Shengkai Yu

List of Publications by Year
in descending order

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73	649	623734	677142
papers	citations	14 h-index	22 g-index

73	73	73	307
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lube-Surfing Recording and Its Feasibility Exploration. IEEE Transactions on Magnetics, 2009, 45, 899-904.	2.1	60
2	Air-Bearing Design Towards Highly Stable Headâ€“Disk Interface at Ultralow Flying Height. IEEE Transactions on Magnetics, 2007, 43, 715-720.	2.1	46
3	Lubricant evolution and depletion under laser heating: a molecular dynamics study. Soft Matter, 2012, 8, 5649.	2.7	42
4	Probability Model for the intermolecular force with surface roughness considered. Tribology International, 2007, 40, 1047-1055.	5.9	28
5	Molecular Dynamics Simulation of Lubricant Redistribution and Transfer at Near-Contact Head-Disk Interface. Tribology Letters, 2011, 43, 89-99.	2.6	28
6	Towards fly- and lubricant-contact recording. Journal of Magnetism and Magnetic Materials, 2008, 320, 3183-3188.	2.3	27
7	Numerical study on thermal-induced lubricant depletion in laser heat-assisted magnetic recording systems. International Journal of Heat and Mass Transfer, 2012, 55, 886-896.	4.8	25
8	Dynamic Stability Analysis for Surfing Head-Disk Interface. IEEE Transactions on Magnetics, 2009, 45, 4979-4983.	2.1	23
9	Nanoscale roughness contact in a sliderâ€“disk interface. Nanotechnology, 2009, 20, 285710.	2.6	21
10	Laser-induced local heating and lubricant depletion in heat assisted magnetic recording systems. International Journal of Heat and Mass Transfer, 2013, 59, 36-45.	4.8	20
11	A ZnO thin-film driven microcantilever for nanoscale actuation and sensing. International Journal of Smart and Nano Materials, 2013, 4, 128-141.	4.2	20
12	Effects of temperature dependent air properties on the performances of a thermal actuated slider. Tribology International, 2009, 42, 902-910.	5.9	17
13	Femto slider: fabrication and evaluation. IEEE Transactions on Magnetics, 2003, 39, 909-914.	2.1	14
14	Inert Gas Filled Headâ€“Disk Interface for Future Extremely High Density Magnetic Recording. Tribology Letters, 2009, 33, 179-186.	2.6	14
15	Contact recording review. Microsystem Technologies, 2010, 16, 493-503.	2.0	13
16	Direct Monte Carlo simulation of air bearing effects in heat-assisted magnetic recording. Microsystem Technologies, 2011, 17, 903-909.	2.0	13
17	Evaporation of Polydisperse Perfluoropolyether Lubricants in Heat-Assisted Magnetic Recording. Applied Physics Express, 2011, 4, 095201.	2.4	13
18	A Model for Laser Induced Lubricant Depletion in Heat-Assisted Magnetic Recording. Tribology Letters, 2012, 45, 411-416.	2.6	13

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19	Light Delivery System for Heat-Assisted Magnetic Recording. IEEE Transactions on Magnetics, 2009, 45, 5016-5021.	2.1	12
20	Slider Design Optimization for Lube-Surfing Head-Disk Interface Scheme. IEEE Transactions on Magnetics, 2010, 46, 1922-1924.	2.1	10
21	Flying height adjustment by sliderâ€™s air bearing surface profile control. Journal of Applied Physics, 2005, 97, 10P309.	2.5	9
22	Dynamics of Read/Write Head Positioning in Both Flying-Height and Off-Track Directions. IEEE Transactions on Magnetics, 2007, 43, 3796-3801.	2.1	9
23	Direct Monte Carlo Simulations of Air Bearing Characteristics on Patterned Media. IEEE Transactions on Magnetics, 2011, 47, 2660-2663.	2.1	9
24	Thermal protrusion induced air bearing frequency variations. Microsystem Technologies, 2011, 17, 891-896.	2.0	9
25	A ZnO microcantilever for high-frequency nanopositioning: Modeling, fabrication and characterization. Sensors and Actuators A: Physical, 2013, 194, 75-83.	4.1	9
26	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
27	Nonlinear Dynamics of Thermal Flying Height Control Sliders at Touch-Down. IEEE Transactions on Magnetics, 2011, 47, 1798-1804.	2.1	8
28	Modeling laser heated thin film media for heat assisted magnetic recording. Microsystem Technologies, 2013, 19, 1457-1463.	2.0	8
29	A Fast Implicit Algorithm for Time-Dependent Dynamic Simulations of Air Bearing Sliders. Journal of Tribology, 2012, 134, .	1.9	7
30	Numerical Studies of Heat Transfer in Rarefied Gases at Head-Disk Interface. Japanese Journal of Applied Physics, 2009, 48, 105005.	1.5	6
31	Numerical Simulations of Accommodation Coefficient Effects at the Head-Disk Interface. Japanese Journal of Applied Physics, 2010, 49, 095206.	1.5	6
32	Effects of Gas Physical Properties on Flying Performance of Air Bearing Slider. IEEE Transactions on Magnetics, 2010, 46, 1389-1392.	2.1	6
33	Frequency Analyses of Air Bearing Slider in Near Contact and Contact States. Tribology Letters, 2012, 48, 345-353.	2.6	6
34	Effect of the Thickness of a Diamond-Like Carbon Layer on the Local Temperature Increase in a Multilayered Structure Induced by Laser Heating. Numerical Heat Transfer; Part A: Applications, 2015, 67, 791-807.	2.1	6
35	Dynamics of Fly-Contact Head Disk Interface. IEEE Transactions on Magnetics, 2008, 44, 3683-3686.	2.1	5
36	Energy Analysis on Flying Stability of Sub-5-nm Air Bearing Slider. IEEE Transactions on Magnetics, 2009, 45, 4998-5001.	2.1	5

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37	Direct Monte Carlo simulation of nanoscale mixed gas bearings. Advances in Mechanical Engineering, 2015, 7, 168781401558952.	1.6	5
38	Numerical investigation of thermal effects on a HAMR head-disk interface. Microsystem Technologies, 2015, 21, 2641-2647.	2.0	5
39	Analysis and optimization of dynamic response of air bearing sliders to disk waviness. Tribology International, 2005, 38, 542-553.	5.9	4
40	Mechanical Performance Study of Pattern Media-Based Head-Disk Systems. IEEE Transactions on Magnetics, 2009, 45, 5002-5005.	2.1	4
41	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
42	Effect of Interfacial Roughness on Slider-Disk Interactions at Near-Contact Regime. IEEE Transactions on Magnetics, 2012, 48, 4459-4462.	2.1	4
43	Performance analysis of an integrated piezoelectric ZnO sensor for detection of headâ€“disk contact. Microsystem Technologies, 2013, 19, 1449-1455.	2.0	4
44	Numerical study of thermal-induced lubricant depletion induced on an anisotropic multilayer disk in a heat assisted magnetic recording system. International Journal of Heat and Mass Transfer, 2013, 60, 322-333.	4.8	4
45	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
46	Investigations of Light Contact and Lube-Surfing State With Electrical Current. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	4
47	Evaluation of thermal performance of graphene overcoat on multi-layered structure subject to laser heating. International Communications in Heat and Mass Transfer, 2015, 68, 27-31.	5.6	4
48	Dynamics of head-disk interface in hard disk drives during operational shock. Microsystem Technologies, 2016, 22, 1389-1395.	2.0	4
49	Molecular Study of Dynamic Behavior between Head and Ultrathin Lubricant Film. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2010, 4, 56-60.	0.7	3
50	Effects of environmental temperature and humidity on thermal flying height adjustment. Microsystem Technologies, 2010, 16, 49-55.	2.0	3
51	Adsorbed Water Film and Heat Conduction from Disk to Slider in Heat-Assisted Magnetic Recording. Tribology Letters, 2014, 56, 93-99.	2.6	3
52	Operational shock response of ultrathin hard disk drives. Microsystem Technologies, 2015, 21, 2573-2579.	2.0	3
53	Slider Posture Effects on Air Bearing in a Heat-Assisted Magnetic Recording System. Advances in Tribology, 2012, 2012, 1-6.	2.1	2
54	Thermal Effect of a Thin Overcoating Layer Subject to Laser Heating. IEEE Transactions on Magnetics, 2013, 49, 2782-2785.	2.1	2

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55	Investigation of slider out-of-plane and in-plane vibrations during the track-seeking process. Microsystem Technologies, 2016, 22, 1189-1197.	2.0	2
56	Heater AC Voltage Induced Flying Height Modulations. Journal of Tribology, 2014, 136, .	1.9	2
57	Dynamic characteristics of a flex suspension assembly. , 0, , .		1
58	Femto slider: fabrication and evaluation [magnetic disk storage]. , 0, , .		1
59	Flying Stability Study of a Thermal Actuated Slider. , 2006, , .		1
60	Dynamic Studies on Lube-Surfing Recording. IEEE Transactions on Magnetics, 2011, 47, 3578-3581.	2.1	1
61	Two dimensional position stability of head-slider and its in-situ characterization. , 0, , .		0
62	Optimal suspension design for femto sliders. , 0, , .		0
63	Air-Bearing Design Towards Super Stable Head-Disk Interface. , 2006, , .		0
64	Twisted transition of one bit written by trapezoidal single pole. Journal of Magnetism and Magnetic Materials, 2008, 320, 2948-2951.	2.3	0
65	Mechanical performance study of pattern media based head-disk systems. , 2009, , .		0
66	Air Bearing Features on Discrete Track Media. IEEE Transactions on Magnetics, 2011, 47, 1813-1816.	2.1	0
67	Flying Height Drop Due to Air Entrapment in Lubricant. Tribology Letters, 2013, 52, 137-145.	2.6	0
68	Numerical Simulation on Lubricant Recovery After Depletion. , 2013, , .		0
69	Operational Shock Response of Ultrathin Hard Disk Drives. , 2014, , .		0
70	Electrostatic Force Manipulation Methodology: Principles, Mechanisms, and Setup for Headâ€“Disk Interactions Monitoring. IEEE Transactions on Magnetics, 2015, 51, 1-8.	2.1	0
71	Effects of Surface Roughness on the Fly-Ability of a Thermal Protrusion Air Bearing Slider. , 2009, , .		0
72	Performance Optimization of Thermal Nano-Actuator for Fly Height Control in Disk Drives. , 2009, , .		0

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73	Numerical Investigation of Thermal Effects on a HAMR Head-Disk Interface. , 2014, , .		0