alloys. <i>Acta Materialia</i> , 2018 , 153, 156-168	8.4	31
70	The role of nitrogen on the deformation response of hadfield steel single crystals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003 , 34, 1821-1831	2.3	31
69	On the deformation response and cyclic stability of Ni50Ti35Hf15 high temperature shape memory alloy wires. <i>Scripta Materialia</i> , 2017 , 135, 92-96	5.6	29
68	Anomalous work hardening behavior of Fe40Mn40Cr10Co10 high entropy alloy single crystals deformed by twinning and slip. <i>Acta Materialia</i> , 2019 , 181, 555-569	8.4	29
67	Role of Austenitization and Pre-Deformation on the Kinetics of the Isothermal Bainitic Transformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 1355-1366	2.3	28
66	Evaluation of passive oxide layer formation-biocompatibility relationship in NiTi shape memory alloys: geometry and body location dependency. <i>Materials Science and Engineering C</i> , 2014 , 36, 118-29	8.3	27
65	The role of grain size and distribution on the cyclic stability of titanium. <i>Scripta Materialia</i> , 2009 , 60, 344-347	3.67	27
64	On the micro-deformation mechanisms active in high-manganese austenitic steels under impact loading. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 632, 29-34	5.3	26
63	Twinning activities in high-Mn austenitic steels under high-velocity compressive loading. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 648, 104-112	5.3	26
62	Analysis of surface crack growth under rolling contact fatigue. <i>International Journal of Fatigue</i> , 2008 , 30, 1678-1689	5	26
61	Experimental and Numerical Investigation of the Role of Grain Boundary Misorientation Angle on the Dislocation-Grain Boundary Interactions. <i>Advanced Engineering Materials</i> , 2011 , 13, 281-287	3.5	24
60	Stress-strain-temperature behaviour of [001] single crystals of Co49Ni21Ga30 ferromagnetic shape memory alloy under compression. <i>Philosophical Magazine</i> , 2007 , 87, 2313-2322	1.6	24
59	Role of microstructure on the actuation fatigue performance of Ni-Rich NiTiHf high temperature shape memory alloys. <i>Acta Materialia</i> , 2019 , 175, 107-120	8.4	23
58	Improvement of the fatigue performance of an ultrafine-grained NbZr alloy by nano-sized precipitates formed by internal oxidation. <i>Scripta Materialia</i> , 2008 , 58, 571-574	5.6	22

57	Evaluation of the biocompatibility of NiTi dental wires: a comparison of laboratory experiments and clinical conditions. <i>Materials Science and Engineering C</i> , 2014 , 40, 142-7	8.3	19
56	In-situ characterization of transformation plasticity during an isothermal austenite-to-bainite phase transformation. <i>Materials Characterization</i> , 2012 , 65, 100-108	3.9	19
55	Mechanical Properties of TiTaHfNbZr High-Entropy Alloy Coatings Deposited on NiTi Shape Memory Alloy Substrates. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 1992-1997	2.3	18
54	An exploration of plastic deformation dependence of cell viability and adhesion in metallic implant materials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 60, 177-186	4.1	18
53	On the role of slip-twin interactions on the impact behavior of high-manganese austenitic steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 593, 120-126	5.3	18
52	Three-dimensional modeling of the grain boundary misorientation angle distribution based on two-dimensional experimental texture measurements. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 5604-5612	5.3	18
51	On the cyclic deformation response of ultrafine-grained AlMg alloys at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 496, 114-120	5.3	18
50	The Influence of Zirconium on the Low-Cycle Fatigue Response of Ultrafine-Grained Copper. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 1916-1925	2.3	17
49	On the incorporation of length scales associated with pearlitic and bainitic microstructures into a visco-plastic self-consistent model. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 485, 258-271	5.3	17
48	Incorporation of Dynamic Strain Aging Into a Viscoplastic Self-Consistent Model for Predicting the Negative Strain Rate Sensitivity of Hadfield Steel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2016 , 138,	1.8	16
47	Modeling the role of external stresses on the austenite-to-bainite phase transformation in 51CrV4 steel. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011 , 19, 045007	2	15
46	Pre-deformation-transformation plasticity relationship during martensitic transformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 625-633	5.3	15
45	Anisotropy of ultrafine-grained alloys under impact loading: The case of biomedical niobium-zirconium. <i>Scripta Materialia</i> , 2012 , 66, 435-438	5.6	14
44	Early detection of crack initiation sites in TiAl alloys during low-cycle fatigue at high temperatures utilizing digital image correlation. <i>International Journal of Materials Research</i> , 2009 , 100, 603-608	0.5	14
43	A comprehensive evaluation of parameters governing the cyclic stability of ultrafine-grained FCC alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 6345-6355	5.3	14
42	High-concentration carbon assists plasticity-driven hydrogen embrittlement in a Fe-high Mn steel with a relatively high stacking fault energy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 717, 78-84	5.3	13
41	Assessment of Ni ion release from TiTaHfNbZr high entropy alloy coated NiTi shape memory substrates in artificial saliva and gastric fluid. <i>Materials Chemistry and Physics</i> , 2019 , 236, 121802	4.4	13
40	Cyclic stability of ultrafine-grained interstitial-free steel at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 503, 160-162	5.3	13

39	Fracture behavior of novel biomedical Ti-based high entropy alloys under impact loading. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 803, 140456	5.3	13
38	Corrosion behavior of novel Titanium-based high entropy alloys designed for medical implants. <i>Materials Chemistry and Physics</i> , 2020 , 254, 123377	4.4	11
37	In situ characterization of backstress effects on the austenite-to-bainite phase transformation. <i>Scripta Materialia</i> , 2012 , 67, 368-371	5.6	11
36	On the cyclic stability of nanocrystalline copper obtained by powder consolidation at room temperature. <i>Scripta Materialia</i> , 2008 , 58, 307-310	5.6	11
35	Lowering Strain Rate Simultaneously Enhances Carbon- and Hydrogen-Induced Mechanical Degradation in an Fe-33Mn-1.1C Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 1137-1141	2.3	11
34	Investigation of rolling contact crack initiation in bainitic and pearlitic rail steels. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2012 , 35, 985-997	3	10
33	Deshielding effects on fatigue crack growth in shape memory alloys- A study on CuZnAl single-crystalline materials. <i>Acta Materialia</i> , 2019 , 176, 155-166	8.4	9
32	Evolution of transformation plasticity in austenite-to-bainite phase transformation: A multi parameter problem. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 541, 73-80	5.3	9
31	Multi-Scale Modeling of the Impact Response of a Strain-Rate Sensitive High-Manganese Austenitic Steel. <i>Frontiers in Materials</i> , 2014 , 1,	4	9
30	A Comparative Analysis of Austenite-to-Martensite and Austenite-to-Bainite Phase Transformation Kinetics in Steels. <i>Materials Research Letters</i> , 2013 , 1, 141-147	7.4	9
29	On the Cyclic Stability and Fatigue Performance of Ultrafine-Grained Interstitial-Free Steel under Mean Stress. <i>Key Engineering Materials</i> , 2008 , 378-379, 39-52	0.4	9
28	Microstructure-based modeling of the impact response of a biomedical niobium-zirconium alloy. <i>Journal of Materials Research</i> , 2014 , 29, 1123-1134	2.5	8
27	Fatigue Damage Evolution in Ultrafine-Grained Interstitial-Free Steel. <i>Advanced Engineering Materials</i> , 2011 , 13, 275-280	3.5	8
26	On the role of the cooling rate and crystallographic orientation on the shape memory properties of CoNiAl single crystals under compression. <i>Smart Materials and Structures</i> , 2007 , 16, 1006-1015	3.4	8
25	Effects of microstructural mechanisms on the localized oxidation behavior of NiTi shape memory alloys in simulated body fluid. <i>Journal of Materials Science</i> , 2018 , 53, 948-958	4.3	7
24	A New Venue Toward Predicting the Role of Hydrogen Embrittlement on Metallic Materials. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 5409-5422 ²⁻³	2.3	7
23	Martensite variant localization effects on fatigue crack growth - The CuZnAl example. <i>Scripta Materialia</i> , 2019 , 171, 112-117	5.6	7
22	A Microstructure-Sensitive Model for Simulating the Impact Response of a High-Manganese Austenitic Steel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2016 , 138,	1.8	7

21	Modeling the role of hydrogen interstitial concentration on internal stress fields in iron matrix. <i>Journal of Materials Science</i> , 2010 , 45, 1683-1687	4.3	6
20	Nanotwin Formation in High-Manganese Austenitic Steels Under Explosive Shock Loading. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 1026-1030 ²⁻³		5
19	Incorporating the grain boundary misorientation effects on slip activity into crystal plasticity. <i>Mechanics of Advanced Materials and Structures</i> , 2016 , 23, 865-872	1.8	5
18	Evolution of transformation plasticity during bainitic transformation. <i>International Journal of Materials Research</i> , 2011 , 102, 1152-1163	0.5	5
17	On the coupled temperature-strain rate sensitivity of ultrafine-grained interstitial-free steel. <i>Scripta Materialia</i> , 2010 , 63, 544-547	5.6	5
16	A Critical Approach to the Biocompatibility Testing of NiTi Orthodontic Archwires. <i>International Journal of Metallurgy and Metal Physics</i> , 2016 , 1, 1-7	1	5
15	Prediction of the NiTi shape memory alloy composition with the best corrosion resistance for dental applications utilizing artificial intelligence. <i>Materials Chemistry and Physics</i> , 2021 , 258, 123974	4.4	5
14	Crack growth behavior of low-alloy bainitic 51CrV4 steel. <i>Procedia Engineering</i> , 2010 , 2, 1373-1382		4
13	Enhancing biocompatibility of NiTi shape memory alloys by simple NH ₃ treatments. <i>Applied Surface Science</i> , 2020 , 525, 146547	6.7	4
12	On the Utility of Crystal Plasticity Modeling to Uncover the Individual Roles of Microdeformation Mechanisms on the Work Hardening Response of Fe-23Mn-0.5C TWIP Steel in the Presence of Hydrogen. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2018 , 140,	1.8	3
11	Investigation of the Dissolution-Reformation Cycle of the Passive Oxide Layer on NiTi Orthodontic Archwires. <i>Shape Memory and Superelasticity</i> , 2017 , 3, 264-273	2.8	3
10	Experimental and Numerical Evaluation of Thickness Reduction in Steel Plate Heat Exchangers. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2015 , 137,	1.8	3
9	Computation of parent austenite grain orientation from product grain orientations upon displacive phase transformations. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013 , 21, 085009	2	3
8	The Effect of Plastic Deformation on the Cell Viability and Adhesion Behavior in Metallic Implant Materials. <i>Ceramic Transactions</i> , 2018 , 187-196	0.1	2
7	A Novel Approach for Monitoring Plastic Flow Localization during In-Situ Sem Testing of Small-Scale Samples. <i>Experimental Techniques</i> , 2018 , 42, 177-189	1.4	2
6	Assessment of biocompatibility of novel TiTaHf-based high entropy alloys for utility in orthopedic implants. <i>Materials Chemistry and Physics</i> , 2021 , 266, 124573	4.4	2
5	Design of a NiTiHf shape memory alloy with an austenite finish temperature beyond 400 °C utilizing artificial intelligence. <i>Journal of Alloys and Compounds</i> , 2022 , 904, 164135	5.7	1
4	The Influence of Plastic Deformation Mechanisms on the Adhesion Behavior and Collagen Formation in Osteoblast Cells. <i>Minerals, Metals and Materials Series</i> , 2018 , 295-301	0.3	1

- 3 Micro-Scale Cyclic Bending Response of NiTi Shape Memory Alloy. *Materials Transactions*, **2016**, 57, 472-475 1
- 2 Twinning activity in high-manganese austenitic steels under high velocity loading. *Materials Science and Technology*, **2016**, 1-3 1,5 1
- 1 Termination of negative strain-rate sensitivity by nanotwin formation in TWIP steel micropillars. *Philosophical Magazine Letters*, **2020**, 100, 507-512 1