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	Structure effects of sp2-rich carbon films under super-low friction contact. Carbon, 2018, 137, 49-56.	10.3	94
2	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
3	Graphene nano scrolls responding to superlow friction of amorphous carbon. Carbon, 2017, 116, 310-317.	10.3	86
4	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
5	Hierarchical structure graphitic-like/MoS2 film as superlubricity material. Applied Surface Science, 2017, 413, 381-386.	6.1	57
6	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
7	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
8	Onion-like carbon films endow macro-scale superlubricity. Diamond and Related Materials, 2018, 87, 172-176.	3.9	40
9	Protective coatings for metal bipolar plates of fuel cells: A review. International Journal of Hydrogen Energy, 2022, 47, 22915-22937.	7.1	39
10	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
11	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
12	Nanocrystalline Graphite Formed at Fullereneâ€Like Carbon Film Frictional Interface. Advanced Materials Interfaces, 2017, 4, 1601113.	3.7	32
13	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
14	Tribological properties of hydrogenated amorphous carbon films in different atmospheres. Diamond and Related Materials, 2017, 77, 84-91.	3.9	27
15	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
16	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
17	Structural, mechanical and tribological behavior of fullerene-like carbon film. Thin Solid Films, 2010, 518, 5938-5943.	1.8	19
18	Adhesion and friction performance of DLC/rubber: The influence of plasma pretreatment. Friction, 2021, 9, 627-641.	6.4	19

#	Article	IF	Citations
19	Heating induced nanostructure and superlubricity evolution of fullerene-like hydrogenated carbon films. Solid State Sciences, 2019, 90, 29-33.	3.2	17
20	Bilayer a-C:H/MoS2 film to realize superlubricity in open atmosphere. Diamond and Related Materials, 2020, 108, 107973.	3.9	16
21	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
22	Optimizing the tribological performance of DLC-coated NBR rubber: The role of hydrogen in films. Friction, 2022, 10, 866-877.	6.4	14
23	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
24	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
25	Grown of superlubricity a-C:H/MoS2 film on 9Cr18Mo steel for industrial application. Diamond and Related Materials, 2021, 117, 108479.	3.9	13
26	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
27	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
28	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
29	Hydrogenated amorphous carbon films with different nanostructure: A comparative study. Chemical Physics Letters, 2019, 715, 330-334.	2.6	10
30	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
31	Electrodeposition and biocompatibility of palladium and phosphorus doped amorphous hydrogenated carbon films. Chemical Physics, 2020, 537, 110857.	1.9	9
32	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
33	The Utilization of Carbon Dioxide to Prepare TiCxOy Films with Low Friction and High Anti-Corrosion Properties. Coatings, 2020, 10, 533.	2.6	8
34	Verification Study of Nanostructure Evolution with Heating Treatment between Thin and Thick Fullerene-Like Hydrogen Carbon Films. Coatings, 2019, 9, 82.	2.6	7
35	Revealing the corrosion resistance of amorphous carbon films under heat shock via annealing. Diamond and Related Materials, 2020, 102, 107692.	3.9	7
36	Electrochemical Deposition of DLC Films Embedded with Crystalline Graphite and Multilayer Graphene. Journal of Electronic Materials, 2021, 50, 1552-1557.	2.2	5

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37	Magnetron sputtering deposition of carbon nitride nanocolumns at low temperature. Journal Physics D: Applied Physics, 2009, 42, 185304.	2.8	4
38	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
39	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
40	Friction Behavior and Structural Evolution of Hexagonal Boron Nitride: A Relation to Environmental Molecules Containing âˆ’OH Functional Group. ACS Applied Materials & Interfaces, 2022, 14, 19043-19055.	8.0	4
41	Insight into superlubricity via synergistic effects of ammonium tetrathiomolybdate and hydrogenated amorphous carbon films. Applied Surface Science, 2022, 597, 153675.	6.1	3
42	NBR surface modification by gaseous plasma source with electron injection. Surface and Coatings Technology, 2020, 388, 125556.	4.8	2
43	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
44	Tribology Dependence of Annealed a-C:H Films in Dry Air and Methanol Environments. ACS Omega, 2022, 7, 7472-7480.	3.5	1
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