Mark A Lantz

List of Publications by Year
in descending order

43 papers	1,485 citations	430874 18 h-index	377865 34 g-index
44 all docs	44 docs citations	44 times ranked	1151 citing authors

#	Article	IF	Citations
1	Atomistic Wear in a Single Asperity Sliding Contact. Physical Review Letters, 2008, 101, 125501.	7.8	222
2	Ultralow nanoscale wear through atom-by-atom attrition in silicon-containing diamond-like carbon. Nature Nanotechnology, 2010, 5, 181-185.	31.5	212
3	On the Application of Transition State Theory to Atomic-Scale Wear. Tribology Letters, 2010, 39, 257-271.	2.6	109
4	Dynamic superlubricity and the elimination of wear on the nanoscale. Nature Nanotechnology, 2009, 4, 586-591.	31.5	107
5	29.5-$hbox{Gb/in}^{2}$ Recording Areal Density on Barium Ferrite Tape. IEEE Transactions on Magnetics, 2011, 47, 137-147.	2.1	105
6	A micromechanical thermal displacement sensor with nanometre resolution. Nanotechnology, 2005, 16, 1089-1094.	2.6	90
7	A Vibration Resistant Nanopositioner for Mobile Parallel-Probe Storage Applications. Journal of Microelectromechanical Systems, 2007, 16, 130-139.	2.5	78
8	Stretching the Î±-helix: a direct measure of the hydrogen-bond energy of a single-peptide molecule. Chemical Physics Letters, 1999, 315, 61-68.	2.6	77
9	Control of MEMS-Based Scanning-Probe Data-Storage Devices. IEEE Transactions on Control Systems Technology, 2007, 15, 824-841.	5.2	75
10	Carbon nanotube tips for thermomechanical data storage. Applied Physics Letters, 2003, 83, 1266-1268.	3.3	50
11	Insight into conformational changes of a single Î±-helix peptide molecule through stiffness measurements. Chemical Physics Letters, 2001, 343, 77-82.	2.6	44
12	Wearâ€Resistant Nanoscale Silicon Carbide Tips for Scanning Probe Applications. Advanced Functional Materials, 2012, 22, 1639-1645.	14.9	38
13	123 Gbit/in² Recording Areal Density on Barium Ferrite Tape. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	37
14	201 Gb/in²Recording Areal Density on Sputtered Magnetic Tape. IEEE Transactions on Magnetics, 2018, 54, 1-8.	2.1	28
15	Nanoscale Frictional Dissipation into Shear-Stressed Polymer Relaxations. Physical Review Letters, 2009, 102, 236101.	7.8	24
16	Atomic Force Microscopy Cantilevers for Sensitive Lateral Force Detection. Japanese Journal of Applied Physics, 1999, 38, 3958-3961.	1.5	23
17	Servo-Pattern Design and Track-Following Control for Nanometer Head Positioning on Flexible Tape Media. IEEE Transactions on Control Systems Technology, 2012, 20, 369-381.	5.2	21
18	85.9 Gb/in<inline-formula> <tex-math notation="LaTeX">$^{ {2}}$ </tex-math></inline-formula> Recording Areal Density on Barium Ferrite Tape. IEEE Transactions on Magnetics, 2015, 51, 1-7.	2.1	19

#	Article	IF	Citations
19	Î²-Relaxation of PMMA: Tip Size and Stress Effects in Friction Force Microscopy. Langmuir, 2015, 31, 5398-5405.	3.5	18
20	317 Gb/in² Recording Areal Density on Strontium Ferrite Tape. IEEE Transactions on Magnetics, 2021, 57, 1-11.	2.1	16
21	Analytical Expressions for the Readback Signal of Timing-Based Servo Schemes. IEEE Transactions on Magnetics, 2012, 48, 4578-4581.	2.1	12
22	Data Prefetching for Large Tiered Storage Systems. , 2017, , .		10
23	Product Codes for Data Storage on Magnetic Tape. IEEE Transactions on Magnetics, 2017, 53, 1-10.	2.1	9
24	Track-Following High Frequency Lateral Motion of Flexible Magnetic Media With Sub-100 nm Positioning Error. IEEE Transactions on Magnetics, 2011, 47, 1868-1873.	2.1	8
25	Frictional Dissipation in a Polymer Bilayer System. Langmuir, 2014, 30, 1557-1565.	3.5	8
26	Where Tape and Hard-Disk Technology Meet: The HDD Headâ€“Tape Interface. IEEE Transactions on Magnetics, 2015, 51, 1-10.	2.1	8
27	Nanoscale track-following for tape storage. , 2015, , .		6
28	Flat-Profile Tapeâ€“Head Friction and Magnetic Spacing. IEEE Transactions on Magnetics, 2014, 50, 34-39.	2.1	5
29	Resolution Limits of Timing-Based Servo Schemes in Magnetic Tape Drives. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	5
30	Planar Thin-Film Servo Write Head for Magnetic Tape Recording. IEEE Transactions on Magnetics, 2012, 48, 3539-3542.	2.1	4
31	Future Scaling Potential of Particulate Media in Magnetic Tape Recording. Handbook of Magnetic Materials, 2014, 22, 317-379.	0.6	3
32	Asymmetrically Wrapped Flat-Profile Tapeâ€“Head Friction and Spacing. Tribology Letters, 2015, 59, 1.	2.6	3
33	Feedback control of transport systems in tape drives without tension transducers. Mechatronics, 2018, 49, 211-223.	3.3	2
34	Graph-Based Data Relevance Estimation for Large Storage Systems. , 2018, , .		2
35	Performance of Interleaved Block Codes With Burst Errors. IEEE Transactions on Magnetics, 2019, 55, 1-5.	2.1	2
36	Compressional Wave Disturbance Suppression for Nanoscale Track-Following on Flexible Tape Media. , 2018, , .		2

#	Article	IF	Citations
37	Side-Reading Effects in High-Track-Density Tape Recording. IEEE Transactions on Magnetics, 2013, 49, 3706-3709.	2.1	1
38	Lateral Friction Behavior of a Thin, Tensioned Tape Wrapped Over a Grooved Roller: Experiments and Theory. Journal of Tribology, 2017, 139, .	1.9	1
39	Shortened Cyclic Codes for Correcting and Detecting Burst Errors. , 2018, , .		1
40	Tape-Head With Sub-Ambient Air Pressure Cavities. IEEE Transactions on Magnetics, 2016, 52, 1-10.	2.1	0
41	Control Systems for Nanopositioning. , 2021, , 401-409.		0
42	Track-following system optimization for future magnetic tape data storage. Mechatronics, 2021, 80, 102662.	3.3	0
43	Performance Evaluation of Automated Tape Library Systems. , 2021, , .		0