Marcus L Young

List of Publications by Year
in descending order

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72	1,836	394286 19	276775 41
papers	citations	h-index	g-index

73	73	73	2161
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identification of Quaternary Shape Memory Alloys with Nearâ€Zero Thermal Hysteresis and Unprecedented Functional Stability. Advanced Functional Materials, 2010, 20, 1917-1923.	7.8	304
2	Giant magnetostriction in annealed Co1â^'xFex thin-films. Nature Communications, 2011, 2, 518.	5.8	188
3	Biological Responses and Mechanisms of Human Bone Marrow Mesenchymal Stem Cells to Zn and Mg Biomaterials. ACS Applied Materials & Interfaces, 2017, 9, 27453-27461.	4.0	162
4	Fracture mechanics and microstructure in NiTi shape memory alloys. Acta Materialia, 2009, 57, 1015-1025.	3.8	145
5	Load partitioning between ferrite and cementite during elasto-plastic deformation of an ultrahigh-carbon steel. Acta Materialia, 2007, 55, 1999-2011.	3.8	123
6	Shape memory alloy actuator design: CASMART collaborative best practices and case studies. International Journal of Mechanics and Materials in Design, 2014, 10, 1-42.	1.7	77
7	Porous zinc scaffolds for bone tissue engineering applications: A novel additive manufacturing and casting approach. Materials Science and Engineering C, 2020, 110, 110738.	3.8	75
8	Micro-/Nanotopography on Bioresorbable Zinc Dictates Cytocompatibility, Bone Cell Differentiation, and Macrophage Polarization. Nano Letters, 2020, 20, 4594-4602.	4.5	55
9	Designing Better Cardiovascular Stent Materials: A Learning Curve. Advanced Functional Materials, 2021, 31, .	7.8	50
10	Laser coating of a CrMoTaWZr complex concentrated alloy onto a H13 tool steel die head. Surface and Coatings Technology, 2018, 348, 150-158.	2.2	35
11	A novel method to enhance CSL fraction, tensile properties and work hardening in complex concentrated alloys â€• Lattice distortion effect. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 736, 383-391.	2.6	32
12	Strain mapping of crack extension in pseudoelastic NiTi shape memory alloys during static loading. Acta Materialia, 2013, 61, 5800-5806.	3.8	31
13	Role of copper on L12 precipitation strengthened fcc based high entropy alloy. Materialia, 2019, 6, 100282.	1.3	31
14	Influence of Ni4Ti3 precipitate on pseudoelasticity of austenitic NiTi shape memory alloys deformed at high strain rate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 804, 140753.	2.6	26
15	Laser-coated CoFeNiCrAlTi high entropy alloy onto a H13 steel die head. Surface and Coatings Technology, 2020, 387, 125473.	2.2	25
16	Effect of Ni-Content on the Transformation Temperatures in NiTi-20 at. % Zr High Temperature Shape Memory Alloys. Metals, 2017, 7, 511.	1.0	24
17	AN ANCIENT CHINESE BRONZE FRAGMENT REâ€EXAMINED AFTER 50 YEARS: CONTRIBUTIONS FROM MODERN AND TRADITIONAL TECHNIQUES. Archaeometry, 2010, 52, 1015-1043.	0.6	21
18	Archaeometallurgy using synchrotron radiation: a review. Reports on Progress in Physics, 2012, 75, 036504.	8.1	21

#	Article	IF	Citations
19	High Strain Rate Compression of Martensitic NiTi Shape Memory Alloy at Different Temperatures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 601-608.	1.1	21
20	High Strain Rate Compression of Martensitic NiTi Shape Memory Alloys. Shape Memory and Superelasticity, 2015, 1, 310-318.	1.1	18
21	Influence of Dynamic Compression on Phase Transformation of Martensitic NiTi Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4661-4668.	1.1	16
22	Friction Stir-Processed Thermally Stable Immiscible Nanostructured Alloys. Jom, 2015, 67, 2820-2827.	0.9	16
23	Laser surface modification of porous yttria stabilized zirconia against CMAS degradation. Ceramics International, 2020, 46, 6038-6045.	2.3	16
24	Synchrotron X-ray diffraction and imaging of ancient Chinese bronzes. Applied Physics A: Materials Science and Processing, 2006, 83, 163-168.	1.1	15
25	Cast-Replicated NiTiCu Foams with Superelastic Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2939-2944.	1.1	15
26	In Situ Synchrotron Radiation X-ray Diffraction Study on Phase and Oxide Growth during a High Temperature Cycle of a NiTi-20 at.% Zr High Temperature Shape Memory Alloy. Shape Memory and Superelasticity, 2018, 4, 174-185.	1.1	15
27	Matisse to Picasso: a compositional study of modern bronze sculptures. Analytical and Bioanalytical Chemistry, 2009, 395, 171-184.	1.9	14
28	Complementary analytical methods for analysis of Ag-plated cultural heritage objects. Microchemical Journal, 2016, 126, 307-315.	2.3	14
29	Effect of temperature on high strain rate deformation of austenitic shape memory alloys by phenomenological modeling. Journal of Alloys and Compounds, 2019, 797, 194-204.	2.8	14
30	Synchrotron radiation-based x-ray analysis of bronze artifacts from an Iron Age site in the Judean Hills. Journal of Archaeological Science, 2008, 35, 1951-1960.	1.2	13
31	Toughness enhancing mechanisms in age hardened Feâ€“Mnâ€“Alâ€“C steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141518.	2.6	13
32	Synthesis of Al0.5CoCrCuFeNi and Al0.5CoCrFeMnNi High-Entropy Alloys by Laser Melting. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 1603-1607.	1.0	12
33	Microstructural and Thermomechanical Comparison of Ni-Rich and Ni-Lean NiTi-20 at.% Hf High Temperature Shape Memory Alloy Wires. Shape Memory and Superelasticity, 2019, 5, 397-406.	1.1	12
34	Texture and Strain Measurements from Bending of NiTi Shape Memory Alloy Wires. Shape Memory and Superelasticity, 2016, 2, 254-263.	1.1	11
35	Effects of Hydrogen Charging on the Phase Transformation of Martensitic NiTi Shape Memory Alloy Wires. Shape Memory and Superelasticity, 2017, 3, 443-456.	1.1	11
36	A novel nano-particle strengthened titanium alloy with exceptional specific strength. Scientific Reports, 2019, 9, 11726.	1.6	11

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37	One-dimensional thermomechanical model for high strain rate deformation of austenitic shape memory alloys. Journal of Alloys and Compounds, 2017, 710, 858-868.	2.8	10
38	Non-invasive characterization of manufacturing techniques andÂcorrosion of ancient Chinese bronzes and a later replica using synchrotron X-ray diffraction. Applied Physics A: Materials Science and Processing, 2010, 100, 635-646.	1.1	9
39	Comparing Compositions of Modern Cast Bronze Sculptures: Optical Emission Spectroscopy Versus x-Ray Fluorescence Spectroscopy. Jom, 2015, 67, 1646-1658.	0.9	9
40	Effects of thermo-mechanical processing on precipitate evolution in Ni-rich high temperature shape memory alloys. Materialia, 2019, 8, 100496.	1.3	9
41	Characterization of Thermomechanically Processed High-Temperature Ni-Lean NiTiâ€“20Âat.% Hf Shape Memory Wires. Shape Memory and Superelasticity, 2019, 5, 476-485.	1.1	9
42	Salt Preform Texturing of Absorbable Zn Substrates for Bone-Implant Applications. Jom, 2020, 72, 1902-1909.	0.9	9
43	Characterization and Modeling of NbNiTaTiW and NbNiTaTiW-Al Refractory High-Entropy Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4867-4876.	1.1	8
44	Nanoindentation of pseudoelastic NiTi containing Ni₄Ti₃ precipitates. International Journal of Materials Research, 2012, 103, 1434-1439.	0.1	7
45	Mechanical Properties of NiTi-Based Foam with High Porosity for Implant Applications. Shape Memory and Superelasticity, 2015, 1, 479-485.	1.1	7
46	Three-dimensional modeling for deformation of austenitic NiTi shape memory alloys under high strain rate. Smart Materials and Structures, 2018, 27, 015031.	1.8	7
47	Al/Al2O3 metal matrix composites produced using magnetic field-assisted freeze-casting of porous ceramic structures. Journal of Materials Research, 2021, 36, 2094-2106.	1.2	7
48	Controlling anisotropy of porous B4C structures through magnetic field-assisted freeze-casting. Ceramics International, 2022, 48, 6750-6757.	2.3	7
49	Textured TNZT surfaces via hydrothermal treatments for bone implant applications. Thin Solid Films, 2018, 667, 64-68.	0.8	6
50	High-energy synchrotron radiation X-ray diffraction measurements during in situ aging of a NiTi-15 at. % Hf high temperature shape memory alloy. Materialia, 2019, 5, 100220.	1.3	6
51	Processing-induced strain glass states in a Ni49.5Ti50.5 shape memory alloy. Applied Physics Letters, 2018, 113, .	1.5	5
52	Effects of Sn Addition on NiTi Shape Memory Alloys. Shape Memory and Superelasticity, 2019, 5, 125-135.	1.1	5
53	Characterization and Processing of High Temperature Shape Memory Alloys for Aerospace Applications. , 2019, , .		5
54	Shape Memory Alloy-Enabled Expandable Space Habitatâ€"Case Studies for Second CASMART Student Design Challenge. Shape Memory and Superelasticity, 2021, 7, 280-303.	1.1	5

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55	Design of porous aluminum oxide ceramics using magnetic field-assisted freeze-casting. Journal of Materials Research, 2020, 35, 2859-2869.	1.2	4
56	Effect of Heat Treating on Precipitate Phases in NiTiHf. , 2015, , .		2
57	Shape Memory Behavior of Ni49.5Ti50.5 Processing-Induced Strain Glass Alloys. Minerals, Metals and Materials Series, 2019, , 1411-1420.	0.3	2
58	NiTi shape memory alloy helixes through the hydridingâ€“dehydring method. Materialia, 2019, 5, 100210.	1.3	2
59	Tensile deformation behaviour of a dissimilar metal weldment of P91 and 347H steels. Strain, 2020, 56, e12366.	1.4	2
60	Growth Mechanisms of Nano-to Micro-Sized Lead Sulfate Particles. ACS Omega, 2021, 6, 10557-10567.	1.6	2
61	Effect of Nickel Content on Processing of Ni-Rich NiTiHf High-Temperature Shape Memory Alloys. Shape Memory and Superelasticity, 2021, 7, 262-269.	1.1	2
62	Laser-Assisted Field Evaporation of (R = Gd, Sm) High-Temperature Superconducting Coated Conductors. Microscopy and Microanalysis, 0, , 1-18.	0.2	2
63	Aerospace, Energy Recovery, and Medical Applications: Shape Memory Alloy Case Studies for CASMART 3rd Student Design Challenge. Shape Memory and Superelasticity, 2022, 8, 150-167.	1.1	2
64	High-energy synchrotron X-ray diffraction measurements of simple bending of pseudoelastic NiTi shape memory alloy wires. Powder Diffraction, 2016, 31, 104-109.	0.4	1
65	Low-Pressure and Low-Temperature Hydridingâ€“Pulverizationâ€“Dehydriding Method for Producing Shape Memory Alloy Powders. Shape Memory and Superelasticity, 2018, 4, 313-326.	1.1	1
66	Processing, Preaging, and Aging of NiTi-20 at.% Hf High-Temperature Shape Memory Alloy from Laboratory to Industrial Scale. Shape Memory and Superelasticity, 2021, 7, 447-457.	1.1	1
67	Novel characterization of lead-based micro-alloys for battery applications. Journal of Energy Storage, 2021, 44, 103373.	3.9	1
68	Internal Strain Measurements and X-ray Imaging in Interpenetrating-Phase Al2O3/Al Composites. Materials Research Society Symposia Proceedings, 2004, 840, Q7.10.1.	0.1	0
69	Dual-Beam Scanning Electron Microscope (SEM) and Focused Ion Beam (FIB): A Practical Method for Characterization of Small Cultural Heritage Objects. Materials Research Society Symposia Proceedings, 2017, 1656, 355-369.	0.1	0
70	Anisotropic Nature of Raw, Radially Strained, and Radially Strained and Aged Steel Tubes. Materials Performance and Characterization, 2017, 6, 346-361.	0.2	0
71	Controlling Microstructure and Extending Fatigue Life by Flash Annealing Ni-lean NiTi-10 at.% Hf High Temperature Shape Memory Alloy. , 2022, , .		0
72	Comparative Analysis of Process-Induced Strain Glass States in Austenitic and Martensitic NiTi Shape Memory Alloy Plates. , 2022, , .		0