Daniel Ramos

List of Publications by Year
in descending order

42 papers	1,973 citations	304743 22 h-index	276875 41 g-index
42 all docs	42 docs citations	42 times ranked	2350 citing authors

#	Article	IF	Citations
1	Nanomechanical mass sensing and stiffness spectrometry based on two-dimensional vibrations of resonant nanowires. Nature Nanotechnology, 2010, 5, 641-645.	31.5	235
2	Detection of cancer biomarkers in serum using a hybrid mechanical and optoplasmonic nanosensor. Nature Nanotechnology, 2014, 9, 1047-1053.	31.5	221
3	Label-free detection of DNA hybridization based on hydration-induced tension in nucleic acid films. Nature Nanotechnology, 2008, 3, 301-307.	31.5	194
4	Effect of the adsorbate stiffness on the resonance response of microcantilever sensors. Applied Physics Letters, 2006, 89, 224104.	3.3	151
5	Origin of the response of nanomechanical resonators to bacteria adsorption. Journal of Applied Physics, 2006, 100, 106105.	2.5	106
6	Photothermal excitation of microcantilevers in liquids. Journal of Applied Physics, 2006, 99, 124904.	2.5	105
7	Mass Sensing Based on Deterministic and Stochastic Responses of Elastically Coupled Nanocantilevers. Nano Letters, 2009, 9, 4122-4127.	9.1	104
8	Detection of bacteria based on the thermomechanical noise of a nanomechanical resonator: origin of the response and detection limits. Nanotechnology, 2008, 19, 035503.	2.6	63
9	Nanomechanical resonant structures in single-crystal diamond. Applied Physics Letters, 2013, 103, .	3.3	63
10	Phototermal self-excitation of nanomechanical resonators in liquids. Applied Physics Letters, 2008, 92, 173108.	3.3	62
11	Arrays of Dual Nanomechanical Resonators for Selective Biological Detection. Analytical Chemistry, 2009, 81, 2274-2279.	6.5	58
12	Study of the origin of bending induced by bimetallic effect on microcantilever. Sensors, 2007, 7, 1757-1765.	3.8	52
13	Role of the gold film nanostructure on the nanomechanical response of microcantilever sensors. Journal of Applied Physics, 2007, 101, 034904.	2.5	45
14	Optomechanics with Silicon Nanowires by Harnessing Confined Electromagnetic Modes. Nano Letters, 2012, 12, 932-937.	9.1	40
15	Exponential tuning of the coupling constant of coupled microcantilevers by modifying their separation. Applied Physics Letters, 2011, 98, .	3.3	37
16	Silicon nanowires: where mechanics and optics meet at the nanoscale. Scientific Reports, 2013, 3, 3445.	3.3	36
17	Shedding Light on Axial Stress Effect on Resonance Frequencies of Nanocantilevers. ACS Nano, 2011, 5, 4269-4275.	14.6	34
18	Effect of water-DNA interactions on elastic properties of DNA self-assembled monolayers. Scientific Reports, 2017, 7, 536.	3.3	33

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19	Controlling the Color and Effective Refractive Index of Metal-Anodic Aluminum Oxide (AAO)â€“Al Nanostructures: Morphology of AAO. Journal of Physical Chemistry C, 2018, 122, 957-963.	3.1	31
20	Measurement of the Mass and Rigidity of Adsorbates on a Microcantilever Sensor. Sensors, 2007, 7, 1834-1845.	3.8	27
21	Underlying mechanisms of the self-sustained oscillation of a nanomechanical stochastic resonator in a liquid. Physical Review B, 2007, 76, .	3.2	23
22	Highly Sensitive Measurement of Liquid Density in Air Using Suspended Microcapillary Resonators. Sensors, 2015, 15, 7650-7657.	3.8	23
23	Nanomechanical Plasmon Spectroscopy of Single Gold Nanoparticles. Nano Letters, 2018, 18, 7165-7170.	9.1	21
24	Optical back-action in silicon nanowire resonators: bolometric versus radiation pressure effects. New Journal of Physics, 2013, 15, 035001.	2.9	20
25	Tapered silicon nanowires for enhanced nanomechanical sensing. Applied Physics Letters, 2013, 103, .	3.3	19
26	High Dynamic Range Nanowire Resonators. Nano Letters, 2021, 21, 6617-6624.	9.1	19
27	Hydration Induced Stress on DNA Monolayers Grafted on Microcantilevers. Langmuir, 2014, 30, 10962-10969.	3.5	18
28	Mechano-Optical Analysis of Single Cells with Transparent Microcapillary Resonators. ACS Sensors, 2019, 4, 3325-3332.	7.8	18
29	A Review on Theory and Modelling of Nanomechanical Sensors for Biological Applications. Processes, 2021, 9, 164.	2.8	18
30	Photonic and Thermal Modelling of Microrings in Silicon, Diamond and GaN for Temperature Sensing. Nanomaterials, 2020, 10, 934.	4.1	15
31	Optical bistability with a repulsive optical force in coupled silicon photonic crystal membranes. Applied Physics Letters, 2013, 103, .	3.3	14
32	Optical Transduction for Vertical Nanowire Resonators. Nano Letters, 2020, 20, 2359-2369.	9.1	13
33	Non-linear mixing in coupled photonic crystal nanobeam cavities due to cross-coupling opto-mechanical mechanisms. Applied Physics Letters, 2014, 105, 181121.	3.3	10
34	Modeling of transient thermoelectric transport in Harman method for films and nanowires. International Journal of Thermal Sciences, 2015, 89, 193-202.	4.9	9
35	Coherent Optical Transduction of Suspended Microcapillary Resonators for Multi-Parameter Sensing Applications. Sensors, 2019, 19, 5069.	3.8	9
36	Nanomechanical Molecular Mass Sensing Using Suspended Microchannel Resonators. Sensors, 2021, 21, 3337.	3.8	7

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37	Optimization of the readout of microdrum optomechanical resonators. Microelectronic Engineering, 2017, 183-184, 37-41.	2.4	5
38	Hydrodynamic assisted multiparametric particle spectrometry. Scientific Reports, 2021, 11, 3535.	3.3	4
39	Micro-Kelvin Resolution at Room Temperature Using Nanomechanical Thermometry. ACS Omega, 2021, 6, 23052-23058.	3.5	4
40	Direct Detection of OXA-48 Carbapenemase Gene in Lysate Samples through Changes in Mechanical Properties of DNA Monolayers upon Hybridization. Analytical Chemistry, 2018, 90, 968-973.	6.5	3
41	Real-Time Particle Spectrometry in Liquid Environment Using Microfluidic-Nanomechanical Resonators. , 2019, , .		2
42	Photonic and Optomechanical Thermometry. Optics, 2022, 3, 159-176.	1.2	2