Hardy Mohrbacher

List of Publications by Year
in descending order

83	1,764	257450 24	302126 39
papers	citations	h-index	g-index

89	89	89	1184
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of Dynamic Recrystallization on Microstructural Evolution in B Steels Microalloyed with Nb and/or Mo. Materials, 2022, 15, 1424.	2.9	4
2	Effect of Nb and Mo on Austenite Microstructural Evolution During Hot Deformation in Boron High Strength Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 1529-1539.	2.2	4
3	Fatigue Performance of Laser Welds in Heavy-Gage Press Hardening Steels. Metals, 2022, 12, 580.	2.3	2
4	Quantitative analysis of mixed niobium-titanium carbonitride solubility in HSLA steels based on atom probe tomography and electrical resistivity measurements. Journal of Materials Research and Technology, 2022, 18, 2048-2063.	5.8	7
5	Alloy Design and Processing Strategies for Grain Coarsening-Resistant Carburizing Steels. , 2021, , .		2
6	Effect of Quenching Strategy and Nb-Mo Additions on Phase Transformations and Quenchability of High-Strength Boron Steels. Jom, 2021, 73, 3158-3168.	1.9	5
7	The effect of laser welding on microstructure and mechanical properties in heavy-gage press hardening steel alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 821, 141341.	5.6	9
8	Toughness Property Control by Nb and Mo Additions in High-Strength Quenched and Tempered Boron Steels. Metals, 2021, 11, 95.	2.3	17
9	Effect of Nb and Mo Additions in the Microstructure/Tensile Property Relationship in High Strength Quenched and Quenched and Tempered Boron Steels. Metals, 2021, 11, 29.	2.3	7
10	Editorial: Industrial relevance of molybdenum in China. Advances in Manufacturing, 2020, 8, 35-39.	6.1	8
11	Guest editorial: Molybdenum alloying: more than hardenability. Advances in Manufacturing, 2020, 8, 1-2.	6.1	1
12	Molybdenum alloying in cast iron and steel. Advances in Manufacturing, 2020, 8, 3-14.	6.1	20
13	Alloy Optimization for Reducing Delayed Fracture Sensitivity of 2000 MPa Press Hardening Steel. Metals, 2020, 10, 853.	2.3	19
14	Tracing Microalloy Precipitation in Nb-Ti HSLA Steel during Austenite Conditioning. Metals, 2020, 10, 243.	2.3	13
15	Molybdenum alloying in high-performance flat-rolled steel grades. Advances in Manufacturing, 2020, 8, 15-34.	6.1	15
16	Metallurgical Effects of Niobium in Dual Phase Steel. Metals, 2020, 10, 504.	2.3	11
17	Effects of niobium alloying on microstructure, toughness and wear resistance of austempered ductile iron. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 760, 186-194.	5.6	21
18	Metallurgical Effects of Niobium and Molybdenum on Heat-Affected Zone Toughness in Low-Carbon Steel. Applied Sciences (Switzerland), 2019, 9, 1847.	2.5	11

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19	Niobium carbide for machining and wear protection â€“ Evolution of properties. Metal Powder Report, 2019, 74, 82-89.	0.1	10
20	Potentials of niobium carbide (NbC) as cutting tools and for wear protection. International Journal of Refractory Metals and Hard Materials, 2018, 72, 380-387.	3.8	38
21	NbC grain growth control and mechanical properties of Ni bonded NbC cermets prepared by vacuum liquid phase sintering. International Journal of Refractory Metals and Hard Materials, 2018, 72, 63-70.	3.8	33
22	Partially-recrystallized, Nb-alloyed TWIP steels with a superior strength-ductility balance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 130-139.	5.6	28
23	Modeling of Precipitation Hardening during Coiling of Nbâ€“Mo Steels. Metals, 2018, 8, 758.	2.3	6
24	Property Optimization in As-Quenched Martensitic Steel by Molybdenum and Niobium Alloying. Metals, 2018, 8, 234.	2.3	31
25	Solidification Microsegregation and Hot Ductility of Fe-Mn-C-Al-xNb TWIP Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5509-5523.	2.2	11
26	Effect of Ti(C_{0.7}N_{0.3}) Content on the Microstructure and Mechanical Properties of Ni Bonded NbC-Ti(C_{0.7}N_{0.3}) Based Cermets. Solid State Phenomena, 2018, 274, 43-52.	0.3	2
27	Effect of Carbon Content on the Microstructure and Mechanical Properties of NbC-Ni Based Cermets. Metals, 2018, 8, 178.	2.3	14
28	Effects of niobium addition on microstructure and tensile behavior of as-cast ductile iron. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 416-428.	5.6	29
29	Microstructure and tribological performance of NbC-Ni cermets modified by VC and Mo2C. International Journal of Refractory Metals and Hard Materials, 2017, 66, 188-197.	3.8	45
30	Stainless steel bonded NbC matrix cermets using a submicron NbC starting powder. International Journal of Refractory Metals and Hard Materials, 2017, 63, 26-31.	3.8	12
31	Optimizing Gear Performance by Alloy Modification of Carburizing Steels. Metals, 2017, 7, 415.	2.3	35
32	Advanced Steel Alloys for Sustainable Power Generation. , 2016, , 165-193.		0
33	High-Performance Steels for Sustainable Manufacturing of Vehicles. , 2016, , 135-163.		6
34	Metallurgical concepts for optimized processing and properties of carburizing steel. Advances in Manufacturing, 2016, 4, 105-114.	6.1	22
35	Niobium carbide for wear protection â€“ tailoring its properties by processing and stoichiometry. Metal Powder Report, 2016, 71, 265-272.	0.1	47
36	Microstructure and mechanical properties of NbC matrix cermets using Ni containing metal binder. Metal Powder Report, 2016, 71, 349-355.	0.1	28

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37	Densification and tribological profile of niobium oxide. Wear, 2016, 352-353, 65-71.	3.1	12
38	Constitutive Modeling of High-Temperature Flow Behavior of an Nb Micro-alloyed Hot Stamping Steel. Journal of Materials Engineering and Performance, 2016, 25, 948-959.	2.5	7
39	Optimization of High Performance Special Steels. , 2015, , 557-563.		0
40	Development of Press Hardening Steel with High Resistance to Hydrogen Embrittlement. , 2015, , 571-576.		1
41	Innovative manufacturing technology enabling light weighting with steel in commercial vehicles. Advances in Manufacturing, 2015, 3, 3-18.	6.1	17
42	The use of niobium carbide (NbC) as cutting tools and for wear resistant tribosystems. International Journal of Refractory Metals and Hard Materials, 2015, 49, 212-218.	3.8	49
43	Guest editorial of â€œApplication of high strength steels in lightweight commercial vehiclesâ€• Advances in Manufacturing, 2015, 3, 1-2.	6.1	1
44	Application potential of high performance steels for weight reduction and efficiency increase in commercial vehicles. Advances in Manufacturing, 2015, 3, 27-36.	6.1	31
45	Effect of Nb on hydrogen-induced delayed fracture in high strength hot stamping steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 136-143.	5.6	121
46	Microstructure and mechanical properties of NbC-matrix hardmetals with secondary carbide addition and different metal binders. International Journal of Refractory Metals and Hard Materials, 2015, 48, 418-426.	3.8	49
47	Tribological Background for the Use of Niobium Carbide (NbC) as Cutting Tools and for Wear Resistant Tribosystems. Ceramic Engineering and Science Proceedings, 2014, , 225-232.	0.1	1
48	The tribological and mechanical properties of niobium carbides (NbC) bonded with cobalt or Fe3Al. Wear, 2014, 321, 1-7.	3.1	62
49	Laser-based manufacturing concepts for efficient production of tailor welded sheet metals. Advances in Manufacturing, 2014, 2, 193-202.	6.1	16
50	Secondary hardened bainite. Materials Science and Technology, 2014, 30, 1014-1023.	1.6	28
51	Slip-Rolling Resistance and Load Carrying Capacity of 36NiCrMoV1-5-7 Steel. Materials Performance and Characterization, 2014, 3, 20130022.	0.3	6
52	Reverse metallurgical engineering towards sustainable manufacturing of vehicles using Nb and Mo alloyed high performance steels. Advances in Manufacturing, 2013, 1, 28-41.	6.1	28
53	Friction and wear of binder-less niobium carbide. Wear, 2013, 306, 126-130.	3.1	38
54	MoNb-Based Alloying Concepts for Low-Carbon Bainitic Steels. , 2011, , 289-301.		1

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55	The importance of niobium micro-additions to steel efficiency. Welding International, 2011, 25, 342-347.	0.7	0
56	Quality control of laser welds of tailored blanks using guided waves and EMATs. IET Science, Measurement and Technology, 2001, 148, 143-148.	0.7	14
57	Wear testing of hard coatings: More than wear rate?. Surface Engineering, 1998, 14, 205-210.	2.2	8
58	Fatigue and Corrosion Behaviour of Circular Welded Blanks in Shock Tower Applications. , 1998, , .		0
59	<title>Advantages of using an oscillating laser beam for the production of tailored blanks</title>. Proceedings of SPIE, 1997, 3097, 228.	0.8	22
60	The fretting behaviour of PVD TiN coatings in aqueous solutions. Wear, 1996, 201, 171-177.	3.1	22
61	Comparative measurement of residual stress in diamond coatings by low-incident-beam-angle-diffraction and micro-Raman spectroscopy. Journal of Materials Research, 1996, 11, 1776-1782.	2.6	42
62	Raman spectroscopy on defective wear debris generated by contact vibrations. Journal of Materials Science Letters, 1995, 14, 279-281.	0.5	18
63	Hard coatings under vibrational contact conditions. Surface and Coatings Technology, 1995, 74-75, 953-958.	4.8	16
64	Laboratory testing of displacement and load induced fretting. Tribology International, 1995, 28, 269-278.	5.9	149
65	The influence of humidity on the fretting behaviour of PVD TiN coatings. Wear, 1995, 180, 43-52.	3.1	94
66	Oxidational wear of TiN coatings on tool steel and nitrided tool steel in unlubricated fretting. Wear, 1995, 188, 130-137.	3.1	100
67	Light elements analysis using 3He microbeam. Nuclear Instruments & Methods in Physics Research B, 1995, 104, 266-270.	1.4	2
68	Friction mechanisms in hydrogenated amorphous carbon coatings. Diamond and Related Materials, 1995, 4, 1267-1270.	3.9	28
69	Frictional Behaviour of Diamond-like carbon and diamond coatings in oscillating sliding. Surface and Coatings Technology, 1993, 62, 583-588.	4.8	15
70	Low amplitude oscillating sliding wear on chemically vapour deposited diamond coatings. Diamond and Related Materials, 1993, 2, 879-884.	3.9	36
71	Micro-Raman spectroscopy for the characterization of wear induced surface modifications on hard coatings. Tribology Series, 1993, 25, 623-630.	0.1	3
72	Chemical Characterization of the Resin-Dentin Interface by Micro-Raman Spectroscopy. Journal of Dental Research, 1993, 72, 1423-1428.	5.2	99

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73	Internal Stress Measurement on CVD diamond Coatings by X-ray Diffraction and Raman Spectroscopy. Materials Research Society Symposia Proceedings, 1993, 308, 677.	0.1	11
74	The temperature dependence of elastic nonlinearity in metal-matrix composites. Research in Nondestructive Evaluation, 1992, 4, 139-150.	1.1	0
75	Elastic nonlinearity in metal-matrix composites. Research in Nondestructive Evaluation, 1991, 3, 159-170.	1.1	0
76	The Role of Niobium in Lightweight Vehicle Construction. Materials Science Forum, 0, 537-538, 679-686.	0.3	6
77	Martensitic Automotive Steel Sheet - Fundamentals and Metallurgical Optimization Strategies. Advanced Materials Research, 0, 1063, 130-142.	0.3	27
78	The Effect of Niobium Microalloying on Processing and Application Properties of Dual Phase Steel. , 0, , 605-611.		0
79	Niobium Carbide - An Innovative and Sustainable High-Performance Material for Tooling, Friction and Wear Applications. , 0, , 67-80.		0
80	NIOBIUM CARBIDE (NbC) AS WEAR RESISTANT HARDMETAL IN OPENED AND CLOSED TRIBOSYSTEMS. , 0, , .		1
81	Efficiency Gains in Powertrain Components by Molybdenum-Alloyed Special Steels. , 0, , 53-65.		0
82	A Perspective on Materials Selection for Body Structure Lightweighting in Battery Electric Vehicles. , 0, , .		0
83	Influences of Martensite Morphology and Precipitation on Bendability in Press-Hardened Steels. SAE International Journal of Advances and Current Practices in Mobility, 0, 4, 1181-1188.	2.0	1