Bin Zhang

List of Publications by Year
in descending order

45 papers	1,035 citations	471509 17 h-index	434195 31 g-index
46 all docs	46 docs citations	46 times ranked	735 citing authors

#	Article	IF	Citations
1	Optimizing the tribological performance of DLC-coated NBR rubber: The role of hydrogen in films. Friction, 2022, 10, 866-877.	6.4	14
2	Achieving ultraâ€low friction of aâ€C:H film grown on 9Cr18Mo steel for industrial application via programmable high power pulse magnetron sputtering. Surface and Interface Analysis, 2022, 54, 81-91.	1.8	4
3	Catalytic superlubricity via in-situ formation of graphene during sliding friction on Au@a-C:H films. Carbon, 2022, 186, 180-192.	10.3	26
4	Comparative study of the tribology of amorphous carbon films via magnetron sputtering depending on the different magnetic field. Diamond and Related Materials, 2022, 121, 108780.	3.9	1
5	Tribology Dependence of Annealed a-C:H Films in Dry Air and Methanol Environments. ACS Omega, 2022, 7, 7472-7480.	3.5	1
6	Friction Behavior and Structural Evolution of Hexagonal Boron Nitride: A Relation to Environmental Molecules Containing â^'OH Functional Group. ACS Applied Materials & Interfaces, 2022, 14, 19043-19055.	8.0	4
7	Insight into superlubricity via synergistic effects of ammonium tetrathiomolybdate and hydrogenated amorphous carbon films. Applied Surface Science, 2022, 597, 153675.	6.1	3
8	Protective coatings for metal bipolar plates of fuel cells: A review. International Journal of Hydrogen Energy, 2022, 47, 22915-22937.	7.1	39
9	Elevated-temperature super-lubrication performance analysis of dispersion-strengthened WSN coatings: Experimental research and first-principles calculation. Surface and Coatings Technology, 2021, 406, 126651.	4.8	14
10	Adhesion and friction performance of DLC/rubber: The influence of plasma pretreatment. Friction, 2021, 9, 627-641.	6.4	19
11	Electrochemical Deposition of DLC Films Embedded with Crystalline Graphite and Multilayer Graphene. Journal of Electronic Materials, 2021, 50, 1552-1557.	2.2	5
12	Grown of superlubricity a-C:H/MoS2 film on 9Cr18Mo steel for industrial application. Diamond and Related Materials, 2021, 117, 108479.	3.9	13
13	Mussel-inspired facile fabrication of dense hexagonal boron nitride nanosheet-based coatings for anticorrosion and antifriction applications. Materials Today Nano, 2021, 15, 100129.	4.6	14
14	Electronic conductive and corrosion mechanisms of dual nanostructure CuCr-doped hydrogenated carbon films for SS316L bipolar plates. Materials Today Chemistry, 2021, 21, 100521.	3.5	11
15	Superlow friction of amorphous diamond-like carbon films in humid ambient enabled by hexagonal boron nitride nanosheet wrapped carbon nanoparticles. Chemical Engineering Journal, 2020, 402, 126206.	12.7	46
16	NBR surface modification by gaseous plasma source with electron injection. Surface and Coatings Technology, 2020, 388, 125556.	4.8	2
17	Comparison study of gold coatings prepared by traditional and modified galvanic replacement deposition for corrosion prevention of copper. Microelectronics Reliability, 2020, 110, 113695.	1.7	13
18	Electrodeposition and biocompatibility of palladium and phosphorus doped amorphous hydrogenated carbon films. Chemical Physics, 2020, 537, 110857.	1.9	9

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19	Revealing the corrosion resistance of amorphous carbon films under heat shock via annealing. Diamond and Related Materials, 2020, 102, 107692.	3.9	7
20	The Utilization of Carbon Dioxide to Prepare TiCxOy Films with Low Friction and High Anti-Corrosion Properties. Coatings, 2020, 10, 533.	2.6	8
21	Bilayer a-C:H/MoS2 film to realize superlubricity in open atmosphere. Diamond and Related Materials, 2020, 108, 107973.	3.9	16
22	Modification of a-C:H films via nitrogen and silicon doping: The way to the superlubricity in moisture atmosphere. Diamond and Related Materials, 2020, 107, 107873.	3.9	29
23	Simultaneous production and functionalization of hexagonal boron nitride nanosheets by solvent-free mechanical exfoliation for superlubricant water-based lubricant additives. Npj 2D Materials and Applications, 2019, 3, .	7.9	68
24	Key Role of Transfer Layer in Load Dependence of Friction on Hydrogenated Diamond-Like Carbon Films in Humid Air and Vacuum. Materials, 2019, 12, 1550.	2.9	33
25	Ball Milling of Hexagonal Boron Nitride Microflakes in Ammonia Fluoride Solution Gives Fluorinated Nanosheets That Serve as Effective Water-Dispersible Lubricant Additives. ACS Applied Nano Materials, 2019, 2, 3187-3195.	5.0	92
26	Verification Study of Nanostructure Evolution with Heating Treatment between Thin and Thick Fullerene-Like Hydrogen Carbon Films. Coatings, 2019, 9, 82.	2.6	7
27	Heating induced nanostructure and superlubricity evolution of fullerene-like hydrogenated carbon films. Solid State Sciences, 2019, 90, 29-33.	3.2	17
28	Effects of gas pressure and discharge current on beam composition in a magnetron discharge ion source. Review of Scientific Instruments, 2019, 90, 113312.	1.3	4
29	Hydrogenated amorphous carbon films with different nanostructure: A comparative study. Chemical Physics Letters, 2019, 715, 330-334.	2.6	10
30	Pencil sketch graphene films as solid lubricant on steel surface: Observation of transition to grapehene/amorphous carbon. Solid State Sciences, 2018, 75, 71-76.	3.2	10
31	Structure effects of sp2-rich carbon films under super-low friction contact. Carbon, 2018, 137, 49-56.	10.3	94
32	Onion-like carbon films endow macro-scale superlubricity. Diamond and Related Materials, 2018, 87, 172-176.	3.9	40
33	Graphene nano scrolls responding to superlow friction of amorphous carbon. Carbon, 2017, 116, 310-317.	10.3	86
34	Hierarchical structure graphitic-like/MoS2 film as superlubricity material. Applied Surface Science, 2017, 413, 381-386.	6.1	57
35	Tribological properties of hydrogenated amorphous carbon films in different atmospheres. Diamond and Related Materials, 2017, 77, 84-91.	3.9	27
36	Nanocrystalline Graphite Formed at Fullereneâ€Like Carbon Film Frictional Interface. Advanced Materials Interfaces, 2017, 4, 1601113.	3.7	32

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37	Assembling of carbon nanotubes film responding to significant reduction wear and friction on steel surface. Applied Nanoscience (Switzerland), 2017, 7, 835-842.	3.1	10
38	Engineering-scale superlubricity of the fingerprint-like carbon films based on high power pulsed plasma enhanced chemical vapor deposition. RSC Advances, 2016, 6, 115092-115100.	3.6	9
39	Further improving the mechanical and tribological properties of low content Ti-doped DLC film by W incorporating. Applied Surface Science, 2015, 353, 522-529.	6.1	46
40	Ultra-elastic recovery and low friction of amorphous carbon films produced by a dispersion of multilayer graphene. Diamond and Related Materials, 2012, 23, 5-9.	3.9	24
41	The effect of thermal annealing on the microstructure and mechanical properties of magnetron sputtered hydrogenated amorphous carbon films. Surface and Interface Analysis, 2012, 44, 162-165.	1.8	8
42	Ultralow Friction Behaviors of Hydrogenated Fullerene-Like Carbon Films: Effect of Normal Load and Surface Tribochemistry. Tribology Letters, 2011, 41, 607-615.	2.6	38
43	Structural, mechanical and tribological behavior of fullerene-like carbon film. Thin Solid Films, 2010, 518, 5938-5943.	1.8	19
44	Magnetron sputtering deposition of carbon nitride nanocolumns at low temperature. Journal Physics D: Applied Physics, 2009, 42, 185304.	2.8	4
45	Effect of methane on magnetron sputtering graphite target deposited films and tribological properties of aâ€C:H:Ti/aâ€C:H friction pairs. Surface and Interface Analysis, 0, , .	1.8	1