

Mathias Woydt

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	The history of the Stribeck curve and ball bearing steels: The role of Adolf Martens. <i>Wear</i> , 2010, 268, 1542-1546.	3.1	70
2	Tribological characteristics of polycrystalline MagnÃ©li-type titanium dioxides. <i>Tribology Letters</i> , 2000, 8, 117-130.	2.6	63
3	The tribological and mechanical properties of niobium carbides (NbC) bonded with cobalt or Fe ₃ Al. <i>Wear</i> , 2014, 321, 1-7.	3.1	62
4	The use of niobium carbide (NbC) as cutting tools and for wear resistant tribosystems. <i>International Journal of Refractory Metals and Hard Materials</i> , 2015, 49, 212-218.	3.8	49
5	Niobium carbide for wear protection â€œ tailoring its properties by processing and stoichiometry. <i>Metal Powder Report</i> , 2016, 71, 265-272.	0.1	47
6	Biolubricants and triboreactive materials for automotive applications. <i>Tribology International</i> , 2009, 42, 561-568.	5.9	39
7	Friction and wear of binder-less niobium carbide. <i>Wear</i> , 2013, 306, 126-130.	3.1	38
8	Comparison of self-mated hardmetal coatings under dry sliding conditions up to 600Ã©C. <i>Wear</i> , 2009, 266, 406-416.	3.1	32
9	The Economic and Environmental Significance of Sustainable Lubricants. <i>Lubricants</i> , 2021, 9, 21.	2.9	30
10	Tribology meets sustainability. <i>Industrial Lubrication and Tribology</i> , 2021, 73, 430-435.	1.3	28
11	Testing the tribological properties of lubricants and materials for the system â€œpiston ring/cylinder linerâ€œ outside of engines. <i>Industrial Lubrication and Tribology</i> , 2003, 55, 213-222.	1.3	24
12	Contact mechanics and tribology of polymer composites. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	20
13	Global Insights on Future Trends of Hybrid/EV Driveline Lubrication and Thermal Management. <i>Frontiers in Mechanical Engineering</i> , 2020, 6, .	1.8	19
14	Switching adhesion forces by crossing the metalâ€œinsulator transition in MagnÃ©li-type vanadium oxide crystals. <i>Beilstein Journal of Nanotechnology</i> , 2011, 2, 59-65.	2.8	17
15	Zirconium-based coatings in highly stressed rolling contacts as alternative solution to DLC and ta-C coatings. <i>Wear</i> , 2010, 269, 770-781.	3.1	16
16	No/Low SAP and Alternative Engine Oil Development and Testing. <i>Journal of ASTM International</i> , 2007, 4, 100898.	0.2	15
17	Testing friction and wear of the tribosystem piston ring and cylinder liner outside of engines. <i>TriboTest Journal: Tribology and Lubrication in Practice</i> , 2008, 14, 113-126.	0.7	14
18	Effect of Carbon Content on the Microstructure and Mechanical Properties of NbC-Ni Based Cermets. <i>Metals</i> , 2018, 8, 178.	2.3	14

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19	Slip-rolling resistance of thin films and high toughness steel substrates under high Hertzian contact pressures. <i>Wear</i> , 2011, 270, 506-514.	3.1	13
20	Optimization of pre-conditioned cold work hardening of steel alloys for friction and wear reductions under slip-rolling contact. <i>Wear</i> , 2016, 350-351, 141-154.	3.1	11
21	Abrasive wear behavior of austempered ductile iron with niobium additions. <i>Wear</i> , 2019, 440-441, 203065.	3.1	11
22	Validation of Oxidative Stability of Factory Fill and Alternative Engine Oils Using the Iron Catalyzed Oxidation Test. <i>Journal of ASTM International</i> , 2007, 4, 100938.	0.2	11
23	Triboactive materials for dry reciprocating sliding motion at ultra-high frequency. <i>Wear</i> , 2009, 266, 167-174.	3.1	10
24	Comparison of slip-rolling behaviour between 20MnCr5 gear steel, 36NiCrMoV1-5-7 hot working tool steel and 45SiCrMo6 spring steel. <i>Wear</i> , 2015, 328-329, 28-38.	3.1	10
25	Friction and wear reductions under slip-rolling contact through chemically reactive tribofilm generation during pre-conditioning of steel alloys. <i>Wear</i> , 2015, 338-339, 133-143.	3.1	10
26	Friction and wear reductions in slip-rolling steel contacts through pre-conditioned chemical tribofilms from bismuth compounds. <i>Wear</i> , 2016, 360-361, 29-37.	3.1	10
27	Test Modes for Establishing the Tribological Profile under Slip-Rolling. <i>Lubricants</i> , 2020, 8, 59.	2.9	9
28	Polyalkylene Glycols as Next Generation Engine Oils. <i>Journal of ASTM International</i> , 2011, 8, 1-15.	0.2	8
29	New Methodologies Indicating Adhesive Wear in Load Step Tests on the Translatory Oscillation Tribometer. <i>Lubricants</i> , 2021, 9, 101.	2.9	8
30	Dry friction and wear rates as under liquid lubrication of ceramic/carbon couples up to 450°C. <i>Industrial Lubrication and Tribology</i> , 2004, 56, 38-51.	1.3	7
31	Slip-Rolling Resistance of Alternative Steels Under High Contact Pressures in Engine Oils. , 2014, , 1-29.		7
32	The Effects of Energy Efficiency and Resource Consumption on Environmental Sustainability. <i>Lubricants</i> , 2021, 9, 117.	2.9	7
33	Prediction of Tribological Limits in Sliding Contacts: Flash Temperature Calculations in Sliding Contacts and Material Behavior. <i>Journal of Tribology</i> , 2016, 138, .	1.9	6
34	Slip-Rolling Resistance and Load Carrying Capacity of 36NiCrMoV1-5-7 Steel. <i>Materials Performance and Characterization</i> , 2014, 3, 20130022.	0.3	6
35	An Alternative Approach to Simulating an Entire Particle Erosion Experiment. <i>Lubricants</i> , 2018, 6, 29.	2.9	5
36	Rolling Contact Fatigue Tests of Ceramics by Various Methods: Comparison of Suitability to the Evaluation of Silicon Nitrides. <i>Journal of Testing and Evaluation</i> , 2016, 44, 1271-1283.	0.7	5

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37	Influence of test parameters on tribological measurements - results from international round robin tests. <i>TriboTest Journal: Tribology and Lubrication in Practice</i> , 2003, 10, 59-76.	0.7	4
38	Low friction slip-rolling contactsâ€™influences of alternative steels, high performance thin film coatings and lubricants. , 2014, , 127-138.		4
39	Tribological Testing and Presentation of Data. , 2017, , 16-32.		4
40	High Temperature Tribology under Linear Oscillation Motion. <i>Lubricants</i> , 2021, 9, 5.	2.9	4
41	Wear behaviour of \pm -alumina in hot steam at high contact pressure. <i>Wear</i> , 2018, 404-405, 22-30.	3.1	3
42	Zero wear concept using bionotox and polymerâ€™free engine oils with triboactive materials. <i>Industrial Lubrication and Tribology</i> , 2008, 60, 14-23.	1.3	2
43	Grease. <i>Lubricants</i> , 2022, 10, 45.	2.9	2
44	Oil Free Machinery and â€™Zero Wearâ€™- Dream or Reality?. <i>Tribology Online</i> , 2011, 6, 101-112.	0.9	1
45	Lubricities of Environmentally Acceptable Lubricants with Zinc Dialkyldithiophosphate and Dibenzyl Disulfide on Tribological Properties of Plasma Electrolytic Oxidation Coated A6061-T6 Alloy under Mixed/Boundary Lubrication. <i>Tribology Online</i> , 2015, 10, 56-63.	0.9	1
46	Closure to â€™Discussion of â€™Prediction of Tribological Limits in Sliding Contacts: Flash Temperature Calculations in Sliding Contacts and Material Behaviorâ€™(2017, ASME J. Tribol., 139(4), p. 045501). <i>Journal of Tribology</i> , 2017, 139, .	1.9	1
47	CO2-Neutral Fuels and Lubricants Based on Second Generation Oils such as Jatropha. <i>Journal of ASTM International</i> , 2010, 7, 1-12.	0.2	1
48	Polyalkylene Glycols as Next Generation Engine Oils. , 2012, , 25-46.		1
49	NIOBIUM CARBIDE (NbC) AS WEAR RESISTANT HARDMETAL IN OPENED AND CLOSED TRIBOSYSTEMS. , 0, , .		1
50	Niobium Carbide - An Innovative and Sustainable High-Performance Material for Tooling, Friction and Wear Applications. , 0, , 67-80.		0
51	Corrosion and Its Impact on Wear Processes. , 2004, , .		0
52	Polyalkylene Glycols as Next Generation Engine Oils. , 2012, , 25-46.		0
53	Benchmark of Alternative Lubricants for Hydraulic Systems. , 2014, , 52-75.		0
54	Generation of Defined Tribofilms and Their Stability under Slip-Rolling in a 2Disk Test Rig. <i>Materials Performance and Characterization</i> , 2018, 7, 213-225.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Chapter 20 Automotive Engine Lubricants. , 2019, , 753-863.		0
56	Hydrodynamic Fluid Film and Tribofilm Formationâ€™Combining the Friction Signals with Contact Resistance. Materials Performance and Characterization, 2020, 9, 20190261.	0.3	0
57	No/Low SAP and Alternative Engine Oil Development and Testing. , 0, , 35-35-13.		0