Susana Cardoso de Freitas

List of Publications by Citations

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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.

450 papers

10,318 citations

51 h-index

// g-index

475 ext. papers

11,397 ext. citations

3.4 avg, IF

6.15

#	Paper	IF	Citations
450	Magnetoresistive-based biosensors and biochips. <i>Trends in Biotechnology</i> , 2004 , 22, 455-62	15.1	355
449	Magnetoresistive sensors. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 165221	1.8	289
448	Interacting ferromagnetic nanoparticles in discontinuous Co80Fe20/Al2O3 multilayers: From superspin glass to reentrant superferromagnetism. <i>Physical Review B</i> , 2001 , 63,	3.3	175
447	Large tunneling magnetoresistance enhancement by thermal anneal. <i>Applied Physics Letters</i> , 1998 , 73, 3288-3290	3.4	167
446	Planar Hall effect sensor for magnetic micro- and nanobead detection. <i>Applied Physics Letters</i> , 2004 , 84, 4729-4731	3.4	162
445	Biodetection using magnetically labeled biomolecules and arrays of spin valve sensors (invited). Journal of Applied Physics, 2003 , 93, 7281-7286	2.5	162
444	Study of the dynamic magnetic properties of soft CoFeB films. <i>Journal of Applied Physics</i> , 2006 , 100, 05.	3 9 0 ; 3	151
443	Single magnetic microsphere placement and detection on-chip using current line designs with integrated spin valve sensors: Biotechnological applications. <i>Journal of Applied Physics</i> , 2002 , 91, 7786	2.5	147
442	Collective states of interacting ferromagnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2006 , 300, 192-197	2.8	137
441	Observation of s-d exchange force between domain walls and electric current in very thin Permalloy films. <i>Journal of Applied Physics</i> , 1985 , 57, 1266-1269	2.5	133
440	Overcoming the Dipolar Disorder in Dense CoFe Nanoparticle Ensembles: Superferromagnetism. <i>Physical Review Letters</i> , 2007 , 98,	7.4	130
439	High sensitivity detection of molecular recognition using magnetically labelled biomolecules and magnetoresistive sensors. <i>Biosensors and Bioelectronics</i> , 2003 , 18, 483-8	11.8	123
438	Size dependence of the exchange bias field in NiO/Ni nanostructures. <i>Applied Physics Letters</i> , 2000 , 77, 3815-3817	3.4	122
437	Spin-tunnel-junction thermal stability and interface interdiffusion above 300 °C. <i>Applied Physics Letters</i> , 2000 , 76, 610-612	3.4	118
436	Superparamagnetism versus superspin glass behavior in dilute magnetic nanoparticle systems. <i>Physical Review B</i> , 2005 , 72,	3.3	116
435	Femtomolar limit of detection with a magnetoresistive biochip. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2690-5	11.8	99
434	Vector network analyzer ferromagnetic resonance of thin films on coplanar waveguides: Comparison of different evaluation methods. <i>Journal of Applied Physics</i> , 2007 , 101, 074505	2.5	98

433	Spintronic platforms for biomedical applications. <i>Lab on A Chip</i> , 2012 , 12, 546-57	7.2	96
432	Aging and memory in a superspin glass. <i>Physical Review B</i> , 2003 , 67,	3.3	93
431	Strategies for enhancing the analytical performance of nanomaterial-based sensors. <i>TrAC - Trends in Analytical Chemistry</i> , 2013 , 47, 27-36	14.6	88
430	The electronic properties of sputtered chromium and iron oxide films. <i>Corrosion Science</i> , 2004 , 46, 1479)- { 4 8 99	82
429	Low frequency picotesla field detection using hybrid MgO based tunnel sensors. <i>Applied Physics Letters</i> , 2007 , 91, 102504	3.4	78
428	Ion beam deposition and oxidation of spin-dependent tunnel junctions. <i>IEEE Transactions on Magnetics</i> , 1999 , 35, 2952-2954	2	77
427	. IEEE Transactions on Magnetics, 2019 , 55, 1-30	2	75
426	Domain wall relaxation, creep, sliding, and switching in superferromagnetic discontinuous Co(80)Fe(20)/Al(2)O3 multilayers. <i>Physical Review Letters</i> , 2002 , 89, 137203	7.4	75
425	Magnetoresistance enhancement in specular, bottom-pinned, Mn83Ir17 spin valves with nano-oxide layers. <i>Applied Physics Letters</i> , 2000 , 77, 1020	3.4	75
424	Tunnel magnetoresistance and magnetic ordering in ion-beam sputtered Co80Fe20/Al2O3 discontinuous multilayers. <i>Journal of Applied Physics</i> , 2001 , 90, 4044-4048	2.5	74
423	The role of endoplasmic reticulum in amyloid precursor protein processing and trafficking: implications for Alzheimer's disease. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014 , 1842, 1444-53	6.9	70
422	Spintronic Sensors. <i>Proceedings of the IEEE</i> , 2016 , 104, 1894-1918	14.3	69
421	A bacteriophage detection tool for viability assessment of Salmonella cells. <i>Biosensors and Bioelectronics</i> , 2014 , 52, 239-46	11.8	68
420	Superspin-glass nature of discontinuous Co80Fe20/Al2O3 multilayers. <i>Physical Review B</i> , 2002 , 65,	3.3	68
419	Challenges and trends in magnetic sensor integration with microfluidics for biomedical applications. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 213001	3	62
418	Cortical and hippocampal mitochondria bioenergetics and oxidative status during hyperglycemia and/or insulin-induced hypoglycemia. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2010 , 1802, 942-51	6.9	61
417	Magnetic microbead detection using the planar Hall effect. <i>Journal of Magnetism and Magnetic Materials</i> , 2005 , 293, 677-684	2.8	61
416	GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. <i>Journal of Magnetism and Magnetic Materials</i> , 2012 , 324, 3495-3498	2.8	60

415	A portable and autonomous magnetic detection platform for biosensing. Sensors, 2009, 9, 4119-37	3.8	60
414	Insulin is a two-edged knife on the brain. <i>Journal of Alzheimerl</i> Disease, 2009 , 18, 483-507	4.3	59
413	Dependence of tunneling magnetoresistance on ferromagnetic electrode thickness and on the thickness of a Cu layer inserted at the Al2O3/CoFe interface. <i>Journal of Applied Physics</i> , 1999 , 85, 5264-	5 2 : 5 6	59
412	Linearization strategies for high sensitivity magnetoresistive sensors. <i>EPJ Applied Physics</i> , 2015 , 72, 106	50:11	58
411	Cooperative versus superparamagnetic behavior of dense magnetic nanoparticles in Co80Fe20/Al2O3 multilayers. <i>Applied Physics Letters</i> , 2003 , 82, 4116-4118	3.4	58
410	1Enoise in linearized low resistance MgO magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2006 , 99, 08B314	2.5	57
409	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	3.4	57
408	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, 07A910	2.5	56
407	Label-free disposable immunosensor for detection of atrazine. <i>Talanta</i> , 2016 , 146, 430-4	6.2	55
406	Insulin-induced recurrent hypoglycemia exacerbates diabetic brain mitochondrial dysfunction and oxidative imbalance. <i>Neurobiology of Disease</i> , 2013 , 49, 1-12	7.5	55
405	Improving Magnetic Field Detection Limits of Spin Valve Sensors Using Magnetic Flux Guide Concentrators. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 2376-2378	2	55
404	Temperature dependence and annealing effects on spin dependent tunnel junctions. <i>Journal of Applied Physics</i> , 1999 , 85, 5258-5260	2.5	55
403	Magnetoresistive chip cytometer. <i>Lab on A Chip</i> , 2011 , 11, 2255-61	7.2	54
402	Low frequency noise in arrays of magnetic tunnel junctions connected in series and parallel. <i>Journal of Applied Physics</i> , 2009 , 105, 113922	2.5	54
401	Magnetic tunnel junction sensors with pTesla sensitivity. <i>Microsystem Technologies</i> , 2014 , 20, 793-802	1.7	53
400	Challenges and trends in the development of a magnetoresistive biochip portable platform. <i>Journal of Magnetism and Magnetic Materials</i> , 2010 , 322, 1655-1663	2.8	51
399	Integration of GMR Sensors with Different Technologies. Sensors, 2016, 16,	3.8	51
398	Lab-on-chip cytometry based on magnetoresistive sensors for bacteria detection in milk. <i>Sensors</i> , 2014 , 14, 15496-524	3.8	49

397	Tunneling hot spots and heating in magnetic tunnel junctions. Journal of Applied Physics, 2004, 95, 6783	- 6 .7 ₈ 5	47
396	Magnetoresistance and magnetic properties of NiFe/oxide/Co junctions prepared by magnetron sputtering. <i>Journal of Applied Physics</i> , 1994 , 76, 6104-6106	2.5	47
395	Relaxation and aging of a superferromagnetic domain state. <i>Physical Review B</i> , 2003 , 68,	3.3	46
394	Toward a magnetoresistive chip cytometer: Integrated detection of magnetic beads flowing at cm/s velocities in microfluidic channels. <i>Applied Physics Letters</i> , 2009 , 95, 034104	3.4	44
393	Giant Magnetoresistance (GMR) Sensors. Smart Sensors, Measurement and Instrumentation, 2013,	0.3	43
392	Resonant tunneling through electronic trapping states in thin MgO magnetic junctions. <i>Physical Review Letters</i> , 2011 , 106, 196601	7.4	43
391	Spin dependent tunnel junctions for memory and read-head applications. <i>IEEE Transactions on Magnetics</i> , 2000 , 36, 2796-2801	2	43
390	Spin valve sensors with synthetic free and pinned layers. <i>Journal of Applied Physics</i> , 2000 , 87, 5744-5746	2.5	43
389	Brain GLP-1/IGF-1 Signaling and Autophagy Mediate Exendin-4 Protection Against Apoptosis in Type 2 Diabetic Rats. <i>Molecular Neurobiology</i> , 2018 , 55, 4030-4050	6.2	42
388	Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. <i>Biosensors and Bioelectronics</i> , 2012 , 35, 206-212	11.8	42
387	Electron emission channeling with position-sensitive detectors. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1998 , 136-138, 744-750	1.2	42
386	Exchange enhancement and thermal anneal in Mn76Ir24 bottom-pinned spin valves. <i>Journal of Applied Physics</i> , 2001 , 89, 6904-6906	2.5	42
385	Electrode roughness and interfacial mixing effects on the tunnel junction thermal stability. <i>Journal of Applied Physics</i> , 2001 , 89, 6650-6652	2.5	42
384	Technological advances in bovine mastitis diagnosis: an overview. <i>Journal of Veterinary Diagnostic Investigation</i> , 2015 , 27, 665-72	1.5	41
383	Seebeck rectification enabled by intrinsic thermoelectrical coupling in magnetic tunneling junctions. <i>Physical Review Letters</i> , 2012 , 109, 037206	7.4	41
382	2017,		40
381	MgO based picotesla field sensors. <i>Journal of Applied Physics</i> , 2008 , 103, 07E931	2.5	40
380	Large Area and Low Aspect Ratio Linear Magnetic Tunnel Junctions With a Soft-Pinned Sensing Layer. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3719-3722	2	39

379	Universal and scaled relaxation of interacting magnetic nanoparticles. <i>Physical Review B</i> , 2004 , 70,	3.3	39
378	High thermal stability tunnel junctions. <i>Journal of Applied Physics</i> , 2000 , 87, 6058-6060	2.5	39
377	Lab-on-Chip Devices: Gaining Ground Losing Size. ACS Nano, 2017, 11, 10659-10664	16.7	38
376	Hybrid magnetoresistivefhicroelectromechanical devices for static field modulation and sensor 1 f l noise cancellation. <i>Journal of Applied Physics</i> , 2008 , 103, 07E924	2.5	38
375	40% tunneling magnetoresistance after anneal at 380 °C for tunnel junctions with iron bxide interface layers. <i>Journal of Applied Physics</i> , 2001 , 89, 6665-6667	2.5	38
374	Disposable immunosensors for C-reactive protein based on carbon nanotubes field effect transistors. <i>Talanta</i> , 2013 , 108, 165-70	6.2	37
373	Amorphisation of Zr60Al15Ni25 surface layers by laser processing for corrosion resistance. <i>Scripta Materialia</i> , 1997 , 37, 523-527	5.6	37
372	Detection of BCG bacteria using a magnetoresistive biosensor: A step towards a fully electronic platform for tuberculosis point-of-care detection. <i>Biosensors and Bioelectronics</i> , 2018 , 100, 259-265	11.8	36
371	Low-Frequency Noise in MgO Magnetic Tunnel Junctions: Hooge's Parameter Dependence on Bias Voltage. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 2569-2572	2	36
370	Spin-valve sensors exchange-biased by ultrathin TbCo films. <i>Applied Physics Letters</i> , 1994 , 65, 493-495	3.4	36
369	Alzheimer's Disease: From Mitochondrial Perturbations to Mitochondrial Medicine. <i>Brain Pathology</i> , 2016 , 26, 632-47	6	36
368	Performance enhanced UV/vis spectroscopic microfluidic sensor for ascorbic acid quantification in human blood. <i>Biosensors and Bioelectronics</i> , 2016 , 85, 568-572	11.8	36
367	Field detection in MgO magnetic tunnel junctions with superparamagnetic free layer and magnetic flux concentrators. <i>Journal of Applied Physics</i> , 2009 , 105, 07E722	2.5	35
366	Rapid DNA hybridization based on ac field focusing of magnetically labeled target DNA. <i>Applied Physics Letters</i> , 2005 , 87, 013901	3.4	35
365	Coherent suppression of magnetic ringing in microscopic spin valve elements. <i>Applied Physics Letters</i> , 2002 , 80, 3781-3783	3.4	35
364	Spin-dependent tunnel junctions with ZrOx barriers. <i>Applied Physics Letters</i> , 2001 , 79, 4387-4389	3.4	35
363	Low-resistance spin-dependent tunnel junctions with ZrAlOx barriers. <i>Applied Physics Letters</i> , 2001 , 79, 4553-4555	3.4	35
362	Spin orbit torques induced magnetization reversal through asymmetric domain wall propagation in Ta/CoFeB/MgO structures. <i>Scientific Reports</i> , 2018 , 8, 1355	4.9	34

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361	Insulin therapy modulates mitochondrial dynamics and biogenesis, autophagy and tau protein phosphorylation in the brain of type 1 diabetic rats. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014 , 1842, 1154-66	6.9	34
3 60	Magnetic Tactile Sensor for Braille Reading. <i>IEEE Sensors Journal</i> , 2016 , 16, 8700-8705	4	33
359	Synthetic ferrimagnet free layer tunnel junction for magnetic random access memories. <i>Journal of Applied Physics</i> , 2002 , 91, 7700	2.5	33
358	Influence of Ta antidiffusion barriers on the thermal stability of tunnel junctions. <i>Applied Physics Letters</i> , 2000 , 76, 3792-3794	3.4	33
357	Implementing a strategy for on-chip detection of cell-free DNA fragments using GMR sensors: A translational application in cancer diagnostics using ALU elements. <i>Analytical Methods</i> , 2016 , 8, 119-128	3.2	32
356	OPTIMIZATION AND INTEGRATION OF MAGNETORESISTIVE SENSORS. <i>Spin</i> , 2011 , 01, 71-91	1.3	32
355	Detection of 130nm magnetic particles by a portable electronic platform using spin valve and magnetic tunnel junction sensors. <i>Journal of Applied Physics</i> , 2008 , 103, 07A310	2.5	32
354	Low-current blocking temperature writing of double barrier magnetic random access memory cells. <i>Applied Physics Letters</i> , 2004 , 84, 945-947	3.4	32
353	Resistance decrease in spin tunnel junctions by control of natural oxidation conditions. <i>Applied Physics Letters</i> , 2001 , 79, 2219-2221	3.4	32
352	Tunneling magnetoresistance and current distribution effect in spin-dependent tunnel junctions. <i>Journal of Applied Physics</i> , 1998 , 83, 6694-6696	2.5	32
351	Spin transfer torque driven higher-order propagating spin waves in nano-contact magnetic tunnel junctions. <i>Nature Communications</i> , 2018 , 9, 4374	17.4	32
350	Biosensors for On-Farm Diagnosis of Mastitis. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019 , 7, 186	5.8	31
349	In Vivo Magnetic Recording of Neuronal Activity. <i>Neuron</i> , 2017 , 95, 1283-1291.e4	13.9	31
348	Training effect in specular spin valves. <i>Physical Review B</i> , 2008 , 77,	3.3	31
347	Effects of methylglyoxal and pyridoxamine in rat brain mitochondria bioenergetics and oxidative status. <i>Journal of Bioenergetics and Biomembranes</i> , 2014 , 46, 347-55	3.7	30
346	Magnetic field sensor with voltage-tunable sensing properties. <i>Applied Physics Letters</i> , 2012 , 101, 19240	3.4	30
345	Superferromagnetic domain state of a discontinuous metal insulator multilayer. <i>Physical Review B</i> , 2005 , 72,	3.3	30
344	Tuning of MgO barrier magnetic tunnel junction bias current for picotesla magnetic field detection. Journal of Applied Physics, 2006, 99, 08K706	2.5	29

343	Characterization of CoFeB electrodes for tunnel junctions. <i>Journal of Applied Physics</i> , 2005 , 97, 10C916	2.5	29
342	Perspectives on mitochondrial uncoupling proteins-mediated neuroprotection. <i>Journal of Bioenergetics and Biomembranes</i> , 2015 , 47, 119-31	3.7	28
341	Room temperature direct detection of low frequency magnetic fields in the 100 pT/Hz0.5 range using large arrays of magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2014 , 115, 17E501	2.5	28
340	Magnetic Tunnel Junctions Based on Out-of-Plane Anisotropy Free and In-Plane Pinned Layer Structures for Magnetic Field Sensors. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3840-3842	2	28
339	Toward a system to measure action potential on mice brain slices with local magnetoresistive probes. <i>Journal of Applied Physics</i> , 2011 , 109, 07B308	2.5	28
338	Current-induced switching in low resistance magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2003 , 93, 8385-8387	2.5	28
337	MgO-based magnetic tunnel junction sensors array for non-destructive testing applications. <i>Journal of Applied Physics</i> , 2014 , 115, 17E513	2.5	27
336	Exchange-biased planar Hall effect sensor optimized for biosensor applications. <i>Journal of Applied Physics</i> , 2008 , 103, 07A302	2.5	27
335	Field detection in single and double barrier MgO magnetic tunnel junction sensors. <i>Journal of Applied Physics</i> , 2008 , 103, 07E922	2.5	27
334	Diode/magnetic tunnel junction cell for fully scalable matrix-based biochip. <i>Journal of Applied Physics</i> , 2006 , 99, 08B307	2.5	27
333	Giant magnetoresistive sensors for rotational speed control. <i>Journal of Applied Physics</i> , 1999 , 85, 5459-	5 <u>46</u> 1	27
332	Hybrid Integration of Magnetoresistive Sensors with MEMS as a Strategy to Detect Ultra-Low Magnetic Fields. <i>Micromachines</i> , 2016 , 7,	3.3	27
331	IZO deposition by RF and DC sputtering on paper and application on flexible electrochromic devices. <i>Displays</i> , 2013 , 34, 326-333	3.4	26
330	Crystallization and mechanical behaviour of bulk Zr-Ti-Ni-Cu-Be metallic glasses. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1997 , 76, 529-540		26
329	Domain imaging, MOKE and magnetoresistance studies of CoFeB films for MRAM applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006 , 126, 180-186	3.1	26
328	Cole-Cole Analysis of the Superspin Glass System Co 80 Fe 20 /Al 2 O 3. <i>Phase Transitions</i> , 2003 , 76, 367	-375	26
327	Dynamic heating in submicron size magnetic tunnel junctions with exchange biased storage layer. Journal of Applied Physics, 2005 , 97, 10P501	2.5	26
326	Annealing effect of magnetic tunnel junctions with one FeOx layer inserted at the Al2O3/CoFe interface. <i>Applied Physics Letters</i> , 2001 , 78, 2911-2913	3.4	26

(2009-1999)

325	Transport properties of discontinuous Co/sub 80/Fe/sub 20//Al/sub 2/O/sub 3/ multilayers, prepared by ion beam sputtering. <i>IEEE Transactions on Magnetics</i> , 1999 , 35, 2895-2897	2	26
324	Eddy currents testing probe with magneto-resistive sensors and differential measurement. <i>Sensors and Actuators A: Physical</i> , 2014 , 212, 58-67	3.9	25
323	Dynamic Wet Etching of Silicon through Isopropanol Alcohol Evaporation. <i>Micromachines</i> , 2015 , 6, 1534	I- 3,5 45	25
322	Towards picoTesla Magnetic Field Detection Using a GMR-MEMS Hybrid Device. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4115-4118	2	25
321	Integration of TMR Sensors in Silicon Microneedles for Magnetic Measurements of Neurons. <i>IEEE Transactions on Magnetics</i> , 2013 , 49, 3512-3515	2	24
320	Strategies for pTesla Field Detection Using Magnetoresistive Sensors With a Soft Pinned Sensing Layer. <i>IEEE Transactions on Magnetics</i> , 2015 , 51, 1-4	2	24
319	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	2	24
318	Impact of STZ-induced hyperglycemia and insulin-induced hypoglycemia in plasma amino acids and cortical synaptosomal neurotransmitters. <i>Synapse</i> , 2011 , 65, 457-66	2.4	24
317	Resistive switching in nanostructured thin films. <i>Applied Physics Letters</i> , 2009 , 94, 202107	3.4	24
316	Semi-Quantitative Method for Streptococci Magnetic Detection in Raw Milk. <i>Biosensors</i> , 2016 , 6, 19	5.9	24
315	Mitochondria as a target for neuroprotection: implications for Alzheimer disease. Expert Review of Neurotherapeutics, 2017, 17, 77-91	4.3	23
314	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	1.7	23
313	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	2	23
312	Magnetoresistive DNA chips based on ac field focusing of magnetic labels. <i>Journal of Applied Physics</i> , 2006 , 99, 08P105	2.5	23
311	A Magnetoresistive Tactile Sensor for Harsh Environment Applications. Sensors, 2016, 16,	3.8	23
310	High-Resolution Nondestructive Test Probes Based on Magnetoresistive Sensors. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 7326-7337	8.9	23
309	Magnetic field sensing characteristics of MgO based tunneling magnetoresistance devices with Co40Fe40B20 and Co60Fe20B20 electrodes. <i>Sensors and Actuators A: Physical</i> , 2013 , 202, 64-68	3.9	22
308	Magnetoresistive Detection of Magnetic Beads Flowing at High Speed in Microfluidic Channels. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 4873-4876	2	22

307	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, 07E506	2.5	22
306	Continuous thin barriers for low-resistance spin-dependent tunnel junctions. <i>Journal of Applied Physics</i> , 2003 , 93, 8367-8369	2.5	22
305	Development of an electrochemical biosensor for alkylphenol detection. <i>Talanta</i> , 2016 , 158, 30-34	6.2	22
304	Bioinspired Ciliary Force Sensor for Robotic Platforms. <i>IEEE Robotics and Automation Letters</i> , 2017 , 2, 971-976	4.2	21
303	Functionalization of single-layer graphene for immunoassays. <i>Applied Surface Science</i> , 2019 , 480, 709-7	1 6 .7	21
302	Hybrid GMR Sensor Detecting 950 pT/sqrt(Hz) at 1 Hz and Room Temperature. Sensors, 2018, 18,	3.8	21
301	2-Axis Magnetometers Based on Full Wheatstone Bridges Incorporating Magnetic Tunnel Junctions Connected in Series. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4107-4110	2	21
300	Integration of Magnetoresistive Biochips on a CMOS Circuit. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3784-3787	2	21
299	Three dimensional magnetic flux concentrators with improved efficiency for magnetoresistive sensors. <i>Journal of Applied Physics</i> , 2011 , 109, 07E521	2.5	21
298	A non-invasive thermal drift compensation technique applied to a spin-valve magnetoresistive current sensor. <i>Sensors</i> , 2011 , 11, 2447-58	3.8	21
297	Hybrid Magnetic Tunnel Junction-MEMS High Frequency Field Modulator for 1/f Noise Suppression. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 2554-2557	2	21
296	Interference-blind microfluidic sensor for ascorbic acid determination by UV/vis spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2016 , 224, 668-675	8.5	20
295	Microfluidic platform with integrated GMR sensors for quantification of cancer cells. <i>Sensors and Actuators B: Chemical</i> , 2017 , 241, 438-445	8.5	20
294	Single molecule actuation and detection on a lab-on-a-chip magnetoresistive platform. <i>Journal of Applied Physics</i> , 2011 , 109, 064702	2.5	20
293	Crossover in heating regimes of thermally assisted magnetic memories. <i>Journal of Applied Physics</i> , 2006 , 99, 08N904	2.5	20
292	Ferromagnetic coupling field reduction in CoFeB tunnel junctions deposited by ion beam. <i>IEEE Transactions on Magnetics</i> , 2004 , 40, 2272-2274	2	20
291	A novel approach for detection and quantification of magnetic nanomarkers using a spin valve GMR-integrated microfluidic sensor. <i>RSC Advances</i> , 2015 , 5, 51169-51175	3.7	19
290	Magnetic tunnel junction based eddy current testing probe for detection of surface defects. Journal of Applied Physics, 2014, 115, 17E516	2.5	19

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289	Giant intrinsic thermomagnetic effects in thin MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2013 , 102, 212413	3.4	19	
288	Single-particle blocking and collective magnetic states in discontinuous CoFe/Al2O3multilayers. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 474002	3	19	
287	Analytical compact modeling of GMR based current sensors: Application to power measurement at the IC level. <i>Solid-State Electronics</i> , 2010 , 54, 1606-1612	1.7	19	
286	Ion beam assisted deposition of MgO barriers for magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2008 , 103, 07A905	2.5	19	
285	Pinholes and temperature-dependent transport properties of MgO magnetic tunnel junctions. <i>Physical Review B</i> , 2008 , 78,	3.3	19	
284	Tunnel junctions with AlN barriers and FeTaN electrodes. <i>Journal of Applied Physics</i> , 2001 , 89, 6868-687	70 2.5	19	
283	Magnetic-based biomolecule detection using giant magnetoresistance sensors. <i>Journal of Applied Physics</i> , 2015 , 117, 17B731	2.5	18	
282	Design, fabrication and test of an integrated multi-microchannel heat sink for electronics cooling. <i>Sensors and Actuators A: Physical</i> , 2015 , 235, 14-27	3.9	18	
281	A CMOS Front-End With Integrated Magnetoresistive Sensors for Biomolecular Recognition Detection Applications. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017 , 11, 988-1000	5.1	18	
2 80	Electrical Characterization of a Magnetic Tunnel Junction Current Sensor for Industrial Applications. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 2823-2826	2	18	
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261	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2018 , 112, 252401 Nanoscale Magnetic Tunnel Junction Sensing Devices With Soft Pinned Sensing Layer and Low	3.4	15
261 260	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2018 , 112, 252401 Nanoscale Magnetic Tunnel Junction Sensing Devices With Soft Pinned Sensing Layer and Low Aspect Ratio. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-8 Evidence of spin-polarized direct elastic tunneling and onset of superparamagnetism in MgO	3.4	15
261 260 259	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2018 , 112, 252401 Nanoscale Magnetic Tunnel Junction Sensing Devices With Soft Pinned Sensing Layer and Low Aspect Ratio. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-8 Evidence of spin-polarized direct elastic tunneling and onset of superparamagnetism in MgO magnetic tunnel junctions. <i>Physical Review B</i> , 2010 , 81, The effect of pinhole formation/growth on the tunnel magnetoresistance of MgO-based magnetic	3.4	15 15 15
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261 260 259 258	Broadband voltage rectifier induced by linear bias dependence in CoFeB/MgO magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2018 , 112, 252401 Nanoscale Magnetic Tunnel Junction Sensing Devices With Soft Pinned Sensing Layer and Low Aspect Ratio. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-8 Evidence of spin-polarized direct elastic tunneling and onset of superparamagnetism in MgO magnetic tunnel junctions. <i>Physical Review B</i> , 2010 , 81, The effect of pinhole formation/growth on the tunnel magnetoresistance of MgO-based magnetic tunnel junctions. <i>Journal of Applied Physics</i> , 2009 , 106, 073707 Temperature effects in exchange-biased planar hall sensors for bioapplications. <i>Sensors and Actuators A: Physical</i> , 2009 , 156, 103-108 Exchange biased CoFeB-MgO tunnel junctions at the onset of perpendicular anisotropy with	3·4 2 3·3 2·5	15 15 15 15

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