

Francesc Perez-Murano

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4620662/publications.pdf>

Version: 2024-02-01

239
papers

4,748
citations

117453

34
h-index

133063

59
g-index

246
all docs

246
docs citations

246
times ranked

4778
citing authors

#	ARTICLE	IF	CITATIONS
1	Increasing the elastic modulus of graphene by controlled defect creation. Nature Physics, 2015, 11, 26-31.	6.5	298
2	Mechanical Detection of Carbon Nanotube Resonator Vibrations. Physical Review Letters, 2007, 99, 085501.	2.9	191
3	Local oxidation of silicon surfaces by dynamic force microscopy: Nanofabrication and water bridge formation. Applied Physics Letters, 1998, 72, 2295-2297.	1.5	185
4	STM-Induced Hydrogen Desorption via a Hole Resonance. Physical Review Letters, 1998, 80, 2618-2621.	2.9	131
5	Monolithic CMOS MEMS Oscillator Circuit for Sensing in the Attogram Range. IEEE Electron Device Letters, 2008, 29, 146-148.	2.2	117
6	Dynamic range enhancement of nonlinear nanomechanical resonant cantilevers for highly sensitive NEMS gas/mass sensor applications. Journal of Micromechanics and Microengineering, 2010, 20, 045023.	1.5	116
7	Predictive model for scanned probe oxidation kinetics. Applied Physics Letters, 2000, 76, 2710-2712.	1.5	109
8	Electromechanical model of a resonating nano-cantilever-based sensor for high-resolution and high-sensitivity mass detection. Nanotechnology, 2001, 12, 100-104.	1.3	106
9	Ultrasensitive mass sensor fully integrated with complementary metal-oxide-semiconductor circuitry. Applied Physics Letters, 2005, 87, 043507.	1.5	105
10	Anisotropic growth of long isolated graphene ribbons on the C face of graphite-capped 6H-SiC . Physical Review B, 2009, 80, .	1.1	88
11	Nanometer-scale oxidation of Si(100) surfaces by tapping mode atomic force microscopy. Journal of Applied Physics, 1995, 78, 6797-6801.	1.1	84
12	Current, charge, and capacitance during scanning probe oxidation of silicon. I. Maximum charge density and lateral diffusion. Journal of Applied Physics, 2004, 96, 2386-2392.	1.1	82
13	Voltage modulation scanned probe oxidation. Applied Physics Letters, 1999, 75, 199-201.	1.5	78
14	Nanolithography on thin layers of PMMA using atomic force microscopy. Nanotechnology, 2005, 16, 1016-1022.	1.3	76
15	Integrated CMOS-MEMS with on-chip readout electronics for high-frequency applications. IEEE Electron Device Letters, 2006, 27, 495-497.	2.2	74
16	AFM lithography of aluminum for fabrication of nanomechanical systems. Ultramicroscopy, 2003, 97, 467-472.	0.8	67
17	Nanometre-scale oxidation of silicon surfaces by dynamic force microscopy: reproducibility, kinetics and nanofabrication. Nanotechnology, 1999, 10, 34-38.	1.3	62
18	Evaporation of Femtoliter Sessile Droplets Monitored with Nanomechanical Mass Sensors. Journal of Physical Chemistry B, 2007, 111, 13020-13027.	1.2	61

#	ARTICLE	IF	CITATIONS
19	Design, fabrication, and characterization of a submicroelectromechanical resonator with monolithically integrated CMOS readout circuit. <i>Journal of Microelectromechanical Systems</i> , 2005, 14, 508-519.	1.7	59
20	Monolithic mass sensor fabricated using a conventional technology with attogram resolution in air conditions. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	58
21	Crystalline silicon cantilevers for piezoresistive detection of biomolecular forces. <i>Microelectronic Engineering</i> , 2008, 85, 1120-1123.	1.1	55
22	DNA hybridization detection by electrochemical impedance spectroscopy using interdigitated gold nanoelectrodes. <i>Mikrochimica Acta</i> , 2010, 170, 275-281.	2.5	55
23	Faradaic current detection during anodic oxidation of the H-passivated p-Si(001) surface with controlled relative humidity. <i>Nanotechnology</i> , 2004, 15, 297-302.	1.3	52
24	Grazing-incidence small-angle X-ray scattering of soft and hard nanofabricated gratings. <i>Journal of Applied Crystallography</i> , 2012, 45, 1038-1045.	1.9	51
25	Modification of HF-treated silicon (100) surfaces by scanning tunneling microscopy in air under imaging conditions. <i>Applied Physics Letters</i> , 1992, 61, 462-464.	1.5	50
26	Density variations in scanned probe oxidation. <i>Applied Surface Science</i> , 2000, 158, 205-216.	3.1	50
27	Full-wafer fabrication by nanostencil lithography of micro/nanomechanical mass sensors monolithically integrated with CMOS. <i>Nanotechnology</i> , 2008, 19, 305302.	1.3	48
28	Electrochemical platinum coatings for improving performance of implantable microelectrode arrays. <i>Biomaterials</i> , 2002, 23, 4515-4521.	5.7	46
29	Assessing the Local Nanomechanical Properties of Self-Assembled Block Copolymer Thin Films by Peak Force Tapping. <i>Langmuir</i> , 2015, 31, 11630-11638.	1.6	46
30	High-sensitivity linear piezoresistive transduction for nanomechanical beam resonators. <i>Nature Communications</i> , 2014, 5, 4313.	5.8	45
31	Monolithic integration of mass sensing nano-cantilevers with CMOS circuitry. <i>Sensors and Actuators A: Physical</i> , 2003, 105, 311-319.	2.0	43
32	Resonators with integrated CMOS circuitry for mass sensing applications, fabricated by electron beam lithography. <i>Nanotechnology</i> , 2005, 16, 98-102.	1.3	39
33	System on chip mass sensor based on polysilicon cantilevers arrays for multiple detection. <i>Sensors and Actuators A: Physical</i> , 2006, 132, 154-164.	2.0	38
34	Towards molecular electronic devices based on all-carbon wires. <i>Nanoscale</i> , 2018, 10, 14128-14138.	2.8	37
35	Preparation of nascent molecular electronic devices from gold nanoparticles and terminal alkyne functionalised monolayer films. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7348-7355.	2.7	36
36	Measuring electrical current during scanning probe oxidation. <i>Applied Physics Letters</i> , 2003, 82, 3086-3088.	1.5	35

#	ARTICLE	IF	CITATIONS
37	Current, charge, and capacitance during scanning probe oxidation of silicon. II. Electrostatic and meniscus forces acting on cantilever bending. <i>Journal of Applied Physics</i> , 2004, 96, 2393-2399.	1.1	34
38	Field induced oxidation of silicon by SPM: study of the mechanism at negative sample voltage by STM, ESTM and AFM. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 66, S791-S795.	1.1	33
39	A Compact and Low-Power CMOS Circuit for Fully Integrated NEMS Resonators. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , 2007, 54, 377-381.	2.3	32
40	Sub-10 nm Resistless Nanolithography for Directed Self-Assembly of Block Copolymers. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 21596-21602.	4.0	32
41	Laser Fabrication of Polymer Ferroelectric Nanostructures for Nonvolatile Organic Memory Devices. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19611-19618.	4.0	31
42	Atomic force microscopy local oxidation of silicon nitride thin films for mask fabrication. <i>Nanotechnology</i> , 2005, 16, 2731-2737.	1.3	30
43	Nanometer scale lithography of silicon(100) surfaces using tapping mode atomic force microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996, 14, 1208-1212.	0.9	29
44	On the electromechanical modelling of a resonating nano-cantilever-based transducer. <i>Ultramicroscopy</i> , 2004, 100, 225-232.	0.8	28
45	V-groove plasmonic waveguides fabricated by nanoimprint lithography. <i>Journal of Vacuum Science & Technology B</i> , 2007, 25, 2649.	1.3	28
46	Nanomechanical Mass Sensor for Spatially Resolved Ultrasensitive Monitoring of Deposition Rates in Stencil Lithography. <i>Small</i> , 2009, 5, 176-180.	5.2	28
47	Thermal scanning probe lithography for the directed self-assembly of block copolymers. <i>Nanotechnology</i> , 2017, 28, 175301.	1.3	28
48	Fabrication of cantilever based mass sensors integrated with CMOS using direct write laser lithography on resist. <i>Nanotechnology</i> , 2004, 15, S628-S633.	1.3	27
49	Micro/nanomechanical resonators for distributed mass sensing with capacitive detection. <i>Microelectronic Engineering</i> , 2006, 83, 1216-1220.	1.1	27
50	Enabling electromechanical transduction in silicon nanowire mechanical resonators fabricated by focused ion beam implantation. <i>Nanotechnology</i> , 2014, 25, 135302.	1.3	27
51	Large scale high precision nano-oxidation using an atomic force microscope. <i>Surface Science</i> , 2004, 566-568, 343-348.	0.8	26
52	Design and Synthesis of Avrami-Ratner Type Dyads and Rectification Studies in Langmuir-Blodgett (LB) Films. <i>Chemistry - A European Journal</i> , 2016, 22, 10539-10547.	1.7	26
53	Piezoresistive cantilevers in a commercial CMOS technology for intermolecular force detection. <i>Microelectronic Engineering</i> , 2006, 83, 1302-1305.	1.1	25
54	A femtogram resolution mass sensor platform based on SOI electrostatically driven resonant cantilever. Part II: Sensor calibration and glycerine evaporation rate measurement. <i>Ultramicroscopy</i> , 2006, 106, 808-814.	0.8	25

#	ARTICLE	IF	CITATIONS
55	Nanoscale reduction of graphene oxide thin films and its characterization. <i>Nanotechnology</i> , 2015, 26, 285301.	1.3	25
56	Fully integrated MIXLER based on VHF CMOS-MEMS clamped-clamped beam resonator. <i>Electronics Letters</i> , 2007, 43, 452.	0.5	24
57	Real time protein recognition in a liquid-gated carbon nanotube field-effect transistor modified with aptamers. <i>Nanoscale</i> , 2012, 4, 5917.	2.8	23
58	Sequential Infiltration of Self-Assembled Block Copolymers: A Study by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3078-3086.	1.5	23
59	A platform for monolithic CMOS-MEMS integration on SOI wafers. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 2203-2210.	1.5	22
60	Improving information density in ferroelectric polymer films by using nanoimprinted gratings. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	22
61	AFM lithography for the definition of nanometre scale gaps: application to the fabrication of a cantilever-based sensor with electrochemical current detection. <i>Nanotechnology</i> , 2004, 15, 771-776.	1.3	21
62	Using electron and ion beams on carbon nanotube-based devices. Effects and considerations for nanofabrication. <i>Microelectronic Engineering</i> , 2009, 86, 892-894.	1.1	21
63	Electron- and ion-beam lithography for the fabrication of nanomechanical devices integrated on CMOS circuits. <i>Microelectronic Engineering</i> , 2009, 86, 1046-1049.	1.1	21
64	Massive manufacture and characterization of single-walled carbon nanotube field effect transistors. <i>Microelectronic Engineering</i> , 2010, 87, 1554-1556.	1.1	21
65	From an Organometallic Monolayer to an Organic Monolayer Covered by Metal Nanoislands: A Simple Thermal Protocol for the Fabrication of the Top Contact Electrode in Molecular Electronic Devices. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400128.	1.9	21
66	Directed Self-Assembly of Block Copolymers for the Fabrication of Functional Devices. <i>Polymers</i> , 2020, 12, 2432.	2.0	21
67	Improved properties of epoxy nanocomposites for specific applications in the field of MEMS/NEMS. <i>Microelectronic Engineering</i> , 2007, 84, 1075-1079.	1.1	20
68	Metal microelectromechanical oscillator exhibiting ultra-high water vapor resolution. <i>Lab on A Chip</i> , 2011, 11, 2670.	3.1	20
69	Polystyrene as a brush layer for directed self-assembly of block co-polymers. <i>Microelectronic Engineering</i> , 2013, 110, 234-240.	1.1	20
70	A femtogram resolution mass sensor platform, based on SOI electrostatically driven resonant cantilever. Part I: Electromechanical model and parameter extraction. <i>Ultramicroscopy</i> , 2006, 106, 800-807.	0.8	19
71	Dynamic stencil lithography on full wafer scale. <i>Journal of Vacuum Science & Technology B</i> , 2008, 26, 2054-2058.	1.3	19
72	Vertically aligned multi-walled carbon nanotube growth on platinum electrodes for bio-impedance applications. <i>Microelectronic Engineering</i> , 2009, 86, 806-808.	1.1	19

#	ARTICLE	IF	CITATIONS
73	Electrical transduction in nanomechanical resonators based on doubly clamped bottom-up silicon nanowires. <i>Applied Physics Letters</i> , 2012, 101, 243115.	1.5	19
74	Gold interdigitated nanoelectrodes as a sensitive analytical tool for selective detection of electroactive species via redox cycling. <i>Mikrochimica Acta</i> , 2016, 183, 1633-1639.	2.5	19
75	New routes to organometallic molecular junctions via a simple thermal processing protocol. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6630-6640.	2.7	19
76	Dry etching for the correction of gap-induced blurring and improved pattern resolution in nanostencil lithography. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2007, 6, 013005.	1.0	18
77	Stress and aging minimization in photoplastic AFM probes. <i>Microelectronic Engineering</i> , 2009, 86, 1226-1229.	1.1	18
78	Silicon microcantilevers with MOSFET detection. <i>Microelectronic Engineering</i> , 2010, 87, 1245-1247.	1.1	18
79	Top-down silicon microcantilever with coupled bottom-up silicon nanowire for enhanced mass resolution. <i>Nanotechnology</i> , 2015, 26, 145502.	1.3	18
80	Fully CMOS integrated low voltage 100 MHz MEMS resonator. <i>Electronics Letters</i> , 2005, 41, 1327.	0.5	17
81	Interaction of biomolecules sequentially deposited at the same location using a microcantilever-based spotter. <i>Biomedical Microdevices</i> , 2008, 10, 479-487.	1.4	17
82	Atomic force microscope characterization of a resonating nanocantilever. <i>Ultramicroscopy</i> , 2003, 97, 127-133.	0.8	16
83	Fabrication of complementary metal-oxide-semiconductor integrated nanomechanical devices by ion beam patterning. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 2691-2697.	1.3	16
84	Conductivity of SU-8 Thin Films through Atomic Force Microscopy Nano-Patterning. <i>Advanced Functional Materials</i> , 2012, 22, 1482-1488.	7.8	16
85	Horizontally patterned Si nanowire growth for nanomechanical devices. <i>Nanotechnology</i> , 2013, 24, 095303.	1.3	16
86	A statistical analysis of nanocavities replication applied to injection moulding. <i>International Communications in Heat and Mass Transfer</i> , 2017, 81, 131-140.	2.9	16
87	Exploring the Influence of Variability on Single-Electron Transistors Into SET-Based Circuits. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 5172-5180.	1.6	16
88	From VHF to UHF CMOS-MEMS monolithically integrated resonators. , 2008, , .		15
89	Nanostructuring of epitaxial graphene layers on SiC by means of field-induced atomic force microscopy modification. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 3149-3152.	1.3	15
90	High surface coverage of a self-assembled monolayer by in situ synthesis of palladium nanodeposits. <i>Nanoscale</i> , 2017, 9, 13281-13290.	2.8	15

#	ARTICLE	IF	CITATIONS
91	AFM thermal imaging as an optimization tool for a bulk micromachined thermopile. <i>Sensors and Actuators A: Physical</i> , 2004, 115, 440-446.	2.0	14
92	Suspended tungsten-based nanowires with enhanced mechanical properties grown by focused ion beam induced deposition. <i>Nanotechnology</i> , 2017, 28, 445301.	1.3	14
93	Quantification of nanomechanical properties of surfaces by higher harmonic monitoring in amplitude modulated AFM imaging. <i>Ultramicroscopy</i> , 2018, 187, 20-25.	0.8	14
94	Local modification of n-Si(100) surface in aqueous solutions under anodic and cathodic potential polarization with an in situ scanning tunneling microscope. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995, 13, 1423.	1.6	13
95	Scanning near-field optical microscope for the characterization of optical integrated waveguides. <i>Journal of Lightwave Technology</i> , 2000, 18, 370-374.	2.7	13
96	DRIE based novel technique for AFM probes fabrication. <i>Microelectronic Engineering</i> , 2007, 84, 1132-1135.	1.1	13
97	Towards the Fabrication of the Top Contact Electrode in Molecular Junctions by Photoreduction of a Metal Precursor. <i>Chemistry - A European Journal</i> , 2014, 20, 3421-3426.	1.7	13
98	Towards a metallic top contact electrode in molecular electronic devices exhibiting a large surface coverage by photoreduction of silver cations. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9036-9043.	2.7	13
99	Replication of nanoscale surface gratings via injection molding. <i>Micro and Nano Engineering</i> , 2019, 3, 37-43.	1.4	13
100	Electrostatic and magnetic turbulence in the TJ-I tokamak. <i>Nuclear Fusion</i> , 1990, 30, 717-722.	1.6	12
101	Electron beam lithography at 10keV using an epoxy based high resolution negative resist. <i>Microelectronic Engineering</i> , 2007, 84, 1096-1099.	1.1	12
102	On the assessment by grazing-incidence small-angle X-ray scattering of replica quality in polymer gratings fabricated by nanoimprint lithography. <i>Journal of Applied Crystallography</i> , 2014, 47, 613-618.	1.9	12
103	Arrays of suspended silicon nanowires defined by ion beam implantation: mechanical coupling and combination with CMOS technology. <i>Nanotechnology</i> , 2018, 29, 155303.	1.3	12
104	Atomic force microscopy local anodic oxidation of thin Si ₃ N ₄ layers for robust prototyping of nanostructures. <i>Journal of Vacuum Science & Technology B</i> , 2006, 24, 2988.	1.3	11
105	Controlled deposition of nanodroplets on a surface by liquid nanodispersing: Application to the study of the evaporation of femtoliter sessile droplets. <i>European Physical Journal: Special Topics</i> , 2009, 166, 15-20.	1.2	11
106	Fast on-wafer electrical, mechanical, and electromechanical characterization of piezoresistive cantilever force sensors. <i>Review of Scientific Instruments</i> , 2012, 83, 015002.	0.6	11
107	Boosting the local anodic oxidation of silicon through carbon nanofiber atomic force microscopy probes. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 215-222.	1.5	11
108	Nanoparticles with tunable shape and composition fabricated by nanoimprint lithography. <i>Nanotechnology</i> , 2015, 26, 445302.	1.3	11

#	ARTICLE	IF	CITATIONS
109	Self-assembly morphology of block copolymers in sub-10 nm topographical guiding patterns. <i>Molecular Systems Design and Engineering</i> , 2019, 4, 175-185.	1.7	11
110	Nano-confinement of block copolymers in high accuracy topographical guiding patterns: modelling the emergence of defectivity due to incommensurability. <i>Soft Matter</i> , 2018, 14, 6799-6808.	1.2	10
111	The measurement of the tip current noise as a method to characterize the exposed area of coated ESTM tips. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2003, 52, 859-864.	2.4	9
112	Time-Resolved Evaporation Rate of Attoliter Glycerine Drops Using On-Chip CMOS Mass Sensors Based on Resonant Silicon Micro Cantilevers. <i>IEEE Nanotechnology Magazine</i> , 2007, 6, 509-512.	1.1	9
113	Response of carbon nanotube transistors to electron beam exposure. <i>Microelectronic Engineering</i> , 2007, 84, 1596-1600.	1.1	9
114	CVD oriented growth of carbon nanotubes using AlPO4-5 and L type zeolites. <i>Microelectronic Engineering</i> , 2008, 85, 1202-1205.	1.1	9
115	Characterization at the nanometer scale of local electron beam irradiation of CNT based devices. <i>Microelectronic Engineering</i> , 2008, 85, 1413-1416.	1.1	9
116	Fabrication of functional electromechanical nanowire resonators by focused ion beam implantation. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2015, 14, 031207.	1.0	9
117	A new method to perform in situ current voltage curves with an electrochemical scanning tunnelling microscope. <i>Ultramicroscopy</i> , 1996, 66, 133-139.	0.8	8
118	Full wafer integration of NEMS on CMOS by nanostencil lithography. , 2006, , .		8
119	Protein patterning on the micro- and nanoscale by thermal nanoimprint lithography on a new functionalized copolymer. <i>Journal of Vacuum Science & Technology B</i> , 2009, 27, 2439-2443.	1.3	8
120	A 0.3-mW/Ch 1.25 V Piezo-Resistance Digital ROIC for Liquid-Dispensing MEMS. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2009, 56, 957-965.	3.5	8
121	Resonant tunnelling features in a suspended silicon nanowire single-hole transistor. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	8
122	Confinement of water droplets on rectangular micro/nano-arrayed surfaces. <i>Lab on A Chip</i> , 2016, 16, 2487-2493.	3.1	8
123	Nanofabrication of Fresnel zone plate lenses for X-ray optics. <i>Microelectronic Engineering</i> , 2006, 83, 1355-1359.	1.1	7
124	Nanometer scale gaps for capacitive transduction improvement on RF-MEMS resonators. <i>Microelectronic Engineering</i> , 2007, 84, 1384-1387.	1.1	7
125	Fabrication of nanogaps for MEMS prototyping using focused ion beam as a lithographic tool and reactive ion etching pattern transfer. <i>Microelectronic Engineering</i> , 2007, 84, 1215-1218.	1.1	7
126	Batch wafer scale fabrication of passivated carbon nanotube transistors for electrochemical sensing applications. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, C6P1-C6P5.	0.6	7

#	ARTICLE	IF	CITATIONS
127	Oxide nanocrystal based nanocomposites for fabricating photoplastic AFM probes. <i>Nanoscale</i> , 2011, 3, 4632.	2.8	7
128	Creation of guiding patterns for directed self-assembly of block copolymers by resistless direct e-beam exposure. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2015, 14, 033511.	1.0	7
129	Identifying the nature of surface chemical modification for directed self-assembly of block copolymers. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 1972-1981.	1.5	7
130	Influence of Quantum Dot Characteristics on the Performance of Hybrid SET-FET Circuits. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 4461-4467.	1.6	7
131	Role of Penetrability into a Brush-Coated Surface in Directed Self-Assembly of Block Copolymers. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 3571-3581.	4.0	7
132	Implementation of BÃ©renger layers as boundary conditions for the beam propagation method: applications to integrated waveguides. <i>Optics Communications</i> , 1999, 159, 43-48.	1.0	6
133	High-sensitivity capacitive sensing interfacing circuit for monolithic CMOS M/NEMS resonators. <i>Electronics Letters</i> , 2007, 43, 1274.	0.5	6
134	Mass measurements based on nanomechanical devices: differential measurements. <i>Journal of Physics: Conference Series</i> , 2008, 100, 052031.	0.3	6
135	Monolithic CMOS-MEMS oscillators with micro-degree temperature resolution in air conditions. , 2009, , .		6
136	Nonlinear detection mechanism in quantitative atomic force microscopy characterization of high-frequency nanoelectromechanical systems. <i>Physical Review B</i> , 2012, 85, .	1.1	6
137	Tuning piezoresistive transduction in nanomechanical resonators by geometrical asymmetries. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	6
138	Improved boundary conditions for the beam propagation method. <i>IEEE Photonics Technology Letters</i> , 1999, 11, 1000-1002.	1.3	5
139	Nanocantilever based mass sensor integrated with CMOS circuitry. , 0, , .		5
140	Mixing in a 220MHz CMOS-MEMS. , 2007, , .		5
141	VHF CMOS-MEMS resonator monolithically integrated in a standard 0.35µm CMOS technology. , 2007, , .		5
142	Novel methods to pattern polymers for microfluidics. <i>Microelectronic Engineering</i> , 2008, 85, 972-975.	1.1	5
143	Fabrication Of Nanomechanical Devices Integrated In CMOS Circuits By Ion Beam Exposure Of Silicon. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	5
144	H-bonding driven assembly of colloidal Au nanoparticles on nanostructured poly(styrene-b-ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.7	5

#	ARTICLE	IF	CITATIONS
145	Recent Achievements in Sub-10 nm DSA Lithography for Line/Space Patterning. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2017, 30, 69-75.	0.1	5
146	Functional dependence of resonant harmonics on nanomechanical parameters in dynamic mode atomic force microscopy. Beilstein Journal of Nanotechnology, 2017, 8, 883-891.	1.5	5
147	Self-assembly of block copolymers under non-isothermal annealing conditions as revealed by grazing-incidence small-angle X-ray scattering. Journal of Synchrotron Radiation, 2020, 27, 1278-1288.	1.0	5
148	Uncapped Gold Nanoparticles for the Metallization of Organic Monolayers. Advanced Materials Interfaces, 2021, 8, 2100876.	1.9	5
149	High Mass and Spatial Resolution Mass Sensor based on Resonating Nano-Cantilevers Integrated with CMOS. , 2001, , 72-75.		5
150	Nanoscale Modification of H-Terminated n-Si(100) Surfaces in Aqueous Solutions with an in Situ Electrochemical Scanning Tunneling Microscope. The Journal of Physical Chemistry, 1995, 99, 17650-17652.	2.9	4
151	SOI-silicon as structural layer for NEMS applications. , 2003, , .		4
152	High-sensitivity capacitive readout system for resonant submicrometer-scale cantilevers based sensors. , 0, , .		4
153	Coupling Resonant Micro and Nanocantilevers to Improve Mass Responsivity by Detectability Product. , 2007, , .		4
154	Electrical detection of multiple resonant modes in a CMOSâ€MEMS cantilever. Microelectronic Engineering, 2007, 84, 1374-1378.	1.1	4
155	Determination of stress build-up during nanoimprint process in triangular polymer structures. Microelectronic Engineering, 2008, 85, 838-841.	1.1	4
156	Guided self-assembly of block-copolymer for CMOS technology: a comparative study between grapho-epitaxy and surface chemical modification. Proceedings of SPIE, 2011, , .	0.8	4
157	Au cylindrical nanocup: A geometrically, tunable optical nanoresonator. Applied Physics Letters, 2015, 107, 033102.	1.5	4
158	Piezoresistive cantilever force sensors based on polycrystalline silicon. , 2015, , .		4
159	Nanomechanical properties of solvent cast polystyrene and poly(methyl methacrylate) polymer blends and self-assembled block copolymers. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2015, 14, 033509.	1.0	4
160	Continuous monitoring of tip radius during atomic force microscopy imaging. , 2015, , .		4
161	Evaluating the compressive stress generated during fabrication of Si doubly clamped nanobeams with AFM. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	4
162	Geometric frustration in a hexagonal lattice of plasmonic nanoelements. Optics Express, 2018, 26, 20211.	1.7	4

#	ARTICLE	IF	CITATIONS
163	Grain-Boundary-Induced Alignment of Block Copolymer Thin Films. <i>Nanomaterials</i> , 2020, 10, 103.	1.9	4
164	Exploring Strategies to Contact 3D Nano-Pillars. <i>Nanomaterials</i> , 2020, 10, 716.	1.9	4
165	Thermal Imaging of Block Copolymers with Sub-10 nm Resolution. <i>ACS Nano</i> , 2021, 15, 9005-9016.	7.3	4
166	Comparison of highly efficient absorbing boundary conditions for the beam propagation method. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2001, 18, 2015.	0.8	3
167	Thermal AFM: a thermopile case study. <i>Ultramicroscopy</i> , 2004, 101, 153-159.	0.8	3
168	Polysilicon piezoresistive cantilevers for intermolecular force detection. , 0, , .		3
169	CMOS integrated nanomechanical mass sensors: determination of evaporation rate of femtoliter droplets. , 2007, , .		3
170	Determining radial breathing mode frequencies of single-walled carbon nanotubes with an atomic force microscope. <i>Europhysics Letters</i> , 2007, 78, 16001.	0.7	3
171	Piezoresistive Microcantilevers for Biomolecular Force Detection. , 2007, , .		3
172	Local growth of carbon nanotubes by thermal chemical vapor deposition from iron based precursor nanoparticles. , 2007, , .		3
173	Mechanical detection and mode shape imaging of vibrational modes of micro and nanomechanical resonators by dynamic force microscopy. <i>Journal of Physics: Conference Series</i> , 2008, 100, 052009.	0.3	3
174	Excitation of fluorescent nanoparticles by channel plasmon polaritons propagating in V-grooves. <i>Applied Physics Letters</i> , 2009, 95, 203102.	1.5	3
175	Magnetic properties of cobalt microwires measured by piezoresistive cantilever magnetometry. <i>Nanofabrication</i> , 2014, 1, .	1.1	3
176	Fabrication of functional electromechanical nanowire resonators by focused ion-beam (FIB) implantation. <i>Proceedings of SPIE</i> , 2015, , .	0.8	3
177	Study of buckling behavior at the nanoscale through capillary adhesion force. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	3
178	Multi-Frequency Resonance Behaviour of a Si Fractal NEMS Resonator. <i>Nanomaterials</i> , 2020, 10, 811.	1.9	3
179	Benefits of using arrays of vertical nanowire FETs in integrated circuits to mitigate variability. <i>Semiconductor Science and Technology</i> , 2021, 36, 125017.	1.0	3
180	Nanomodification of silicon (100) surface with scanning tunnelling microscopy using polysilicon on silicon structure. <i>Materials Science and Technology</i> , 1995, 11, 85-89.	0.8	2

#	ARTICLE	IF	CITATIONS
181	Electrochemical modifications at the nanometer scale on Si(100) surfaces with Scanning Tunnelling Microscopy. Thin Solid Films, 1998, 317, 493-496.	0.8	2
182	Sensor based on arrays of sub-micrometer scale resonant silicon cantilevers integrated monolithically with CMOS circuitry. , 0, , .		2
183	CMOS integrated MEMS resonator for RF applications. , 0, , .		2
184	Compact CMOS current conveyor for integrated NEMS resonators. IET Circuits, Devices and Systems, 2008, 2, 317.	0.9	2
185	Growth of Few Graphene Layers on 6H, 4H and 3C-SiC Substrates. Materials Science Forum, 0, 615-617, 203-206.	0.3	2
186	Magnetic Nanocrystals Modified Epoxy Photoresist for Microfabrication of AFM probes. Procedia Chemistry, 2009, 1, 580-584.	0.7	2
187	Block co-polymer guided self-assembly by surface chemical modification: optimization of multiple patterning process and pattern transfer. , 2012, , .		2
188	Top-Down CMOS-NEMS Polysilicon Nanowire with Piezoresistive Transduction. Sensors, 2015, 15, 17036-17047.	2.1	2
189	Nanomechanical properties of solvent cast PS and PMMA polymer blends and block co-polymers. Proceedings of SPIE, 2015, , .	0.8	2
190	Morphology of poly(propylene azelate) gratings prepared by nanoimprint lithography as revealed by atomic force microscopy and grazing incidence X-ray scattering. Polymer, 2015, 61, 61-67.	1.8	2
191	Introducing surface functionality on thermoformed polymeric films. Micro and Nano Engineering, 2022, 14, 100112.	1.4	2
192	Morphologic and spectroscopic characterization of porous PtGaAs Schottky diodes by scanning tunnelling microscopy. Thin Solid Films, 1995, 261, 299-306.	0.8	1
193	Optical Integrated Waveguides Characterization by Scanning Near Field Optical Microscope. Materials Research Society Symposia Proceedings, 1999, 588, 37.	0.1	1
194	Characterization of antiresonant reflecting optical waveguide devices by scanning near-field optical microscopy. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 2243.	0.8	1
195	Light propagation studies on laser modified waveguides using scanning near-field optical microscopy. IEEE Photonics Technology Letters, 2001, 13, 809-811.	1.3	1
196	<title>Large-signal model of a resonating cantilever-based transducer for system level electrical simulation</title>. , 2005, , .		1
197	Fully integrated nanoresonator system with attogram/Hz mass resolution. , 0, , .		1
198	CMOS-SOI platform for monolithic integration of crystalline silicon MEMS. Electronics Letters, 2006, 42, 800.	0.5	1

#	ARTICLE	IF	CITATIONS
199	Resonant Metal Cantilever with Attogram/Hz Mass Sensitivity Fully Integrated in a Standard 0.35- μ m CMOS Process. , 0, , .		1
200	CMOS Cantilever-based Oscillator for Attogram Mass Sensing. , 2007, , .		1
201	Monitoring the evaporation of femtoliter droplets with CMOS integrated nanomechanical mass sensors. , 2007, , .		1
202	Atomic force microscopy study on the attachment of E. coli and S. aureus to a patterned surface of different materials. , 2007, , .		1
203	Monolithic 0.35- μ m CMOS Cantilever for Mass Sensing in the Attogram Range with Self-Excitation. , 2007, , .		1
204	A 0.35- μ m 1.25V Piezo-Resistance Digital ROIC for Liquid Dispensing MEMS. , 2008, , .		1
205	The effect of hydrophobicity of micro/nanostructured-surfaces on behaviours of water spreading. , 2008, , .		1
206	Fabrication of ordered arrays of quantum wires through hole patterning. Journal of Physics: Conference Series, 2008, 100, 052049.	0.3	1
207	Pattern transfer optimization for the fabrication of arrays of silicon nanowires. Microelectronic Engineering, 2010, 87, 1479-1482.	1.1	1
208	A test vehicle and a two step procedure to evaluate a massive number of single-walled carbon nanotube field effect transistors. , 2010, , .		1
209	Opto-thermal actuation in double layer polymer microcantilevers. Proceedings of SPIE, 2011, , .	0.8	1
210	Towards individual electrical contact of nanoparticles in nanocomposites. Microelectronic Engineering, 2011, 88, 2439-2443.	1.1	1
211	Post-CMOS Integration of Nanomechanical Devices by Direct Ion Beam Irradiation of Silicon. Materials Research Society Symposia Proceedings, 2011, 1354, 103.	0.1	1
212	Graphene crystal growth by thermal precipitation of focused ion beam induced deposition of carbon precursor via patterned-iron thin layers. Nanofabrication, 2014, 1, .	1.1	1
213	Batch fabrication of insulated conductive scanning probe microscopy probes with reduced capacitive coupling. Microelectronic Engineering, 2014, 119, 44-47.	1.1	1
214	Influence of Process-Voltage-Temperature variations on the behavior of a hybrid SET-FET circuit. , 2017, , .		1
215	Synchrotron Radiation for the Understanding of Block Copolymer Self-assembly. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2019, 32, 423-427.	0.1	1
216	Spectroscopic Characterization of Nanoscale Modification of Passivated Si(100) Surface by STM. Materials Research Society Symposia Proceedings, 1994, 332, 549.	0.1	0

#	ARTICLE	IF	CITATIONS
217	Evanescent Field Optical Sensor for Studying ARROW Guides. , 1996, , .		0
218	Correction to "Improved boundary conditions for the beam propagation method". IEEE Photonics Technology Letters, 2003, 15, 1177-1177.	1.3	0
219	Nanopatterning by AFM nano-oxidation of thin aluminum layers as a tool for the prototyping of nanoelectromechanical systems. , 2003, , .		0
220	<title>MEMS with integrated CMOS read-out circuit based on sub-micrometric cantilevers array for multiple sensing (Invited Paper)</title>. , 2005, , .		0
221	A finite element mesh tailored to full NIL process modelling: hot embossing, cool-down and stamp release. , 2007, , .		0
222	Nanomechanical mass sensor for monitoring deposition rates through confined apertures. , 2009, , .		0
223	Mass Sensors: Small 2/2009. Small, 2009, 5, n/a-n/a.	5.2	0
224	NEMS/CMOS sensor for monitoring deposition rates in stencil lithography. Procedia Chemistry, 2009, 1, 425-428.	0.7	0
225	Nanomechanical test structure for optimal alignment in stencil-based lithography. , 2009, , .		0
226	LENS (lithography enhancement toward nano scale): a European project to support double exposure and double patterning technology development. Proceedings of SPIE, 2010, , .	0.8	0
227	Self sensing cantilevers for the measurement of (biomolecular) forces. , 2011, , .		0
228	A novel high-throughput on-wafer electromechanical sensitivity characterization system for piezoresistive cantilevers. , 2012, , .		0
229	Fabrication and electrical characterization of bottom-up silicon nanowire resonators. , 2012, , .		0
230	Piezoresistive probes for (biomolecular) force sensing. , 2013, , .		0
231	Block co-polymer multiple patterning directed self-assembly on PS-OH brush layer and AFM based nanolithography. , 2013, , .		0
232	Bottom-up silicon nanowire resonators for nanomechanical sensing: Controlled fabrication technology and high-sensitivity frequency modulation transduction. , 2013, , .		0
233	Ampacity and electrical properties of thermally treated ultrathin carbon membranes grown by focused ion beam induced deposition of phenanthrene. , 2014, , .		0
234	Properties and applications of carbon nanofibers for atomic force microscopy. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
235	Creation of guiding patterns for directed self-assembly of block copolymers by resistless direct e-beam exposure. Proceedings of SPIE, 2015, , .	0.8	0
236	Use of sequential infiltration synthesis to improve the pattern transfer of PS-b-PLA DSA (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		
237	Sub-30â€nm patterning of molecular resists based on crosslinking through tip based oxidation. Applied Surface Science, 2018, 442, 106-113.	3.1	0
238	Nanocantilever Beam Fabrication for CMOS Technology Integration. , 2016, , 3-36.		0
239	Study of the manufacture uncertainty impact of the hybrid SET-FET circuit. , 2020, , .		0