

Horst Biermann

List of Publications by Year in descending order

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253
papers

4,300
citations

147726

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262
all docs

262
docs citations

262
times ranked

2460
citing authors

#	ARTICLE	IF	CITATIONS
1	Fatigue life of additively manufactured Ti-6Al-4V in the very high cycle fatigue regime. <i>International Journal of Fatigue</i> , 2017, 94, 236-245.	2.8	321
2	On the effect of internal channels and surface roughness on the high-cycle fatigue performance of Ti-6Al-4V processed by SLM. <i>Materials and Design</i> , 2018, 143, 1-11.	3.3	98
3	On the effect of gamma phase formation on the pseudoelastic performance of polycrystalline Fe-Mn-Al-Ni shape memory alloys. <i>Scripta Materialia</i> , 2015, 108, 23-26.	2.6	92
4	Kinetics of deformation processes in high-alloyed cast transformation-induced plasticity/twinning-induced plasticity steels determined by acoustic emission and scanning electron microscopy: Influence of austenite stability on deformation mechanisms. <i>Acta Materialia</i> , 2013, 61, 2434-2449.	3.8	91
5	Stacking faults in high-alloyed metastable austenitic cast steel observed by electron channelling contrast imaging. <i>Scripta Materialia</i> , 2011, 64, 513-516.	2.6	89
6	Three-dimensional characterization of the microstructure of a metal-matrix composite by holotomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 367, 40-50.	2.6	82
7	Design of novel materials for additive manufacturing - Isotropic microstructure and high defect tolerance. <i>Scientific Reports</i> , 2018, 8, 1298.	1.6	76
8	Influence of non-metallic inclusions on fatigue life in the very high cycle fatigue regime. <i>International Journal of Fatigue</i> , 2016, 84, 40-52.	2.8	75
9	FE investigation of the effect of particle distribution on the uniaxial stress-strain behaviour of particulate reinforced metal-matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 313, 34-45.	2.6	72
10	Characterization of stress-strain behavior of a cast TRIP steel under different biaxial planar load ratios. <i>Engineering Fracture Mechanics</i> , 2011, 78, 1684-1695.	2.0	70
11	Effect of austenite stability on the low cycle fatigue behavior and microstructure of high alloyed metastable austenitic cast TRIP steels. <i>Procedia Engineering</i> , 2010, 2, 2085-2094.	1.2	66
12	Cyclic degradation in bamboo-like Fe-Mn-Al-Ni shape memory alloys - The role of grain orientation. <i>Scripta Materialia</i> , 2016, 114, 156-160.	2.6	61
13	Energy-Absorbing TRIP-Steel/Mg-PSZ Composite Honeycomb Structures Based on Ceramic Extrusion at Room Temperature. <i>International Journal of Applied Ceramic Technology</i> , 2009, 6, 727-735.	1.1	57
14	Deformation mechanisms in austenitic TRIP/TWIP steels at room and elevated temperature investigated by acoustic emission and scanning electron microscopy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 597, 183-193.	2.6	57
15	Cyclic Deformation Behaviour of Three Austenitic Cast CrMnNi TRIP/TWIP Steels with Various Ni Content. <i>Steel Research International</i> , 2011, 82, 1040-1047.	1.0	55
16	SEM Investigation of High-Alloyed Austenitic Stainless Cast Steels With Varying Austenite Stability at Room Temperature and 100°C. <i>Steel Research International</i> , 2012, 83, 512-520.	1.0	50
17	Microstructural Evolution and Functional Properties of Fe-Mn-Al-Ni Shape Memory Alloy Processed by Selective Laser Melting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 2569-2573.	1.1	50
18	Small-scale specimen testing for fatigue life assessment of service-exposed industrial gas turbine blades. <i>International Journal of Fatigue</i> , 2016, 92, 262-271.	2.8	48

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19	Estimation of the effective properties of particle-reinforced metal matrix composites from microtomographic reconstructions. <i>Acta Materialia</i> , 2006, 54, 2735-2744.	3.8	46
20	Load history effects in ductile cast iron for wind turbine components. <i>International Journal of Fatigue</i> , 2007, 29, 1788-1796.	2.8	45
21	Ultrafine grained high-alloyed austenitic TRIP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 571, 68-76.	2.6	45
22	A low cycle fatigue model of a short-fibre reinforced 6061 aluminium alloy metal matrix composite. <i>Composites Science and Technology</i> , 2002, 62, 2189-2199.	3.8	42
23	Stability of austenitic 316L steel against martensite formation during cyclic straining. <i>Procedia Engineering</i> , 2011, 10, 1279-1284.	1.2	39
24	Nanoindentation measurements on deformation-induced ϵ -martensite in a metastable austenitic high-alloy CrMnNi steel. <i>Philosophical Magazine Letters</i> , 2014, 94, 522-530.	0.5	39
25	Application of in situ thermography for evaluating the high-cycle and very high-cycle fatigue behaviour of cast aluminium alloy AlSi7Mg (T6). <i>Ultrasonics</i> , 2013, 53, 1441-1449.	2.1	38
26	Novel TRIP/Steel/Mg/PSZ Composite Open Cell Foam Structures for Energy Absorption. <i>Advanced Engineering Materials</i> , 2010, 12, 197-204.	1.6	36
27	In-situ characterization of the microstructure evolution during cyclic deformation of novel cast TRIP steel. <i>Procedia Engineering</i> , 2010, 2, 1961-1971.	1.2	36
28	Combination of Different In Situ Characterization Techniques and Scanning Electron Microscopy Investigations for a Comprehensive Description of the Tensile Deformation Behavior of a CrMnNi TRIP/TWIP Steel. <i>Jom</i> , 2015, 67, 1729-1747.	0.9	34
29	In-situ monitoring of plasma enhanced nitriding processes using infrared absorption and mass spectroscopy. <i>Surface and Coatings Technology</i> , 2012, 206, 3955-3960.	2.2	33
30	Influence of Martensite Fraction on Tensile Properties of Quenched and Partitioned (Q&P) Martensitic Stainless Steels. <i>Steel Research International</i> , 2016, 87, 1082-1094.	1.0	33
31	Modelling low-cycle fatigue life of particulate-reinforced metal-matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 333, 295-305.	2.6	31
32	Microstructure and Compression Strength of Novel TRIP/Steel/Mg/PSZ Composites. <i>Advanced Engineering Materials</i> , 2009, 11, 1000-1006.	1.6	31
33	Influence of the Chemistry of Surface Functionalized Ceramic Foam Filters on the Filtration of Alumina Inclusions in Steel Melts. <i>Advanced Engineering Materials</i> , 2013, 15, 1188-1196.	1.6	31
34	Biaxial in-phase and out-of-phase cyclic deformation and fatigue behavior of an austenitic TRIP steel. <i>International Journal of Fatigue</i> , 2014, 67, 123-133.	2.8	31
35	Isothermal and thermo-mechanical fatigue behavior of the nickel base superalloy Waspaloy under uniaxial and biaxial-planar loading. <i>International Journal of Fatigue</i> , 2015, 81, 21-36.	2.8	31
36	Influence of Al on the temperature dependence of strain hardening behavior and glide planarity in Fe-Cr-Ni-Mn-C austenitic stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 649, 301-312.	2.6	31

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37	The Portevin-Le Châtelier Effect in a Metastable Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 59-74.	1.1	31
38	Thermo-mechanical fatigue behaviour of a modern β -TiAl alloy. International Journal of Fatigue, 2008, 30, 352-356.	2.8	30
39	Application of full-surface view in situ thermography measurements during ultrasonic fatigue of cast steel G42CrMo4. International Journal of Fatigue, 2015, 80, 459-467.	2.8	30
40	Determination of Some Parameters for Fatigue Life in Welded Joints Using Fracture Mechanics Method. Journal of Materials Engineering and Performance, 2010, 19, 1225-1234.	1.2	29
41	Microstructure based three-dimensional finite element modeling of particulate reinforced metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 852-856.	2.6	28
42	Case studies on the application of high-resolution electron channelling contrast imaging investigation of defects and defect arrangements in metallic materials. Philosophical Magazine, 2015, 95, 759-793.	0.7	28
43	Investigation of isothermal and thermo-mechanical fatigue behavior of the nickel-base superalloy IN738LC using standardized and advanced test methods. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 314-324.	2.6	28
44	Thermo-mechanical fatigue behaviour of the β -TiAl alloy TNB-V5. Scripta Materialia, 2006, 54, 137-141.	2.6	27
45	Deformation and strain hardening behavior of powder metallurgical TRIP steel under quasi-static biaxial-planar loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 642, 317-329.	2.6	27
46	Investigation of Phase Transformations in High-Alloy Austenitic TRIP Steel Under High Pressure (up to) Tj ETQq0 0 0 rgBT /Overlock 10 T Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 95-111.	1.1	27
47	Solid carbon active screen plasma nitrocarburizing of AISI 316L stainless steel: Influence of N ₂ -H ₂ gas composition on structure and properties of expanded austenite. Surface and Coatings Technology, 2019, 357, 1060-1068.	2.2	27
48	Crack observation methods, their application and simulation of curved fatigue crack growth. Engineering Fracture Mechanics, 2010, 77, 2077-2090.	2.0	24
49	Determination of stretch zone width and height by powerful 3D SEM imaging technology. Engineering Fracture Mechanics, 2013, 108, 294-304.	2.0	24
50	Microstructure and mechanical properties of Al-alloyed Fe-Cr-Ni-Mn-C stainless steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 618, 46-55.	2.6	24
51	Influence of Martensite Fraction on the Stabilization of Austenite in Austenitic-Martensitic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 1947-1959.	1.1	24
52	Cyclic deformation behavior of a damage tolerant CrMnNi TRIP steel produced by electron beam melting. International Journal of Fatigue, 2018, 114, 262-271.	2.8	24
53	Comparison of the Stress Intensity Factor of Load-Carrying Cruciform Welded Joints with Different Geometries. Journal of Materials Engineering and Performance, 2010, 19, 802-809.	1.2	23
54	Magnitude of shear of deformation-induced β -martensite in high-alloy metastable steel. Materials Letters, 2015, 143, 155-158.	1.3	23

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55	Spectroscopic investigations of plasma nitriding processes: A comparative study using steel and carbon as active screen materials. <i>Journal of Applied Physics</i> , 2017, 121, 153301.	1.1	23
56	Solid carbon active screen plasma nitrocarburizing of AISI 316L stainless steel in cold wall reactor: influence of plasma conditions. <i>Journal of Materials Research and Technology</i> , 2020, 9, 9195-9205.	2.6	23
57	Low cycle fatigue crack growth and life prediction of short-fibre reinforced aluminium matrix composites. <i>International Journal of Fatigue</i> , 2003, 25, 209-220.	2.8	22
58	Fatigue behaviour of hot pressed austenitic TWIP steel and TWIP steel/Mg-PSZ composite materials. <i>International Journal of Fatigue</i> , 2014, 65, 9-17.	2.8	22
59	Cyclic Degradation Behavior of $\langle 001 \rangle$ -Oriented Fe-Mn-Ni Single Crystals in Tension. <i>Shape Memory and Superelasticity</i> , 2017, 3, 335-346.	1.1	22
60	On the temperature dependence of the fatigue and damage behaviour of a particulate-reinforced metal-matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 319-321, 671-674.	2.6	21
61	Duplex Surface Treatment – Physical Vapor Deposition (PVD) and Subsequent Electron Beam Hardening (EBH). <i>Advanced Engineering Materials</i> , 2014, 16, 511-516.	1.6	21
62	Ductile behavior of fine-grained, carbon-bonded materials at elevated temperatures. <i>Carbon</i> , 2017, 122, 141-149.	5.4	21
63	Cyclic Deformation of Powder Metallurgy Stainless Steel/Mg-PSZ Composite Materials. <i>Steel Research International</i> , 2012, 83, 554-564.	1.0	20
64	Fatigue behavior of the nickel-base superalloy Waspaloy [®] under proportional biaxial-planar loading at high temperature. <i>International Journal of Fatigue</i> , 2014, 67, 212-219.	2.8	20
65	Influence of graphite spherical size on fatigue behaviour and fracture toughness of ductile cast iron EN-GJS-400-18LT. <i>International Journal of Materials Research</i> , 2012, 103, 87-96.	0.1	19
66	The influence of dilution on dissimilar weld joints with high-alloy TRIP/TWIP steels. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 645-652.	1.3	19
67	Dilatometry Analysis of Dissolution of Cr-Rich Carbides in Martensitic Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 5771-5777.	1.1	19
68	Fatigue behavior of an ultrafine-grained metastable CrMnNi steel tested under total strain control. <i>International Journal of Fatigue</i> , 2018, 106, 143-152.	2.8	19
69	Review on Strain Localization Phenomena Studied by High-Resolution Digital Image Correlation. <i>Advanced Engineering Materials</i> , 2021, 23, 2001409.	1.6	19
70	A Novel Approach of Plasma Nitrocarburizing Using a Solid Carbon Active Screen – a Proof of Concept. <i>HTM - Journal of Heat Treatment and Materials</i> , 2017, 72, 254-259.	0.1	19
71	Influence of reinforcement morphology and matrix strength of metal/matrix composites on the cyclic deformation and fatigue behaviour. <i>International Journal of Fatigue</i> , 2002, 24, 215-221.	2.8	18
72	Fatigue Behaviour of Al-Matrix Composites. <i>Advanced Engineering Materials</i> , 2004, 6, 477-485.	1.6	18

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73	Corrosion behaviour of stainless steels after low temperature thermochemical treatment. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2010, 41, 133-141.	0.5	18
74	High-temperature small punch test for mechanical characterization of a nickel-base super alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 613, 259-263.	2.6	18
75	Influence of Temperature on Fatigue-Induced Martensitic Phase Transformation in a Metastable CrMnNi-Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 84-94.	1.1	18
76	Electron beam welding of CrMnNi-steels: CFD-modeling with temperature sensitive thermophysical properties. <i>International Journal of Heat and Mass Transfer</i> , 2019, 139, 442-455.	2.5	18
77	Novel method for in situ damage monitoring during ultrasonic fatigue testing by the advanced acoustic emission technique. <i>International Journal of Fatigue</i> , 2021, 142, 105918.	2.8	18
78	The influence of the free surface on the fracture of alumina particles in an Al ² O ₃ metal matrix composite. <i>Computational Materials Science</i> , 2003, 26, 183-188.	1.4	17
79	Observation of stacking faults in a scanning electron microscope by electron channelling contrast imaging. <i>International Journal of Materials Research</i> , 2011, 102, 3-5.	0.1	17
80	Optical in situ investigations of overload effects during fatigue crack growth in nodular cast iron. <i>Engineering Fracture Mechanics</i> , 2012, 95, 45-56.	2.0	17
81	IFHTSE Global 21: heat treatment and surface engineering in the twenty-first century Active screen plasma nitriding and nitrocarburising of steels: an overview. <i>International Heat Treatment and Surface Engineering</i> , 2014, 8, 94-106.	0.2	17
82	Microstructure and Local Strain Fields in a High-Alloyed Austenitic Cast Steel and a Steel Matrix Composite Material after in situ Tensile and Cyclic Deformation. <i>Steel Research International</i> , 2011, 82, 990-997.	1.0	16
83	Thermo-mechanical fatigue behaviour of a duplex stainless steel. <i>International Journal of Fatigue</i> , 2012, 37, 86-91.	2.8	16
84	Microstructure and mechanical properties of fine grained carbon-bonded Al ₂ O ₃ -C materials. <i>Ceramics International</i> , 2013, 39, 6695-6702.	2.3	16
85	Strength of fine grained carbon-bonded alumina (Al ₂ O ₃ -C) materials obtained by means of the small punch test. <i>Ceramics International</i> , 2014, 40, 9555-9561.	2.3	16
86	The Effect of Weld Profile and Geometries of Butt Weld Joints on Fatigue Life Under Cyclic Tensile Loading. <i>Journal of Materials Engineering and Performance</i> , 2011, 20, 1385-1391.	1.2	15
87	Biaxial Low Cycle Fatigue Behavior and Martensite Formation of a Metastable Austenitic Cast TRIP Steel Under Proportional Loading. <i>Steel Research International</i> , 2011, 82, 1141-1148.	1.0	15
88	Effect of Filter Coating on the Quasi-Static and Cyclic Mechanical Properties of a G42CrMo4 Casting. <i>Advanced Engineering Materials</i> , 2013, 15, 1216-1223.	1.6	15
89	Investigation of fatigue crack growth under in-phase loading as well as phase-shifted loading using cruciform specimens. <i>International Journal of Fatigue</i> , 2019, 124, 595-617.	2.8	15
90	Nitriding behaviour of the intermetallic alloy FeAl. <i>International Journal of Materials Research</i> , 2005, 96, 781-786.	0.8	14

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91	Influence of overloads on the fatigue crack growth in nodular cast iron: experiments and numerical simulation. <i>Procedia Engineering</i> , 2010, 2, 1557-1567.	1.2	14
92	Microstructure of austenitic stainless steels of various phase stabilities after cyclic and tensile deformation. <i>International Journal of Materials Research</i> , 2011, 102, 1374-1377.	0.1	14
93	Influence of Composition and Coking Temperature on the Properties and Microstructure of Carbon Bonded Al ₂ O ₃ Filter Materials. <i>Advanced Engineering Materials</i> , 2013, 15, 1224-1229.	1.6	14
94	Electron Beam Welding of High Alloy CrMnNi Cast Steels with TRIP/TWIP Effect. <i>Advanced Engineering Materials</i> , 2013, 15, 566-570.	1.6	14
95	High-Temperature Compression Deformation Behavior of Fine-Grained Carbon-Bonded Alumina. <i>Journal of the American Ceramic Society</i> , 2016, 99, 1390-1397.	1.9	14
96	Effect of Crucible Material for Ingot Casting on Detrimental Non-Metallic Inclusions and the Resulting Mechanical Properties of 18CrNiMo7 σ 6 Steel. <i>Advanced Engineering Materials</i> , 2017, 19, 1700199.	1.6	14
97	Electron beam welding of Fe-Mn-Al-Ni shape memory alloy: Microstructure evolution and shape memory response. <i>Functional Materials Letters</i> , 2017, 10, 1750043.	0.7	14
98	Study of Deformation Phenomena in TRIP/TWIP Steels by Acoustic Emission and Scanning Electron Microscopy. <i>Physics of Metals and Metallography</i> , 2018, 119, 388-395.	0.3	14
99	EB Surface Alloying and Plasma Nitriding of Different Al Alloys. <i>Materials Science Forum</i> , 0, 690, 91-94.	0.3	13
100	Thermodynamic-Mechanical Modeling of Strain-Induced δ -Martensite Formation in Austenitic Cr-Mn-Ni As-Cast Steel. <i>Advanced Engineering Materials</i> , 2013, 15, 609-617.	1.6	13
101	Investigation of the Damage Behavior of Cast Steel 42CrMo4 During Ultrasonic Fatigue by Combination of Thermography and Fractography. <i>Advanced Engineering Materials</i> , 2013, 15, 1251-1259.	1.6	13
102	Electron Beam Welding of Cold Rolled High-Alloy TRIP/TWIP Steel Sheets. <i>Steel Research International</i> , 2016, 87, 436-444.	1.0	13
103	Impact of Nanoengineered Surfaces of Carbon-Bonded Alumina Filters on Steel Cleanliness. <i>Advanced Engineering Materials</i> , 2017, 19, 1700153.	1.6	13
104	Crack initiation in the very high cycle fatigue regime of nitrided 42CrMo4 steel. <i>Journal of Materials Research</i> , 2017, 32, 4305-4316.	1.2	13
105	Use of a solid carbon precursor for DC plasma nitrocarburizing of AISI 4140 steel. <i>Vacuum</i> , 2018, 149, 146-149.	1.6	13
106	Martensite formation during tensile deformation of high-alloy TRIP steel after quenching and partitioning route investigated by digital image correlation. <i>Materialia</i> , 2019, 8, 100498.	1.3	13
107	Evaluation of very high cycle fatigue zones in 42CrMo4 steel with plate-like alumina inclusions. <i>International Journal of Fatigue</i> , 2019, 126, 258-269.	2.8	13
108	Mechanical High-Temperature Properties and Damage Behavior of Coarse-Grained Alumina Refractory Metal Composites. <i>Materials</i> , 2019, 12, 3927.	1.3	13

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109	Modeling of the cyclic deformation behavior of austenitic TRIP-steels. International Journal of Plasticity, 2020, 133, 102792.	4.1	13
110	Review on Strain Localization Phenomena Studied by High-Resolution Digital Image Correlation. Advanced Engineering Materials, 2021, 23, 2170011.	1.6	13
111	Microstructure of Non-Metallic Inclusions Identified in Cast Steel 42CrMo4 after Metal Melt Filtration by Novel Foam Filters. Steel Research International, 2016, 87, 1038-1053.	1.0	12
112	Volumetric changes associated with B ₂ -(Ni,Fe)Al dissolution in an Al-alloyed ferritic steel. Materials and Design, 2016, 111, 640-645.	3.3	12
113	Microstructural Evolution of an Al-Alloyed Duplex Stainless Steel During Tensile Deformation Between 77 K and 473 K (196 Å°C and 200 Å°C). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2705-2716.	1.1	12
114	Tempering Reactions and Elemental Redistribution During Tempering of Martensitic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3663-3673.	1.1	12
115	Spectroscopic study of plasma nitrocarburizing processes with an industrial-scale carbon active screen. Plasma Sources Science and Technology, 2020, 29, 035001.	1.3	12
116	Effect of Compositional Variation Induced by EBM Processing on Deformation Behavior and Phase Stability of Austenitic Cr-Mn-Ni TRIP Steel. Jom, 2020, 72, 1052-1064.	0.9	12
117	Thermomechanical Fatigue Behavior of the Intermetallic $\hat{\text{T}}^3\text{-TiAl}$ Alloy TNB-V5 with Different Microstructures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 717-726.	1.1	11
118	<i>In Situ</i> Tensile Deformation of TRIP Steel / Mg-PSZ Composites. Materials Science Forum, 2013, 738-739, 77-81.	0.3	11
119	Cluster Detection of Non-Metallic Inclusions in 42CrMo4 Steel. Steel Research International, 2018, 89, 1800216.	1.0	11
120	Impact of Al addition on deformation behavior of Fe-Cr-Ni-Mn-C austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797, 140084.	2.6	11
121	Ultrasonic fatigue testing of cast steel G42CrMo4 at elevated temperatures. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2455-2475.	1.7	11
122	In-line Process Control in the Active Screen Plasma Nitrocarburizing Using a Combined Approach Based on Infrared Laser Absorption Spectroscopy and Bias Power Management*. HTM - Journal of Heat Treatment and Materials, 2016, 71, 141-147.	0.1	11
123	Synthesis of Niobium-Alumina Composite Aggregates and Their Application in Coarse-Grained Refractory Ceramic-Metal Castables. Materials, 2021, 14, 6453.	1.3	11
124	Non-cube-on-cube orientation relationship between M23C6 and austenite in an austenitic stainless steel. Scripta Materialia, 2022, 213, 114597.	2.6	11
125	Progress in control of nitriding potential in ASPN process. International Heat Treatment and Surface Engineering, 2014, 8, 139-143.	0.2	10
126	Effects of electron beam treatment on Ti(1-x)AlxN coatings on steel. Vacuum, 2014, 107, 141-144.	1.6	10

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145	Thermal Analysis of the Formation and Dissolution of Cr-Rich Carbides in Al-Alloyed Stainless Steels. <i>Advanced Engineering Materials</i> , 2019, 21, 1800658.	1.6	8
146	Validation of an experimental-numerical approach for the high temperature behaviour of open-cell ceramic foams. <i>Journal of the European Ceramic Society</i> , 2019, 39, 610-617.	2.8	8
147	Effect of Filter Functional Coating on Detrimental Nonmetallic Inclusions in 42CrMo4 Steel and Its Resulting Mechanical Properties. <i>Advanced Engineering Materials</i> , 2020, 22, 1900540.	1.6	8
148	Tailoring Nonmetallic Inclusions in 42CrMo4 as a Preparative Tool for Active and Reactive Steel Melt Filtration. <i>Advanced Engineering Materials</i> , 2022, 24, 2100640.	1.6	8
149	Kontrolliertes Plasmanitrieren von StÄhlen mit einem Aktivgitter. <i>HTM - Journal of Heat Treatment and Materials</i> , 2013, 68, 124-132.	0.1	8
150	Plasma Nitrocarburizing of AISI 316L Austenitic Stainless Steel Applying a Carbon Active Screen: Status and Perspectives. <i>HTM - Journal of Heat Treatment and Materials</i> , 2018, 73, 246-257.	0.1	8
151	High-Temperature Compressive Behavior of Refractory Alumina-Niobium Composite Material. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	8
152	Static and Cyclic Deformation Behavior of the Ferritic Steel 16Mo3 Under Monotonic and Cyclic Loading at High Temperatures. <i>Steel Research International</i> , 2012, 83, 631-636.	1.0	7
153	Scanning and transmission electron microscopy investigations of defect arrangements in a two-phase β -TiAl alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 571, 49-56.	2.6	7
154	Thermo mechanical fatigue behaviour of a duplex stainless steel in the range of 350-600°C. <i>International Journal of Fatigue</i> , 2014, 65, 2-8.	2.8	7
155	Electron beam hardening of PVD-coated steels - Improved load-supporting capacity for Ti-xAlxN layers. <i>Surface and Coatings Technology</i> , 2015, 283, 201-209.	2.2	7
156	Isothermal and thermo-mechanical fatigue behavior of 16Mo3 steel coated with high-velocity oxy-fuel sprayed nickel-base alloy under uniaxial as well as biaxial-planar loading. <i>Journal of Materials Research</i> , 2017, 32, 4411-4423.	1.2	7
157	Strain Hardening of Phases in High-Alloy CrMnNi Steel as a Consequence of Pre-Deformation Studied by Nanoindentation. <i>Advanced Engineering Materials</i> , 2019, 21, 1800801.	1.6	7
158	Characterization of Nonmetallic Inclusions in 18CrNiMo7-6. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019, 50, 337-356.	1.0	7
159	Crack growth behaviour in biaxial stress fields: Calculation of K-factors for cruciform specimens. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 107, 102521.	2.1	7
160	Cyclic stress-strain and fatigue behaviour of particulate-reinforced Al-matrix composites. , 1998, , 431-436.		7
161	Fracture mechanics testing and crack growth simulation of highly ductile austenitic steel. <i>Materialprüfung/Materials Testing</i> , 2018, 60, 341-348.	0.8	7
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