

Paulo Freitas

List of Publications by Year in descending order

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530
papers

13,983
citations

22099

59
h-index

43802

91
g-index

535
all docs

535
docs citations

535
times ranked

9070
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetoresistive-based biosensors and biochips. Trends in Biotechnology, 2004, 22, 455-462.	4.9	405
2	Magnetoresistive sensors. Journal of Physics Condensed Matter, 2007, 19, 165221.	0.7	338
3	Thermodynamic fluctuations in the superconductor $Y_1Ba_2Cu_3O_{9-\delta}$: Evidence for three-dimensional superconductivity. Physical Review B, 1987, 36, 833-835.	1.1	287
4	Interacting ferromagnetic nanoparticles in discontinuous $Co_{80}Fe_{20}/Al_2O_3$ multilayers: From superspin glass to reentrant superferromagnetism. Physical Review B, 2001, 63, .	1.1	187
5	Femtosecond control of electric currents in metallic ferromagnetic heterostructures. Nature Nanotechnology, 2016, 11, 455-458.	15.6	182
6	Planar Hall effect sensor for magnetic micro- and nanobead detection. Applied Physics Letters, 2004, 84, 4729-4731.	1.5	181
7	Large tunneling magnetoresistance enhancement by thermal anneal. Applied Physics Letters, 1998, 73, 3288-3290.	1.5	179
8	Biodetection using magnetically labeled biomolecules and arrays of spin valve sensors (invited). Journal of Applied Physics, 2003, 93, 7281-7286.	1.1	179
9	Study of the dynamic magnetic properties of soft CoFeB films. Journal of Applied Physics, 2006, 100, 053903.	1.1	173
10	Single magnetic microsphere placement and detection on-chip using current line designs with integrated spin valve sensors: Biotechnological applications. Journal of Applied Physics, 2002, 91, 7786.	1.1	164
11	Phase Coherent Precessional Magnetization Reversal in Microscopic Spin Valve Elements. Physical Review Letters, 2003, 90, 017201.	2.9	155
12	Collective states of interacting ferromagnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2006, 300, 192-197.	1.0	155
13	Quasiballistic Magnetization Reversal. Physical Review Letters, 2003, 90, 017204.	2.9	146
14	Observation of ϵ -exchange force between domain walls and electric current in very thin Permalloy films. Journal of Applied Physics, 1985, 57, 1266-1269.	1.1	143
15	Overcoming the Dipolar Disorder in Dense CoFe Nanoparticle Ensembles: Superferromagnetism. Physical Review Letters, 2007, 98, .	2.9	143
16	Magnetoresistive Sensor Development Roadmap (Non-Recording Applications). IEEE Transactions on Magnetism, 2019, 55, 1-30.	1.2	138
17	High sensitivity detection of molecular recognition using magnetically labelled biomolecules and magnetoresistive sensors. Biosensors and Bioelectronics, 2003, 18, 483-488.	5.3	137
18	Superparamagnetism versus superspin glass behavior in dilute magnetic nanoparticle systems. Physical Review B, 2005, 72, .	1.1	131

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19	Ion beam deposition of Mn-Ir spin valves. IEEE Transactions on Magnetism, 1999, 35, 4361-4367.	1.2	125
20	Spin-tunnel-junction thermal stability and interface interdiffusion above 300°C. Applied Physics Letters, 2000, 76, 610-612.	1.5	122
21	Vector network analyzer ferromagnetic resonance of thin films on coplanar waveguides: Comparison of different evaluation methods. Journal of Applied Physics, 2007, 101, 074505.	1.1	112
22	Spintronic platforms for biomedical applications. Lab on A Chip, 2012, 12, 546-557.	3.1	112
23	Femtomolar limit of detection with a magnetoresistive biochip. Biosensors and Bioelectronics, 2009, 24, 2690-2695.	5.3	107
24	Aging and memory in a superspin glass. Physical Review B, 2003, 67, .	1.1	106
25	Spintronic Sensors. Proceedings of the IEEE, 2016, 104, 1894-1918.	16.4	103
26	Properties of epitaxial films of YBa ₂ Cu ₃ O _{7-δ} . Physical Review B, 1987, 36, 8903-8906.	1.1	102
27	High-temperature order-disorder phase transition in the superconductor YBa ₂ Cu ₃ O _{6+δ} observed by electrical resistivity measurements. Physical Review B, 1987, 36, 5723-5726.	1.1	97
28	Radiation of spin waves by a single micrometer-sized magnetic element. Applied Physics Letters, 2004, 85, 2866-2868.	1.5	97
29	The electronic properties of sputtered chromium and iron oxide films. Corrosion Science, 2004, 46, 1479-1499.	3.0	95
30	Magnetic field-assisted DNA hybridisation and simultaneous detection using micron-sized spin-valve sensors and magnetic nanoparticles. Sensors and Actuators B: Chemical, 2005, 107, 936-944.	4.0	93
31	Low frequency picotesla field detection using hybrid MgO based tunnel sensors. Applied Physics Letters, 2007, 91, .	1.5	90
32	A bacteriophage detection tool for viability assessment of Salmonella cells. Biosensors and Bioelectronics, 2014, 52, 239-246.	5.3	87
33	Comparative study of superconducting energy gaps in oriented films and polycrystalline bulk samples of Y-Ba-Cu-O. Physical Review Letters, 1987, 59, 704-707.	2.9	85
34	Spin valve sensors. Sensors and Actuators A: Physical, 2000, 81, 2-8.	2.0	85
35	Linearization strategies for high sensitivity magnetoresistive sensors. EPJ Applied Physics, 2015, 72, 10601.	0.3	83
36	Ion beam deposition and oxidation of spin-dependent tunnel junctions. IEEE Transactions on Magnetism, 1999, 35, 2952-2954.	1.2	82

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37	Magnetoresistance enhancement in specular, bottom-pinned, Mn ₈₃ Ir ₁₇ spin valves with nano-oxide layers. Applied Physics Letters, 2000, 77, 1020.	1.5	82
38	Challenges and trends in magnetic sensor integration with microfluidics for biomedical applications. Journal Physics D: Applied Physics, 2017, 50, 213001.	1.3	81
39	Domain Wall Relaxation, Creep, Sliding, and Switching in Superferromagnetic DiscontinuousCo ₈₀ Fe ₂₀ /Al ₂ O ₃ Multilayers. Physical Review Letters, 2002, 89, 137203.	2.9	79
40	Tunnel magnetoresistance and magnetic ordering in ion-beam sputtered Co ₈₀ Fe ₂₀ /Al ₂ O ₃ discontinuous multilayers. Journal of Applied Physics, 2001, 90, 4044-4048.	1.1	78
41	Current-induced magnetization switching in magnetic tunnel junctions. Applied Physics Letters, 2003, 82, 2871-2873.	1.5	78
42	Raman and infrared results on YBa ₂ Cu ₃ O _{7-x} type materials. Solid State Communications, 1987, 64, 471-476.	0.9	77
43	A Portable and Autonomous Magnetic Detection Platform for Biosensing. Sensors, 2009, 9, 4119-4137.	2.1	76
44	On-chip manipulation and magnetization assessment of magnetic bead ensembles by integrated spin-valve sensors. Journal of Applied Physics, 2002, 91, 7445.	1.1	75
45	Superspin-glass nature of discontinuousCo ₈₀ Fe ₂₀ /Al ₂ O ₃ multilayers. Physical Review B, 2002, 65, .	1.1	75
46	GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. Journal of Magnetism and Magnetic Materials, 2012, 324, 3495-3498.	1.0	75
47	Fast and efficient microfluidic cell filter for isolation of circulating tumor cells from unprocessed whole blood of colorectal cancer patients. Scientific Reports, 2019, 9, 8032.	1.6	73
48	Low frequency noise in arrays of magnetic tunnel junctions connected in series and parallel. Journal of Applied Physics, 2009, 105, .	1.1	72
49	Integration of GMR Sensors with Different Technologies. Sensors, 2016, 16, 939.	2.1	70
50	Magnetic microbead detection using the planar Hall effect. Journal of Magnetism and Magnetic Materials, 2005, 293, 677-684.	1.0	68
51	Magneto-mechanical actuation of magnetic responsive fibrous scaffolds boosts tenogenesis of human adipose stem cells. Nanoscale, 2019, 11, 18255-18271.	2.8	68
52	Biosensors for On-Farm Diagnosis of Mastitis. Frontiers in Bioengineering and Biotechnology, 2019, 7, 186.	2.0	67
53	Magnetic tunnel junction sensors with pTesla sensitivity. Microsystem Technologies, 2014, 20, 793-802.	1.2	66
54	Cooperative versus superparamagnetic behavior of dense magnetic nanoparticles in Co ₈₀ Fe ₂₀ /Al ₂ O ₃ multilayers. Applied Physics Letters, 2003, 82, 4116-4118.	1.5	65

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55	Effect of free layer thickness and shape anisotropy on the transfer curves of MgO magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	65
56	Multifunctional magnetic-responsive hydrogels to engineer tendon-to-bone interface. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018, 14, 2375-2385.	1.7	65
57	Magneto-resistive chip cytometer. <i>Lab on A Chip</i> , 2011, 11, 2255.	3.1	64
58	Technological advances in bovine mastitis diagnosis. <i>Journal of Veterinary Diagnostic Investigation</i> , 2015, 27, 665-672.	0.5	64
59	Dependence of tunneling magneto-resistance on ferromagnetic electrode thickness and on the thickness of a Cu layer inserted at the Al ₂ O ₃ /CoFe interface. <i>Journal of Applied Physics</i> , 1999, 85, 5264-5266.	1.1	63
60	Low resistance spin-dependent tunnel junctions deposited with a vacuum break and radio frequency plasma oxidized. <i>Applied Physics Letters</i> , 1999, 74, 448-450.	1.5	63
61	Improving Magnetic Field Detection Limits of Spin Valve Sensors Using Magnetic Flux Guide Concentrators. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 2376-2378.	1.2	63
62	1/f noise in linearized low resistance MgO magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2006, 99, 08B314.	1.1	60
63	Lab-on-Chip Cytometry Based on Magneto-resistive Sensors for Bacteria Detection in Milk. <i>Sensors</i> , 2014, 14, 15496-15524.	2.1	59
64	Temperature dependence and annealing effects on spin dependent tunnel junctions. <i>Journal of Applied Physics</i> , 1999, 85, 5258-5260.	1.1	57
65	Challenges and trends in the development of a magneto-resistive biochip portable platform. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1655-1663.	1.0	55
66	Interaction of polyacrylic acid coated and non-coated iron oxide nanoparticles with human neutrophils. <i>Toxicology Letters</i> , 2014, 225, 57-65.	0.4	55
67	Magneto-resistance and magnetic properties of NiFe/oxide/Co junctions prepared by magnetron sputtering. <i>Journal of Applied Physics</i> , 1994, 76, 6104-6106.	1.1	54
68	Tunneling hot spots and heating in magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2004, 95, 6783-6785.	1.1	54
69	Relaxation and aging of a superferromagnetic domain state. <i>Physical Review B</i> , 2003, 68, .	1.1	50
70	Exploring the Potential of Starch/Polycaprolactone Aligned Magnetic Responsive Scaffolds for Tendon Regeneration. <i>Advanced Healthcare Materials</i> , 2016, 5, 213-222.	3.9	50
71	Detection of BCG bacteria using a magneto-resistive biosensor: A step towards a fully electronic platform for tuberculosis point-of-care detection. <i>Biosensors and Bioelectronics</i> , 2018, 100, 259-265.	5.3	50
72	Lab-on-Chip Devices: Gaining Ground Losing Size. <i>ACS Nano</i> , 2017, 11, 10659-10664.	7.3	49

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73	Spin dependent tunnel junctions for memory and read-head applications. IEEE Transactions on Magnetics, 2000, 36, 2796-2801.	1.2	48
74	Large Area and Low Aspect Ratio Linear Magnetic Tunnel Junctions With a Soft-Pinned Sensing Layer. IEEE Transactions on Magnetics, 2012, 48, 3719-3722.	1.2	48
75	InVivo Magnetic Recording of Neuronal Activity. Neuron, 2017, 95, 1283-1291.e4.	3.8	48
76	Toward a magnetoresistive chip cytometer: Integrated detection of magnetic beads flowing at cm/s velocities in microfluidic channels. Applied Physics Letters, 2009, 95, 034104.	1.5	47
77	Spin valve sensors with synthetic free and pinned layers. Journal of Applied Physics, 2000, 87, 5744-5746.	1.1	46
78	Exchange enhancement and thermal anneal in Mn76Ir24 bottom-pinned spin valves. Journal of Applied Physics, 2001, 89, 6904-6906.	1.1	46
79	MgO based picotesla field sensors. Journal of Applied Physics, 2008, 103, .	1.1	46
80	Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. Biosensors and Bioelectronics, 2012, 35, 206-212.	5.3	46
81	Resonant Tunneling through Electronic Trapping States in Thin MgO Magnetic Junctions. Physical Review Letters, 2011, 106, 196601.	2.9	45
82	Seebeck Rectification Enabled by Intrinsic Thermoelectrical Coupling in Magnetic Tunneling Junctions. Physical Review Letters, 2012, 109, 037206.	2.9	45
83	Electrode roughness and interfacial mixing effects on the tunnel junction thermal stability. Journal of Applied Physics, 2001, 89, 6650-6652.	1.1	44
84	Spin valve sensors exchange biased by ultrathin TbCo films. Applied Physics Letters, 1994, 65, 493-495.	1.5	43
85	Hybrid magnetoresistive microelectromechanical devices for static field modulation and sensor noise cancellation. Journal of Applied Physics, 2008, 103, .	1.1	43
86	Spin transfer torque driven higher-order propagating spin waves in nano-contact magnetic tunnel junctions. Nature Communications, 2018, 9, 4374.	5.8	43
87	High thermal stability tunnel junctions. Journal of Applied Physics, 2000, 87, 6058-6060.	1.1	42
88	Performance enhanced UV/vis spectroscopic microfluidic sensor for ascorbic acid quantification in human blood. Biosensors and Bioelectronics, 2016, 85, 568-572.	5.3	42
89	40% tunneling magnetoresistance after anneal at 380°C for tunnel junctions with iron oxide interface layers. Journal of Applied Physics, 2001, 89, 6665-6667.	1.1	41
90	Detection of cystic fibrosis related DNA targets using AC field focusing of magnetic labels and spin-valve sensors. IEEE Transactions on Magnetics, 2005, 41, 4140-4142.	1.2	41

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91	Rapid DNA hybridization based on ac field focusing of magnetically labeled target DNA. Applied Physics Letters, 2005, 87, 013901.	1.5	41
92	Implementing a strategy for on-chip detection of cell-free DNA fragments using GMR sensors: A translational application in cancer diagnostics using ALU elements. Analytical Methods, 2016, 8, 119-128.	1.3	41
93	Universal and scaled relaxation of interacting magnetic nanoparticles. Physical Review B, 2004, 70, .	1.1	40
94	Graphene field-effect transistor array with integrated electrolytic gates scaled to 200 nm. Journal of Physics Condensed Matter, 2016, 28, 085302.	0.7	40
95	Phonons in YBa ₂ Cu ₃ O _{7-δ} -type materials. Physical Review B, 1988, 37, 5171-5174.	1.1	39
96	Room temperature direct detection of low frequency magnetic fields in the 100 pT/Hz ^{0.5} range using large arrays of magnetic tunnel junctions. Journal of Applied Physics, 2014, 115, .	1.1	39
97	Tunneling magnetoresistance and current distribution effect in spin-dependent tunnel junctions. Journal of Applied Physics, 1998, 83, 6694-6696.	1.1	38
98	Spin-dependent tunnel junctions with ZrO _x barriers. Applied Physics Letters, 2001, 79, 4387-4389.	1.5	38
99	Low-Frequency Noise in MgO Magnetic Tunnel Junctions: Hooge's Parameter Dependence on Bias Voltage. IEEE Transactions on Magnetics, 2008, 44, 2569-2572.	1.2	38
100	Spin torque nano-oscillator driven by combined spin injection from tunneling and spin Hall current. Communications Physics, 2019, 2, .	2.0	38
101	Field detection in MgO magnetic tunnel junctions with superparamagnetic free layer and magnetic flux concentrators. Journal of Applied Physics, 2009, 105, .	1.1	37
102	Toward a system to measure action potential on mice brain slices with local magnetoresistive probes. Journal of Applied Physics, 2011, 109, 07B308.	1.1	37
103	Influence of Ta antidiffusion barriers on the thermal stability of tunnel junctions. Applied Physics Letters, 2000, 76, 3792-3794.	1.5	36
104	Low-resistance spin-dependent tunnel junctions with ZrAlO _x barriers. Applied Physics Letters, 2001, 79, 4553-4555.	1.5	36
105	Coherent suppression of magnetic ringing in microscopic spin valve elements. Applied Physics Letters, 2002, 80, 3781-3783.	1.5	36
106	Synthetic ferrimagnet free layer tunnel junction for magnetic random access memories. Journal of Applied Physics, 2002, 91, 7700.	1.1	36
107	Low-current blocking temperature writing of double barrier magnetic random access memory cells. Applied Physics Letters, 2004, 84, 945-947.	1.5	35
108	Tuning of MgO barrier magnetic tunnel junction bias current for picotesla magnetic field detection. Journal of Applied Physics, 2006, 99, 08K706.	1.1	35

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109	Electroforming, magnetic and resistive switching in MgO-based tunnel junctions. Journal Physics D: Applied Physics, 2009, 42, 105407.	1.3	35
110	OPTIMIZATION AND INTEGRATION OF MAGNETORESISTIVE SENSORS. Spin, 2011, 01, 71-91.	0.6	35
111	Magnetic Tunnel Junctions Based on Out-of-Plane Anisotropy Free and In-Plane Pinned Layer Structures for Magnetic Field Sensors. IEEE Transactions on Magnetics, 2012, 48, 3840-3842.	1.2	35
112	Integration of TMR Sensors in Silicon Microneedles for Magnetic Measurements of Neurons. IEEE Transactions on Magnetics, 2013, 49, 3512-3515.	1.2	35
113	Interference-blind microfluidic sensor for ascorbic acid determination by UV/vis spectroscopy. Sensors and Actuators B: Chemical, 2016, 224, 668-675.	4.0	35
114	High power and low critical current density spin transfer torque nano-oscillators using MgO barriers with intermediate thickness. Scientific Reports, 2017, 7, 7237.	1.6	35
115	High-Resolution Nondestructive Test Probes Based on Magnetoresistive Sensors. IEEE Transactions on Industrial Electronics, 2019, 66, 7326-7337.	5.2	35
116	Transport mechanisms in $Y_1Ba_2Cu_3O_6+\delta$ superconductors in the metallic and the semiconducting regimes. Physical Review B, 1988, 37, 3657-3659.	1.1	34
117	MgO-based magnetic tunnel junction sensors array for non-destructive testing applications. Journal of Applied Physics, 2014, 115, .	1.1	34
118	Hybrid Integration of Magnetoresistive Sensors with MEMS as a Strategy to Detect Ultra-Low Magnetic Fields. Micromachines, 2016, 7, 88.	1.4	34
119	Semi-Quantitative Method for Streptococci Magnetic Detection in Raw Milk. Biosensors, 2016, 6, 19.	2.3	34
120	Resistance decrease in spin tunnel junctions by control of natural oxidation conditions. Applied Physics Letters, 2001, 79, 2219-2221.	1.5	33
121	Exchange-biased planar Hall effect sensor optimized for biosensor applications. Journal of Applied Physics, 2008, 103, .	1.1	33
122	Three dimensional magnetic flux concentrators with improved efficiency for magnetoresistive sensors. Journal of Applied Physics, 2011, 109, .	1.1	33
123	Magnetic field sensor with voltage-tunable sensing properties. Applied Physics Letters, 2012, 101, 192401.	1.5	33
124	Eddy currents testing probe with magneto-resistive sensors and differential measurement. Sensors and Actuators A: Physical, 2014, 212, 58-67.	2.0	33
125	Characterization of CoFeB electrodes for tunnel junctions. Journal of Applied Physics, 2005, 97, 10C916.	1.1	32
126	Training effect in specular spin valves. Physical Review B, 2008, 77, .	1.1	32

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127	Detection of 130nm magnetic particles by a portable electronic platform using spin valve and magnetic tunnel junction sensors. Journal of Applied Physics, 2008, 103, 07A310.	1.1	32
128	Towards picoTesla Magnetic Field Detection Using a GMR-MEMS Hybrid Device. IEEE Transactions on Magnetics, 2012, 48, 4115-4118.	1.2	32
129	Giant magnetoresistive sensors for rotational speed control. Journal of Applied Physics, 1999, 85, 5459-5461.	1.1	31
130	Electromigration in thin tunnel junctions with ferromagnetic/nonmagnetic electrodes: Nanoconstrictions, local heating, and direct and wind forces. Physical Review B, 2005, 72, .	1.1	31
131	Superferromagnetic domain state of a discontinuous metal insulator multilayer. Physical Review B, 2005, 72, .	1.1	31
132	Electrical Characterization of a Magnetic Tunnel Junction Current Sensor for Industrial Applications. IEEE Transactions on Magnetics, 2012, 48, 2823-2826.	1.2	31
133	Exploring sialyl-Tn expression in microfluidic-isolated circulating tumour cells: A novel biomarker and an analytical tool for precision oncology applications. New Biotechnology, 2019, 49, 77-87.	2.4	31
134	Spin-valve structures exchange biased with $\text{Ta}_{0.23}\text{Co}_{0.77}$ layers. Journal of Applied Physics, 1994, 75, 6480-6482.	1.1	30
135	Transport properties of discontinuous $\text{Co}/\text{sub } 80/\text{Fe}/\text{sub } 20//\text{Al}/\text{sub } 2/\text{O}/\text{sub } 3/$ multilayers, prepared by ion beam sputtering. IEEE Transactions on Magnetics, 1999, 35, 2895-2897.	1.2	30
136	Diode/magnetic tunnel junction cell for fully scalable matrix-based biochip. Journal of Applied Physics, 2006, 99, 08B307.	1.1	30
137	Field detection in single and double barrier MgO magnetic tunnel junction sensors. Journal of Applied Physics, 2008, 103, 07E922.	1.1	30
138	2-Axis Magnetometers Based on Full Wheatstone Bridges Incorporating Magnetic Tunnel Junctions Connected in Series. IEEE Transactions on Magnetics, 2012, 48, 4107-4110.	1.2	30
139	Strategies for pTesla Field Detection Using Magnetoresistive Sensors With a Soft Pinned Sensing Layer. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	30
140	Current-induced switching in low resistance magnetic tunnel junctions. Journal of Applied Physics, 2003, 93, 8385-8387.	1.1	29
141	Dynamic heating in submicron size magnetic tunnel junctions with exchange biased storage layer. Journal of Applied Physics, 2005, 97, 10P501.	1.1	29
142	Domain imaging, MOKE and magnetoresistance studies of CoFeB films for MRAM applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 126, 180-186.	1.7	29
143	Biodistribution of polyacrylic acid-coated iron oxide nanoparticles is associated with proinflammatory activation and liver toxicity. Journal of Applied Toxicology, 2016, 36, 1321-1331.	1.4	29
144	Linearization of Magnetic Sensors With a Weakly Pinned Free-Layer MTJ Stack Using a Three-Step Annealing Process. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	29

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145	Hybrid GMR Sensor Detecting 950 pT/sqrt(Hz) at 1 Hz and Room Temperature. <i>Sensors</i> , 2018, 18, 790.	2.1	29
146	Functionalization of single-layer graphene for immunoassays. <i>Applied Surface Science</i> , 2019, 480, 709-716.	3.1	29
147	A New Hand-Held Microsystem Architecture for Biological Analysis. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2006, 53, 2384-2395.	0.1	28
148	1/f Magnetic Noise Dependence on Free Layer Thickness in Hysteresis Free MgO Magnetic Tunnel Junctions. <i>IEEE Transactions on Magnetics</i> , 2008, 44, 2551-2553.	1.2	28
149	Low aspect ratio micron size tunnel magnetoresistance sensors with permanent magnet biasing integrated in the top lead. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	28
150	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	28
151	Cole-Cole Analysis of the Superspin Glass System Co ₈₀ Fe ₂₀ /Al ₂ O ₃ . <i>Phase Transitions</i> , 2003, 76, 367-375.	0.6	27
152	Magnetic biosensors for genetic screening of cystic fibrosis. <i>IET Circuits, Devices and Systems</i> , 2005, 152, 393.	0.6	27
153	Magnetoresistive DNA chips based on ac field focusing of magnetic labels. <i>Journal of Applied Physics</i> , 2006, 99, 08P105.	1.1	27
154	Magnetoresistive Detection of Magnetic Beads Flowing at High Speed in Microfluidic Channels. <i>IEEE Transactions on Magnetics</i> , 2009, 45, 4873-4876.	1.2	27
155	Polyacrylic acid coated and non-coated iron oxide nanoparticles are not genotoxic to human T lymphocytes. <i>Toxicology Letters</i> , 2015, 234, 67-73.	0.4	27
156	Influence of the thermal interface resistance on the thermovoltage of a magnetic tunnel junction. <i>Physical Review B</i> , 2017, 95, .	1.1	27
157	Annealing effect of magnetic tunnel junctions with one FeOx layer inserted at the Al ₂ O ₃ /CoFe interface. <i>Applied Physics Letters</i> , 2001, 78, 2911-2913.	1.5	26
158	Versatile, high sensitivity, and automatized angular dependent vectorial Kerr magnetometer for the analysis of nanostructured materials. <i>Review of Scientific Instruments</i> , 2011, 82, 043902.	0.6	26
159	Field Detection in Spin Valve Sensors Using CoFeB/Ru Synthetic-Antiferromagnetic Multilayers as Magnetic Flux Concentrators. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 3847-3850.	1.2	26
160	Magnetic field sensing characteristics of MgO based tunneling magnetoresistance devices with Co ₄₀ Fe ₄₀ B ₂₀ and Co ₆₀ Fe ₂₀ B ₂₀ electrodes. <i>Sensors and Actuators A: Physical</i> , 2013, 202, 64-68.	2.0	26
161	Portable sensing system based on electrochemical impedance spectroscopy for the simultaneous quantification of free and total microcystin-LR in freshwaters. <i>Biosensors and Bioelectronics</i> , 2019, 142, 111550.	5.3	26
162	Effect of spin-valve sensor magnetostatic fields on nanobead detection for biochip applications. <i>Journal of Applied Physics</i> , 2005, 97, 10Q904.	1.1	25

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163	Crossover in heating regimes of thermally assisted magnetic memories. Journal of Applied Physics, 2006, 99, 08N904.	1.1	25
164	Hybrid Magnetic Tunnel Junction-MEMS High Frequency Field Modulator for 1/f Noise Suppression. IEEE Transactions on Magnetics, 2008, 44, 2554-2557.	1.2	25
165	Resistive switching in nanostructured thin films. Applied Physics Letters, 2009, 94, .	1.5	25
166	On the temperature dependence of the magnetoresistance of ferromagnetic alloys. Journal of Applied Physics, 1988, 64, 5459-5461.	1.1	24
167	Spin valve heads with a corrosion resistant MnRh exchange layer. IEEE Transactions on Magnetics, 1998, 34, 2343-2347.	1.2	24
168	Integrated giant magnetoresistance bridge sensors with transverse permanent magnet biasing. Journal of Applied Physics, 2000, 87, 5353-5355.	1.1	24
169	Ferromagnetic Coupling Field Reduction in CoFeB Tunnel Junctions Deposited by Ion Beam. IEEE Transactions on Magnetics, 2004, 40, 2272-2274.	1.2	24
170	Analytical compact modeling of GMR based current sensors: Application to power measurement at the IC level. Solid-State Electronics, 2010, 54, 1606-1612.	0.8	24
171	Wheatstone bridge sensor composed of linear MgO magnetic tunnel junctions. Journal of Applied Physics, 2010, 107, .	1.1	24
172	Go with the flow: advances and trends in magnetic flow cytometry. Analytical and Bioanalytical Chemistry, 2019, 411, 1839-1862.	1.9	24
173	Influence of ion beam milling parameters on MRAM switching. IEEE Transactions on Magnetics, 2001, 37, 1973-1975.	1.2	23
174	Continuous thin barriers for low-resistance spin-dependent tunnel junctions. Journal of Applied Physics, 2003, 93, 8367-8369.	1.1	23
175	Integration of Magnetoresistive Biochips on a CMOS Circuit. IEEE Transactions on Magnetics, 2012, 48, 3784-3787.	1.2	23
176	Polyacrylic acid-coated and non-coated iron oxide nanoparticles induce cytokine activation in human blood cells through TAK1, p38 MAPK and JNK pro-inflammatory pathways. Archives of Toxicology, 2015, 89, 1759-1769.	1.9	23
177	Electronic Energy Meter Based on a Tunnel Magnetoresistive Effect (TMR) Current Sensor. Materials, 2017, 10, 1134.	1.3	23
178	Flow Velocity Measurement in Microchannels Using Magnetoresistive Chips. IEEE Transactions on Magnetics, 2004, 40, 2652-2654.	1.2	22
179	Ion beam assisted deposition of MgO barriers for magnetic tunnel junctions. Journal of Applied Physics, 2008, 103, .	1.1	22
180	Pinholes and temperature-dependent transport properties of MgO magnetic tunnel junctions. Physical Review B, 2008, 78, .	1.1	22

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