Paulo Freitas

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

516 papers	11,820 citations	54 h-index	84 g-index
535 ext. papers	12,905 ext. citations	3.3 avg, IF	6.11 L-index

#	Paper	IF	Citations
516	A pump-free microfluidic device for fast magnetic labeling of ischemic stroke biomarkers.. *Analytical and Bioanalytical Chemistry*, **2022**, 414, 2571	4.4	2
515	Electronic Platforms and Signal Processing for Magnetoresistive-Based Biochips **2022**, 1201-1239		
514	Detecting Magnetic Ink Barcodes with Handheld Magnetoresistive Sensors. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	
513	Monolithic integration of multi-spectral optical interference filter array on thin film amorphous silicon photodiodes. *IEEE Sensors Journal*, **2022**, 1-1	4	1
512	Monolithically integrated optical interference and absorption filters on thin film amorphous silicon photosensors for biological detection. *Sensors and Actuators B: Chemical*, **2022**, 356, 131330	8.5	1
511	Seebeck effect and Joule heating in CoFeB/MgO/CoFeB-based perpendicular magnetic tunnel junctions with low resistance area product. *Journal Physics D: Applied Physics*, **2022**, 55, 265302	3	
510	Evolution in Automatized Detection of Cells: Advances in Magnetic Microcytometers for Cancer Cells. *Advances in Experimental Medicine and Biology*, **2022**, 413-444	3.6	
509	The Challenges of Developing Biosensors for Clinical Assessment: A Review. *Chemosensors*, **2021**, 9, 299	4	4
508	Multi-Level Switching and Reversible Current Driven Domain-Wall Motion in Single CoFeB/MgO/CoFeB-Based Perpendicular Magnetic Tunnel Junctions. *Advanced Electronic Materials*, **2021**, 7, 2000976	6.4	3
507	Phase variation in the locked state of mutually synchronized spin torque nano-oscillators. *Applied Physics Letters*, **2021**, 118, 172406	3.4	1
506	Bias Voltage Dependence of Sensing Characteristics in Tunneling Magnetoresistance Sensors. *Sensors*, **2021**, 21,	3.8	2
505	Electrical characterisation of higher order spin wave modes in vortex-based magnetic tunnel junctions. *Communications Physics*, **2021**, 4,	5.4	3
504	Silane-based coating charged with TiO2 NPs for dental implant applications. *Surface and Coatings Technology*, **2021**, 413, 127066	4.4	5
503	Rapid and multiplex detection of nosocomial pathogens on a phage-based magnetoresistive lab-on-chip platform. *Biotechnology and Bioengineering*, **2021**, 118, 3164-3174	4.9	4
502	Two-dimensional arrays of vertically packed spin-valves with picoTesla sensitivity at room temperature. *Scientific Reports*, **2021**, 11, 215	4.9	2
501	Optimization of asymmetric reference structures through non-evenly layered synthetic antiferromagnet for full bridge magnetic sensors based on CoFeB/MgO/CoFeB. *Applied Physics Letters*, **2021**, 118, 072401	3.4	2
500	Non-volatile artificial synapse based on a vortex nano-oscillator. *Scientific Reports*, **2021**, 11, 16094	4.9	1

499	Using integrated current lines to control the operation point of highly sensitive magnetoresistive sensors. *Journal of Magnetism and Magnetic Materials*, **2021**, 537, 168152	2.8	
498	Non-invasive molecular assessment of human embryo development and implantation potential. *Biosensors and Bioelectronics*, **2020**, 157, 112144	11.8	4
497	Effects of magnetic monopoles charge on the cracking reversal processes in artificial square ices. *Scientific Reports*, **2020**, 10, 9959	4.9	2
496	Digital and analogue modulation and demodulation scheme using vortex-based spin torque nano-oscillators. *Scientific Reports*, **2020**, 10, 11181	4.9	7
495	Wideband High-Resolution Frequency-to-Resistance Converter Based on Nonhomogeneous Magnetic-State Transitions. *Physical Review Applied*, **2020**, 13,	4.3	4
494	Spintronic Sensors Based on Magnetic Tunnel Junctions for Wireless Eye Movement Gesture Control. *IEEE Transactions on Biomedical Circuits and Systems*, **2020**, 14, 1299-1310	5.1	4
493	Integrated Pico-Tesla Resolution Magnetoresistive Sensors for Miniaturised Magnetomyography. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 3415-3419	0.9	3
492	Point-of-care quantification of serum cellular fibronectin levels for stratification of ischemic stroke patients. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2020**, 30, 102287	6	7
491	Phenotypic Analysis of Urothelial Exfoliated Cells in Bladder Cancer via Microfluidic Immunoassays: Sialyl-Tn as a Novel Biomarker in Liquid Biopsies. *Frontiers in Oncology*, **2020**, 10, 1774	5.3	2
490	Hybrid Rigid-Flexible Magnetoresistive Device Based on a Wafer Level Packaging Technology for Micrometric Proximity Measurements. *IEEE Sensors Journal*, **2019**, 19, 12363-12368	4	3
489	Magneto-mechanical actuation of magnetic responsive fibrous scaffolds boosts tenogenesis of human adipose stem cells. *Nanoscale*, **2019**, 11, 18255-18271	7.7	38
488	Effectiveness and Safety of a Nontargeted Boost for a CXCR4-Targeted Magnetic Hyperthermia Treatment of Cancer Cells. *ACS Omega*, **2019**, 4, 1931-1940	3.9	7
487	The annealing effect on memory state stability and interlayer coupling in perpendicular magnetic tunnel junctions with ultrathin MgO barrier. *Journal of Magnetism and Magnetic Materials*, **2019**, 477, 142-146	2.8	4
486	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	4.9	40
485	Tuning magnetic monopole population and mobility in unidirectional array of nanomagnets as a function of lattice parameters. *Applied Physics Letters*, **2019**, 114, 142401	3.4	4
484	Spin torque nano-oscillator driven by combined spin injection from tunneling and spin Hall current. *Communications Physics*, **2019**, 2,	5.4	16
483	Electrochemical Immunosensor for TNF‐Mediated Inflammatory Disease Screening. *ACS Chemical Neuroscience*, **2019**, 10, 2676-2682	5.7	10
482	Optimization of the Gap Size of Flux Concentrators: Pushing Further on Low Noise Levels and High Sensitivities in Spin-Valve Sensors. *IEEE Transactions on Magnetics*, **2019**, 55, 1-5	2	1

481	Assessment of conduction mechanisms through MgO ultrathin barriers in CoFeB/MgO/CoFeB perpendicular magnetic tunnel junctions. *Applied Physics Letters*, **2019**, 114, 102402	3.4	8
480	Functionalization of single-layer graphene for immunoassays. *Applied Surface Science*, **2019**, 480, 709-716	6.7	21
479	. *IEEE Transactions on Magnetics*, **2019**, 55, 1-30	2	75
478	Reconfigurable Spintronics Wheatstone Bridge Sensors With Offset Voltage Compensation at Wafer Level. *IEEE Transactions on Magnetics*, **2019**, 55, 1-5	2	4
477	Portable sensing system based on electrochemical impedance spectroscopy for the simultaneous quantification of free and total microcystin-LR in freshwaters. *Biosensors and Bioelectronics*, **2019**, 142, 111550	11.8	17
476	Biosensors for On-Farm Diagnosis of Mastitis. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 186	5.8	31
475	Magnetodynamics in orthogonal nanocontact spin-torque nano-oscillators based on magnetic tunnel junctions. *Applied Physics Letters*, **2019**, 115, 152402	3.4	6
474	Nanoscale true random bit generator based on magnetic state transitions in magnetic tunnel junctions. *Scientific Reports*, **2019**, 9, 15661	4.9	8
473	Manipulation of Magnetic Beads with Thin Film Microelectromagnet Traps. *Micromachines*, **2019**, 10,	3.3	3
472	Go with the flow: advances and trends in magnetic flow cytometry. *Analytical and Bioanalytical Chemistry*, **2019**, 411, 1839-1862	4.4	15
471	High-Resolution Nondestructive Test Probes Based on Magnetoresistive Sensors. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 7326-7337	8.9	23
470	Impact of blocking temperature distribution on the thermal behavior of MnIr and MnPt magnetoresistive stacks. *Journal of Magnetism and Magnetic Materials*, **2019**, 477, 68-73	2.8	2
469	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	6.4	24
468	Combining CXCR4-targeted and nontargeted nanoparticles for effective unassisted in vitro magnetic hyperthermia. *Biointerphases*, **2018**, 13, 011005	1.8	7
467	Engineering magnetically responsive tropoelastin spongy-like hydrogels for soft tissue regeneration. *Journal of Materials Chemistry B*, **2018**, 6, 1066-1075	7.3	9
466	MnNi-based spin valve sensors combining high thermal stability, small footprint and pTesla detectivities. *AIP Advances*, **2018**, 8, 056644	1.5	2
465	Barrier breakdown mechanism in nano-scale perpendicular magnetic tunnel junctions with ultrathin MgO barrier. *AIP Advances*, **2018**, 8, 055908	1.5	7
464	Multifunctional magnetic-responsive hydrogels to engineer tendon-to-bone interface. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2018**, 14, 2375-2385	6	49

463	Detection of BCG bacteria using a magnetoresistive biosensor: A step towards a fully electronic platform for tuberculosis point-of-care detection. *Biosensors and Bioelectronics*, **2018**, 100, 259-265	11.8	36
462	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. *Applied Physics Letters*, **2018**, 112, 252401	3.4	15
461	Enhanced magnetic microcytometer with 3D flow focusing for cell enumeration. *Lab on A Chip*, **2018**, 18, 2593-2603	7.2	7
460	Hybrid GMR Sensor Detecting 950 pT/sqrt(Hz) at 1 Hz and Room Temperature. *Sensors*, **2018**, 18,	3.8	21
459	Influence of MgO Tunnel Barrier Thickness on the Output Power of Three-Terminal Spin Hall Nano-Oscillators. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	1
458	. *IEEE Transactions on Magnetics*, **2018**, 54, 1-5	2	4
457	Spin transfer torque driven higher-order propagating spin waves in nano-contact magnetic tunnel junctions. *Nature Communications*, **2018**, 9, 4374	17.4	32
456	3D Magnetic Field Reconstruction Methodology Based on a Scanning Magnetoresistive Probe. *Sensors*, **2018**, 18,	3.8	2
455	Reading magnetic ink patterns with magnetoresistive sensors. *AIP Advances*, **2018**, 8, 056633	1.5	4
454	Rapid and specific detection of cell-derived microvesicles using a magnetoresistive biochip. *Analyst, The*, **2017**, 142, 979-986	5	10
453	Optimization of the buffer surface of CoFeB/MgO/CoFeB-based magnetic tunnel junctions by ion beam milling. *Applied Surface Science*, **2017**, 424, 58-62	6.7	8
452	Annealing free magnetic tunnel junction sensors. *Journal Physics D: Applied Physics*, **2017**, 50, 165001	3	9
451	Magnetic tunnel junctions with integrated thermometers for magnetothermopower measurements. *Journal of Physics Condensed Matter*, **2017**, 29, 185303	1.8	13
450	Bipolar resistive switching in Si/Ag nanostructures. *Applied Surface Science*, **2017**, 424, 122-126	6.7	10
449	Quantitative histochemistry for macrophage biodistribution on mice liver and spleen after the administration of a pharmacological-relevant dose of polyacrylic acid-coated iron oxide nanoparticles. *Nanotoxicology*, **2017**, 11, 256-266	5.3	13
448	Microneedles with integrated magnetoresistive sensors: A precision tool in biomedical instrumentation **2017**,		1
447	On-Chip Magnetic Nanoparticle Manipulation and Trapping for Biomedical Applications. *IEEE Transactions on Magnetics*, **2017**, 53, 1-6	2	9
446	Improved Efficiency of Tapered Magnetic Flux Concentrators With Double-Layer Architecture. *IEEE Transactions on Magnetics*, **2017**, 53, 1-5	2	13

445	Spintronic Biochips **2017**, 165-200		2
444	Voltage-polarity dependent multi-mode resistive switching on sputtered MgO nanostructures. *Physical Chemistry Chemical Physics*, **2017**, 19, 10898-10904	3.6	10
443	Challenges and trends in magnetic sensor integration with microfluidics for biomedical applications. *Journal Physics D: Applied Physics*, **2017**, 50, 213001	3	62
442	Toward pTesla Detectivities Maintaining Minimum Sensor Footprint With Vertical Packaging of Spin Valves. *IEEE Transactions on Magnetics*, **2017**, 53, 1-5	2	
441	Semi-quantitative method for Staphylococci magnetic detection in raw milk. *Journal of Dairy Research*, **2017**, 84, 80-88	1.6	7
440	. *IEEE Transactions on Magnetics*, **2017**, 53, 1-5	2	13
439	Lab-on-Chip Devices: Gaining Ground Losing Size. *ACS Nano*, **2017**, 11, 10659-10664	16.7	38
438	Unipolar Nonvolatile Resistive Switching in Pt/MgO/Ta/Ru Structures Deposited by Magnetron Sputtering. *Journal of Nanoscience and Nanotechnology*, **2017**, 17, 564-67	1.3	5
437	In Vivo Magnetic Recording of Neuronal Activity. *Neuron*, **2017**, 95, 1283-1291.e4	13.9	31
436	One-step trapping of droplets and surface functionalization of sensors using gold-patterned structures for multiplexing in biochips. *RSC Advances*, **2017**, 7, 43273-43282	3.7	2
435	A CMOS Front-End With Integrated Magnetoresistive Sensors for Biomolecular Recognition Detection Applications. *IEEE Transactions on Biomedical Circuits and Systems*, **2017**, 11, 988-1000	5.1	18
434	An Interplay between Matrix Anisotropy and Actomyosin Contractility Regulates 3D-Directed Cell Migration. *Advanced Functional Materials*, **2017**, 27, 1702322	15.6	14
433	High power and low critical current density spin transfer torque nano-oscillators using MgO barriers with intermediate thickness. *Scientific Reports*, **2017**, 7, 7237	4.9	18
432	A tunnel magnetoresistive effect wattmeters-based wireless sensors network. *Sensors and Actuators A: Physical*, **2017**, 264, 224-233	3.9	1
431	Effect of CoFeB electrode compositions on low frequency magnetic noise in tunneling magnetoresistance sensors. *Journal of Applied Physics*, **2017**, 122, 213906	2.5	3
430	Thermal FMR Spectral Characterization of Very Low RA In-Plane MgO Magnetic Tunnel Junctions. *IEEE Transactions on Magnetics*, **2017**, 53, 1-5	2	0
429	Influence of the thermal interface resistance on the thermovoltage of a magnetic tunnel junction. *Physical Review B*, **2017**, 95,	3.3	23
428	Flexible Magnetoresistive Sensors Designed for Conformal Integration. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	4

427	Numerical Evaluation of Bacterial Cell Concentration by Magnetoresistive Cytometry. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	2
426	Electronic Energy Meter Based on a Tunnel Magnetoresistive Effect (TMR) Current Sensor. *Materials*, **2017**, 10,	3.5	9
425	Electronic Platforms and Signal Processing for Magnetoresistive-Based Biochips **2017**, 1-39		
424	Spintronic Sensors. *Proceedings of the IEEE*, **2016**, 104, 1894-1918	14.3	69
423	Graphene field-effect transistor array with integrated electrolytic gates scaled to 200 mm. *Journal of Physics Condensed Matter*, **2016**, 28, 085302	1.8	31
422	Magnetoresistive nanosensors: controlling magnetism at the nanoscale. *Nanotechnology*, **2016**, 27, 045501	3.4	15
421	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	3.2	32
420	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	2	14
419	Femtosecond control of electric currents in metallic ferromagnetic heterostructures. *Nature Nanotechnology*, **2016**, 11, 455-8	28.7	137
418	Interference-blind microfluidic sensor for ascorbic acid determination by UV/vis spectroscopy. *Sensors and Actuators B: Chemical*, **2016**, 224, 668-675	8.5	20
417	Hybrid Integration of Magnetoresistive Sensors with MEMS as a Strategy to Detect Ultra-Low Magnetic Fields. *Micromachines*, **2016**, 7,	3.3	27
416	Ru-Based Thin Film Temperature Sensor for Space Environments: Microfabrication and Characterization under Total Ionizing Dose. *Journal of Sensors*, **2016**, 2016, 1-5	2	3
415	Semi-Quantitative Method for Streptococci Magnetic Detection in Raw Milk. *Biosensors*, **2016**, 6, 19	5.9	24
414	Integration of GMR Sensors with Different Technologies. *Sensors*, **2016**, 16,	3.8	51
413	Sensitivity and 3 dB Bandwidth in Single and Series-Connected Tunneling Magnetoresistive Sensors. *Sensors*, **2016**, 16,	3.8	4
412	Biodistribution of polyacrylic acid-coated iron oxide nanoparticles is associated with proinflammatory activation and liver toxicity. *Journal of Applied Toxicology*, **2016**, 36, 1321-31	4.1	20
411	Exploring the Potential of Starch/Polycaprolactone Aligned Magnetic Responsive Scaffolds for Tendon Regeneration. *Advanced Healthcare Materials*, **2016**, 5, 213-22	10.1	40
410	Enhancing the injection locking range of spin torque oscillators through mutual coupling. *Applied Physics Letters*, **2016**, 109, 252404	3.4	5

409	Performance enhanced UV/vis spectroscopic microfluidic sensor for ascorbic acid quantification in human blood. *Biosensors and Bioelectronics*, **2016**, 85, 568-572	11.8	36
408	AlOx barrier growth in magnetic tunnel junctions for sensor applications. *Journal of Magnetism and Magnetic Materials*, **2016**, 412, 181-184	2.8	7
407	High immunity wafer-level measurement of MHz current. *Measurement: Journal of the International Measurement Confederation*, **2016**, 94, 474-479	4.6	2
406	Tunneling magnetoresistance sensors for high fidelity current waveforms monitoring. *Sensors and Actuators A: Physical*, **2016**, 251, 142-147	3.9	7
405	Terahertz dynamics of spins and charges in CoFe/Al2O3 multilayers. *Physical Review B*, **2015**, 91,	3.3	7
404	Real-Time Monitoring of Magnetic Nanoparticles Diffusion in Lateral Flow Microporous Membrane Using Spin Valve Sensors. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	5
403	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, 1759-69	5.8	21
402	Detecting Antibody-Labeled BCG MNPs Using a Magnetoresistive Biosensor and Magnetic Labeling Technique. *Journal of Nano Research*, **2015**, 34, 49-60	1	5
401	Technological advances in bovine mastitis diagnosis: an overview. *Journal of Veterinary Diagnostic Investigation*, **2015**, 27, 665-72	1.5	41
400	Design, fabrication and test of an integrated multi-microchannel heat sink for electronics cooling. *Sensors and Actuators A: Physical*, **2015**, 235, 14-27	3.9	18
399	Bending Effect on Magnetoresistive Silicon Probes. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	3
398	Integration of Magnetoresistive Sensors With Atomic Force Microscopy Cantilevers for Scanning Magnetoresistance Microscopy Applications. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	4
397	Integration of magnetoresistive sensors with atomic force microscopy cantilevers for scanning magnetoresistance microscopy applications **2015**,		1
396	2. New techniques in environment monitoring **2015**, 35-98		
395	Linearization strategies for high sensitivity magnetoresistive sensors. *EPJ Applied Physics*, **2015**, 72, 10601	1.1	58
394	Note: A non-invasive electronic measurement technique to measure the embedded four resistive elements in a Wheatstone bridge sensor. *Review of Scientific Instruments*, **2015**, 86, 066109	1.7	0
393	Ultra-Compact 100 □100 μm□Footprint Hybrid Device with Spin-Valve Nanosensors. *Sensors*, **2015**, 15, 30311-8	3.8	12
392	Magnetic Counter for Group B Streptococci Detection in Milk. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	4

391	Terahertz Response and Ultrafast Laser-Induced Dynamics of Spins and Charges in CoFe/Al2O3 Multilayers. *Springer Proceedings in Physics*, **2015**, 261-263	0.2	
390	Detecting Antibody-Labeled BCG MNPs Using a Magnetoresistive Biosensor and Magnetic Labeling Technique. *Journal of Nano Research*, **2015**, 35, 92-103	1	1
389	Impact of MgO Thickness on the Performance of Spin-Transfer Torque Nano-Oscillators. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	2
388	Strategies for pTesla Field Detection Using Magnetoresistive Sensors With a Soft Pinned Sensing Layer. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	24
387	Total ionizing dose (TID) evaluation of magnetic tunnel junction (MTJ) current sensors. *Sensors and Actuators A: Physical*, **2015**, 225, 119-127	3.9	7
386	Polyacrylic acid coated and non-coated iron oxide nanoparticles are not genotoxic to human T lymphocytes. *Toxicology Letters*, **2015**, 234, 67-73	4.4	24
385	A Neuronal Signal Detector for Biologically Generated Magnetic Fields. *IEEE Transactions on Instrumentation and Measurement*, **2014**, 63, 1171-1180	5.2	13
384	Eddy currents testing probe with magneto-resistive sensors and differential measurement. *Sensors and Actuators A: Physical*, **2014**, 212, 58-67	3.9	25
383	Interaction of polyacrylic acid coated and non-coated iron oxide nanoparticles with human neutrophils. *Toxicology Letters*, **2014**, 225, 57-65	4.4	44
382	Ordered arrays of tilted silicon nanobelts with enhanced solar hydrogen evolution performance. *Nanoscale*, **2014**, 6, 2097-101	7.7	8
381	Room temperature direct detection of low frequency magnetic fields in the 100 pT/Hz0.5 range using large arrays of magnetic tunnel junctions. *Journal of Applied Physics*, **2014**, 115, 17E501	2.5	28
380	Effect of annealing temperature on formation of superparamagnetism in CoFeB/MgO/CoFeB magnetic tunnel junctions. *Applied Surface Science*, **2014**, 314, 443-446	6.7	11
379	Dynamic exchange via spin currents in acoustic and optical modes of ferromagnetic resonance in spin-valve structures. *Physical Review B*, **2014**, 89,	3.3	16
378	A bacteriophage detection tool for viability assessment of Salmonella cells. *Biosensors and Bioelectronics*, **2014**, 52, 239-46	11.8	68
377	Monolithic integration of Giant Magnetoresistance (GMR) devices onto standard processed CMOS dies. *Microelectronics Journal*, **2014**, 45, 702-707	1.8	13
376	Linear nanometric tunnel junction sensors with exchange pinned sensing layer. *Journal of Applied Physics*, **2014**, 115, 17E526	2.5	13
375	Quasi-digital front-ends for current measurement in integrated circuits with giant magnetoresistance technology. *IET Circuits, Devices and Systems*, **2014**, 8, 291-300	1.1	9
374	Magneto-transport behavior of double exchange magnetic tunnel junction sensors **2014**,		1

373	Magnetic tunnel junction based eddy current testing probe for detection of surface defects. *Journal of Applied Physics*, **2014**, 115, 17E516	2.5	19
372	Lab-on-chip cytometry based on magnetoresistive sensors for bacteria detection in milk. *Sensors*, **2014**, 14, 15496-524	3.8	49
371	MgO-based magnetic tunnel junction sensors array for non-destructive testing applications. *Journal of Applied Physics*, **2014**, 115, 17E513	2.5	27
370	An in-depth noise model for giant magnetoresistance current sensors for circuit design and complementary metal□xide□emiconductor integration. *Journal of Applied Physics*, **2014**, 115, 17E514	2.5	1
369	Observation of spin-dependent quantum well resonant tunneling in textured CoFeB layers. *Applied Physics Letters*, **2014**, 104, 112414	3.4	7
368	Spin Valve Devices With Synthetic-Ferrimagnet Free-Layer Displaying Enhanced Sensitivity for Nanometric Sensors. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	12
367	Reduction of low frequency magnetic noise by voltage-induced magnetic anisotropy modulation in tunneling magnetoresistance sensors. *Applied Physics Letters*, **2014**, 105, 082404	3.4	17
366	Nanoscale Magnetic Tunnel Junction Sensing Devices With Soft Pinned Sensing Layer and Low Aspect Ratio. *IEEE Transactions on Magnetics*, **2014**, 50, 1-8	2	15
365	Improved Magnetic Tunnel Junctions Design for the Detection of Superficial Defects by Eddy Currents Testing. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	13
364	Customized Design of Magnetic Beads for Dynamic Magnetoresistive Cytometry. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	11
363	Dynamical Detection of Magnetic Nanoparticles in Paper Microfluidics With Spin Valve Sensors for Point-of-Care Applications. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	14
362	Micromagnetic and magneto-transport simulations of nanodevices based on MgO tunnel junctions for memory and sensing applications. *Physica B: Condensed Matter*, **2014**, 435, 163-167	2.8	8
361	Magnetic tunnel junction sensors with pTesla sensitivity. *Microsystem Technologies*, **2014**, 20, 793-802	1.7	53
360	Resonant and non-resonant microwave absorption as a probe of the magnetic dynamics and switching in spin valves. *Journal of Applied Physics*, **2013**, 114, 023906	2.5	2
359	CMOS instrumentation system for matrix-based magnetoresistive biosensors **2013**,		2
358	Measuring brain activity with magnetoresistive sensors integrated in micromachined probe needles. *Applied Physics A: Materials Science and Processing*, **2013**, 111, 407-412	2.6	16
357	Integration of TMR Sensors in Silicon Microneedles for Magnetic Measurements of Neurons. *IEEE Transactions on Magnetics*, **2013**, 49, 3512-3515	2	24
356	MgO Magnetic Tunnel Junction Electrical Current Sensor With Integrated Ru Thermal Sensor. *IEEE Transactions on Magnetics*, **2013**, 49, 3866-3869	2	11

355	Switching Field Variation in MgO Magnetic Tunnel Junction Nanopillars: Experimental Results and Micromagnetic Simulations. *IEEE Transactions on Magnetics*, **2013**, 49, 4405-4408	2	13
354	Magnetic field sensing characteristics of MgO based tunneling magnetoresistance devices with Co40Fe40B20 and Co60Fe20B20 electrodes. *Sensors and Actuators A: Physical*, **2013**, 202, 64-68	3.9	22
353	NiFe/CoFe/Cu/CoFe/MnIr spin valves studied by ferromagnetic resonance. *Journal of Applied Physics*, **2013**, 113, 17D713	2.5	6
352	Giant intrinsic thermomagnetic effects in thin MgO magnetic tunnel junctions. *Applied Physics Letters*, **2013**, 102, 212413	3.4	19
351	Magnetic Tunnel Junction (MTJ) sensors for integrated circuits (IC) electric current measurement **2013**,		2
350	An instrumentation system based on magnetoresistive sensors for neuronal signal detection **2013**,		2
349	Unexpected exchange bias behaviour in CoFeB ultrathin films for MTJ sensors investigated by Lorentz microscopy. *Journal Physics D: Applied Physics*, **2013**, 46, 305001	3	1
348	Fractional modeling of the AC large-signal frequency response in magnetoresistive current sensors. *Sensors*, **2013**, 13, 17516-33	3.8	9
347	Magnetoresistive Sensors for Surface Scanning. *Smart Sensors, Measurement and Instrumentation*, **2013**, 275-299	0.3	3
346	Magnetic tunnel junction sensors with pTesla sensitivity for biomedical imaging **2013**,		3
345	X-ray diffraction analysis and Monte Carlo simulations of CoFeB-MgO based magnetic tunnel junctions. *Journal of Applied Physics*, **2013**, 113, 023915	2.5	7
344	The influence of annealing on the bimodal distribution of blocking temperatures of exchange biased bilayers. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 676-680	2.5	2
343	Quasi-digital conversion for resistive devices: Application in GMR-based IC current sensors **2013**,		2
342	Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. *Biosensors and Bioelectronics*, **2012**, 35, 206-212	11.8	42
341	Electrical Characterization of a Magnetic Tunnel Junction Current Sensor for Industrial Applications. *IEEE Transactions on Magnetics*, **2012**, 48, 2823-2826	2	18
340	Magnetization Drop at High Temperature in Oleic Acid-Coated Magnetite Nanoparticles. *IEEE Transactions on Magnetics*, **2012**, 48, 3307-3310	2	9
339	2-Axis Magnetometers Based on Full Wheatstone Bridges Incorporating Magnetic Tunnel Junctions Connected in Series. *IEEE Transactions on Magnetics*, **2012**, 48, 4107-4110	2	21
338	Magnetic Tunnel Junction Based on MgO Barrier Prepared by Natural Oxidation and Direct Sputtering Deposition. *Nano-Micro Letters*, **2012**, 4, 25-29	19.5	12

337	GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 3495-3498	2.8	60
336	Spintronic platforms for biomedical applications. *Lab on A Chip*, **2012**, 12, 546-57	7.2	96
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