

Wenzhong Wang

List of Publications by Year in descending order

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41
papers

1,013
citations

567281

15
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434195

31
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46
all docs

46
docs citations

46
times ranked

624
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust microscale superlubricity under high contact pressure enabled by graphene-coated microsphere. <i>Nature Communications</i> , 2017, 8, 14029.	12.8	235
2	Effects of Differential Scheme and Mesh Density on EHL Film Thickness in Point Contacts. <i>Journal of Tribology</i> , 2006, 128, 641-653.	1.9	124
3	Investigation of skidding in angular contact ball bearings under high speed. <i>Tribology International</i> , 2015, 92, 404-417.	5.9	99
4	Temperature rise of double-row tapered roller bearings analyzed with the thermal network method. <i>Tribology International</i> , 2015, 87, 11-22.	5.9	50
5	The effect of surface roughness characteristics on the elastic-plastic contact performance. <i>Tribology International</i> , 2014, 79, 59-73.	5.9	40
6	The effect of lubricant temperature on dynamic behavior in angular contact ball bearings. <i>Mechanism and Machine Theory</i> , 2020, 149, 103832.	4.5	39
7	Nonlinear Dynamic Behavior of Angular Contact Ball Bearings under Microgravity and Gravity. <i>International Journal of Mechanical Sciences</i> , 2020, 183, 105782.	6.7	30
8	Semi-analytical solution of three-dimensional steady state thermoelastic contact problem of multilayered material under friction heating. <i>International Journal of Thermal Sciences</i> , 2018, 127, 384-399.	4.9	28
9	Multilayer Coatings for Tribology: A Mini Review. <i>Nanomaterials</i> , 2022, 12, 1388.	4.1	24
10	Influence of the cage on the migration and distribution of lubricating oil inside a ball bearing. <i>Friction</i> , 2022, 10, 1035-1045.	6.4	20
11	Effect of the raceway defects on the nonlinear dynamic behavior of rolling bearing. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 2511-2525.	1.5	19
12	Semi-analytic solution of three-dimensional temperature distribution in multilayered materials based on explicit frequency response functions. <i>International Journal of Heat and Mass Transfer</i> , 2018, 118, 208-222.	4.8	18
13	Modeling of Finite-Length Line Contact Problem With Consideration of Two Free-End Surfaces. <i>Journal of Tribology</i> , 2016, 138, .	1.9	17
14	Effect of race conformities in angular contact ball bearing. <i>Tribology International</i> , 2016, 104, 109-120.	5.9	17
15	Layered oil slip model for investigation of film thickness behaviours at high speed conditions. <i>Tribology International</i> , 2019, 131, 137-147.	5.9	17
16	Molecular Dynamics Simulations of Lubricant Recycling in Porous Polyimide Retainers of Bearing. <i>Langmuir</i> , 2021, 37, 2426-2435.	3.5	16
17	Semi-analytic modelling of transversely isotropic magneto-electro-elastic materials under frictional sliding contact. <i>Applied Mathematical Modelling</i> , 2019, 75, 116-140.	4.2	14
18	Investigation on the oil transfer behaviors and the air-oil interfacial flow patterns in a ball bearing under different capillary conditions. <i>Friction</i> , 2023, 11, 228-245.	6.4	14

#	ARTICLE	IF	CITATIONS
19	Modeling of elastic finite-length space rolling-sliding contact problem. Tribology International, 2017, 113, 224-237.	5.9	13
20	Nanodiamond plates as macroscale solid lubricant: A non-layered two-dimension material. Carbon, 2022, 198, 119-131.	10.3	13
21	Optical analysis of ball-on-ring mode test rig for oil film thickness measurement. Friction, 2016, 4, 324-334.	6.4	12
22	Experimental study of EHL film thickness behaviour at high speed in ball-on-ring contacts. Tribology International, 2017, 113, 216-223.	5.9	12
23	Molecular Dynamics Simulations of Lubricant Outflow in Porous Polyimide Retainers of Bearings. Langmuir, 2021, 37, 9162-9169.	3.5	12
24	Effects of electromagnetic fields on the contact of magneto-electro-elastic materials. International Journal of Mechanical Sciences, 2022, 223, 107283.	6.7	12
25	The Effect of Oil Droplet on the Lubrication Performance. Journal of Tribology, 2016, 138, .	1.9	11
26	Behaviors of a micro oil droplet in an EHL contact. Friction, 2016, 4, 359-368.	6.4	11
27	Elastohydrodynamic Lubrication Analysis of Finite Line Contact Problem With Consideration of Two Free End Surfaces. Journal of Tribology, 2017, 139, .	1.9	11
28	Solution of temperature distribution under frictional heating with consideration of material inhomogeneity. Tribology International, 2018, 126, 80-96.	5.9	11
29	Evolution and flow maps of the oil layer in successive rolling point contact systems: Bearing as a case. Physics of Fluids, 2022, 34, .	4.0	10
30	Observation of the oil flow in a ball bearing with a novel experiment method and simulation. Tribology International, 2022, 174, 107731.	5.9	10
31	Patterns of interfacial flow around a lubricated rolling point contact region. Physics of Fluids, 2021, 33, .	4.0	9
32	Functionalized graphene-oxide nanosheets with amino groups facilitate macroscale superlubricity. Friction, 2023, 11, 187-200.	6.4	9
33	Oil redistribution and replenishment on stationary bearing inner raceway. Tribology International, 2022, 165, 107315.	5.9	8
34	The effect of meso-structure and surface topography on the indentation variability of viscoelastic composite materials. Composite Structures, 2019, 220, 81-92.	5.8	7
35	Characteristic parameter to predict the lubricant outflow from porous polyimide retainer material. Tribology International, 2022, 173, 107596.	5.9	6
36	Controlled friction behaviors of gradient porous Cu-Zn composites storing ionic liquids under electric field. AIP Advances, 2018, 8, .	1.3	4

#	ARTICLE	IF	CITATIONS
37	Slip status in lubricated point-contact based on layered oil slip lubrication model. Tribology International, 2020, 144, 106104.	5.9	4
38	Liquid Superlubricity Enabled by the Synergy Effect of Graphene Oxide and Lithium Salts. Materials, 2022, 15, 3546.	2.9	3
39	Intermittent failure mechanism and stabilization of microscale electrical contact. Friction, 2023, 11, 538-545.	6.4	2
40	An Experimental Study on the Distribution and Migration of Lubricating Oil in Rolling Bearings at Low Speeds. Tribology Transactions, 2022, 65, 677-685.	2.0	2
41	10.1063/5.0084464.3. , 2022, , .		0