

Lai Chang Zhang

List of Publications by Citations

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320
papers

13,677
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327
ext. papers

16,891
ext. citations

6.2
avg, IF

7.35
L-index

#	Paper	IF	Citations
320	Manufacture by selective laser melting and mechanical behavior of commercially pure titanium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 593, 170-177	5.3	448
319	Selective Laser Melting of Titanium Alloys and Titanium Matrix Composites for Biomedical Applications: A Review. <i>Advanced Engineering Materials</i> , 2016 , 18, 463-475	3.5	415
318	Manufacture by selective laser melting and mechanical behavior of a biomedical Ti ₂ 4Nb ₄ Zr ₃ Sn alloy. <i>Scripta Materialia</i> , 2011 , 65, 21-24	5.6	385
317	Selective laser melting of in situ titanium-titanium boride composites: Processing, microstructure and mechanical properties. <i>Acta Materialia</i> , 2014 , 76, 13-22	8.4	375
316	A Review on Biomedical Titanium Alloys: Recent Progress and Prospect. <i>Advanced Engineering Materials</i> , 2019 , 21, 1801215	3.5	371
315	A selective laser melting and solution heat treatment refined Al ₁₂ Si alloy with a controllable ultrafine eutectic microstructure and 25% tensile ductility. <i>Acta Materialia</i> , 2015 , 95, 74-82	8.4	352
314	Microstructure, defects and mechanical behavior of beta-type titanium porous structures manufactured by electron beam melting and selective laser melting. <i>Acta Materialia</i> , 2016 , 113, 56-67	8.4	336
313	Corrosion behavior of selective laser melted Ti-6Al-4 V alloy in NaCl solution. <i>Corrosion Science</i> , 2016 , 102, 484-489	6.8	284
312	Distinction in corrosion resistance of selective laser melted Ti-6Al-4V alloy on different planes. <i>Corrosion Science</i> , 2016 , 111, 703-710	6.8	223
311	Additive Manufacturing of Titanium Alloys by Electron Beam Melting: A Review. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700842	3.5	200
310	Compressive and fatigue behavior of beta-type titanium porous structures fabricated by electron beam melting. <i>Acta Materialia</i> , 2017 , 126, 58-66	8.4	199
309	Gradient in microstructure and mechanical property of selective laser melted AlSi10Mg. <i>Journal of Alloys and Compounds</i> , 2018 , 735, 1414-1421	5.7	187
308	Mechanical behavior of porous commercially pure Ti and Ti ₃ TiB composite materials manufactured by selective laser melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 625, 350-356	5.3	185
307	Comparison of wear properties of commercially pure titanium prepared by selective laser melting and casting processes. <i>Materials Letters</i> , 2015 , 142, 38-41	3.3	177
306	Effect of Powder Particle Shape on the Properties of In Situ Ti ₃ TiB Composite Materials Produced by Selective Laser Melting. <i>Journal of Materials Science and Technology</i> , 2015 , 31, 1001-1005	9.1	156
305	The effect of atmosphere on the structure and properties of a selective laser melted Al ₁₂ Si alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 597, 370-375	5.3	153
304	Surface Modification of Titanium and Titanium Alloys: Technologies, Developments, and Future Interests. <i>Advanced Engineering Materials</i> , 2020 , 22, 1901258	3.5	148

303	Processing and properties of topologically optimised biomedical Ti ₂ 4Nb ₂ Zr ₈ Sn scaffolds manufactured by selective laser melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 642, 268-278	5.3	136
302	Amorphous Fe ₇₈ Si ₉ B ₁₃ alloy: An efficient and reusable photo-enhanced Fenton-like catalyst in degradation of cibacron brilliant red 3B-A dye under UV _A is light. <i>Applied Catalysis B: Environmental</i> , 2016 , 192, 46-56	21.8	133
301	Surface aging behaviour of Fe-based amorphous alloys as catalysts during heterogeneous photo Fenton-like process for water treatment. <i>Applied Catalysis B: Environmental</i> , 2017 , 204, 537-547	21.8	130
300	A review of catalytic performance of metallic glasses in wastewater treatment: Recent progress and prospects. <i>Progress in Materials Science</i> , 2019 , 105, 100576	42.2	130
299	Corrosion Behaviour of Selective Laser Melted Ti-TiB Biocomposite in Simulated Body Fluid. <i>Electrochimica Acta</i> , 2017 , 232, 89-97	6.7	129
298	Microstructure evolution and superelastic behavior in Ti-35Nb-2Ta-3Zr alloy processed by friction stir processing. <i>Acta Materialia</i> , 2017 , 131, 499-510	8.4	129
297	Evaluation of mechanical and wear properties of Ti _x Nb ₇ Fe alloys designed for biomedical applications. <i>Materials and Design</i> , 2016 , 111, 592-599	8.1	129
296	Effect of β martensite on the microstructure and mechanical properties of beta-type Ti ₈₀ Fe ₂₀ a alloys. <i>Materials & Design</i> , 2015 , 76, 47-54		123
295	High strength Ti ₈₀ Fe ₂₀ Sn ultrafine composites with large plasticity. <i>Scripta Materialia</i> , 2007 , 57, 101-104	5.6	123
294	Enhanced corrosion and wear resistance properties of carbon fiber reinforced Ni-based composite coating by laser cladding. <i>Surface and Coatings Technology</i> , 2018 , 334, 274-285	4.4	123
293	Disordered Atomic Packing Structure of Metallic Glass: Toward Ultrafast Hydroxyl Radicals Production Rate and Strong Electron Transfer Ability in Catalytic Performance. <i>Advanced Functional Materials</i> , 2017 , 27, 1702258	15.6	118
292	Influence of Nb on the β - β' martensitic phase transformation and properties of the newly designed Ti-Fe-Nb alloys. <i>Materials Science and Engineering C</i> , 2016 , 60, 503-510	8.3	117
291	Compressive and fatigue behavior of functionally graded Ti-6Al-4V meshes fabricated by electron beam melting. <i>Acta Materialia</i> , 2018 , 150, 1-15	8.4	116
290	Nanoindentation study of mechanical properties of Ti based alloys with Fe and Ta additions. <i>Journal of Alloys and Compounds</i> , 2017 , 692, 892-897	5.7	115
289	Selective laser melting of an Al ₈₆ Ni ₆ Y _{4.5} Co ₂ La _{1.5} metallic glass: Processing, microstructure evolution and mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 606, 370-379	5.3	114
288	Improved corrosion behaviour of electron beam melted Ti-6Al ₄ V alloy in phosphate buffered saline. <i>Corrosion Science</i> , 2017 , 123, 289-296	6.8	109
287	Phase transition, microstructural evolution and mechanical properties of Ti-Nb-Fe alloys induced by Fe addition. <i>Materials and Design</i> , 2016 , 97, 279-286	8.1	104
286	High specific strength and stiffness structures produced using selective laser melting. <i>Materials & Design</i> , 2014 , 63, 783-788		104

285	Electron Beam Melted Beta-type Ti ₄ Nb ₄ Zr ₈ Sn Porous Structures With High Strength-to-Modulus Ratio. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 505-508	9.1	100
284	Nanocrystalline CoSe Anchored on Graphene Nanosheets as a Highly Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 30703-30710	9.5	98
283	Comparative study of microstructures and mechanical properties of in situ Ti ₄ W ₄ B ₄ composites produced by selective laser melting, powder metallurgy, and casting technologies. <i>Journal of Materials Research</i> , 2014 , 29, 1941-1950	2.5	96
282	Early plastic deformation behaviour and energy absorption in porous β -type biomedical titanium produced by selective laser melting. <i>Scripta Materialia</i> , 2018 , 153, 99-103	5.6	93
281	Compelling Rejuvenated Catalytic Performance in Metallic Glasses. <i>Advanced Materials</i> , 2018 , 30, e1802764	7.4	92
280	Laves phase precipitation in Ti-Zr-Fe-Cr alloys with high strength and large plasticity. <i>Materials and Design</i> , 2018 , 154, 228-238	8.1	89
279	Manganese oxide integrated catalytic ceramic membrane for degradation of organic pollutants using sulfate radicals. <i>Water Research</i> , 2019 , 167, 115110	12.5	86
278	Ultrafast activation efficiency of three peroxides by Fe ₇₈ Si ₉ B ₁₃ metallic glass under photo-enhanced catalytic oxidation: A comparative study. <i>Applied Catalysis B: Environmental</i> , 2018 , 221, 108-118	21.8	86
277	Bimodal titanium alloys with ultrafine lamellar eutectic structure fabricated by semi-solid sintering. <i>Acta Materialia</i> , 2017 , 132, 491-502	8.4	85
276	Design and engineering heterojunctions for the photoelectrochemical monitoring of environmental pollutants: A review. <i>Applied Catalysis B: Environmental</i> , 2019 , 248, 405-422	21.8	85
275	Selective laser melting of Ti ₄ W ₄ Nb composite from elemental powder mixture: Microstructure, mechanical behavior and corrosion behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 760, 214-224	5.3	84
274	Prototypes for Bone Implant Scaffolds Designed via Topology Optimization and Manufactured by Solid Freeform Fabrication. <i>Advanced Engineering Materials</i> , 2010 , 12, 1106-1110	3.5	83
273	Ultrafine grained Ti-based composites with ultrahigh strength and ductility achieved by equiaxing microstructure. <i>Materials & Design</i> , 2015 , 79, 1-5		79
272	Role of alloying elements in microstructure evolution and alloying elements behaviour during sintering of a near- β -titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 1686-1693	5.3	78
271	Ultrahigh-performance TiNi shape memory alloy by 4D printing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 763, 138166	5.3	76
270	A high-efficiency solar desalination evaporator composite of corn stalk, Mcnts and TiO ₂ : ultra-fast capillary water moisture transportation and porous bio-tissue multi-layer filtration. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 349-357	13	76
269	Heat Treatment Degrading the Corrosion Resistance of Selective Laser Melted Ti-6Al-4V Alloy. <i>Journal of the Electrochemical Society</i> , 2017 , 164, C428-C434	3.9	74
268	A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution. <i>Advanced Materials</i> , 2020 , 32, e2000385	24	72

267	Glass formation in a (Ti, Zr, Hf)(Cu, Ni, Ag)Al high-order alloy system by mechanical alloying. <i>Journal of Materials Research</i> , 2003 , 18, 2141-2149	2.5	72
266	A novel kind of thin film composite nanofiltration membrane with sulfated chitosan as the active layer material. <i>Chemical Engineering Science</i> , 2013 , 87, 152-159	4.4	71
265	Pitting corrosion of CuZr metallic glasses in hydrochloric acid solutions. <i>Journal of Alloys and Compounds</i> , 2008 , 462, 60-67	5.7	70
264	Rapid malachite green degradation using Fe _{73.5} Si _{13.5} B ₉ Cu ₁ Nb ₃ metallic glass for activation of persulfate under UV-vis light. <i>Materials and Design</i> , 2017 , 119, 244-253	8.1	68
263	Improved corrosion behavior of ultrafine-grained eutectic Al-12Si alloy produced by selective laser melting. <i>Materials and Design</i> , 2018 , 146, 239-248	8.1	66
262	Glass-forming ability of melt-spun multicomponent (Ti, Zr, Hf)(Cu, Ni, Co)Al alloys with equiatomic substitution. <i>Journal of Non-Crystalline Solids</i> , 2004 , 347, 166-172	3.9	65
261	Recent Development in Beta Titanium Alloys for Biomedical Applications. <i>Metals</i> , 2020 , 10, 1139	2.3	65
260	Interfacial reaction during the fabrication of Ni ₆₀ Nb ₄₀ metallic glass particles-reinforced Al based MMCs. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 444, 206-213	5.3	64
259	Review on manufacture by selective laser melting and properties of titanium based materials for biomedical applications. <i>Materials Technology</i> , 2016 , 31, 66-76	2.1	63
258	High-strength β -stabilized Ti-Nb-Fe-Cr alloys with large plasticity. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 732, 368-377	5.3	62
257	Ductile ultrafine-grained Ti-based alloys with high yield strength. <i>Applied Physics Letters</i> , 2007 , 91, 051906	5.4	62
256	Thermal stability and crystallization kinetics of mechanically alloyed TiCuTi-based metallic glass matrix composite. <i>Journal of Applied Physics</i> , 2006 , 100, 033514	2.5	62
255	Tailoring of microstructure and mechanical properties of a Ti-based bulk metallic glass-forming alloy. <i>Scripta Materialia</i> , 2007 , 57, 1101-1104	5.6	61
254	Mechanically milling-induced amorphization in Sn-containing Ti-based multicomponent alloy systems. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 394, 204-209	5.3	61
253	Mechanically Alloyed Amorphous Ti ₅₀ (Cu _{0.45} Ni _{0.55}) ₄₄ Al _x Si ₄ B ₂ Alloys with Supercooled Liquid Region. <i>Journal of Materials Research</i> , 2002 , 17, 1743-1749	2.5	61
252	Transformation-induced plasticity and high strength in beta titanium alloy manufactured by selective laser melting. <i>Materialia</i> , 2019 , 6, 100299	3.2	60
251	Improved Corrosion Resistance on Selective Laser Melting Produced Ti-5Cu Alloy after Heat Treatment. <i>ACS Biomaterials Science and Engineering</i> , 2018 , 4, 2633-2642	5.5	60
250	Amorphization in mechanically alloyed (Ti, Zr, Nb)(Cu, Ni)Al equiatomic alloys. <i>Journal of Alloys and Compounds</i> , 2007 , 428, 157-163	5.7	60

249	Ultra-sustainable FeSiB metallic glass as a catalyst for activation of persulfate on methylene blue degradation under UV-Vis light. <i>Scientific Reports</i> , 2016 , 6, 38520	4.9	60
248	Distinction of corrosion resistance of selective laser melted Al-12Si alloy on different planes. <i>Journal of Alloys and Compounds</i> , 2018 , 747, 648-658	5.7	59
247	Consolidation and properties of ball-milled Ti50Cu18Ni22Al4Sn6 glassy alloy by equal channel angular extrusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 434, 280-288	5.3	59
246	Improved hardness and wear resistance of plasma sprayed nanostructured NiCrBSi coating via short-time heat treatment. <i>Surface and Coatings Technology</i> , 2018 , 350, 436-444	4.4	56
245	Mechanical behavior and phase transformation of β -type Ti-35Nb-2Ta-3Zr alloy fabricated by 3D-Printing. <i>Journal of Alloys and Compounds</i> , 2019 , 790, 117-126	5.7	54
244	Influence of powder properties on densification mechanism during spark plasma sintering. <i>Scripta Materialia</i> , 2017 , 139, 96-99	5.6	54
243	Study of vacancy-type defects by positron annihilation in ultrafine-grained aluminum severely deformed at room and cryogenic temperatures. <i>Acta Materialia</i> , 2012 , 60, 4218-4228	8.4	53
242	Electrochemical and in vitro behavior of the nanosized composites of Ti-6Al-4V and TiO ₂ fabricated by friction stir process. <i>Applied Surface Science</i> , 2017 , 423, 331-339	6.7	50
241	Heterogeneous photocatalytic degradation of mordant black 11 with ZnO nanoparticles under UV-Vis light. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2014 , 45, 1636-1641	5.3	50
240	Interface formation and bonding control in high-volume-fraction (TiC+TiB ₂)/Al composites and their roles in enhancing properties. <i>Composites Part B: Engineering</i> , 2021 , 209, 108605	10	50
239	Resemblance in Corrosion Behavior of Selective Laser Melted and Traditional Monolithic β -Ti-24Nb-4Zr-8Sn Alloy. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 1141-1149	5.5	49
238	Improved deformation behavior in Ti-Zr-Fe-Mn alloys comprising the C14 type Laves and β phases. <i>Materials and Design</i> , 2018 , 160, 1059-1070	8.1	49
237	High-strength silicon brass manufactured by selective laser melting. <i>Materials Letters</i> , 2018 , 210, 169-173	3.3	48
236	Attractive In Situ Self-Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance. <i>Advanced Functional Materials</i> , 2019 , 29, 1807857	15.6	47
235	Microstructure evolution and superelasticity of layer-like NiTiNb porous metal prepared by eutectic reaction. <i>Acta Materialia</i> , 2018 , 143, 214-226	8.4	46
234	Photocatalytic degradation and absorption kinetics of cibacron brilliant yellow 3G-P by nanosized ZnO catalyst under simulated solar light. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016 , 60, 267-274	5.3	46
233	Dehydrogenation characteristics of Ti- and Ni/Ti-catalyzed Mg hydrides. <i>Journal of Alloys and Compounds</i> , 2009 , 481, 152-155	5.7	46
232	Nucleation of stress-induced martensites in a Ti/Mo-based alloy. <i>Journal of Materials Science</i> , 2005 , 40, 2833-2836	4.3	46

231	Deformation and strength characteristics of Laves phases in titanium alloys. <i>Materials and Design</i> , 2019 , 179, 107891	8.1	44
230	Automatic remelting and enhanced mechanical performance of a plasma sprayed NiCrBSi coating. <i>Surface and Coatings Technology</i> , 2019 , 369, 31-43	4.4	43
229	Selective laser melting manufactured porous Fe-based metallic glass matrix composite with remarkable catalytic activity and reusability. <i>Applied Materials Today</i> , 2020 , 19, 100543	6.6	43
228	Pt nanoparticles decorated heterostructured g-CN/BiMoO microplates with highly enhanced photocatalytic activities under visible light. <i>Scientific Reports</i> , 2019 , 9, 7636	4.9	42
227	Investigation of Deformation Mechanisms in β -type Ti-35Nb-2Ta-3Zr Alloy via FSP Leading to Surface Strengthening. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 4813-4818	2.3	42
226	Equiaxed Ti-based composites with high strength and large plasticity prepared by sintering and crystallizing amorphous powder. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 650, 171-182	5.3	41
225	Heterogeneous photo Fenton-like degradation of cibacron brilliant red 3B-A dye using amorphous Fe 78 Si 9 B 13 and Fe 73.5 Si 13.5 B 9 Cu 1 Nb 3 alloys: The influence of adsorption. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017 , 71, 128-136	5.3	40
224	In-situ investigation of oxidation behaviour in high-speed steel roll material under dry and humid atmospheres. <i>Corrosion Science</i> , 2010 , 52, 2707-2715	6.8	40
223	Mechanical characterization and deformation behavior of β -stabilized Ti-Nb-Sn-Cr alloys. <i>Journal of Alloys and Compounds</i> , 2019 , 792, 684-693	5.7	39
222	Microstructure and mechanical properties of carbon fibers strengthened Ni-based coatings by laser cladding: The effect of carbon fiber contents. <i>Journal of Alloys and Compounds</i> , 2018 , 744, 146-155	5.7	39
221	Understanding the friction and wear mechanisms of bulk metallic glass under contact sliding. <i>Wear</i> , 2013 , 304, 43-48	3.5	39
220	Activation of peroxymonosulfate by Fe78Si9B13 metallic glass: The influence of crystallization. <i>Journal of Alloys and Compounds</i> , 2017 , 728, 525-533	5.7	39
219	Strong enhancement on dye photocatalytic degradation by ball-milled TiO ₂ : A study of cationic and anionic dyes. <i>Journal of Materials Science and Technology</i> , 2017 , 33, 856-863	9.1	38
218	Superelastic behavior of in-situ eutectic-reaction manufactured high strength 3D porous NiTi-Nb scaffold. <i>Scripta Materialia</i> , 2020 , 181, 121-126	5.6	38
217	Strengthening mechanism and corrosion resistance of beta-type Ti-Nb-Zr-Mn alloys. <i>Materials Science and Engineering C</i> , 2020 , 110, 110728	8.3	38
216	Effects of Friction Stir Processing on the Phase Transformation and Microstructure of TiO ₂ -Compounded Ti-6Al-4V Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 5675-5679	2.3	38
215	Spontaneous Formation of Noble- and Heavy-Metal-Free Alloyed Semiconductor Quantum Rods for Efficient Photocatalysis. <i>Advanced Materials</i> , 2018 , 30, e1803351	24	38
214	Selective Laser Melting of Low-Modulus Biomedical Ti-24Nb-4Zr-8Sn Alloy: Effect of Laser Point Distance. <i>Key Engineering Materials</i> , 2012 , 520, 226-233	0.4	38

213	Enhancing strength-ductility synergy and mechanisms of Al-based composites by size-tunable in-situ TiB ₂ particles with specific spatial distribution. <i>Composites Part B: Engineering</i> , 2021 , 217, 108912	10	38
212	Strengthening mechanism of friction stir processed and post heat treated NiAl bronze alloy: Effect of rotation rates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 685, 439-446	5.3	37
211	Improved trade-off between strength and plasticity in titanium based metastable beta type Ti-Zr-Fe-Sn alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 766, 138340	5.3	36
210	Flow Consistency Between Non-Darcy Flow in Fracture Network and Nonlinear Diffusion in Matrix to Gas Production Rate in Fractured Shale Gas Reservoirs. <i>Transport in Porous Media</i> , 2016 , 111, 97-121	3.1	36
209	Understanding the Behavior of Advanced High-Strength Steels Using Atom Probe Tomography. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 3958-3971	2.3	36
208	Overcoming the strength-ductility trade-off by tailoring grain-boundary metastable Si-containing phase in β -type titanium alloy. <i>Journal of Materials Science and Technology</i> , 2021 , 68, 112-123	9.1	36
207	Fe-based Metallic Glasses in Functional Catalytic Applications. <i>Chemistry - an Asian Journal</i> , 2018 , 13, 3575-3592	4.5	36
206	Corrosion behavior of non-equilibrium Zr-Sn-Nb-Fe-Cu-O alloys in high-temperature 0.01 M LiOH aqueous solution and degradation of the surface oxide films. <i>Corrosion Science</i> , 2018 , 136, 221-230	6.8	33
205	Formation of zigzag-shaped {112}<111> [mechanical twins in Ti ₄₅ Nb _{0.7} Ta _{0.4} O alloy. <i>Scripta Materialia</i> , 2012 , 66, 211-214	5.6	33
204	Zr ₅₀ Nb ₁₀ Be ₁₀ Si ₁₀ alloy for fuel cladding candidate: Processing, microstructure, corrosion resistance and tensile behavior. <i>Corrosion Science</i> , 2015 , 100, 332-340	6.8	32
203	Effect of microstructure on corrosion behavior of a Zr ₅₀ Nb ₁₀ Be ₁₀ Cu ₁₀ alloy. <i>Materials and Design</i> , 2016 , 92, 888-896	8.1	32
202	Phase transformation and deformation behavior of NiTi-Nb eutectic joined NiTi wires. <i>Scientific Reports</i> , 2016 , 6, 23905	4.9	32
201	Evolution of functional properties realized by increasing laser scanning speed for the selective laser melting fabricated NiTi alloy. <i>Journal of Alloys and Compounds</i> , 2019 , 804, 220-229	5.7	31
200	Surface microstructure and mechanical properties of Ti-6Al-4V/Ag nanocomposite prepared by FSP. <i>Materials Characterization</i> , 2019 , 153, 175-183	3.9	30
199	Effects of alloyed Si on the autoclave corrosion performance and periodic corrosion kinetics in Zr ₅₀ Nb ₁₀ Be ₁₀ alloys. <i>Corrosion Science</i> , 2015 , 100, 651-662	6.8	30
198	Beta-type Ti-Nb-Zr-Cr alloys with large plasticity and significant strain hardening. <i>Materials and Design</i> , 2019 , 181, 108064	8.1	30
197	Reaction diffusion rate coefficient derivation by isothermal heat treatment in spark plasma sintering system. <i>Scripta Materialia</i> , 2017 , 134, 91-94	5.6	29
196	Amphoteric composite membranes for nanofiltration prepared from sulfated chitosan crosslinked with hexamethylene diisocyanate. <i>Chemical Engineering Journal</i> , 2013 , 234, 132-139	14.7	29

195	Fe73.5Si13.5B9Cu1Nb3 metallic glass: Rapid activation of peroxymonosulfate towards ultrafast Eosin Y degradation. <i>Materials and Design</i> , 2018 , 140, 73-84	8.1	29
194	Phase interaction induced texture in a plasma sprayed-remelted NiCrBSi coating during solidification: An electron backscatter diffraction study. <i>Surface and Coatings Technology</i> , 2019 , 358, 467-480	4.4	27
193	Microstructural homogeneity and mechanical behavior of a selective laser melted Ti-35Nb alloy produced from an elemental powder mixture. <i>Journal of Materials Science and Technology</i> , 2021 , 61, 221-233	9.1	27
192	Strengthening mechanism and micropillar analysis of high-strength NiTiNb eutectic-type alloy prepared by laser powder bed fusion. <i>Composites Part B: Engineering</i> , 2020 , 200, 108358	10	26
191	A new insight into high-strength Ti62Nb12.2Fe13.6Co6.4Al5.8 alloys with bimodal microstructure fabricated by semi-solid sintering. <i>Scientific Reports</i> , 2016 , 6, 23467	4.9	26
190	Particle Size-Dependent Microstructure, Hardness and Electrochemical Corrosion Behavior of Atmospheric Plasma Sprayed NiCrBSi Coatings. <i>Metals</i> , 2019 , 9, 1342	2.3	26
189	Chemically dealloyed Fe-based metallic glass with void channels-like architecture for highly enhanced peroxymonosulfate activation in catalysis. <i>Journal of Alloys and Compounds</i> , 2019 , 785, 642-650	5.7	26
188	Effect of low-temperature pre-deformation on precipitation behavior and microstructure of a Zr-Sn-Nb-Fe-Cu-O alloy during fabrication. <i>Journal of Nuclear Science and Technology</i> , 2016 , 53, 496-507	1	25
187	Additive manufacturing of metallic lattice structures: Unconstrained design, accurate fabrication, fascinated performances, and challenges. <i>Materials Science and Engineering Reports</i> , 2021 , 146, 100648	30.9	25
186	A Self-Supported High-Entropy Metallic Glass with a Nanosponge Architecture for Efficient Hydrogen Evolution under Alkaline and Acidic Conditions. <i>Advanced Functional Materials</i> , 2021 , 31, 2101586	15.6	25
185	Effect of structural heterogeneity on serrated flow behavior of Zr-based metallic glass. <i>Journal of Alloys and Compounds</i> , 2018 , 766, 908-917	5.7	24
184	Microstructure evolution and electrochemical properties of TiO ₂ /Ti-35Nb-2Ta-3Zr micro/nano-composites fabricated by friction stir processing. <i>Materials and Design</i> , 2019 , 169, 107680	8.1	23
183	Heat treatment enhancing the compressive fatigue properties of open-cellular Ti-6Al-4V alloy prototypes fabricated by electron beam melting. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1127-1131	9.1	23
182	Deformation mechanisms in surface nano-crystallization of low elastic modulus Ti6Al4V/Zn composite during severe plastic deformation. <i>Scripta Materialia</i> , 2018 , 157, 142-147	5.6	23
181	Excellent Performance of Fe78Si9B13 Metallic Glass for Activating Peroxymonosulfate in Degradation of Naphthol Green B. <i>Metals</i> , 2017 , 7, 273	2.3	23
180	Superelastic response of low-modulus porous beta-type Ti-35Nb-2Ta-3Zr alloy fabricated by laser powder bed fusion. <i>Additive Manufacturing</i> , 2020 , 34, 101264	6.1	22
179	Microstructure, Texture Evolution and Mechanical Properties of VT3-1 Titanium Alloy Processed by Multi-Pass Drawing and Subsequent Isothermal Annealing. <i>Metals</i> , 2017 , 7, 131	2.3	22
178	K-doped Na ₃ Fe ₂ (PO ₄) ₃ cathode materials with high-stable structure for sodium-ion stored energy battery. <i>Journal of Alloys and Compounds</i> , 2019 , 784, 939-946	5.7	22

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176	Formation of thick nanocrystalline surface layer on copper during oscillating sliding. <i>Materials Letters</i> , 2012 , 68, 432-434	3.3	21
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174	pH dependent passivation behavior of niobium in acid fluoride-containing solutions. <i>Electrochimica Acta</i> , 2018 , 285, 172-184	6.7	20
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171	Near-Net Forming Complex Shaped Zr-Based Bulk Metallic Glasses by High Pressure Die Casting. <i>Materials</i> , 2018 , 11,	3.5	20
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162	A Hydrogen-Initiated Chemical Epitaxial Growth Strategy for In-Plane Heterostructured Photocatalyst. <i>ACS Nano</i> , 2020 ,	16.7	18
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160	Magnetically separable Z-scheme FeSiB metallic glass/g-C3N4 heterojunction photocatalyst with high degradation efficiency at universal pH conditions. <i>Applied Surface Science</i> , 2021 , 540, 148401	6.7	18

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34	Facile preparation of rare-earth semiconductor nanocrystals and tuning of their dimensionalities. <i>RSC Advances</i> , 2015 , 5, 86885-86890	3.7	2

33	Significantly Improved Corrosion Properties of Ultrafine-Grained Pure Mg Processed by Sliding Friction Treatment. <i>Jom</i> , 2018 , 70, 2596-2602	2.1	2
32	Studies on pitting corrosion in austenitic stainless steel interfered by square-wave alternating voltage with different parameters using multi-potential steps method. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2018 , 69, 1741-1757	1.6	2
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30	Correlation between microstructure and deformation mechanism in Ti66Nb13Cu8Ni6.8Al6.2 composites at ambient and elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 767, 138448	5.3	2
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28	Water Splitting: A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution (Adv. Mater. 21/2020). <i>Advanced Materials</i> , 2020 , 32, 2070166	24	2
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25	Dealloyed porous gold anchored by generated graphene sheets as high activity catalyst for methanol electro-oxidation reaction.. <i>RSC Advances</i> , 2020 , 10, 1666-1678	3.7	1
24	Induction and pore-formed stages in Al2Auβ dealloying process in HCl solutions. <i>Corrosion Science</i> , 2021 , 181, 109220	6.8	1
23	Differences in electrochemical corrosion behaviours between selective laser melted and wrought Ti6Al4V alloys in acid fluoride-containing artificial saliva. <i>Journal of Applied Electrochemistry</i> , 2021 , 51, 1619	2.6	1
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19	Regulation of energetic hot carriers on Pt/TiO2 with thermal energy for photothermal catalysis. <i>Applied Catalysis B: Environmental</i> , 2022 , 309, 121263	21.8	1
18	Metastable pitting corrosion behavior of laser powder bed fusion produced Ti-6Al-4V in Hank's solution. <i>Corrosion Science</i> , 2022 , 203, 110333	6.8	1
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16	Corrosion Behaviors of Additive Manufactured Titanium Alloys 2019 , 197-226		0

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