Harold G Craighead

List of Publications by Year
in descending order

41 papers	3,182 citations	393982 19 h-index	360668 35 g-index
42 all docs	42 docs citations	42 times ranked	4453 citing authors

#	Article	IF	Citations
1	Future lab-on-a-chip technologies for interrogating individual molecules. Nature, 2006, 442, 387-393.	13.7	679
2	Micro- and nanomechanical sensors for environmental, chemical, and biological detection. Lab on A Chip, 2007, 7, 1238.	3.1	641
3	Powering an Inorganic Nanodevice with a Biomolecular Motor. , 2000, 290, 1555-1558.		578
4	A Polymeric Microfluidic Chip for CE/MS Determination of Small Molecules. Analytical Chemistry, 2001, 73, 1935-1941.	3.2	221
5	Diffraction-Based Cell Detection Using a Microcontact Printed Antibody Grating. Analytical Chemistry, 1998, 70, 1108-1111.	3.2	139
6	Surface Engineering and Patterning Using Parylene for Biological Applications. Materials, 2010, 3, 1803-1832.	1.3	133
7	Revisiting the Conformation and Dynamics of DNA in Slitlike Confinement. Macromolecules, 2010, 43, 7368-7377.	2.2	111
8	Mast Cell Activation on Patterned Lipid Bilayers of Subcellular Dimensionsâ€. Langmuir, 2003, 19, 1599-1605.	1.6	91
9	RAPID-SELEX for RNA Aptamers. PLoS ONE, 2013, 8, e82667.	1.1	58
10	Defining NELF-E RNA Binding in HIV-1 and Promoter-Proximal Pause Regions. PLoS Genetics, 2014, 10, e1004090.	1.5	55
11	Operating mechanism of light-emitting electrochemical cells. Nature Materials, 2008, 7, 168-168.	13.3	49
12	Measuring more than mass. Nature Nanotechnology, 2007, 2, 18-19.	15.6	41
13	Microfluidic Device for Aptamer-Based Cancer Cell Capture and Genetic Mutation Detection. Analytical Chemistry, 2018, 90, 2601-2608.	3.2	40
14	Microfabricated Plastic Devices from Silicon Using Soft Intermediates. Biomedical Microdevices, 2002, 4, 277-283.	1.4	37
15	Applications of controlled electrospinning systems. Polymers for Advanced Technologies, 2011, 22, 304-309.	1.6	36
16	Interfacet mass transport and facet evolution in selective epitaxial growth of Si by gas source molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 2381.	1.6	34
17	Poly(dicyclopentadiene) Submicron Fibers Produced by Electrospinning. Macromolecular Rapid Communications, 2006, 27, 511-515.	2.0	31
18	Young's modulus and thermal expansion of tensioned graphene membranes. Physical Review B, 2018, 98, .	1.1	25

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19	Nanomanufacturing Using Electrospinning. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2009, 131, .	1.3	23
20	High-Q, in-plane modes of nanomechanical resonators operated in air. Journal of Applied Physics, 2009, 105, 094315.	1.1	21
21	Observing Thermobifida fusca cellulase binding to pretreated wood particles using time-lapse confocal laser scanning microscopy. Cellulose, 2011, 18, 749-758.	2.4	20
22	Molecular Templates for Bio-specific Recognition by Low-Energy Electron Beam Lithography. Nanobiotechnology, 2005, 1, 023-034.	1.2	16
23	Single cell on-chip whole genome amplification via micropillar arrays for reduced amplification bias. PLoS ONE, 2018, 13, e0191520.	1.1	14
24	Highly Multiplexed RNA Aptamer Selection using a Microplate-based Microcolumn Device. Scientific Reports, 2016, 6, 29771.	1.6	13
25	On-chip coupling of electrochemical pumps and an SU-8 tip for electrospray ionization mass spectrometry. Biomedical Microdevices, 2008, 10, 891-897.	1.4	12
26	Low-Power Photothermal Self-Oscillation of Bimetallic Nanowires. Nano Letters, 2017, 17, 3995-4002.	4.5	11
27	Temperature-dependence of stress and elasticity in wet-transferred graphene membranes. Journal of Applied Physics, 2018, 123, .	1.1	10
28	Devices and approaches for generating specific high-affinity nucleic acid aptamers. Applied Physics Reviews, 2014, 1, 031103.	5.5	8
29	Electrospun DNA nanofibers. Journal of Vacuum Science & Technology B, 2007, 25, 2255.	1.3	7
30	Chip-based microfabricated electrospinning nozzles. Journal of Vacuum Science & Technology B, 2008, 26, 2539-2542.	1.3	7
31	High surface-area carbon microcantilevers. Nanoscale Advances, 2019, 1, 1148-1154.	2.2	5
32	Forward scattering probe of edge-state coupling in the quantum Hall regime. Physical Review B, 2001, 64, .	1.1	4
33	Future lab-on-a-chip technologies for interrogating individual molecules. , 2009, , 330-336.		4
34	That shrinking feeling. Nature, 2002, 420, 20-20.	13.7	3
35	Discovering Aptamers by Cell-SELEX against Human Soluble Growth Factors Ectopically Expressed on Yeast Cell Surface. PLoS ONE, 2014, 9, e93052.	1.1	2
36	Micro- and Nanofabricating Lipid Patterns Using a Polymer-Based Wet Lift-Off. Materials Research Society Symposia Proceedings, 2001, 705, 7181.	0.1	1

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37	Synchronous imaging for rapid visualization of complex vibration profiles in electromechanical microresonators. Journal of Applied Physics, 2012, 111, 023507.	1.1	1
38	Continuous separation of biomolecules by the laterally asymmetric diffusion array with out-of-plane sample injection. , 2002, 23, 3496.		1
39	Lateral Diffusion Limitations of Ingaas/Gaas for Nanostructure Fabrication. Materials Research Society Symposia Proceedings, 1995, 380, 67.	0.1	0
40	The Interactions Between Central Nervous System Cells and Topographically Modified Surfaces. Microscopy and Microanalysis, 2003, 9, 1280-1281.	0.2	0
41	An all-optical actuation and detection scheme for studying dissipation and materials properties of NEMS resonators. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0