

# Maurizio Vedani

## List of Publications by Year in descending order

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78  
papers

3,847  
citations

218677

26  
h-index

128289

60  
g-index

79  
all docs

79  
docs citations

79  
times ranked

3639  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal Matrix Composites Reinforced by Nano-Particles”A Review. <i>Metals</i> , 2014, 4, 65-83.	2.3	772
2	Microstructure and Fracture Behavior of 316L Austenitic Stainless Steel Produced by Selective Laser Melting. <i>Journal of Materials Science and Technology</i> , 2016, 32, 738-744.	10.7	390
3	Zinc-based alloys for degradable vascular stent applications. <i>Acta Biomaterialia</i> , 2018, 71, 1-23.	8.3	324
4	Novel Zn-based alloys for biodegradable stent applications: Design, development and in vitro degradation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 60, 581-602.	3.1	316
5	Fabrication, mechanical properties and in vitro degradation behavior of newly developed Zn Ag alloys for degradable implant applications. <i>Materials Science and Engineering C</i> , 2017, 77, 1170-1181.	7.3	197
6	Aging Behaviour and Mechanical Performance of 18-Ni 300 Steel Processed by Selective Laser Melting. <i>Metals</i> , 2016, 6, 218.	2.3	178
7	Microstructure, texture evolution, mechanical properties and corrosion behavior of ECAP processed ZK60 magnesium alloy for biodegradable applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 37, 307-322.	3.1	127
8	Effects of Platform Pre-Heating and Thermal-Treatment Strategies on Properties of AlSi10Mg Alloy Processed by Selective Laser Melting. <i>Metals</i> , 2018, 8, 954.	2.3	119
9	Effects of texture and grain size on mechanical properties of AZ80 magnesium alloys at lower temperatures. <i>Materials and Design</i> , 2016, 89, 1-8.	7.0	108
10	The processing of ultrafine-grained Mg tubes for biodegradable stents. <i>Acta Biomaterialia</i> , 2013, 9, 8604-8610.	8.3	86
11	Influence of ECAP process on mechanical and corrosion properties of pure Mg and ZK60 magnesium alloy for biodegradable stent applications. <i>Biomatter</i> , 2014, 4, e28283.	2.6	78
12	Microstructure and mechanical behavior of hot-work tool steels processed by Selective Laser Melting. <i>Materials Characterization</i> , 2018, 137, 50-57.	4.4	73
13	Laser welding and surface treatment of a 22Cr”5Ni”3Mo duplex stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 351, 334-343.	5.6	66
14	Development of a high strength Al”Zn”Si”Mg”Cu alloy for selective laser melting. <i>Journal of Alloys and Compounds</i> , 2019, 801, 243-253.	5.5	66
15	Properties of nitrated layers formed during plasma nitriding of commercially pure Ti and Ti”6Al”4V alloy. <i>Surface and Coatings Technology</i> , 2012, 206, 2287-2292.	4.8	62
16	On morphological surface features of the parts printed by selective laser melting (SLM). <i>Additive Manufacturing</i> , 2018, 24, 373-377.	3.0	45
17	Grain size and texture dependence on mechanical properties, asymmetric behavior and low temperature superplasticity of ZK60 Mg alloy. <i>Materials Characterization</i> , 2015, 107, 70-78.	4.4	41
18	Aging Response of an A357 Al Alloy Processed by Selective Laser Melting. <i>Advanced Engineering Materials</i> , 2019, 21, 1800406.	3.5	41

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19	Microstructural evolution of tool steels after Nd-YAG laser repair welding. <i>Journal of Materials Science</i> , 2004, 39, 241-249.	3.7	39
20	Problems in laser repair-welding a surface-treated tool steel. <i>Surface and Coatings Technology</i> , 2007, 201, 4518-4525.	4.8	39
21	Aging Behavior of High-Strength Al Alloy 2618 Produced by Selective Laser Melting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 575-579.	2.2	35
22	In Vitro Degradation of Absorbable Zinc Alloys in Artificial Urine. <i>Materials</i> , 2019, 12, 295.	2.9	32
23	Effect of Surface and Subsurface Defects on Fatigue Behavior of AlSi10Mg Alloy Processed by Laser Powder Bed Fusion (L-PBF). <i>Metals</i> , 2019, 9, 1063.	2.3	30
24	ECAP consolidation of Al matrix composites reinforced with in-situ $\text{Al}_2\text{O}_3$ nanoparticles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 648, 113-122.	5.6	27
25	Effect of ball milling on the ageing response of Al2618 composites reinforced with SiC and oxide nanoparticles. <i>Journal of Alloys and Compounds</i> , 2017, 693, 909-920.	5.5	27
26	Investigation on two Ti-B-reinforced Al alloys for Laser Powder Bed Fusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 808, 140944.	5.6	27
27	Ultra-Fine Grained Degradable Magnesium for Biomedical Applications. <i>Rare Metal Materials and Engineering</i> , 2014, 43, 2561-2566.	0.8	26
28	A comparison between equal channel angular pressing and asymmetric rolling of silver in the severe plastic deformation regime. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 742-750.	5.6	25
29	Beta Titanium Alloys Processed By Laser Powder Bed Fusion: A Review. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 6365-6388.	2.5	25
30	Consolidated $\text{Al}/\text{Al}_2\text{O}_3$ Nanocomposites by Equal Channel Angular Pressing and Hot Extrusion. <i>Materials and Manufacturing Processes</i> , 2015, 30, 1218-1222.	4.7	24
31	Synthesis, mechanical properties and corrosion behavior of powder metallurgy processed Fe/Mg2Si composites for biodegradable implant applications. <i>Materials Science and Engineering C</i> , 2017, 81, 511-521.	7.3	24
32	Understanding the effect of the reinforcement addition on corrosion behavior of Fe/Mg2Si composites for biodegradable implant applications. <i>Materials Chemistry and Physics</i> , 2019, 223, 771-778.	4.0	20
33	Effects of skin pass rolling parameters on mechanical properties of steels. <i>International Journal of Precision Engineering and Manufacturing</i> , 2012, 13, 2017-2026.	2.2	19
34	Microstructural and Mechanical Properties of $\text{Al}_2\text{O}_3$ -Based Composites Reinforced with In-situ and Ex-situ $\text{Al}_2\text{O}_3$ Nanoparticles. <i>Advanced Engineering Materials</i> , 2016, 18, 550-558.	3.5	19
35	Long-term <i>in vitro</i> degradation behaviour of Fe and Fe/Mg <sub>2</sub> Si composites for biodegradable implant applications. <i>RSC Advances</i> , 2018, 8, 9627-9639.	3.6	17
36	Effect of Graphene Nanoplatelets on Microstructure and Mechanical Properties of AlSi10Mg Nanocomposites Produced by Hot Extrusion. <i>Powder Metallurgy and Metal Ceramics</i> , 2018, 56, 647-655.	0.8	16

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37	Insight into the effect of different thermal treatment routes on the microstructure of AlSi7Mg produced by laser powder bed fusion. <i>Materials Characterization</i> , 2021, 172, 110881.	4.4	16
38	Texture effects on design of Mg biodegradable stents. <i>International Journal of Material Forming</i> , 2014, 7, 31-38.	2.0	15
39	Development of a Novel High-Temperature Al Alloy for Laser Powder Bed Fusion. <i>Metals</i> , 2021, 11, 35.	2.3	15
40	Dimensional and geometrical precision of parts produced by binder jetting process as affected by the anisotropic shrinkage on sintering. <i>Additive Manufacturing</i> , 2021, 43, 102007.	3.0	14
41	The addition of silver affects the deformation mechanism of a twinning-induced plasticity steel: Potential for thinner degradable stents. <i>Acta Biomaterialia</i> , 2019, 98, 103-113.	8.3	13
42	Fatigue Performance of an Additively Manufactured Zr-Based Bulk Metallic Glass and the Effect of Post-Processing. <i>Metals</i> , 2021, 11, 1064.	2.3	13
43	Effect of water atomization on properties of type 4130 steel processed by L-PBF. <i>Materials and Design</i> , 2021, 210, 110085.	7.0	13
44	High performance shape memory effect in nitinol wire for actuators with increased operating temperature range. <i>Functional Materials Letters</i> , 2014, 07, 1450063.	1.2	11
45	Formability and anisotropy of the mechanical properties in commercially pure titanium after various routes normal and different speed rolling. <i>Journal of Materials Research</i> , 2016, 31, 3372-3380.	2.6	11
46	Hydrogen Embrittlement Behavior of 18Ni 300 Maraging Steel Produced by Selective Laser Melting. <i>Materials</i> , 2019, 12, 2360.	2.9	11
47	Effects of Powder Atomisation on Microstructural and Mechanical Behaviour of L-PBF Processed Steels. <i>Metals</i> , 2020, 10, 1474.	2.3	11
48	First Proof-of-Concept Prototype of an Additive Manufactured Radio Frequency Quadrupole. <i>Instruments</i> , 2021, 5, 35.	1.8	10
49	Improved Functional Properties and Efficiencies of Nitinol Wires Under High-Performance Shape Memory Effect (HP-SME). <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 4964-4969.	2.5	9
50	Tungsten Fabricated by Laser Powder Bed Fusion. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2021, 166, 263-269.	1.0	9
51	Effect of thermal treatments on microstructure and impact toughness of die cast Mg-Al-Mn alloys. <i>Materials Science and Technology</i> , 2001, 17, 938-944.	1.6	8
52	Microstructural evolution and thermal fatigue resistance of grey cast iron. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 99-110.	3.4	8
53	Effect of Silver on Corrosion Behavior of Plastically Deformed Twinning-Induced Plasticity Steel for Biodegradable Stents. <i>Jom</i> , 2020, 72, 1892-1901.	1.9	8
54	Six-Month Long <i>In Vitro</i> Degradation Tests of Biodegradable Twinning-Induced Plasticity Steels Alloyed with Ag for Stent Applications. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 3669-3682.	5.2	7

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55	Formability enhancement of Al 6060 sheets through fiber laser heat treatment. International Journal of Material Forming, 2017, 10, 741-751.	2.0	6
56	Effect of Heat Treatment on Microstructure Evolution of X38CrMoV5-1 Hot-Work Tool Steel Produced by L-PBF. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2564-2575.	2.2	6
57	On the Recycling of Water Atomized Powder and the Effects on Properties of L-PBF Processed 4130 Low-Alloy Steel. Materials, 2022, 15, 336.	2.9	6
58	Microstructural and Mechanical Properties of UFG Silver Subjected to Severe Plastic Deformation by ECAP. Materials Science Forum, 0, 706-709, 1847-1852.	0.3	5
59	Design of Wear-Resistant Austenitic Steels for Selective Laser Melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 962-971.	2.2	5
60	Pure molybdenum manufactured by Laser Powder Bed Fusion: Thermal and mechanical characterization at room and high temperature. Additive Manufacturing, 2021, 47, 102277.	3.0	5
61	Laser Surface Treatment of Laser Welded Duplex Stainless Steel. , 2004, , 259-264.		5
62	Design and Characterization of Al-Mg-Si-Zr Alloys with Improved Laser Powder Bed Fusion Processability. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 331-343.	2.2	5
63	Effect of Cu content on hot-crack resistance of Al-Cu-Mg alloys produced by laser powder bed fusion. Philosophical Magazine Letters, 2022, 102, 111-119.	1.2	5
64	Microstructural Precipitation Evolution and In Vitro Degradation Behavior of a Novel Chill-Cast Zn-Based Absorbable Alloy for Medical Applications. Metals, 2020, 10, 586.	2.3	4
65	L-PBF Processing of Steel Powders Produced by Gas and Water Atomization. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2021, 166, 40-45.	1.0	4
66	Geometrical Issues in Design for Binder Jetting – The Effect of Anisotropic Dimensional Change on Sintering. Lecture Notes in Mechanical Engineering, 2022, , 410-421.	0.4	4
67	Surface treatment of welded duplex stainless steels by diode laser. , 2005, , .		3
68	Features on Grain-Structure Evolution during Asymmetric Rolling of Aluminium Alloys. Materials Science Forum, 2008, 604-605, 77-85.	0.3	3
69	On the preparation and characterization of thin NiTi shape memory alloy wires for MEMS. Frattura Ed Integrita Strutturale, 2013, 7, 7-12.	0.9	3
70	Effects of Superplastic Forming on Modification of Surface Properties of Ti Alloys for Biomedical Applications. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	3
71	Effect of silver in thermal treatments of Fe-Mn-C degradable metals: Implications for stent processing. Bioactive Materials, 2022, 12, 30-41.	15.6	3
72	Corrosion behavior of as-cast magnesium-zinc alloys in simulated body fluid solution: the influence of minor calcium and manganese addition. Materialwissenschaft Und Werkstofftechnik, 2022, 53, 819-834.	0.9	3

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73	Effect of Nb+V addition on the mechanical behaviour and structural stability of ultrafine grained steels. International Journal of Materials Research, 2007, 98, 307-313.	0.3	2
74	Extrusion behaviour of AZ91 Mg alloy produced by spark plasma sintering. Materials Science and Technology, 2014, 30, 1959-1965.	1.6	2
75	Novel concepts for the design of moulds and equipment for expanded polymer bead foams. Progress in Additive Manufacturing, 2021, 6, 339-346.	4.8	2
76	Development of Al-Cu-Mg and Al-Mg-Si-Zr Alloys with Improved L-PBF Processability. Minerals, Metals and Materials Series, 2022, , 289-297.	0.4	1
77	Microstructural and mechanical properties of stainless steel electrical resistance projection welds. Welding International, 2002, 16, 696-703.	0.7	0
78	Effect of annealing temperature on microstructure and high-temperature tensile behaviour of Ti-6242S alloy produced by Laser Powder Bed Fusion. European Journal of Materials, 2021, 1, 72-83.	2.6	0