Matthew A Hopcroft

List of Publications by Year
in descending order

24 papers	3,325 citations	516561 16 h-index	794469 19 g-index
24 all docs	24 docs citations	24 times ranked	3386 citing authors

#	Article	IF	Citations
1	Investigation of Orientation Dependence of the Thermal Expansion Coefficient in Silicon MEMS Resonators. , 2018, , .		0
2	Multifunctional Integrated Sensors for Multiparameter Monitoring Applications. Journal of Microelectromechanical Systems, 2015, 24, 810-821.	1.7	25
3	Electrostatic Tuning to Achieve Higher Stability Microelectromechanical Composite Resonators. Journal of Microelectromechanical Systems, 2011, 20, 1355-1365.	1.7	13
4	Influence of the temperature dependent nonlinearities on the performance of micromechanical resonators. Applied Physics Letters, 2011, 99, .	1.5	7
5	Thermally compensated aluminum nitride Lamb wave resonators for high temperature applications. Applied Physics Letters, 2010, 97, .	1.5	103
6	AlN thin films grown on epitaxial 3Câ€“SiC (100) for piezoelectric resonant devices. Applied Physics Letters, 2010, 97, 141907.	1.5	73
7	Model and Observations of Dielectric Charge in Thermally Oxidized Silicon Resonators. Journal of Microelectromechanical Systems, 2010, 19, 162-174.	1.7	37
8	What is the Young's Modulus of Silicon?. Journal of Microelectromechanical Systems, 2010, 19, 229-238.	1.7	1,762
9	Temperature-compensated aluminum nitride lamb wave resonators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 524-532.	1.7	156
10	Influence of the temperature dependent A-f effect on the design and performance of oscillators. , 2010, , .		1
11	Hermeticity and diffusion investigation in polysilicon film encapsulation for microelectromechanical systems. Journal of Applied Physics, 2009, 105, .	1.1	25
12	Temperature-Insensitive Composite Micromechanical Resonators. Journal of Microelectromechanical Systems, 2009, 18, 1409-1419.	1.7	202
13	A study of electrostatic force nonlinearities in resonant microstructures. Applied Physics Letters, 2008, 92, .	1.5	45
14	Temperature Dependence of Quality Factor in MEMS Resonators. Journal of Microelectromechanical Systems, 2008, 17, 755-766.	1.7	208
15	Thermal Isolation of Encapsulated MEMS Resonators. Journal of Microelectromechanical Systems, 2008, 17, 175-184.	1.7	67
16	Si-SiO2 Composite MEMS Resonators in CMOS Compatible Wafer-scale Thin-Film Encapsulation. , 2007, , .		15
17	Temperature-compensated high-stability silicon resonators. Applied Physics Letters, 2007, 90, 244107.	1.5	109
18	Scaling of amplitude-frequency-dependence nonlinearities in electrostatically transduced microresonators. Journal of Applied Physics, 2007, 102, .	1.1	52

#	Article	IF	Citations
19	Composite flexural-mode resonator with controllable turnover temperature. , 2007, , .		33
20	Acceleration sensitivity in beam-type electrostatic microresonators. Applied Physics Letters, 2007, 90, 014103.	1.5	8
21	Frequency stability of wafer-scale film encapsulated silicon based MEMS resonators. Sensors and Actuators A: Physical, 2007, 136, 125-131.	2.0	114
22	Long-Term and Accelerated Life Testing of a Novel Single-Wafer Vacuum Encapsulation for MEMS Resonators. Journal of Microelectromechanical Systems, 2006, 15, 1446-1456.	1.7	183
23	Nonlinear Characterization of Electrostatic MEMS Resonators. , 2006, , .		27
24	Optimal drive condition for nonlinearity reduction in electrostatic microresonators. Applied Physics Letters, 2006, 89, 214105.	1.5	60