

# Jianbin Luo

## List of Publications by Citations

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379  
papers

8,934  
citations

45  
h-index

73  
g-index

394  
ext. papers

11,309  
ext. citations

5.4  
avg, IF

6.85  
L-index

#	Paper	IF	Citations
379	Mechanical properties of nanoparticles: basics and applications. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 013001	3	322
378	Double-walled carbon nanotube solar cells. <i>Nano Letters</i> , <b>2007</b> , 7, 2317-21	11.5	298
377	Thin film lubrication. Part I. Study on the transition between EHL and thin film lubrication using a relative optical interference intensity technique. <i>Wear</i> , <b>1996</b> , 194, 107-115	3.5	237
376	Marangoni flow in an evaporating water droplet. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 124102	3.4	207
375	NanotubeSilicon Heterojunction Solar Cells. <i>Advanced Materials</i> , <b>2008</b> , 20, 4594-4598	24	201
374	Robust microscale superlubricity under high contact pressure enabled by graphene-coated microsphere. <i>Nature Communications</i> , <b>2017</b> , 8, 14029	17.4	176
373	An investigation on the tribological properties of multilayer graphene and MoS2 nanosheets as additives used in hydraulic applications. <i>Tribology International</i> , <b>2016</b> , 97, 14-20	4.9	156
372	Superlubricity behavior with phosphoric acid-water network induced by rubbing. <i>Langmuir</i> , <b>2011</b> , 27, 9413-7	4	127
371	Friction-induced nano-structural evolution of graphene as a lubrication additive. <i>Applied Surface Science</i> , <b>2018</b> , 434, 21-27	6.7	117
370	CMP of hard disk substrate using a colloidal SiO2 slurry: preliminary experimental investigation. <i>Wear</i> , <b>2004</b> , 257, 461-470	3.5	114
369	Ultrathin MoS2 Nanosheets with Superior Extreme Pressure Property as Boundary Lubricants. <i>Scientific Reports</i> , <b>2015</b> , 5, 12869	4.9	113
368	Evolution of tribo-induced interfacial nanostructures governing superlubricity in a-C:H and a-C:H:Si films. <i>Nature Communications</i> , <b>2017</b> , 8, 1675	17.4	112
367	Black phosphorus as a new lubricant. <i>Friction</i> , <b>2018</b> , 6, 116-142	5.6	102
366	Superlubricity achieved with mixtures of acids and glycerol. <i>Langmuir</i> , <b>2013</b> , 29, 271-5	4	89
365	Superlubricity of a graphene/MoS heterostructure: a combined experimental and DFT study. <i>Nanoscale</i> , <b>2017</b> , 9, 10846-10853	7.7	85
364	Robust ultra-low-friction state of graphene via moiré superlattice confinement. <i>Nature Communications</i> , <b>2016</b> , 7, 13204	17.4	84
363	Criterion for reversal of thermal Marangoni flow in drying drops. <i>Langmuir</i> , <b>2010</b> , 26, 1918-22	4	84

362	Macroscale Superlubricity Enabled by the Synergy Effect of Graphene-Oxide Nanoflakes and Ethanediol. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 40863-40870	9.5	78
361	Superlubricity of two-dimensional fluorographene/MoS2 heterostructure: a first-principles study. <i>Nanotechnology</i> , <b>2014</b> , 25, 385701	3.4	75
360	Interlayer Friction and Superlubricity in Single-Crystalline Contact Enabled by Two-Dimensional Flake-Wrapped Atomic Force Microscope Tips. <i>ACS Nano</i> , <b>2018</b> , 12, 7638-7646	16.7	74
359	Self-Assembled Graphene Film as Low Friction Solid Lubricant in Macroscale Contact. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 21554-21562	9.5	73
358	The Tribological Properties of Oils Added with Diamond Nano-Particles. <i>Tribology Transactions</i> , <b>2001</b> , 44, 494-498	1.8	73
357	Black Phosphorus: Degradation Favors Lubrication. <i>Nano Letters</i> , <b>2018</b> , 18, 5618-5627	11.5	71
356	Tribochemistry and superlubricity induced by hydrogen ions. <i>Langmuir</i> , <b>2012</b> , 28, 15816-23	4	67
355	Superlubricity of Black Phosphorus as Lubricant Additive. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 43203-43210	9.5	67
354	Superlubricity achieved with mixtures of polyhydroxy alcohols and acids. <i>Langmuir</i> , <b>2013</b> , 29, 5239-45	4	65
353	The effect of sulfur on the number of layers in a carbon nanotube. <i>Carbon</i> , <b>2007</b> , 45, 2152-2158	10.4	64
352	Superlubricity of Graphite Induced by Multiple Transferred Graphene Nanoflakes. <i>Advanced Science</i> , <b>2018</b> , 5, 1700616	13.6	63
351	Elastic properties of polystyrene nanospheres evaluated with atomic force microscopy: size effect and error analysis. <i>Langmuir</i> , <b>2014</b> , 30, 7206-12	4	61
350	Nanoconfined ionic liquids under electric fields. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 043112	3.4	61
349	A comparative study between graphene oxide and diamond nanoparticles as water-based lubricating additives. <i>Science China Technological Sciences</i> , <b>2013</b> , 56, 152-157	3.5	60
348	Excellent lubricating behavior of <i>Brasenia schreberi</i> mucilage. <i>Langmuir</i> , <b>2012</b> , 28, 7797-802	4	59
347	Ultrasonic flexural vibration assisted chemical mechanical polishing for sapphire substrate. <i>Applied Surface Science</i> , <b>2010</b> , 256, 3936-3940	6.7	56
346	Superlubricative engineering future industry nearly getting rid of wear and frictional energy consumption. <i>Friction</i> , <b>2020</b> , 8, 643-665	5.6	54
345	Synergetic effect of H <sub>2</sub> O <sub>2</sub> and glycine on cobalt CMP in weakly alkaline slurry. <i>Microelectronic Engineering</i> , <b>2014</b> , 122, 82-86	2.5	54

344	Rare earth effect on the microstructure and wear resistance of Ni-based coatings. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 454-455, 194-202	5.3	54
343	1,2,4-Triazole as a corrosion inhibitor in copper chemical mechanical polishing. <i>Thin Solid Films</i> , <b>2014</b> , 556, 395-404	2.2	52
342	Self-Lubricating PTFE-Based Composites with Black Phosphorus Nanosheets. <i>Tribology Letters</i> , <b>2018</b> , 66, 1	2.8	51
341	Thin film lubrication in the past 20 years. <i>Friction</i> , <b>2016</b> , 4, 280-302	5.6	51
340	Rare earth effect on microstructure, mechanical and tribological properties of CoCrW coatings. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 444, 92-98	5.3	50
339	Monoatomic layer removal mechanism in chemical mechanical polishing process: A molecular dynamics study. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 064310	2.5	49
338	Macroscale superlubricity under extreme pressure enabled by the combination of graphene-oxide nanosheets with ionic liquid. <i>Carbon</i> , <b>2019</b> , 151, 76-83	10.4	48
337	Advancements in superlubricity. <i>Science China Technological Sciences</i> , <b>2013</b> , 56, 2877-2887	3.5	47
336	Tribochemistry of Phosphoric Acid Sheared between Quartz Surfaces: A Reactive Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 25604-25614	3.8	46
335	Superlubricity of Graphite Sliding against Graphene Nanoflake under Ultrahigh Contact Pressure. <i>Advanced Science</i> , <b>2018</b> , 5, 1800810	13.6	46
334	Effects of the ultrasonic flexural vibration on the interaction between the abrasive particles; pad and sapphire substrate during chemical mechanical polishing (CMP). <i>Applied Surface Science</i> , <b>2011</b> , 257, 2905-2911	6.7	45
333	Highly Exfoliated Reduced Graphite Oxide Powders as Efficient Lubricant Oil Additives. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600700	4.6	44
332	Effect of ionic strength on ruthenium CMP in H <sub>2</sub> O <sub>2</sub> -based slurries. <i>Applied Surface Science</i> , <b>2014</b> , 317, 332-337	6.7	43
331	Tribochemical mechanism of amorphous silica asperities in aqueous environment: a reactive molecular dynamics study. <i>Langmuir</i> , <b>2015</b> , 31, 1429-36	4	43
330	Synergetic effect of benzotriazole and non-ionic surfactant on copper chemical mechanical polishing in KIO <sub>4</sub> -based slurries. <i>Thin Solid Films</i> , <b>2014</b> , 558, 272-278	2.2	43
329	Friction and wear performance of titanium alloy against tungsten carbide lubricated with phosphate ester. <i>Tribology International</i> , <b>2016</b> , 95, 27-34	4.9	42
328	Tribological properties of titanium alloys under lubrication of SEE oil and aqueous solutions. <i>Tribology International</i> , <b>2017</b> , 109, 40-47	4.9	41
327	AFM Studies on Liquid Superlubricity between Silica Surfaces Achieved with Surfactant Micelles. <i>Langmuir</i> , <b>2016</b> , 32, 5593-9	4	41

326	Synthesis of thermally reduced graphite oxide in sulfuric acid and its application as an efficient lubrication additive. <i>Tribology International</i> , <b>2017</b> , 116, 303-309	4.9	41
325	Temperature distribution along the surface of evaporating droplets. <i>Physical Review E</i> , <b>2014</b> , 89, 032404	4.4	41
324	Abrasive rolling effects on material removal and surface finish in chemical mechanical polishing analyzed by molecular dynamics simulation. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 084335	2.5	41
323	Investigation of the difference in liquid superlubricity between water- and oil-based lubricants. <i>RSC Advances</i> , <b>2015</b> , 5, 63827-63833	3.7	39
322	Lubrication under charged conditions. <i>Tribology International</i> , <b>2015</b> , 84, 22-35	4.9	39
321	Superlubricity and Antiwear Properties of In Situ-Formed Ionic Liquids at Ceramic Interfaces Induced by Tribochemical Reactions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 6568-6574	9.5	39
320	Superlubricity of silicone oil achieved between two surfaces by running-in with acid solution. <i>RSC Advances</i> , <b>2015</b> , 5, 30861-30868	3.7	38
319	Tribological properties of rare earth oxide added Cr <sub>3</sub> C <sub>2</sub> NiCr coatings. <i>Applied Surface Science</i> , <b>2007</b> , 253, 4377-4385	6.7	38
318	Influence of the micromorphology of reduced graphene oxide sheets on lubrication properties as a lubrication additive. <i>Tribology International</i> , <b>2018</b> , 119, 614-621	4.9	38
317	Mechanical and tribological properties of nanocomposites incorporated with two-dimensional materials. <i>Friction</i> , <b>2020</b> , 8, 813-846	5.6	37
316	Enhancement of friction performance enabled by a synergetic effect between graphene oxide and molybdenum disulfide. <i>Carbon</i> , <b>2019</b> , 154, 266-276	10.4	37
315	Ultra-Wear-Resistant MXene-Based Composite Coating via in Situ Formed Nanostructured Tribofilm. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 32569-32576	9.5	37
314	Hydrodynamic effect on the superlubricity of phosphoric acid between ceramic and sapphire. <i>Friction</i> , <b>2014</b> , 2, 173-181	5.6	37
313	Tribological Behavior of NiAl-Layered Double Hydroxide Nanoplatelets as Oil-Based Lubricant Additives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 30891-30899	9.5	37
312	Numerical optimization of the groove texture bottom profile for thrust bearings. <i>Tribology International</i> , <b>2017</b> , 109, 69-77	4.9	36
311	Mechanism of biological liquid superlubricity of <i>Brasenia schreberi</i> mucilage. <i>Langmuir</i> , <b>2014</b> , 30, 3811-64		36
310	Optimization of groove texture profile to improve hydrodynamic lubrication performance: Theory and experiments. <i>Friction</i> , <b>2020</b> , 8, 83-94	5.6	36
309	The protective properties of ultra-thin diamond like carbon films for high density magnetic storage devices. <i>Applied Surface Science</i> , <b>2009</b> , 256, 322-328	6.7	34

308	Effect of surface physicochemical properties on the lubricating properties of water film. <i>Applied Surface Science</i> , <b>2008</b> , 254, 7137-7142	6.7	34
307	Effect of substrate morphology on the roughness evolution of ultra thin DLC films. <i>Applied Surface Science</i> , <b>2008</b> , 254, 6742-6748	6.7	34
306	Synergistic tribological behaviors of graphene oxide and nanodiamond as lubricating additives in water. <i>Tribology International</i> , <b>2019</b> , 132, 177-184	4.9	34
305	Effects of grain boundary on wear of graphene at the nanoscale: A molecular dynamics study. <i>Carbon</i> , <b>2019</b> , 143, 578-586	10.4	34
304	Tribological behavior of polytetrafluoroethylene coating reinforced with black phosphorus nanoparticles. <i>Applied Surface Science</i> , <b>2018</b> , 441, 670-677	6.7	33
303	Layered Double Hydroxide Nanoplatelets with Excellent Tribological Properties under High Contact Pressure as Water-Based Lubricant Additives. <i>Scientific Reports</i> , <b>2016</b> , 6, 22748	4.9	33
302	Characteristics of Liquid Lubricant Films at the Nano-Scale. <i>Journal of Tribology</i> , <b>1999</b> , 121, 872-878	1.8	33
301	Intelligent lubricating materials: A review. <i>Composites Part B: Engineering</i> , <b>2020</b> , 202, 108450	10	33
300	Macroscale Superlubricity Enabled by Hydrated Alkali Metal Ions. <i>Langmuir</i> , <b>2018</b> , 34, 11281-11291	4	33
299	Liquid Superlubricity of Polyethylene Glycol Aqueous Solution Achieved with Boric Acid Additive. <i>Langmuir</i> , <b>2018</b> , 34, 3578-3587	4	32
298	Electrochemical investigation of copper passivation kinetics and its application to low-pressure CMP modeling. <i>Applied Surface Science</i> , <b>2013</b> , 265, 764-770	6.7	32
297	Chemical mechanical polishing of steel substrate using colloidal silica-based slurries. <i>Applied Surface Science</i> , <b>2015</b> , 330, 487-495	6.7	31
296	Investigation of running-in process in water-based lubrication aimed at achieving super-low friction. <i>Tribology International</i> , <b>2016</b> , 102, 257-264	4.9	31
295	Controllable superlubricity of glycerol solution via environment humidity. <i>Langmuir</i> , <b>2013</b> , 29, 11924-30	4	31
294	Mild thermal reduction of graphene oxide as a lubrication additive for friction and wear reduction. <i>RSC Advances</i> , <b>2017</b> , 7, 1766-1770	3.7	30
293	Random occurrence of macroscale superlubricity of graphite enabled by tribo-transfer of multilayer graphene nanoflakes. <i>Carbon</i> , <b>2018</b> , 138, 154-160	10.4	30
292	In Situ Green Synthesis of the New Sandwichlike Nanostructure of MnO/Graphene as Lubricant Additives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 36931-36938	9.5	30
291	Investigation of the running-in process and friction coefficient under the lubrication of ionic liquid/water mixture. <i>Applied Surface Science</i> , <b>2009</b> , 255, 6408-6414	6.7	30

290	Mechanisms for nano particle removal in brush scrubber cleaning. <i>Applied Surface Science</i> , <b>2011</b> , 257, 3055-3062	6.7	30
289	Mechanism of Antiwear Property Under High Pressure of Synthetic Oil-Soluble Ultrathin MoS Sheets as Lubricant Additives. <i>Langmuir</i> , <b>2018</b> , 34, 1635-1644	4	29
288	Investigations of the superlubricity of sapphire against ruby under phosphoric acid lubrication. <i>Friction</i> , <b>2014</b> , 2, 164-172	5.6	29
287	Superlubricity of Polyalkylene Glycol Aqueous Solutions Enabled by Ultrathin Layered Double Hydroxide Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20249-20256	9.5	28
286	Atomic-scale insights into the interfacial instability of superlubricity in hydrogenated amorphous carbon films. <i>Science Advances</i> , <b>2020</b> , 6, eaay1272	14.3	28
285	Radial-velocity profile along the surface of evaporating liquid droplets. <i>Soft Matter</i> , <b>2012</b> , 8, 5797	3.6	28
284	Investigation of Protein Adsorption Mechanism and Biotribological Properties at Simulated Stem-Cement Interface. <i>Journal of Tribology</i> , <b>2013</b> , 135,	1.8	28
283	A review on tribology of polymer composite coatings. <i>Friction</i> , <b>2021</b> , 9, 429-470	5.6	28
282	Friction and wear behavior of PTFE coatings modified with poly (methyl methacrylate). <i>Composites Part B: Engineering</i> , <b>2019</b> , 172, 316-322	10	27
281	Extrusion formation mechanism on silicon surface under the silica cluster impact studied by molecular dynamics simulation. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 104907	2.5	27
280	Nano-tribological properties and mechanisms of the liquid crystal as an additive. <i>Science Bulletin</i> , <b>2001</b> , 46, 1227-1232		27
279	Electrical bearing failures in electric vehicles. <i>Friction</i> , <b>2020</b> , 8, 4-28	5.6	26
278	Black Phosphorus Quantum Dots in Aqueous Ethylene Glycol for Macroscale Superlubricity. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 4799-4809	5.6	25
277	Investigation of Superlubricity Achieved by Polyalkylene Glycol Aqueous Solutions. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600531	4.6	25
276	Superlubricity of 1-Ethyl-3-methylimidazolium trifluoromethanesulfonate Ionic Liquid Induced by Tribochemical Reactions. <i>Langmuir</i> , <b>2018</b> , 34, 5245-5252	4	24
275	Effects of Chemical Additives of CMP Slurry on Surface Mechanical Characteristics and Material Removal of Copper. <i>Tribology Letters</i> , <b>2012</b> , 45, 309-317	2.8	24
274	Analysis of Measurement Inaccuracy in Superlubricity Tests. <i>Tribology Transactions</i> , <b>2013</b> , 56, 141-147	1.8	24
273	Investigation of the film formation mechanism of oil-in-water (O/W) emulsions. <i>Soft Matter</i> , <b>2011</b> , 7, 4207	3.6	24

272	Film forming characteristics of oil-in-water emulsion with super-low oil concentration. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2009</b> , 340, 70-76	5.1	24
271	Preparation and characterization of La <sub>2</sub> O <sub>3</sub> doped diamond-like carbon nanofilms (I): Structure analysis. <i>Diamond and Related Materials</i> , <b>2007</b> , 16, 1905-1911	3.5	24
270	Molecular behaviors in thin film lubrication Part one: Film formation for different polarities of molecules. <i>Friction</i> , <b>2019</b> , 7, 372-387	5.6	23
269	Combined effects of underlying substrate and evaporative cooling on the evaporation of sessile liquid droplets. <i>Soft Matter</i> , <b>2015</b> , 11, 5632-40	3.6	23
268	Tribological properties of few-layer graphene oxide sheets as oil-based lubricant additives. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , <b>2016</b> , 29, 439-444	2.5	23
267	Superlubricity of nanodiamonds glycerol colloidal solution between steel surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2016</b> , 489, 400-406	5.1	23
266	Contribution of a Tribo-Induced Silica Layer to Macroscale Superlubricity of Hydrated Ions. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 20270-20277	3.8	23
265	Preparation of Alumina-g-polyacrylamide composite abrasive and chemical mechanical polishing behavior. <i>Thin Solid Films</i> , <b>2008</b> , 516, 3005-3008	2.2	23
264	Moiré superlattice-level stick-slip instability originated from geometrically corrugated graphene on a strongly interacting substrate. <i>2D Materials</i> , <b>2017</b> , 4, 025079	5.9	22
263	Tribochemical Behaviors of Onion-like Carbon Films as High-Performance Solid Lubricants with Variable Interfacial Nanostructures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 25535-25546	9.5	22
262	Macroscale Superlubricity Achieved With Various Liquid Molecules: A Review. <i>Frontiers in Mechanical Engineering</i> , <b>2019</b> , 5,	2.6	22
261	Super-Slippery Degraded Black Phosphorus/Silicon Dioxide Interface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 7717-7726	9.5	22
260	Origin of hydration lubrication of zwitterions on graphene. <i>Nanoscale</i> , <b>2018</b> , 10, 16887-16894	7.7	22
259	Zwitterionic Hydrogel Incorporated Graphene Oxide Nanosheets with Improved Strength and Lubricity. <i>Langmuir</i> , <b>2019</b> , 35, 11452-11462	4	22
258	Ultra-low friction of a-C:H films enabled by lubrication of nanodiamond and graphene in ambient air. <i>Carbon</i> , <b>2019</b> , 154, 203-210	10.4	22
257	Material Removal Mechanism of Copper CMP from a Chemical-Mechanical Synergy Perspective. <i>Tribology Letters</i> , <b>2013</b> , 49, 11-19	2.8	22
256	"Freezing" of nanoconfined fluids under an electric field. <i>Langmuir</i> , <b>2010</b> , 26, 1445-8	4	22
255	Direct Visualization of Exciton Transport in Defective Few-Layer WS by Ultrafast Microscopy. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906540	24	22



254	Molecular Origin of Superlubricity between Graphene and a Highly Hydrophobic Surface in Water. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 2978-2984	6.4	21
253	Molecular behaviors in thin film lubrication Part three: Superlubricity attained by polar and nonpolar molecules. <i>Friction</i> , <b>2019</b> , 7, 625-636	5.6	21
252	The film forming behavior at high speeds under oil-air lubrication. <i>Tribology International</i> , <b>2015</b> , 91, 6-13	4.9	21
251	Macroscale Superlubricity Achieved on the Hydrophobic Graphene Coating with Glycerol. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 18859-18869	9.5	21
250	Effect of surface charge on water film nanoconfined between hydrophilic solid surfaces. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 124301	2.5	21
249	The Failure of Fluid Film at Nano-Scale. <i>Tribology Transactions</i> , <b>1999</b> , 42, 912-916	1.8	21
248	Core-shell nanospheres to achieve ultralow friction polymer nanocomposites with superior mechanical properties. <i>Nanoscale</i> , <b>2019</b> , 11, 8237-8246	7.7	20
247	Exciton Radiative Recombination Dynamics and Nonradiative Energy Transfer in Two-Dimensional Transition-Metal Dichalcogenides. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 10087-10093	3.8	20
246	Functions of Trilon P as a polyamine in copper chemical mechanical polishing. <i>Applied Surface Science</i> , <b>2014</b> , 288, 265-274	6.7	20
245	Modification on the tribological properties of ceramics lubricated by water using fullereneol as a lubricating additive. <i>Science China Technological Sciences</i> , <b>2012</b> , 55, 2656-2661	3.5	20
244	Investigations on the mechanism of superlubricity achieved with phosphoric acid solution by direct observation. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 114901	2.5	20
243	Comparison of surface damage under the dry and wet impact: Molecular dynamics simulation. <i>Applied Surface Science</i> , <b>2011</b> , 258, 1756-1761	6.7	20
242	Micro-Bubble Phenomenon in Nanoscale Water-based Lubricating Film Induced by External Electric Field. <i>Tribology Letters</i> , <b>2008</b> , 29, 169-176	2.8	20
241	Fluorinated Graphene: A Promising Macroscale Solid Lubricant under Various Environments. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 40470-40480	9.5	19
240	Experimental Investigation of Lubrication Film Starvation of Polyalphaolefin Oil at High Speeds. <i>Tribology Letters</i> , <b>2014</b> , 56, 491-500	2.8	19
239	Progress in material removal mechanisms of surface polishing with ultra precision. <i>Science Bulletin</i> , <b>2004</b> , 49, 1687-1693		19
238	Microstructure, mechanical and adhesive properties of CrN/CrTiAlSiN/WCrTiAlN multilayer coatings deposited on nitrided AISI 4140 steel. <i>Materials Characterization</i> , <b>2019</b> , 147, 353-364	3.9	19
237	Ultralow friction polymer composites incorporated with monodispersed oil microcapsules. <i>Friction</i> , <b>2021</b> , 9, 29-40	5.6	19

236	Molecular behaviors in thin film lubrication Part two: Direct observation of the molecular orientation near the solid surface. <i>Friction</i> , <b>2019</b> , 7, 479-488	5.6	18
235	Failure analysis of journal bearing used in turboset of a power plant. <i>Materials &amp; Design</i> , <b>2013</b> , 52, 923-931		18
234	Performance of Sodium Dodecyl Sulfate in Slurry with Glycine and Hydrogen Peroxide for Copper-Chemical Mechanical Polishing. <i>Journal of the Electrochemical Society</i> , <b>2010</b> , 157, H1082	3.9	18
233	Particles detection and analysis of hard disk substrate after cleaning of post chemical mechanical polishing. <i>Applied Surface Science</i> , <b>2009</b> , 255, 9100-9104	6.7	18
232	Gas bubble phenomenon in nanoscale liquid film under external electric field. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 013104	3.4	18
231	Modified graphene as novel lubricating additive with high dispersion stability in oil. <i>Friction</i> , <b>2021</b> , 9, 143-154	5.6	18
230	A novel route to the synthesis of an FeO/h-BN 2D nanocomposite as a lubricant additive.. <i>RSC Advances</i> , <b>2019</b> , 9, 6583-6588	3.7	17
229	Interfacial Nanostructure of 2D Ti3C2/Graphene Quantum Dots Hybrid Multicoating for Ultralow Wear. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 1901369	3.5	17
228	Reduction of friction stress of ethylene glycol by attached hydrogen ions. <i>Scientific Reports</i> , <b>2014</b> , 4, 7226	4.9	17
227	Mechanical properties of La2O3 doped diamond-like carbon films. <i>Surface and Coatings Technology</i> , <b>2008</b> , 202, 1621-1627	4.4	17
226	Ultrastable Lubricating Properties of Robust Self-Repairing Tribofilms Enabled by in Situ-Assembled Polydopamine Nanoparticles. <i>Langmuir</i> , <b>2020</b> , 36, 852-861	4	17
225	Superhigh-exfoliation graphene with a unique two-dimensional (2D) microstructure for lubrication application. <i>Applied Surface Science</i> , <b>2020</b> , 513, 145608	6.7	16
224	A molecular dynamics study of lubricating mechanism of graphene nanoflakes embedded in Cu-based nanocomposite. <i>Applied Surface Science</i> , <b>2020</b> , 511, 145620	6.7	16
223	Mechanical properties and interface characteristics of nanoporous low-k materials. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 13850-8	9.5	16
222	Nonlinear Frictional Energy Dissipation between Silica-Adsorbed Surfactant Micelles. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 2258-2262	6.4	15
221	Preparation and tribological properties of solid-liquid synergetic self-lubricating PTFE/SiO2/PAO6 composites. <i>Composites Part B: Engineering</i> , <b>2020</b> , 196, 108133	10	15
220	Layer-Number-Dependent Exciton Recombination Behaviors of MoS2 Determined by Fluorescence-Lifetime Imaging Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 18651-18658	3.8	15
219	Superlubricity of 1,3-diketone based on autonomous viscosity control at various velocities. <i>Tribology International</i> , <b>2018</b> , 126, 127-132	4.9	15

218	Achievement of a near-perfect smooth silicon surface. <i>Science China Technological Sciences</i> , <b>2013</b> , 56, 2847-2853	3.5	15
217	Experimental Investigation of Centrifugal Effects on Lubricant Replenishment in the Starved Regime at High Speeds. <i>Tribology Letters</i> , <b>2015</b> , 59, 1	2.8	15
216	Modeling of particle removal processes in brush scrubber cleaning. <i>Wear</i> , <b>2011</b> , 273, 105-110	3.5	15
215	Effect of microcontent of oil in water under confined condition. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 091908	3.4	15
214	Energy transfer under impact load studied by molecular dynamics simulation. <i>Journal of Nanoparticle Research</i> , <b>2009</b> , 11, 589-600	2.3	15
213	Modeling the Chemical-Mechanical Synergy during Copper CMP. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H197	3.9	15
212	Tribo-Induced Interfacial Material Transfer of an Atomic Force Microscopy Probe Assisting Superlubricity in a WS/Graphene Heterojunction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 4031-4040	9.5	15
211	Chemical Mechanical Polishing of Stainless Steel as Solar Cell Substrate. <i>ECS Journal of Solid State Science and Technology</i> , <b>2015</b> , 4, P162-P170	2	14
210	Superlubricity of Si3N4 sliding against SiO2 under linear contact conditions in phosphoric acid solutions. <i>Science China Technological Sciences</i> , <b>2013</b> , 56, 1678-1684	3.5	14
209	In situ observation of the molecular ordering in the lubricating point contact area. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 014302	2.5	14
208	Effect of Nanoparticle Impact on Material Removal. <i>Tribology Transactions</i> , <b>2008</b> , 51, 718-722	1.8	14
207	Macroscale superlubricity achieved between zwitterionic copolymer hydrogel and sapphire in water. <i>Materials and Design</i> , <b>2020</b> , 188, 108441	8.1	14
206	Origins of Superlubricity Promoted by Hydrated Multivalent Ions. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 184-190	6.4	14
205	Influence Factors on Mechanisms of Superlubricity in DLC Films: A Review. <i>Frontiers in Mechanical Engineering</i> , <b>2020</b> , 6,	2.6	14
204	Influence of tribofilm on superlubricity of highly-hydrogenated amorphous carbon films in inert gaseous environments. <i>Science China Technological Sciences</i> , <b>2016</b> , 59, 1795-1803	3.5	14
203	An investigation on the tribological behaviors of steel/copper and steel/steel friction pairs via lubrication with a graphene additive. <i>Friction</i> , <b>2021</b> , 9, 228-238	5.6	14
202	Effect of liquid crystal molecular orientation controlled by an electric field on friction. <i>Tribology International</i> , <b>2017</b> , 115, 477-482	4.9	13
201	Superlow Friction of Graphite Induced by the Self-Assembly of Sodium Dodecyl Sulfate Molecular Layers. <i>Langmuir</i> , <b>2017</b> , 33, 12596-12601	4	13

200	Laser irradiation-induced laminated graphene/MoS composites with synergistically improved tribological properties. <i>Nanotechnology</i> , <b>2018</b> , 29, 265704	3.4	13
199	Passivation Kinetics of 1,2,4-Triazole in Copper Chemical Mechanical Polishing. <i>ECS Journal of Solid State Science and Technology</i> , <b>2016</b> , 5, P272-P279	2	13
198	Fracture of the Intermolecular Hydrogen Bond Network Structure of Glycerol Modified by Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 19931-19936	3.8	13
197	Reemulsification effect on the film formation of O/W emulsion. <i>Journal of Colloid and Interface Science</i> , <b>2014</b> , 417, 238-43	9.3	13
196	Bubble generation in a nanoconfined liquid film between dielectric-coated electrodes under alternating current electric fields. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 223104	3.4	13
195	Nanoconfined liquid aliphatic compounds under external electric fields: roles of headgroup and alkyl chain length. <i>Soft Matter</i> , <b>2011</b> , 7, 4453	3.6	13
194	Microstructure and mechanical properties of CeO <sub>2</sub> doped diamond-like carbon films. <i>Diamond and Related Materials</i> , <b>2008</b> , 17, 396-404	3.5	13
193	Understanding Interlayer Contact Conductance in Twisted Bilayer Graphene. <i>Small</i> , <b>2020</b> , 16, e1902844	11	13
192	Superlubricity between Graphite Layers in Ultrahigh Vacuum. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 43167-43172	9.5	13
191	In-situ formation of tribofilm with Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene nanoflakes triggers macroscale superlubricity. <i>Tribology International</i> , <b>2021</b> , 154, 106695	4.9	13
190	Influence of annealing on the tribological properties of Zr-based bulk metallic glass. <i>Journal of Non-Crystalline Solids</i> , <b>2018</b> , 481, 94-97	3.9	13
189	Enhanced phase and amplitude image contrasts of polymers in bimodal atomic force microscopy. <i>RSC Advances</i> , <b>2017</b> , 7, 11768-11776	3.7	12
188	Investigation of the lubrication properties and synergistic interaction of biocompatible liposome-polymer complexes applicable to artificial joints. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2019</b> , 178, 469-478	6	12
187	Enhancement of friction performance of fluorinated graphene and molybdenum disulfide coating by microdimple arrays. <i>Carbon</i> , <b>2020</b> , 167, 122-131	10.4	12
186	A highly tough and ultralow friction resin nanocomposite with crosslinkable polymer-encapsulated nanoparticles. <i>Composites Part B: Engineering</i> , <b>2020</b> , 197, 108157	10	12
185	Optimization of design of experiment for chemical mechanical polishing of a 12-inch wafer. <i>Microelectronic Engineering</i> , <b>2013</b> , 112, 5-9	2.5	12
184	Planarization process of single crystalline silicon asperity under abrasive rolling effect studied by molecular dynamics simulation. <i>Applied Physics A: Materials Science and Processing</i> , <b>2012</b> , 109, 119-126	2.6	12
183	Measurement of the friction between single polystyrene nanospheres and silicon surface using atomic force microscopy. <i>Langmuir</i> , <b>2013</b> , 29, 6920-5	4	12

182	Aminosilanization nanoadhesive layer for nanoelectric circuits with porous ultralow dielectric film. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 6097-107	9.5	12
181	A lubrication model between the soft porous brush and rigid flat substrate for post-CMP cleaning. <i>Microelectronic Engineering</i> , <b>2011</b> , 88, 2862-2870	2.5	12
180	Nanoparticle-wall collision in a laminar cylindrical liquid jet. <i>Journal of Colloid and Interface Science</i> , <b>2011</b> , 359, 334-8	9.3	12
179	Probing Particle Movement in CMP with Fluorescence Technique. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H681	3.9	12
178	Superlubricity under ultrahigh contact pressure enabled by partially oxidized black phosphorus nanosheets. <i>Npj 2D Materials and Applications</i> , <b>2021</b> , 5,	8.8	12
177	XPS and ToF-SIMS analysis of the tribochemical absorbed films on steel surfaces lubricated with diketone. <i>Tribology International</i> , <b>2019</b> , 130, 184-190	4.9	12
176	2D metal-organic frameworks with square grid structure: A promising new-generation superlubricating material. <i>Nano Today</i> , <b>2021</b> , 40, 101262	17.9	12
175	Graphene-induced reconstruction of the sliding interface assisting the improved lubricity of various tribo-couples. <i>Materials and Design</i> , <b>2020</b> , 191, 108661	8.1	11
174	Superlubrication obtained with mixtures of hydrated ions and polyethylene glycol solutions in the mixed and hydrodynamic lubrication regimes. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 579, 479-488	9.3	11
173	Expressions for the evaporation of sessile liquid droplets incorporating the evaporative cooling effect. <i>Journal of Colloid and Interface Science</i> , <b>2016</b> , 484, 291-297	9.3	11
172	Insight into the formation mechanism of durable hexadecylphosphonic acid bilayers on titanium alloy through interfacial analysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2014</b> , 447, 51-58	5.1	11
171	Electrospreading of dielectric liquid menisci on the small scale. <i>Soft Matter</i> , <b>2011</b> , 7, 6076	3.6	11
170	Film-forming Characteristics of Grease in Point Contact under Swaying Motions. <i>Tribology Letters</i> , <b>2009</b> , 35, 57-65	2.8	11
169	Experimental Investigation of Lubrication Properties at High Contact Pressure. <i>Tribology Letters</i> , <b>2010</b> , 40, 85-97	2.8	11
168	Progresses and problems in nano-tribology. <i>Science Bulletin</i> , <b>1998</b> , 43, 369-378		11
167	Synergistic Effect of Ethylene Thiourea and Bis-(3-sulfopropyl)-disulfide on Acid Cu Electrodeposition. <i>Journal of the Electrochemical Society</i> , <b>2007</b> , 154, D526	3.9	11
166	Catalytically Active Oil-Based Lubricant Additives Enabled by Calcining Ni-Al Layered Double Hydroxides. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 113-120	6.4	11
165	Macroscale superlubricity of Si-doped diamond-like carbon film enabled by graphene oxide as additives. <i>Carbon</i> , <b>2021</b> , 176, 358-366	10.4	11

164	Effects of interfacial alignments on the stability of graphene on Ru(0001) substrate. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 261601	3.4	11
163	Preparation of self-lubricating NiTi alloy and its self-adaptive behavior. <i>Tribology International</i> , <b>2019</b> , 130, 43-51	4.9	11
162	Tribochemical mechanism of superlubricity in graphene quantum dots modified DLC films under high contact pressure. <i>Carbon</i> , <b>2021</b> , 173, 329-338	10.4	11
161	Graphene Nanoflakes: Superlubricity of Graphite Induced by Multiple Transferred Graphene Nanoflakes (Adv. Sci. 3/2018). <i>Advanced Science</i> , <b>2018</b> , 5, 1870018	13.6	11
160	Origin of friction and the new frictionless technology Superlubricity: Advancements and future outlook. <i>Nano Energy</i> , <b>2021</b> , 86, 106092	17.1	11
159	Hexadecane-containing sandwich structure based triboelectric nanogenerator with remarkable performance enhancement. <i>Nano Energy</i> , <b>2021</b> , 87, 106198	17.1	11
158	Modeling Atomic-Scale Electrical Contact Quality Across Two-Dimensional Interfaces. <i>Nano Letters</i> , <b>2019</b> , 19, 3654-3662	11.5	10
157	An experimental investigation of double-side processing of cylindrical rollers using chemical mechanical polishing technique. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2016</b> , 82, 523-534	3.2	10
156	Triboluminescence modulated by humidity. <i>Journal of Luminescence</i> , <b>2017</b> , 182, 22-28	3.8	10
155	Preparation of poly (N-isopropylacrylamide) brush bonded on silicon substrate and its water-based lubricating property. <i>Science China Technological Sciences</i> , <b>2012</b> , 55, 3352-3358	3.5	10
154	Thin liquid film lubrication under external electrical fields: Roles of liquid intermolecular interactions. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 114302	2.5	10
153	Tribological properties of La <sub>2</sub> O <sub>3</sub> and CeO <sub>2</sub> doped CoCrW coatings deposited by supersonic plasma spraying. <i>Science Bulletin</i> , <b>2007</b> , 52, 3292-3298		10
152	In situ synthesis of Mn <sub>3</sub> O <sub>4</sub> /graphene nanocomposite and its application as a lubrication additive at high temperatures. <i>Applied Surface Science</i> , <b>2021</b> , 546, 149019	6.7	10
151	Effect of Alkyl Chain Length on the Orientational Behavior of Liquid Crystals Nano-Film. <i>Tribology Letters</i> , <b>2016</b> , 62, 1	2.8	10
150	Interlayer interaction on twisted interface in incommensurate stacking MoS <sub>2</sub> : A Raman spectroscopy study. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 538, 159-164	9.3	10
149	Water-based superlubricity in vacuum. <i>Friction</i> , <b>2019</b> , 7, 192-198	5.6	10
148	Controllable Interlayer Charge and Energy Transfer in Perovskite Quantum Dots/ Transition Metal Dichalcogenide Heterostructures. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1901263	4.6	9
147	Investigation of ultra-low friction on steel surfaces with diketone lubricants.. <i>RSC Advances</i> , <b>2018</b> , 8, 9403-9408	3.7	9

146	Mechanism of Superlubricity Conversion with Polyalkylene Glycol Aqueous Solutions. <i>Langmuir</i> , <b>2019</b> , 35, 11784-11790	4	9
145	Linear growth of colloidal rings at the edge of drying droplets. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2014</b> , 447, 28-31	5.1	9
144	The Role of Hydroxyethyl Cellulose (HEC) in the Chemical Mechanical Planarization of Copper. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, H329-H334	3.9	9
143	The Film Behaviors of Grease in Point Contact During Microoscillation. <i>Tribology Letters</i> , <b>2010</b> , 38, 259-266		9
142	Phase transformation during silica cluster impact on crystal silicon substrate studied by molecular dynamics simulation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2008</b> , 266, 3231-3240	1.2	9
141	Analysis on contact and flow features in CMP process. <i>Science Bulletin</i> , <b>2006</b> , 51, 2281-2286		9
140	Synthesis and characterizations of zwitterionic copolymer hydrogels with excellent lubrication behavior. <i>Tribology International</i> , <b>2020</b> , 143, 106026	4.9	9
139	Influence of a carbon-based tribofilm induced by the friction temperature on the tribological properties of impregnated graphite sliding against a cemented carbide. <i>Friction</i> , <b>2021</b> , 9, 686-696	5.6	9
138	Improvement of the lubrication properties of grease with Mn <sub>3</sub> O <sub>4</sub> /graphene (Mn <sub>3</sub> O <sub>4</sub> #G) nanocomposite additive. <i>Friction</i> , <b>2021</b> , 9, 1361-1377	5.6	9
137	Film forming behavior in thin film lubrication at high speeds. <i>Friction</i> , <b>2018</b> , 6, 156-163	5.6	9
136	Investigation of film formation mechanism of oil-in-water (O/W) emulsions at high speeds. <i>Tribology International</i> , <b>2017</b> , 109, 428-434	4.9	8
135	Pitted Surfaces Produced by Lactic Acid Lubrication and Their Effect on Ultra-Low Friction. <i>Tribology Letters</i> , <b>2015</b> , 57, 1	2.8	8
134	Influence of thermal effects on elastohydrodynamic (EHD) lubrication behavior at high speeds. <i>Science China Technological Sciences</i> , <b>2015</b> , 58, 551-558	3.5	8
133	Microscale superlubricity at multiple gold-graphite heterointerfaces under ambient conditions. <i>Carbon</i> , <b>2020</b> , 161, 827-833	10.4	8
132	Nanostructured tribolayer-dependent lubricity of graphene and modified graphene nanoflakes on sliding steel surfaces in humid air. <i>Tribology International</i> , <b>2020</b> , 145, 106203	4.9	8
131	Fabrication of a graphene layer probe to measure force interactions in layered heterojunctions. <i>Nanoscale</i> , <b>2020</b> , 12, 5435-5443	7.7	8
130	Effect of Parameters on Internal Crack Healing in 30Cr2Ni4MoV Steel for 600-Ton Ultra-Super Ingots. <i>Metals</i> , <b>2017</b> , 7, 149	2.3	8
129	Improvement of Load Bearing Capacity of Nanoscale Superlow Friction by Synthesized Fluorinated Surfactant Micelles. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 953-959	5.6	8

128	Effect of pH on the liquid superlubricity between Si <sub>3</sub> N <sub>4</sub> and glass achieved with phosphoric acid. <i>RSC Advances</i> , <b>2014</b> , 4, 45735-45741	3.7	8
127	Ultra-low friction achieved by diluted lactic acid solutions. <i>RSC Advances</i> , <b>2014</b> , 4, 28860	3.7	8
126	Speed dependence of liquid superlubricity stability with H <sub>3</sub> PO <sub>4</sub> solution. <i>RSC Advances</i> , <b>2017</b> , 7, 49337-49343	3.7	8
125	Dynamic phase transformation of crystalline silicon under the dry and wet impact studied by molecular dynamics simulation. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 073521	2.5	8
124	Direct observation on the behaviour of emulsion droplets and formation of oil pool under point contact. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 241603	3.4	8
123	Boiling in the water evaporating meniscus induced by Marangoni flow. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 211602	3.4	8
122	Water droplets on a hydrophobic insulator surface under high voltages: A thermal perspective. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 131602	3.4	8
121	Luminescence of carbon nanotube bulbs. <i>Science Bulletin</i> , <b>2007</b> , 52, 113-117		8
120	THIN FILM LUBRICATION AND LUBRICATION MAP. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , <b>2000</b> , 36, 5	1.3	8
119	Gradual degeneration of liquid superlubricity: Transition from superlubricity to ordinary lubrication, and lubrication failure. <i>Tribology International</i> , <b>2019</b> , 130, 352-358	4.9	8
118	Tribological behavior of layered double hydroxides with various chemical compositions and morphologies as grease additives. <i>Friction</i> , <b>2021</b> , 9, 952-962	5.6	8
117	Tunable lubricity of aliphatic ammonium graphite intercalation compounds at the micro/nanoscale. <i>Carbon</i> , <b>2017</b> , 115, 574-583	10.4	7
116	Influence of interface interaction on the moiré superstructures of graphene on transition-metal substrates. <i>RSC Advances</i> , <b>2017</b> , 7, 12179-12184	3.7	7
115	Nano-Ag-forest based surface enhanced Raman spectroscopy (SERS) of confined acetic acid. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2018</b> , 547, 126-133	5.1	7
114	Friction Anisotropy Induced by Oriented Liquid Crystal Molecules. <i>Tribology Letters</i> , <b>2016</b> , 61, 1	2.8	7
113	In-Plane Potential Gradient Induces Low Frictional Energy Dissipation during the Stick-Slip Sliding on the Surfaces of 2D Materials. <i>Small</i> , <b>2019</b> , 15, e1904613	11	7
112	Advances in thin film lubrication (TFL): From discovery to the aroused further researches. <i>Science China Technological Sciences</i> , <b>2015</b> , 58, 1609-1616	3.5	7
111	Effects of pH and Oxidizer on Chemical Mechanical Polishing of AISI 1045 Steel. <i>Tribology Letters</i> , <b>2014</b> , 56, 327-335	2.8	7



110	Electric-fields-enhanced destabilization of oil-in-water emulsions flowing through a confined wedgelike gap. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 064314	2.5	7
109	Effect of solid surface on the formation of thin confined lubricating film of water with micro-content of oil. <i>Applied Surface Science</i> , <b>2010</b> , 256, 6574-6579	6.7	7
108	A PIV system for two-phase flow with nanoparticles. <i>International Journal of Surface Science and Engineering</i> , <b>2008</b> , 2, 168	1	7
107	Effects of surface physicochemical properties on the tribological properties of liquid paraffin film in the nanoscale. <i>Surface and Interface Analysis</i> , <b>2001</b> , 32, 286-288	1.5	7
106	Efficient one-pot synthesis of mussel-inspired Cu-doped polydopamine nanoparticles with enhanced lubrication under heavy loads. <i>Chemical Engineering Journal</i> , <b>2021</b> , 426, 131287	14.7	7
105	Studies on triboluminescence emission characteristics of various kinds of bulk ZnS crystals. <i>Journal of Luminescence</i> , <b>2017</b> , 186, 307-311	3.8	6
104	Achieving a superlubricating ohmic sliding electrical contact via a 2D heterointerface: a computational investigation. <i>Nanoscale</i> , <b>2020</b> , 12, 7857-7863	7.7	6
103	Influence of elastic property on the friction between atomic force microscope tips and 2D materials. <i>Nanotechnology</i> , <b>2020</b> , 31, 285710	3.4	6
102	Normal and Frictional Force Hysteresis between Self-Assembled Fluorosurfactant Micelle Arrays at the Nanoscale. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1700802	4.6	6
101	Cationic Surfactant Micelles Lubricate Graphitic Surface in Water. <i>Langmuir</i> , <b>2019</b> , 35, 11108-11113	4	6
100	Damages on the lubricated surfaces in bearings under the influence of weak electrical currents. <i>Science China Technological Sciences</i> , <b>2013</b> , 56, 2979-2987	3.5	6
99	The experimental rules of mica as a reference sample of AFM/FFM measurement. <i>Science Bulletin</i> , <b>2001</b> , 46, 349-352		6
98	Tribological properties of OTS self-assembled monolayers. <i>Science Bulletin</i> , <b>2001</b> , 46, 698-701		6
97	Dynamic wear sensor array based on single-electrode triboelectric nanogenerators. <i>Nano Energy</i> , <b>2020</b> , 68, 104303	17.1	6
96	Unraveling the Friction Evolution Mechanism of Diamond-Like Carbon Film during Nanoscale Running-In Process toward Superlubricity. <i>Small</i> , <b>2021</b> , 17, e2005607	11	6
95	Preparation and tribological properties of PTFE/DE/ATF6 composites with self-contained solid-liquid synergetic lubricating performance. <i>Composites Communications</i> , <b>2020</b> , 22, 100513	6.7	5
94	Macroscale Light-Controlled Lubrication Enabled by Introducing Diarylethene Molecules in a Nanoconfinement. <i>Langmuir</i> , <b>2020</b> , 36, 5820-5828	4	5
93	Study on microstructural and tribological properties of sulphonitrocarburized layers diffused by hollow cathode discharging. <i>Vacuum</i> , <b>2020</b> , 174, 109188	3.7	5

92	Effect of Potassium Ions on Tantalum Chemical Mechanical Polishing in H <sub>2</sub> O <sub>2</sub> -Based Alkaline Slurries. <i>ECS Journal of Solid State Science and Technology</i> , <b>2016</b> , 5, P100-P111	2	5
91	Atomic Scale Simulation on the Anti-Pressure and Friction Reduction Mechanisms of MoS <sub>2</sub> Monolayer. <i>Materials</i> , <b>2018</b> , 11,	3-5	5
90	Exploring interlayer interaction of SnSe <sub>2</sub> by low-frequency Raman spectroscopy. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2019</b> , 105, 7-12	3	5
89	Stress analysis of Cu/low-k interconnect structure during whole Cu-CMP process using finite element method. <i>Microelectronics Reliability</i> , <b>2013</b> , 53, 767-773	1.2	5
88	. <i>IEEE Transactions on Plasma Science</i> , <b>2013</b> , 41, 481-484	1.3	5
87	Interfacial interaction and enhanced image contrasts in higher mode and bimodal mode atomic force microscopy. <i>RSC Advances</i> , <b>2017</b> , 7, 55121-55130	3-7	5
86	Motor Power Signal Analysis for End-Point Detection of Chemical Mechanical Planarization. <i>Micromachines</i> , <b>2017</b> , 8, 177	3-3	5
85	Investigation on growth process and tribological behavior of mixed alkylsilane self-assembled molecular films in aqueous solution. <i>Applied Surface Science</i> , <b>2012</b> , 258, 8533-8537	6-7	5
84	Effects of the Polishing Variables on the Wafer-Pad Interfacial Fluid Pressure in Chemical Mechanical Polishing of 12-Inch Wafer. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, H342-H348	3-9	5
83	Spread of double-walled carbon nanotube membrane. <i>Science Bulletin</i> , <b>2007</b> , 52, 997-1000		5
82	Wear in-situ self-healing polymer composites incorporated with bifunctional microcapsules. <i>Composites Part B: Engineering</i> , <b>2022</b> , 232, 109566	10	5
81	Modelling for water-based liquid lubrication with ultra-low friction coefficient in rough surface point contact. <i>Tribology International</i> , <b>2020</b> , 141, 105901	4-9	5
80	Micro/atomic-scale vibration induced superlubricity. <i>Friction</i> , <b>2021</b> , 9, 1163-1174	5-6	5
79	Water molecules on the liquid superlubricity interfaces achieved by phosphoric acid solution. <i>Biosurface and Biotribology</i> , <b>2018</b> , 4, 94-98	1	5
78	Different directional energy dissipation of heterogeneous polymers in bimodal atomic force microscopy.. <i>RSC Advances</i> , <b>2019</b> , 9, 27464-27474	3-7	4
77	The effect of magnetic field on the hydration of cation in solution revealed by THz spectroscopy and MDs. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2019</b> , 582, 123822	5-1	4
76	Hot Deformation Behavior of As-Cast 30Cr2Ni4MoV Steel Using Processing Maps. <i>Metals</i> , <b>2017</b> , 7, 50	2-3	4
75	Investigation on inner flow field characteristics of groove textures in fully lubricated thrust bearings. <i>Industrial Lubrication and Tribology</i> , <b>2018</b> , 70, 754-763	1-3	4

74	Direct observation of the formation and destruction of the inverted continuous oil phase in the micro-outlet region achieved by the confined diluted O/W emulsion stream. <i>Soft Matter</i> , <b>2014</b> , 10, 7946-51	3.6	4
73	Interfacial dynamics and adhesion behaviors of water and oil droplets in confined geometry. <i>Langmuir</i> , <b>2014</b> , 30, 7695-702	4	4
72	Effect of crystallographic orientation on the extrusion of silicon surface during an impact: Molecular dynamics simulation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2012</b> , 270, 133-139	1.2	4
71	Wafer bending/orientation characterization and their effects on fluid lubrication during chemical mechanical polishing. <i>Tribology International</i> , <b>2013</b> , 66, 330-336	4.9	4
70	Imaging contrast and tip-sample interaction of non-contact amplitude modulation atomic force microscopy with Q-control. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 415307	3	4
69	Potential-Dependent Friction on a Graphitic Surface in Ionic Solution. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 23745-23751	3.8	4
68	Shear-Induced Interfacial Structural Conversion Triggers Macroscale Superlubricity: From Black Phosphorus Nanoflakes to Phosphorus Oxide. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 31947-31956	9.5	4
67	Dynamical characterization of micro cantilevers by different excitation methods in dynamic atomic force microscopy. <i>Review of Scientific Instruments</i> , <b>2018</b> , 89, 115109	1.7	4
66	Temporary or permanent liquid superlubricity failure depending on shear-induced evolution of surface topography. <i>Tribology International</i> , <b>2021</b> , 161, 107076	4.9	4
65	Lubricity and Adsorption of Castor Oil Sulfated Sodium Salt Emulsion Solution on Titanium Alloy. <i>Tribology Letters</i> , <b>2019</b> , 67, 1	2.8	3
64	Crack Healing and Mechanical Properties Recovery in SA 508?3 Steel. <i>Materials</i> , <b>2019</b> , 12,	3.5	3
63	Band Structure, Band Offsets, and Intrinsic Defect Properties of Few-Layer Arsenic and Antimony. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 7441-7448	3.8	3
62	Controllable Superlubricity System of Polyalkylene Glycol Aqueous Solutions under Various Applied Conditions. <i>Macromolecular Materials and Engineering</i> , <b>2020</b> , 305, 2000141	3.9	3
61	Effect of deformation modes and heat treatment on microstructure and impact property restoration of internal crack healing in SA 508 steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 778, 139073	5.3	3
60	Achieving controllable friction of ultrafine-grained graphite HPG510 by tailoring the interfacial nanostructures. <i>Applied Surface Science</i> , <b>2020</b> , 512, 145731	6.7	3
59	The Assessment of Interface Adhesion of Cu/Ta/Black Diamond/Si Films Stack Structure by Nanoindentation and Nanoscratch Tests. <i>Tribology Letters</i> , <b>2014</b> , 53, 401-410	2.8	3
58	Preparation, characterization and formation mechanism of thermoplastic polyurethane nanostructures using solution wetting template. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 10240-6	1.3	3
57	Direct observation of oil displacement by water flowing toward an oil nanogap. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 044906	2.5	3

56	Study of lubrication behavior of pure water for hydrophobic friction pair. <i>Science in China Series D: Earth Sciences</i> , <b>2009</b> , 52, 3128-3134		3
55	A comparative study of tribological properties between perfluoro and non-perfluoro alkylsilane self-assembled monolayers(SAMs). <i>Journal Wuhan University of Technology, Materials Science Edition</i> , <b>2009</b> , 24, 588-593	1	3
54	Characteristics of thin liquid film under an external electric field. <i>Tribology International</i> , <b>2007</b> , 40, 1718-1723	1.2	3
53	Analysis on mechanism of thin film lubrication. <i>Science Bulletin</i> , <b>2005</b> , 50, 2645-2649		3
52	Size and shape controllable preparation of graphene sponge by freezing, lyophilizing and reducing in container. <i>Science China Technological Sciences</i> , <b>2016</b> , 59, 709-713	3.5	3
51	Influence of structural evolution on sliding interface for enhancing tribological performance of onion-like carbon films via thermal annealing. <i>Applied Surface Science</i> , <b>2021</b> , 541, 148441	6.7	3
50	Preparation of Triple-Functionalized Montmorillonite Layers Promoting Thermal Stability of Polystyrene. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	3
49	Coupling effect of boundary tribofilm and hydrodynamic film. <i>Cell Reports Physical Science</i> , <b>2022</b> , 3, 100768	7.8	3
48	The Effects of Homogenizing and Quenching and Tempering Treatments on Crack Healing. <i>Metals</i> , <b>2020</b> , 10, 427	2.3	2
47	<b>2014</b> ,		2
46	Signal processing and analysis for copper layer thickness measurement within a large variation range in the CMP process. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 115103	1.7	2
45	Interface characteristics of thin liquid films in a charged lubricated contact. <i>Surface and Interface Analysis</i> , <b>2015</b> , 47, 315-324	1.5	2
44	A flexible nanobrush pad for the chemical mechanical planarization of Cu/ultra-low- $\mu$ materials. <i>Nanoscale Research Letters</i> , <b>2012</b> , 7, 603	5	2
43	Electrical potential modulation of dynamic film properties of aqueous surfactant solutions through a nanogap. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 024309	2.5	2
42	Tribo-Induced Near-Infrared Light Emission between Metal and Quartz. <i>Langmuir</i> , <b>2020</b> , 36, 1165-1173	4	1
41	Revealing the essence of luminescence energy transformation from silica surfaces. <i>Journal of Luminescence</i> , <b>2018</b> , 197, 389-395	3.8	1
40	Tangential motion mechanism and reverse hydrodynamic effects of acoustic platform with nonparallel squeeze film. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , <b>2019</b> , 233, 194-204	1.4	1
39	Temperature measurement during the sliding between Al <sub>2</sub> O <sub>3</sub> and SiO <sub>2</sub> crystals by double line of Atomic Emission Spectroscopy. <i>Journal of Luminescence</i> , <b>2019</b> , 215, 116615	3.8	1

38	Film formation of yogurt under confined condition. <i>Surface and Interface Analysis</i> , <b>2012</b> , 44, 258-262	1.5	1
37	Influence of pH, immersion time, and benzotriazole concentration on copper corrosion in citric acid based slurries. <i>Science Bulletin</i> , <b>2011</b> , 56, 1158-1164		1
36	Friction Process of Superlubricity <b>2012</b> ,		1
35	Tribology in Nanomanufacturing Interaction between Nanoparticles and a Solid Surface <b>2009</b> , 5-10		1
34	A smart healable anticorrosion coating with enhanced loading of benzotriazole enabled by ultra-highly exfoliated graphene and mussel-inspired chemistry. <i>Carbon</i> , <b>2022</b> , 187, 439-450	10.4	1
33	Liquid superlubricity with 2D material additives <b>2021</b> , 167-187		1
32	Superlubricity of water-based lubricants <b>2021</b> , 333-357		1
31	Superlubricity with nonaqueous liquid <b>2021</b> , 379-403		1
30	A simple method to understand molecular conformation on surface-enhanced Raman scattering substrate. <i>Journal of Molecular Structure</i> , <b>2021</b> , 1223, 128908	3.4	1
29	Dynamic friction energy dissipation and enhanced contrast in high frequency bimodal atomic force microscopy. <i>Friction</i> , 1	5.6	1
28	Self-Retracton of Surfactant Droplets on a Superhydrophilic Surface. <i>Langmuir</i> , <b>2018</b> , 34, 15388-15395	4	1
27	Atomic Scale Simulation on the Fracture Mechanism of Black Phosphorus Monolayer under Indentation. <i>Nanomaterials</i> , <b>2018</b> , 8,	5.4	1
26	Light-Controlled Friction by Carboxylic Azobenzene Molecular Self-Assembly Layers. <i>Frontiers in Chemistry</i> , <b>2021</b> , 9, 707232	5	1
25	Magnetic field effect on apparent viscosity reducing of different crude oils at low temperature. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2021</b> , 629, 127372	5.1	1
24	Thermal-mechanical fully coupled analysis of high-speed angular contact ball bearings. <i>Journal of Mechanical Science and Technology</i> , <b>2021</b> , 35, 669-678	1.6	1
23	High-quality ultra-flat reduced graphene oxide nanosheets with super-robust lubrication performances. <i>Chemical Engineering Journal</i> , <b>2022</b> , 438, 135620	14.7	1
22	Visualizing ultrafast defect-controlled interlayer electron-phonon coupling in van der Waals heterostructures.. <i>Advanced Materials</i> , <b>2022</b> , e2106955	24	1
21	The relationship between surface structure and super-lubrication performance based on 2D MOFs. <i>Applied Materials Today</i> , <b>2022</b> , 26, 101382	6.6	0

20	Macroscale superlubricity under ultrahigh contact pressure in the presence of layered double hydroxide nanosheets. <i>Nano Research</i> ,1	10	0
19	The transients in the evaporation of sessile liquid droplets and the applicability of the steady-state approximation. <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 169, 120946	4.9	0
18	Toward micro- and nanoscale robust superlubricity by 2D materials <b>2021</b> , 131-144		0
17	Coupled Optimization of Groove Texture for Parallel RingRing Friction Pairs: Theory and Experiments. <i>Tribology Letters</i> , <b>2022</b> , 70, 1	2.8	0
16	Increased Film Thickness of Oil-in-Water (O/W) Emulsions at High Speed. <i>Tribology Letters</i> , <b>2017</b> , 65, 1	2.8	
15	Thinning of glycerol in the presence of multi-walled carbon nanotubes. <i>Journal of Chemical Physics</i> , <b>2019</b> , 151, 054302	3.9	
14	Dramatically Enhanced Film-Formation Performance Using O/W Emulsion Under Starving Feeding Mode. <i>Tribology Letters</i> , <b>2017</b> , 65, 1	2.8	
13	Tip-induced nanoreactor for silicate. <i>Scientific Reports</i> , <b>2015</b> , 5, 14039	4.9	
12	Light-induced Current in Long Carbon Nanotubes. <i>ECS Transactions</i> , <b>2006</b> , 2, 85-92	1	
11	Effects of Heat Treatment Method on Microstructure and Mechanical Properties of Internal Crack Healing in SA 508-3 Steel. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 47-54	0.3	
10	Advancements and Future of Tribology from IFToMM. <i>Mechanisms and Machine Science</i> , <b>2011</b> , 203-219	0.3	
9	Triboluminescence dominated by crystallographic orientation. <i>Scientific Reports</i> , <b>2016</b> , 6, 26324	4.9	
8	Vibration-induced superlubricity <b>2021</b> , 53-70		
7	Energy dissipation through phonon and electron behaviors of superlubricity in 2D materials <b>2021</b> , 145-166		
6	Tribo-induced interfacial nanostructures stimulating superlubricity in amorphous carbon films <b>2021</b> , 289-307		
5	Exploration of molecular behaviors in liquid superlubricity <b>2021</b> , 475-498		
4	Superlubricity of black phosphorus as lubricant additive <b>2021</b> , 439-460		
3	Temperature-controlled Friction Coefficient Lubricated by Liquid Crystal. <i>Liquid Crystals</i> ,1-6	2.3	

- 2 Fast Optical-Thermal Responsive Intelligent Glass Realized by Hydrated Poly(N-Isopropylacrylamide) Film. *Macromolecular Materials and Engineering*, **2021**, 306, 2100272 3·9
- 1 Influence of "Seebeck effect" on charge transfer between two friction surfaces. *Tribology International*, **2021**, 161, 107060 4·9