Wei Hua

List of Publications by Year
in descending order

54	450	840776 11	839539 18
papers	citations	h-index	g-index

54	54	54	181
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lubricant evolution and depletion under laser heating: a molecular dynamics study. Soft Matter, 2012, 8, 5649.	2.7	42
2	Effects of intermolecular forces on deep sub-10 nm spaced sliders. IEEE Transactions on Magnetics, 2002, 38, 2141-2143.	2.1	35
3	Probability Model for the intermolecular force with surface roughness considered. Tribology International, 2007, 40, 1047-1055.	5.9	28
4	A nonlinear dynamics theory for modeling slider air bearing in hard disk drives. Journal of Applied Physics, 2000, 87, 6173-6175.	2.5	22
5	Nanoscale roughness contact in a sliderâ€“disk interface. Nanotechnology, 2009, 20, 285710.	2.6	21
6	Further studies of unload process with a 9D model. IEEE Transactions on Magnetics, 2001, 37, 1855-1858.	2.1	19
7	An experimental study of slider vibration in nanometer spaced head-disk interface. IEEE Transactions on Magnetics, 1999, 35, 2463-2465.	2.1	16
8	Contact force studies of a burnishing slider. Tribology International, 2008, 41, 60-66.	5.9	15
9	A novel implicit algorithm for the simulation of time domain head/disk dynamics in disk files. IEEE Transactions on Magnetics, 1997, 33, 3127-3129.	2.1	13
10	Contact recording review. Microsystem Technologies, 2010, 16, 493-503.	2.0	13
11	Direct Monte Carlo simulation of air bearing effects in heat-assisted magnetic recording. Microsystem Technologies, 2011, 17, 903-909.	2.0	13
12	Design and analysis of MEMS-based slider suspensions for a high-performance magnetic recording system. Journal of Micromechanics and Microengineering, 2000, 10, 64-71.	2.6	11
13	A study of interface dynamics for stiction-free slider and super-smooth disk. Journal of Applied Physics, 2000, 87, 6149-6151.	2.5	11
14	Intermolecular force, surface roughness, and stability of head-disk interface. Journal of Applied Physics, 2005, 97, 10P305.	2.5	11
15	Mechanism studies of the multiple flying states of the air bearing slider. Tribology International, 2006, 39, 649-656.	5.9	11
16	Slider Design Optimization for Lube-Surfing Head-Disk Interface Scheme. IEEE Transactions on Magnetics, 2010, 46, 1922-1924.	2.1	10
17	Direct Monte Carlo Simulations of Air Bearing Characteristics on Patterned Media. IEEE Transactions on Magnetics, 2011, 47, 2660-2663.	2.1	9
18	Thermal protrusion induced air bearing frequency variations. Microsystem Technologies, 2011, 17, 891-896.	2.0	9

#	Article	IF	Citations
19	A theoretical model for acoustic emission sensing process in contact/near-contact interfaces of magnetic recording system. Journal of Applied Physics, 1999, 85, 5609-5611.	2.5	8
20	An experimental study of dimple separations and head-disk impacts of negative pressure slider in unload process. IEEE Transactions on Magnetics, 2001, 37, 1859-1862.	2.1	8
21	Effect of environment humidity and temperature on stationary and transient flying responses of air bearing slider. Tribology International, 2009, 42, 1125-1131.	5.9	8
22	A micro-machined dual slider-suspension for near-contact and contact recording. IEEE Transactions on Magnetics, 1999, 35, 2472-2474.	2.1	7
23	Investigations of disk surface roughness on the dynamic performance of proximity recording slider. Journal of Magnetism and Magnetic Materials, 2000, 209, 163-165.	2.3	7
24	A Fast Implicit Algorithm for Time-Dependent Dynamic Simulations of Air Bearing Sliders. Journal of Tribology, 2012, 134, .	1.9	7
25	Disk roughness and its influence on the performance of proximity recording sliders. IEEE Transactions on Magnetics, 1999, 35, 2460-2462.	2.1	6
26	Numerical Studies of Heat Transfer in Rarefied Gases at Head-Disk Interface. Japanese Journal of Applied Physics, 2009, 48, 105005.	1.5	6
27	Numerical Simulations of Accommodation Coefficient Effects at the Head-Disk Interface. Japanese Journal of Applied Physics, 2010, 49, 095206.	1.5	6
28	Effects of Gas Physical Properties on Flying Performance of Air Bearing Slider. IEEE Transactions on Magnetics, 2010, 46, 1389-1392.	2.1	6
29	Frequency Analyses of Air Bearing Slider in Near Contact and Contact States. Tribology Letters, 2012, 48, 345-353.	2.6	6
30	A dual stage sliderâ€“suspension design for nanospaced recording. Journal of Applied Physics, 1999, 85, 5621-5623.	2.5	5
31	ABS design for anti-surface borne particles. IEEE Transactions on Magnetics, 2001, 37, 1802-1805.	2.1	5
32	Dynamics of Fly-Contact Head Disk Interface. IEEE Transactions on Magnetics, 2008, 44, 3683-3686.	2.1	5
33	Energy Analysis on Flying Stability of Sub-5-nm Air Bearing Slider. IEEE Transactions on Magnetics, 2009, 45, 4998-5001.	2.1	5
34	Direct Monte Carlo simulation of nanoscale mixed gas bearings. Advances in Mechanical Engineering, 2015, 7, 168781401558952.	1.6	5
35	Discussion: â€œAnalysis of Stresses Induced by Dynamic Load Head-Disk Contactsâ€•(Fu, Ra-Chang and Bogy,) Tj ETQq1 1 0.784314 g	1.9	4
36	Influences of Surface Topography on the Flying Performances of a Sub-3 nm Air Bearing Slider. Japanese Journal of Applied Physics, 2010, 49, 125202.	1.5	4

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37	Effect of Interfacial Roughness on Slider-Disk Interactions at Near-Contact Regime. IEEE Transactions on Magnetics, 2012, 48, 4459-4462.	2.1	4
38	A modified slip model for gas lubrication at nanoscale head-disk interface. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2013, 227, 1367-1375.	1.8	4
39	Dynamics of head-disk interface in hard disk drives during operational shock. Microsystem Technologies, 2016, 22, 1389-1395.	2.0	4
40	Maximization of the capillary pump efficiency in microfluidics. SN Applied Sciences, 2021, 3, 1.	2.9	4
41	Effects of environmental temperature and humidity on thermal flying height adjustment. Microsystem Technologies, 2010, 16, 49-55.	2.0	3
42	Operational shock response of ultrathin hard disk drives. Microsystem Technologies, 2015, 21, 2573-2579.	2.0	3
43	Slider surface control for ultra-high density recording. Microsystem Technologies, 2010, 16, 301-307.	2.0	2
44	Slider Posture Effects on Air Bearing in a Heat-Assisted Magnetic Recording System. Advances in Tribology, 2012, 2012, 1-6.	2.1	2
45	Investigation of slider out-of-plane and in-plane vibrations during the track-seeking process. Microsystem Technologies, 2016, 22, 1189-1197.	2.0	2
46	Heater AC Voltage Induced Flying Height Modulations. Journal of Tribology, 2014, 136, .	1.9	2
47	Dynamic Studies on Lube-Surfing Recording. IEEE Transactions on Magnetics, 2011, 47, 3578-3581.	2.1	1
48	A New Implicit Algorithm for the Simulations of Slider Dynamics Based on the Unstructured Triangular Mesh. , 2004, , .		1
49	Engineering Performance Evaluation of Tri-Pad Slider for Proximity Recording. , 1999, , 143-156.		1
50	Dynamics of air bearing slider with nano-meter level proximity contact. Mechanism and Machine Theory, 2005, 40, 495-509.	4.5	0
51	Air Bearing Features on Discrete Track Media. IEEE Transactions on Magnetics, 2011, 47, 1813-1816.	2.1	0
52	Flying Height Drop Due to Air Entrapment in Lubricant. Tribology Letters, 2013, 52, 137-145.	2.6	0
53	Electrostatic Force Manipulation Methodology: Principles, Mechanisms, and Setup for Headâ€“Disk Interactions Monitoring. IEEE Transactions on Magnetics, 2015, 51, 1-8.	2.1	0
54	Experimentâ€”Simulation Comparison in Liquid Filling Process Driven by Capillarity. Micromachines, 2022, 13, 1098.	2.9	0