Morgan Madec

List of Publications by Year
in descending order

52	293	1163117 8	1058476 14
papers	citations	h-index	g-index

54	54	54	234
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Generalization of the Concept of Equivalent Thickness and Capacitance to Multigate MOSFETs Modeling. IEEE Transactions on Electron Devices, 2012, 59, 60-71.	3.0	34
2	Compact Modeling of a Magnetic Tunnel Junctionâ€"Part I: Dynamic Magnetization Model. IEEE Transactions on Electron Devices, 2010, 57, 1408-1415.	3.0	22
3	Compact Modeling of a Magnetic Tunnel Junctionâ€"Part II: Tunneling Current Model. IEEE Transactions on Electron Devices, 2010, 57, 1416-1424.	3.0	21
4	Modeling Biology With HDL Languages: A First Step Toward a Genetic Design Automation Tool Inspired From Microelectronics. IEEE Transactions on Biomedical Engineering, 2014, 61, 1231-1240.	4.2	20
5	Synthetic biology methodology and model refinement based on microelectronic modeling tools and languages. Biotechnology Journal, 2011, 6, 796-806.	3.5	19
6	Compact modeling of magnetic tunnel junction. , 2008, , .		16
7	Modeling and simulation of biological systems using SPICE language. PLoS ONE, 2017, 12, e0182385.	2.5	14
8	An accurate compact model for CMOS cross-shaped Hall effect sensors. Sensors and Actuators A: Physical, 2011, 171, 69-78.	4.1	12
9	A general framework improving teaching ligand binding to a macromolecule. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2348-2355.	4.1	12
10	Assessment of the spinning-current efficiency in cancelling the 1/f noise of Vertical Hall Devices through accurate FEM modeling. , 2013, , .		8
11	Analysis of the efficiency of spinning-current techniques thru compact modeling. , 2011, , .		7
12	Compact modeling of vertical hall-effect devices: electrical behavior. Analog Integrated Circuits and Signal Processing, 2013, 77, 183-195.	1.4	7
13	An improved compact model of the electrical behaviour of the 5-contact vertical Hall-effect device. Analog Integrated Circuits and Signal Processing, 2014, 81, 677-691.	1.4	7
14	Multiphysics Simulation of Biosensors Involving 3D Biological Reactionâ€"Diffusion Phenomena in a Standard Circuit EDA Environment. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2188-2197.	5.4	7
15	Is SystemC-AMS an appropriate "promoter" for the modeling and simulation of bio-compatible systems?. , 2010, , .		6
16	Synthetic biology and microelectronics: A similar design flow. , 2009, , .		5
17	Multi-abstraction modeling in synthetic biology. , 2010, , .		5
18	A game-of-life like simulator for design-oriented modeling of BioBricks in synthetic biology. , 2012, 2012, 5462-5.		5

#	Article	IF	Citations
19	An improved compact model for CMOS cross-shaped Hall-effect sensor including offset and temperature effects. Analog Integrated Circuits and Signal Processing, 2012, 73, 719-730.	1.4	5
20	GeNeDA: An Open-Source Workflow for Design Automation of Gene Regulatory Networks Inspired from Microelectronics. Journal of Computational Biology, 2016, 23, 841-855.	1.6	5
21	Efficient Modeling and Simulation of Space-Dependent Biological Systems. Journal of Computational Biology, 2018, 25, 917-933.	1.6	5
22	An improved compact model of cross-shaped horizontal CMOS-integrated Hall-effect sensor. , 2010, , .		4
23	Fuzzy logic, an intermediate description level for design and simulation in synthetic biology. , 2013, , .		4
24	EDA inspired open-source framework for synthetic biology. , 2013, , .		4
25	Modeling and simulation of a Lab-On-Chip for micropollutants detection. , 2014, , .		4
26	High resolution, low offset Vertical Hall device in low-voltage CMOS technology. , 2015, , .		3
27	Environment for Modeling and Simulation of Biosystems, Biosensors, and Lab-on-Chips. IEEE Transactions on Electron Devices, 2019, 66, 34-43.	3.0	3
28	Towards Tracking of Deep Brain Stimulation Electrodes Using an Integrated Magnetometer. Sensors, 2021, 21, 2670.	3.8	3
29	Compatibility of temporal multiplexed spatial light modulator with optical image processing. Optics Communications, 2007, 275, 27-37.	2.1	2
30	Computer-aided design in synthetic biology. , 2011, , .		2
31	Compact modeling of vertical hall-effect devices: Electrical behavior. , 2012, , .		2
32	An improved compact model of the electrical behaviour of the 5-contact vertical hall-effect device. , 2013, , .		2
33	Integration of SBML models for the description of biological system in a lab-on-chip. , 2015, , .		2
34	Virtual prototyping for biosystems: A spicy challenge. , 2017, , .		2
35	Virtual prototyping of biosensors involving reaction- diffusion phenomena. , 2018, , .		2
36	A Label-Free Optical Detection of Pathogens in Isopropanol as a First Step towards Real-Time Infection Prevention. Biosensors, 2021, 11, 2.	4.7	2

#	Article	IF	Citations
37	Compact modeling of offset sources in vertical hall-effect devices. , 2014, , .		1
38	Automated design of artificial biological functions based on fuzzy logic. , 2014, , .		1
39	Verilog-A compact space-dependent model for biology. , 2015, , .		1
40	Challenges in design-oriented modeling in biology. , 2015, , .		1
41	Basics of Micro/Nano Fluidics and Biology. Microtechnology and MEMS, 2020, , 7-87.	0.2	1
42	Compact Modeling of Reaction-Diffusion-Advection Mechanisms for the Virtual Prototyping of Lab-on-Chip. , 2021, , .		1
43	FLC-SLM dynamic improvement with temporal multiplexing: application to optical image processing. , 2006, 6183, 390.		0
44	VHDL-AMS models of FLC for spatial light modulator virtual prototyping. , 2006, 6183, 400.		0
45	Analogue-driven bistable ferroelectric liquid crystals. Analog Integrated Circuits and Signal Processing, 2008, 57, 187-196.	1.4	0
46	Gate-level modeling for CMOS circuit simulation with ultimate FinFETs. , 2012, , .		0
47	Opportunities and challenges for the virtual prototyping of synthetic biological functions. , 2014, , .		0
48	Live demonstration: Automated design of artificial biological functions based on fuzzy logic. , 2014, , .		0
49	A microelectronic approach to identifying and modeling biological noise. , 2017, , .		0
50	Introduction to the special issue on IEEE NEWCAS 2017. Analog Integrated Circuits and Signal Processing, 2018, 97, 395-396.	1.4	0
51	Feasibility and reliability of sequential logic with gene regulatory networks. PLoS ONE, 2021, 16, e0249234.	2.5	0
52	Analytic modelling of passive microfluidic mixers. Mathematical Biosciences and Engineering, 2022, 19, 3892-3908.	1.9	0