

Frederic Dumas-Bouchiat

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

1,313
citations

361413

20
h-index

377865

34
g-index

55
all docs

55
docs citations

55
times ranked

1690
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolutionary conservation of early mesoderm specification by mechanotransduction in Bilateria. Nature Communications, 2013, 4, 2821.	12.8	160
2	rf-microwave switches based on reversible semiconductor-metal transition of VO ₂ thin films synthesized by pulsed-laser deposition. Applied Physics Letters, 2007, 91, .	3.3	104
3	Thermomagnetically patterned micromagnets. Applied Physics Letters, 2010, 96, .	3.3	93
4	Mechanotransductive cascade of Myo-II-dependent mesoderm and endoderm invaginations in embryo gastrulation. Nature Communications, 2017, 8, 13883.	12.8	64
5	Sub-Microsecond RF MEMS Switched Capacitors. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 1314-1321.	4.6	57
6	Microfluidic immunomagnetic cell separation using integrated permanent micromagnets. Biomicrofluidics, 2013, 7, 54115.	2.4	50
7	Magnetic characterization of micropatterned Nd-Fe-B hard magnetic films using scanning Hall probe microscopy. Journal of Applied Physics, 2010, 108, .	2.5	48
8	Micro-magnetic imprinting of high field gradient magnetic flux sources. Applied Physics Letters, 2014, 104, 262401.	3.3	46
9	Life on Magnets: Stem Cell Networking on Micro-Magnet Arrays. PLoS ONE, 2013, 8, e70416.	2.5	46
10	Growth of Co isolated clusters in the gas phase: Experiment and molecular dynamics simulations. Physical Review B, 2008, 77, .	3.2	42
11	Autonomous micro-magnet based systems for highly efficient magnetic separation. Applied Physics Letters, 2011, 99, .	3.3	40
12	Thermal hysteresis measurement of the VO ₂ dielectric function for its metal-insulator transition by visible-IR ellipsometry. Journal of Applied Physics, 2018, 124, .	2.5	40
13	Thermal hysteresis measurement of the VO ₂ emissivity and its application in thermal rectification. Scientific Reports, 2018, 8, 8479.	3.3	36
14	Thermophysical characterisation of VO ₂ thin films hysteresis and its application in thermal rectification. Scientific Reports, 2019, 9, 8728.	3.3	34
15	Selective isolation of bacterial cells within a microfluidic device using magnetic probe-based cell fishing. Sensors and Actuators B: Chemical, 2014, 195, 581-589.	7.8	31
16	Micro-magnet arrays for specific single bacterial cell positioning. Journal of Magnetism and Magnetic Materials, 2015, 380, 72-77.	2.3	30
17	Fabrication and characterization of polymer membranes with integrated arrays of high performance micro-magnets. Materials Today Communications, 2016, 6, 50-55.	1.9	30
18	Monitoring the endocytosis of magnetic nanoparticles by cells using permanent micro-flux sources. Biomedical Microdevices, 2012, 14, 947-954.	2.8	29

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19	Micromagnet structures for magnetic positioning and alignment. Journal of Applied Physics, 2012, 111, .	2.5	23
20	Magnetic domains in Co-cluster assembled films deposited by LECBD. Applied Surface Science, 2005, 247, 76-82.	6.1	20
21	Cobalt cluster-assembled thin films deposited by low energy cluster beam deposition: Structural and magnetic investigations of deposited layers. Journal of Applied Physics, 2006, 100, 064304.	2.5	18
22	Simple method for reversible bonding of a polydimethylsiloxane microchannel to a variety of substrates. Micro and Nano Letters, 2011, 6, 871.	1.3	16
23	Ultra-High Tunability of $\text{Ba}_{2/3}\text{Sr}_{1/3}\text{TiO}_3$ Based Capacitors Under Low Electric Fields. IEEE Microwave and Wireless Components Letters, 2016, 26, 504-506.	3.2	15
24	VO ₂ Substrate Effect on the Thermal Rectification of a Far-Field Radiative Diode. Physical Review Applied, 2020, 14, .	3.8	15
25	Some Aspects of Magnetic Force Microscopy of Hard Magnetic Films. IEEE Transactions on Magnetics, 2016, 52, 1-8.	2.1	14
26	Effect of the incident power on permittivity, losses and tunability of BaSrTiO ₃ thin films in the microwave frequency range. Applied Physics Letters, 2017, 110, .	3.3	13
27	Electrical conduction mechanisms of metal nanoclusters embedded in an amorphous Al ₂ O ₃ matrix. Thin Solid Films, 2007, 515, 6324-6327.	1.8	12
28	Hybrid Bio-Mag-MEMS combining magnetophoresis and dielectrophoresis. European Physical Journal B, 2013, 86, 1.	1.5	12
29	Electrical and Optical Properties of $\text{La}_{x}\text{A}_{1-x}\text{Fe}_y\text{B}_y\text{O}_{3.1}$ Perovskite Films (with A = Sr and Ca, and B= Co, Ga, Ti): Toward Interlayers for Optoelectronic Applications. Journal of Physical Chemistry C, 2016, 120, 28583-28590.	3.1	12
30	Nanometric copper and cobalt clusters deposited using pulsed laser ablation; AFM and MFM investigations. Thin Solid Films, 2004, 453-454, 296-299.	1.8	11
31	Magnetic nanoparticle DNA labeling for individual bacterial cell detection and recovery. Journal of Microbiological Methods, 2014, 107, 84-91.	1.6	11
32	Development and applications of a DNA labeling method with magnetic nanoparticles to study the role of horizontal gene transfer events between bacteria in soil pollutant bioremediation processes. Environmental Science and Pollution Research, 2015, 22, 20322-20327.	5.3	11
33	Electrical transport properties and modelling of electrostrictive resonance phenomena in Ba ₂ /3Sr ₁ /3TiO ₃ thin films. Journal of Applied Physics, 2016, 120, .	2.5	11
34	Gamma radiation effects on RF MEMS capacitive switches. Microelectronics Reliability, 2006, 46, 1741-1746.	1.7	10
35	Magneto-optical imaging and analysis of magnetic field micro-distributions with the aid of biased indicator films. Journal of Applied Physics, 2016, 120, .	2.5	10
36	Diffuse phase transition of BST thin films in the microwave domain. Applied Physics Letters, 2018, 112, .	3.3	10

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37	Domain wall motions in BST ferroelectric thin films in the microwave frequency range. Applied Physics Letters, 2016, 109, 262902.	3.3	9
38	Trapping of Magnetically-Labelled Liposomes on Flat Micro-Patterned Hard Magnetic Films. AIP Conference Proceedings, 2010, , .	0.4	8
39	A quantitative study of magnetic interactions between a micro-magnet array and individual magnetic micro-particles by scanning particle force microscopy. Journal of Micromechanics and Microengineering, 2019, 29, 015010.	2.6	8
40	Magnetic Domain Studies of Cobalt Nanostructures. Journal of Superconductivity and Novel Magnetism, 2012, 25, 1901-1906.	1.8	7
41	A new low consumption 3D compass using integrated magnets and piezoresistive nano-gauges. , 2011, , .		6
42	Combined magnetic and chemical patterning for neural architectures. Journal Physics D: Applied Physics, 2014, 47, 425403.	2.8	6
43	CMOS Compatible Fast Switching RF MEMS Varactors. , 2006, , .		5
44	Microwave switching functions using reversible metal-insulator transition (MIT) in VO ₂ thin films. , 2007, , .		5
45	Measuring the Force Gradient Acting on a Magnetic Microsphere above a Micro-Magnet Array. Advanced Materials Research, 0, 872, 167-173.	0.3	5
46	A dual nanosecond-pulsed laser setup for nanocomposite synthesisâ€”Ag nanoparticles in Al ₂ O ₃ /VO ₂ matrix. Journal of Applied Physics, 2019, 125, 054301.	2.5	5
47	Textured Nd-Fe-B hard magnetic thin films prepared by pulsed laser deposition with single alloy targets. Journal of Magnetism and Magnetic Materials, 2021, 520, 167584.	2.3	5
48	RF Microwave Switches Based on Reversible Metal-Semiconductor Transition Properties of VO ₂ Thin Films: An Attractive Way To Realise Simple RF Microelectronic Devices. Materials Research Society Symposia Proceedings, 2008, 1129, 1.	0.1	4
49	BST thin film capacitors integrated within a frequency tunable antenna. , 2016, , .		4
50	Adaptive gold/vanadium dioxide periodic arrays for infrared optical modulation. Applied Surface Science, 2022, , 152592.	6.1	4
51	Microwave dielectric properties of BNT-BT0.08 thin films prepared by sol-gel technique. Journal of Applied Physics, 2016, 119, 144103.	2.5	3
52	Vanadium Dioxideâ€”Iridium Composite Development: Specific Near Infrared Surface Plasmon Resonance. Journal of Composites Science, 2021, 5, 193.	3.0	3
53	Design and Characterisation of VO ₂ Based Switches for Ultra-Fast Reconfigurable Devices. , 2019, , .		2
54	Optical and Electrical Properties of Metal Nanoclusters Embedded in a Dielectric Medium. Materials Research Society Symposia Proceedings, 2005, 888, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
55	Experimental Optimization of the Thermal Rectification of a Far-Field Diode Based on VO ₂ . , 2021, , .		0