# Mathias Woydt

List of Publications by Year
in descending order

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| 57 | 791 | 567281 | 552781 |
|---|---|---|---|
| papers | citations | 15 h-index | 26 g-index |

| 62 | 62 | 62 | 605 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Grease. Lubricants, 2022, 10, 45. | 2.9 | 2 |
| 2 | The Economic and Environmental Significance of Sustainable Lubricants. Lubricants, 2021, 9, 21. | 2.9 | 30 |
| 3 | Tribology meets sustainability. Industrial Lubrication and Tribology, 2021, 73, 430-435. | 1.3 | 28 |
| 4 | New Methodologies Indicating Adhesive Wear in Load Step Tests on the Translatory Oscillation Tribometer. Lubricants, 2021, 9, 101. | 2.9 | 8 |
| 5 | High Temperature Tribology under Linear Oscillation Motion. Lubricants, 2021, 9, 5. | 2.9 | 4 |
| 6 | The Effects of Energy Efficiency and Resource Consumption on Environmental Sustainability. Lubricants, 2021, 9, 117. | 2.9 | 7 |
| 7 | Global Insights on Future Trends of Hybrid/EV Driveline Lubrication and Thermal Management. Frontiers in Mechanical Engineering, 2020, 6, . | 1.8 | 19 |
| 8 | Test Modes for Establishing the Tribological Profile under Slip-Rolling. Lubricants, 2020, 8, 59. | 2.9 | 9 |
| 9 | Hydrodynamic Fluid Film and Tribofilm Formationâ€"Combining the Friction Signals with Contact Resistance. Materials Performance and Characterization, 2020, 9, 20190261. | 0.3 | 0 |
| 10 | Abrasive wear behavior of austempered ductile iron with niobium additions. Wear, 2019, 440-441, 203065. | 3.1 | 11 |
| 11 | Chapter 20 \| Automotive Engine Lubricants. , 2019, , 753-863. | | 0 |
| 12 | Wear behaviour of Î±-alumina in hot steam at high contact pressure. Wear, 2018, 404-405, 22-30. | 3.1 | 3 |
| 13 | An Alternative Approach to Simulating an Entire Particle Erosion Experiment. Lubricants, 2018, 6, 29. | 2.9 | 5 |
| 14 | Effect of Carbon Content on the Microstructure and Mechanical Properties of NbC-Ni Based Cermets. Metals, 2018, 8, 178. | 2.3 | 14 |
| 15 | Generation of Defined Tribofilms and Their Stability under Slip-Rolling in a 2Disk Test Rig. Materials Performance and Characterization, 2018, 7, 213-225. | 0.3 | 0 |
| 16 | Closure to â€œDiscussion of â€˜Prediction of Tribological Limits in Sliding Contacts: Flash Temperature Calculations in Sliding Contacts and Material Behaviorâ€™â€•(2017, ASME J. Tribol., 139(4), p. 045501). Journal of Tribology, 2017, 139, . | 1.9 | 1 |
| 17 | Tribological Testing and Presentation of Data. , 2017, , 16-32. | | 4 |
| 18 | Prediction of Tribological Limits in Sliding Contacts: Flash Temperature Calculations in Sliding Contacts and Material Behavior. Journal of Tribology, 2016, 138, . | 1.9 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Optimization of pre-conditioned cold work hardening of steel alloys for friction and wear reductions under slip-rolling contact. Wear, 2016, 350-351, 141-154. | 3.1 | 11 |
| 20 | Niobium carbide for wear protection â€“ tailoring its properties by processing and stoichiometry. Metal Powder Report, 2016, 71, 265-272. | 0.1 | 47 |
| 21 | Friction and wear reductions in slip-rolling steel contacts through pre-conditioned chemical tribofilms from bismuth compounds. Wear, 2016, 360-361, 29-37. | 3.1 | 10 |
| 22 | Rolling Contact Fatigue Tests of Ceramics by Various Methods: Comparison of Suitability to the Evaluation of Silicon Nitrides. Journal of Testing and Evaluation, 2016, 44, 1271-1283. | 0.7 | 5 |
| 23 | 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. Tribology Online, 2015, 10, 56-63. | 0.9 | 1 |
| 24 | Comparison of slip-rolling behaviour between 20MnCr5 gear steel, 36NiCrMoV1-5-7 hot working tool steel and 45SiCrMo6 spring steel. Wear, 2015, 328-329, 28-38. | 3.1 | 10 |
| 25 | 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 |
| 26 | Friction and wear reductions under slip-rolling contact through chemically reactive tribofilm generation during pre-conditioning of steel alloys. Wear, 2015, 338-339, 133-143. | 3.1 | 10 |
| 27 | Contact mechanics and tribology of polymer composites. Journal of Applied Polymer Science, 2014, 131, . | 2.6 | 20 |
| 28 | The tribological and mechanical properties of niobium carbides (NbC) bonded with cobalt or Fe3Al. Wear, 2014, 321, 1-7. | 3.1 | 62 |
| 29 | Slip-Rolling Resistance and Load Carrying Capacity of 36NiCrMoV1-5-7 Steel. Materials Performance and Characterization, 2014, 3, 20130022. | 0.3 | 6 |
| 30 | Slip-Rolling Resistance of Alternative Steels Under High Contact Pressures in Engine Oils. , 2014, , 1-29. | | 7 |
| 31 | Low friction slip-rolling contactsâ€"influences of alternative steels, high performance thin film coatings and lubricants. , 2014, , 127-138. | | 4 |
| 32 | Benchmark of Alternative Lubricants for Hydraulic Systems. , 2014, , 52-75. | | 0 |
| 33 | Friction and wear of binder-less niobium carbide. Wear, 2013, 306, 126-130. | 3.1 | 38 |
| 34 | Polyalkylene Glycols as Next Generation Engine Oils. , 2012, , 25-46. | | 0 |
| 35 | Polyalkylene Glycols as Next Generation Engine Oils. , 2012, , 25-46. | | 1 |
| 36 | Oil Free Machinery and â€œZero Wearâ€• Dream or Reality?. Tribology Online, 2011, 6, 101-112. | 0.9 | 1 |

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|---|---|---|---|
| 37 | Slip-rolling resistance of thin films and high toughness steel substrates under high Hertzian contact pressures. Wear, 2011, 270, 506-514. | 3.1 | 13 |
| 38 | Switching adhesion forces by crossing the metalâ€“insulator transition in MagnÃ©li-type vanadium oxide crystals. Beilstein Journal of Nanotechnology, 2011, 2, 59-65. | 2.8 | 17 |
| 39 | Polyalkylene Glycols as Next Generation Engine Oils. Journal of ASTM International, 2011, 8, 1-15. | 0.2 | 8 |
| 40 | The history of the Stribeck curve and ball bearing steels: The role of Adolf Martens. Wear, 2010, 268, 1542-1546. | 3.1 | 70 |
| 41 | Zirconium-based coatings in highly stressed rolling contacts as alternative solution to DLC and ta-C coatings. Wear, 2010, 269, 770-781. | 3.1 | 16 |
| 42 | CO2-Neutral Fuels and Lubricants Based on Second Generation Oils such as Jatropha. Journal of ASTM International, 2010, 7, 1-12. | 0.2 | 1 |
| 43 | Comparison of self-mated hardmetal coatings under dry sliding conditions up to 600Â°C. Wear, 2009, 266, 406-416. | 3.1 | 32 |
| 44 | Biolubricants and triboreactive materials for automotive applications. Tribology International, 2009, 42, 561-568. | 5.9 | 39 |
| 45 | Triboactive materials for dry reciprocating sliding motion at ultra-high frequency. Wear, 2009, 266, 167-174. | 3.1 | 10 |
| 46 | Testing friction and wear of the tribosystem piston ring and cylinder liner outside of engines. TriboTest Journal: Tribology and Lubrication in Practice, 2008, 14, 113-126. | 0.7 | 14 |
| 47 | Zero wear concept using bionotox and polymerâ€free engine oils with triboactive materials. Industrial Lubrication and Tribology, 2008, 60, 14-23. | 1.3 | 2 |
| 48 | No/Low SAP and Alternative Engine Oil Development and Testing. Journal of ASTM International, 2007, 4, 100898. | 0.2 | 15 |
| 49 | Validation of Oxidative Stability of Factory Fill and Alternative Engine Oils Using the Iron Catalyzed Oxidation Test. Journal of ASTM International, 2007, 4, 100938. | 0.2 | 11 |
| 50 | Dry friction and wear rates as under liquid lubrication of ceramic/carbon couples up to 450Â°C. Industrial Lubrication and Tribology, 2004, 56, 38-51. | 1.3 | 7 |
| 51 | Corrosion and Its Impact on Wear Processes. , 2004, , . | | 0 |
| 52 | Influence of test parameters on tribological measurements - results from international round robin tests. TriboTest Journal: Tribology and Lubrication in Practice, 2003, 10, 59-76. | 0.7 | 4 |
| 53 | Testing the tribological properties of lubricants and materials for the system â€œpiston ring/cylinder linerâ€•outside of engines. Industrial Lubrication and Tribology, 2003, 55, 213-222. | 1.3 | 24 |
| 54 | Tribological characteristics of polycrystalline MagnÃ©li-type titanium dioxides. Tribology Letters, 2000, 8, 117-130. | 2.6 | 63 |

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|---|---|---|---|
| 55 | Niobium Carbide - An Innovative and Sustainable High-Performance Material for Tooling, Friction and Wear Applications. , 0, , 67-80. | | 0 |
| 56 | NIOBIUM CARBIDE (NbC) AS WEAR RESISTANT HARDMETAL IN OPENED AND CLOSED TRIBOSYSTEMS. , 0, , . | | 1 |
| 57 | No/Low SAP and Alternative Engine Oil Development and Testing. , 0, , 35-35-13. | | 0 |