

# Matthias BÄjnisch

## List of Publications by Year in descending order

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33  
papers

2,046  
citations

279798

23  
h-index

377865

34  
g-index

35  
all docs

35  
docs citations

35  
times ranked

1990  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural stability and thermal expansion of TiTaNbMoZr refractory high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2022, 892, 162154.	5.5	10
2	Nanostructural Evolution and Deformation Mechanisms of Severely Deformed Pure Fe. <i>Metals and Materials International</i> , 2021, 27, 1798-1807.	3.4	5
3	A general model for the crystal structure of orthorhombic martensite in Ti alloys. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2021, 77, 749-762.	1.1	2
4	Nano-precipitation leading to linear zero thermal expansion over a wide temperature range in Ti <sub>22</sub> Nb. <i>Scripta Materialia</i> , 2021, 205, 114222.	5.2	6
5	Unravelling Anisotropy Evolution during Spiral Pipe Forming: a Multiscale Approach. <i>Procedia Manufacturing</i> , 2020, 47, 1434-1441.	1.9	1
6	Routes to control diffusive pathways and thermal expansion in Ti-alloys. <i>Scientific Reports</i> , 2020, 10, 3045.	3.3	16
7	Experimental determination of latent hardening coefficients in FeMnNiCoCr. <i>International Journal of Plasticity</i> , 2018, 105, 239-260.	8.8	44
8	Hardening by slip-twin and twin-twin interactions in FeMnNiCoCr. <i>Acta Materialia</i> , 2018, 153, 391-403.	7.9	59
9	Phase formation, microstructure and deformation behavior of heavily alloyed TiNb- and TiV-based titanium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 733, 80-86.	5.6	32
10	Twinning-induced strain hardening in dual-phase FeCoCrNiAl <sub>0.5</sub> at room and cryogenic temperature. <i>Scientific Reports</i> , 2018, 8, 10663.	3.3	28
11	Nanoindentation and wear properties of Ti and Ti-TiB composite materials produced by selective laser melting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 688, 20-26.	5.6	225
12	Processing of Ti-5553 with improved mechanical properties via an in-situ heat treatment combining selective laser melting and substrate plate heating. <i>Materials and Design</i> , 2017, 130, 83-89.	7.0	64
13	Î <sup>2</sup> -type Ti-based bulk metallic glass composites with tailored structural metastability. <i>Journal of Alloys and Compounds</i> , 2017, 708, 972-981.	5.5	36
14	Thermal stability and latent heat of Nb-rich martensitic Ti-Nb alloys. <i>Journal of Alloys and Compounds</i> , 2017, 697, 300-309.	5.5	60
15	Giant thermal expansion and Î±-precipitation pathways in Ti-alloys. <i>Nature Communications</i> , 2017, 8, 1429.	12.8	81
16	Composition optimization of low modulus and high-strength TiNb-based alloys for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 65, 866-871.	3.1	100
17	Micro-to-nano-scale deformation mechanism of a Ti-based dendritic-ultrafine eutectic alloy exhibiting large tensile ductility. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 682, 673-678.	5.6	23
18	Ab-initio and experimental study of phase stability of Ti-Nb alloys. <i>Journal of Alloys and Compounds</i> , 2017, 696, 481-489.	5.5	42

#	ARTICLE	IF	CITATIONS
19	The analysis of severely deformed pure Fe structure aided by X-ray diffraction profile. <i>Physics of Metals and Metallography</i> , 2016, 117, 624-633.	1.0	10
20	Thermal oxidation behavior of glass-forming Tiâ€“(Zrâ€“(Nb)â€“(Si alloys. <i>Journal of Materials Research</i> , 2016, 31, 1264-1274.	2.6	5
21	Tailoring the Bain strain of martensitic transformations in Ti Nb alloys by controlling the Nb content. <i>International Journal of Plasticity</i> , 2016, 85, 190-202.	8.8	31
22	Phase transformations and mechanical properties of biocompatible Tiâ€“(16.1Nb processed by severe plastic deformation. <i>Journal of Alloys and Compounds</i> , 2015, 628, 434-441.	5.5	67
23	Factors influencing the elastic moduli, reversible strains and hysteresis loops in martensitic Tiâ€“(Nb alloys. <i>Materials Science and Engineering C</i> , 2015, 48, 511-520.	7.3	63
24	Significant tensile ductility and toughness in an ultrafine-structured Ti 68.8 Nb 13.6 Co 6 Cu 5.1 Al 6.5 bi-modal alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 615, 457-463.	5.6	35
25	Comparative study of microstructures and mechanical properties of in situ Tiâ€“(TiB composites produced by selective laser melting, powder metallurgy, and casting technologies. <i>Journal of Materials Research</i> , 2014, 29, 1941-1950.	2.6	116
26	Phase transformations in ball-milled Tiâ€“(40Nb and Tiâ€“(45Nb powders upon quenching from the ÅŸ-phase region. <i>Powder Technology</i> , 2014, 253, 166-171.	4.2	31
27	Effect of Nb addition on microstructure evolution and nanomechanical properties of a glass-forming Tiâ€“(Zrâ€“(Si alloy. <i>Intermetallics</i> , 2014, 46, 156-163.	3.9	45
28	Composition-dependent magnitude of atomic shuffles in Tiâ€“(Nb martensites. <i>Journal of Applied Crystallography</i> , 2014, 47, 1374-1379.	4.5	65
29	Elastic softening of Î²-type Tiâ€“(Nb alloys by indium (In) additions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 39, 162-174.	3.1	73
30	Selective laser melting of in situ titaniumâ€“(titanium boride composites: Processing, microstructure and mechanical properties. <i>Acta Materialia</i> , 2014, 76, 13-22.	7.9	483
31	Thermal stability and phase transformations of martensitic Tiâ€“(Nb alloys. <i>Science and Technology of Advanced Materials</i> , 2013, 14, 055004.	6.1	107
32	Production of Porous Î²-Type Tiâ€“(40Nb Alloy for Biomedical Applications: Comparison of Selective Laser Melting and Hot Pressing. <i>Materials</i> , 2013, 6, 5700-5712.	2.9	77
33	Stabilization of Lattice Defects in HPT-Deformed Palladium Hydride. <i>Materials Science Forum</i> , 2010, 667-669, 427-432.	0.3	1