

# Francesc Perez-Murano

## List of Publications by Citations

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210  
papers

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54  
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245  
ext. papers

4,410  
ext. citations

3.8  
avg. IF

4.97  
L-index

#	Paper	IF	Citations
210	Increasing the elastic modulus of graphene by controlled defect creation. <i>Nature Physics</i> , <b>2015</b> , 11, 26-31	16.2	235
209	Local oxidation of silicon surfaces by dynamic force microscopy: Nanofabrication and water bridge formation. <i>Applied Physics Letters</i> , <b>1998</b> , 72, 2295-2297	3.4	167
208	Mechanical detection of carbon nanotube resonator vibrations. <i>Physical Review Letters</i> , <b>2007</b> , 99, 085501	7.4	163
207	STM-Induced Hydrogen Desorption via a Hole Resonance. <i>Physical Review Letters</i> , <b>1998</b> , 80, 2618-2621	7.4	115
206	Dynamic range enhancement of nonlinear nanomechanical resonant cantilevers for highly sensitive NEMS gas/mass sensor applications. <i>Journal of Micromechanics and Microengineering</i> , <b>2010</b> , 20, 045023	2	101
205	Predictive model for scanned probe oxidation kinetics. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 2710-2712	3.4	100
204	Monolithic CMOS MEMS Oscillator Circuit for Sensing in the Attogram Range. <i>IEEE Electron Device Letters</i> , <b>2008</b> , 29, 146-148	4.4	89
203	Ultrasensitive mass sensor fully integrated with complementary metal-oxide-semiconductor circuitry. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 043507	3.4	89
202	Electromechanical model of a resonating nano-cantilever-based sensor for high-resolution and high-sensitivity mass detection. <i>Nanotechnology</i> , <b>2001</b> , 12, 100-104	3.4	89
201	Anisotropic growth of long isolated graphene ribbons on the C face of graphite-capped 6H-SiC. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	81
200	Current, charge, and capacitance during scanning probe oxidation of silicon. I. Maximum charge density and lateral diffusion. <i>Journal of Applied Physics</i> , <b>2004</b> , 96, 2386-2392	2.5	77
199	Nanometer-scale oxidation of Si(100) surfaces by tapping mode atomic force microscopy. <i>Journal of Applied Physics</i> , <b>1995</b> , 78, 6797-6801	2.5	77
198	Nanolithography on thin layers of PMMA using atomic force microscopy. <i>Nanotechnology</i> , <b>2005</b> , 16, 1016-1022	5.4	74
197	Voltage modulation scanned probe oxidation. <i>Applied Physics Letters</i> , <b>1999</b> , 75, 199-201	3.4	73
196	Integrated CMOS-MEMS with on-chip readout electronics for high-frequency applications. <i>IEEE Electron Device Letters</i> , <b>2006</b> , 27, 495-497	4.4	59
195	AFM lithography of aluminum for fabrication of nanomechanical systems. <i>Ultramicroscopy</i> , <b>2003</b> , 97, 467-72	3.1	59
194	Evaporation of femtoliter sessile droplets monitored with nanomechanical mass sensors. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 13020-7	3.4	57

193	Design, fabrication, and characterization of a submicroelectromechanical resonator with monolithically integrated CMOS readout circuit. <i>Journal of Microelectromechanical Systems</i> , <b>2005</b> , 14, 508-519	2.5	52
192	Nanometre-scale oxidation of silicon surfaces by dynamic force microscopy: reproducibility, kinetics and nanofabrication. <i>Nanotechnology</i> , <b>1999</b> , 10, 34-38	3.4	52
191	DNA hybridization detection by electrochemical impedance spectroscopy using interdigitated gold nanoelectrodes. <i>Mikrochimica Acta</i> , <b>2010</b> , 170, 275-281	5.8	50
190	Monolithic mass sensor fabricated using a conventional technology with attogram resolution in air conditions. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 013501	3.4	49
189	Faradaic current detection during anodic oxidation of the H-passivated p-Si(001) surface with controlled relative humidity. <i>Nanotechnology</i> , <b>2004</b> , 15, 297-302	3.4	47
188	Grazing-incidence small-angle X-ray scattering of soft and hard nanofabricated gratings. <i>Journal of Applied Crystallography</i> , <b>2012</b> , 45, 1038-1045	3.8	46
187	Density variations in scanned probe oxidation. <i>Applied Surface Science</i> , <b>2000</b> , 158, 205-216	6.7	46
186	Crystalline silicon cantilevers for piezoresistive detection of biomolecular forces. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 1120-1123	2.5	45
185	Full-wafer fabrication by nanostencil lithography of micro/nanomechanical mass sensors monolithically integrated with CMOS. <i>Nanotechnology</i> , <b>2008</b> , 19, 305302	3.4	44
184	Modification of HF-treated silicon (100) surfaces by scanning tunneling microscopy in air under imaging conditions. <i>Applied Physics Letters</i> , <b>1992</b> , 61, 462-464	3.4	44
183	Electrochemical platinum coatings for improving performance of implantable microelectrode arrays. <i>Biomaterials</i> , <b>2002</b> , 23, 4515-21	15.6	43
182	Assessing the Local Nanomechanical Properties of Self-Assembled Block Copolymer Thin Films by Peak Force Tapping. <i>Langmuir</i> , <b>2015</b> , 31, 11630-8	4	39
181	High-sensitivity linear piezoresistive transduction for nanomechanical beam resonators. <i>Nature Communications</i> , <b>2014</b> , 5, 4313	17.4	36
180	Resonators with integrated CMOS circuitry for mass sensing applications, fabricated by electron beam lithography. <i>Nanotechnology</i> , <b>2005</b> , 16, 98-102	3.4	36
179	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> , <b>2004</b> , 96, 2393-2399	2.5	34
178	Monolithic integration of mass sensing nano-cantilevers with CMOS circuitry. <i>Sensors and Actuators A: Physical</i> , <b>2003</b> , 105, 311-319	3.9	34
177	Measuring electrical current during scanning probe oxidation. <i>Applied Physics Letters</i> , <b>2003</b> , 82, 3086-3088	3.4	32
176	Preparation of nascent molecular electronic devices from gold nanoparticles and terminal alkyne functionalised monolayer films. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 7348-7355	7.1	31

175	System on chip mass sensor based on polysilicon cantilevers arrays for multiple detection. <i>Sensors and Actuators A: Physical</i> , <b>2006</b> , 132, 154-164	3.9	31
174	A Compact and Low-Power CMOS Circuit for Fully Integrated NEMS Resonators. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , <b>2007</b> , 54, 377-381		29
173	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> , <b>1996</b> , 14, 1208-1212	2.9	28
172	Towards molecular electronic devices based on all-carbon wires. <i>Nanoscale</i> , <b>2018</b> , 10, 14128-14138	7.7	28
171	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> , <b>1998</b> , 66, S791-S795	2.6	27
170	Atomic force microscopy local oxidation of silicon nitride thin films for mask fabrication. <i>Nanotechnology</i> , <b>2005</b> , 16, 2731-2737	3.4	27
169	Nanomechanical mass sensor for spatially resolved ultrasensitive monitoring of deposition rates in stencil lithography. <i>Small</i> , <b>2009</b> , 5, 176-80	11	26
168	Sub-10 nm resistless nanolithography for directed self-assembly of block copolymers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21596-602	9.5	25
167	V-groove plasmonic waveguides fabricated by nanoimprint lithography. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2007</b> , 25, 2649		25
166	Nanoscale reduction of graphene oxide thin films and its characterization. <i>Nanotechnology</i> , <b>2015</b> , 26, 285301	3.4	24
165	Micro/nanomechanical resonators for distributed mass sensing with capacitive detection. <i>Microelectronic Engineering</i> , <b>2006</b> , 83, 1216-1220	2.5	24
164	Fabrication of cantilever based mass sensors integrated with CMOS using direct write laser lithography on resist. <i>Nanotechnology</i> , <b>2004</b> , 15, S628-S633	3.4	24
163	Thermal scanning probe lithography for the directed self-assembly of block copolymers. <i>Nanotechnology</i> , <b>2017</b> , 28, 175301	3.4	23
162	Enabling electromechanical transduction in silicon nanowire mechanical resonators fabricated by focused ion beam implantation. <i>Nanotechnology</i> , <b>2014</b> , 25, 135302	3.4	23
161	Real time protein recognition in a liquid-gated carbon nanotube field-effect transistor modified with aptamers. <i>Nanoscale</i> , <b>2012</b> , 4, 5917-23	7.7	22
160	Fully integrated MIXLER based on VHF CMOS-MEMS clamped-clamped beam resonator. <i>Electronics Letters</i> , <b>2007</b> , 43, 452	1.1	22
159	On the electromechanical modelling of a resonating nano-cantilever-based transducer. <i>Ultramicroscopy</i> , <b>2004</b> , 100, 225-32	3.1	22
158	Large scale high precision nano-oxidation using an atomic force microscope. <i>Surface Science</i> , <b>2004</b> , 566-568, 343-348	1.8	22

157	Laser Fabrication of Polymer Ferroelectric Nanostructures for Nonvolatile Organic Memory Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19611-8	9.5	21
156	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> , <b>2004</b> , 15, 771-776	3.4	21
155	Massive manufacture and characterization of single-walled carbon nanotube field effect transistors. <i>Microelectronic Engineering</i> , <b>2010</b> , 87, 1554-1556	2.5	20
154	Sequential Infiltration of Self-Assembled Block Copolymers: A Study by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 3078-3086	3.8	19
153	Design and Synthesis of Aviram-Ratner-Type Dyads and Rectification Studies in Langmuir-Blodgett (LB) Films. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 10539-47	4.8	19
152	A platform for monolithic CMOS-MEMS integration on SOI wafers. <i>Journal of Micromechanics and Microengineering</i> , <b>2006</b> , 16, 2203-2210	2	19
151	Piezoresistive cantilevers in a commercial CMOS technology for intermolecular force detection. <i>Microelectronic Engineering</i> , <b>2006</b> , 83, 1302-1305	2.5	19
150	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> , <b>2006</b> , 106, 808-14	3.1	19
149	Improving information density in ferroelectric polymer films by using nanoimprinted gratings. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 191601	3.4	18
148	Stress and aging minimization in photoplastic AFM probes. <i>Microelectronic Engineering</i> , <b>2009</b> , 86, 1226-1229	3.9	18
147	Improved properties of epoxy nanocomposites for specific applications in the field of MEMS/NEMS. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1075-1079	2.5	18
146	Polystyrene as a brush layer for directed self-assembly of block co-polymers. <i>Microelectronic Engineering</i> , <b>2013</b> , 110, 234-240	2.5	17
145	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> , <b>2014</b> , 1, 1400128	4.6	17
144	New routes to organometallic molecular junctions via a simple thermal processing protocol. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 6630-6640	7.1	16
143	Using electron and ion beams on carbon nanotube-based devices. Effects and considerations for nanofabrication. <i>Microelectronic Engineering</i> , <b>2009</b> , 86, 892-894	2.5	16
142	Electron- and ion-beam lithography for the fabrication of nanomechanical devices integrated on CMOS circuits. <i>Microelectronic Engineering</i> , <b>2009</b> , 86, 1046-1049	2.5	16
141	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> , <b>2007</b> , 6, 013005	0.7	16
140	A femtogram resolution mass sensor platform, based on SOI electrostatically driven resonant cantilever. Part I: electromechanical model and parameter extraction. <i>Ultramicroscopy</i> , <b>2006</b> , 106, 800-7	3.1	16

139	Metal microelectromechanical oscillator exhibiting ultra-high water vapor resolution. <i>Lab on A Chip</i> , <b>2011</b> , 11, 2670-2	7.2	15
138	Nanostructuring of epitaxial graphene layers on SiC by means of field-induced atomic force microscopy modification. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2009</b> , 27, 3149		15
137	Vertically aligned multi-walled carbon nanotube growth on platinum electrodes for bio-impedance applications. <i>Microelectronic Engineering</i> , <b>2009</b> , 86, 806-808	2.5	15
136	Dynamic stencil lithography on full wafer scale. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2008</b> , 26, 2054-2058	15	
135	Interaction of biomolecules sequentially deposited at the same location using a microcantilever-based spotter. <i>Biomedical Microdevices</i> , <b>2008</b> , 10, 479-87	3.7	15
134	Fully CMOS integrated low voltage 100 MHz MEMS resonator. <i>Electronics Letters</i> , <b>2005</b> , 41, 1327	1.1	15
133	Top-down silicon microcantilever with coupled bottom-up silicon nanowire for enhanced mass resolution. <i>Nanotechnology</i> , <b>2015</b> , 26, 145502	3.4	14
132	Gold interdigitated nanoelectrodes as a sensitive analytical tool for selective detection of electroactive species via redox cycling. <i>Mikrochimica Acta</i> , <b>2016</b> , 183, 1633-1639	5.8	14
131	Conductivity of SU-8 Thin Films through Atomic Force Microscopy Nano-Patterning. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 1482-1488	15.6	14
130	Silicon microcantilevers with MOSFET detection. <i>Microelectronic Engineering</i> , <b>2010</b> , 87, 1245-1247	2.5	14
129	Quantification of nanomechanical properties of surfaces by higher harmonic monitoring in amplitude modulated AFM imaging. <i>Ultramicroscopy</i> , <b>2018</b> , 187, 20-25	3.1	13
128	Fabrication of complementary metal-oxide-semiconductor integrated nanomechanical devices by ion beam patterning. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2009</b> , 27, 2691		13
127	Electrical transduction in nanomechanical resonators based on doubly clamped bottom-up silicon nanowires. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 243115	3.4	13
126	Atomic force microscope characterization of a resonating nanocantilever. <i>Ultramicroscopy</i> , <b>2003</b> , 97, 127-33	3.1	13
125	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> , <b>2016</b> , 4, 9036-9043	7.1	13
124	High surface coverage of a self-assembled monolayer by in situ synthesis of palladium nanodeposits. <i>Nanoscale</i> , <b>2017</b> , 9, 13281-13290	7.7	12
123	Towards the fabrication of the top-contact electrode in molecular junctions by photoreduction of a metal precursor. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 3421-6	4.8	12
122	Horizontally patterned Si nanowire growth for nanomechanical devices. <i>Nanotechnology</i> , <b>2013</b> , 24, 095303	12	

121	DRIE based novel technique for AFM probes fabrication. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1132-1135.	5.5	12
120	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 &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1995</b> , 13, 1423		12
119	A statistical analysis of nanocavities replication applied to injection moulding. <i>International Communications in Heat and Mass Transfer</i> , <b>2017</b> , 81, 131-140	5.8	11
118	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> , <b>2014</b> , 47, 613-618	3.8	11
117	Electrostatic and magnetic turbulence in the TJ-I tokamak. <i>Nuclear Fusion</i> , <b>1990</b> , 30, 717-722	3.3	11
116	From VHF to UHF CMOS-MEMS monolithically integrated resonators <b>2008</b> ,		10
115	Electron beam lithography at 10 keV using an epoxy based high resolution negative resist. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1096-1099	2.5	10
114	Scanning near-field optical microscope for the characterization of optical integrated waveguides. <i>Journal of Lightwave Technology</i> , <b>2000</b> , 18, 370-374	4	10
113	Directed Self-Assembly of Block Copolymers for the Fabrication of Functional Devices. <i>Polymers</i> , <b>2020</b> , 12,	4.5	10
112	Nanoparticles with tunable shape and composition fabricated by nanoimprint lithography. <i>Nanotechnology</i> , <b>2015</b> , 26, 445302	3.4	9
111	Atomic force microscopy local anodic oxidation of thin Si <sub>3</sub> N <sub>4</sub> layers for robust prototyping of nanostructures. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2006</b> , 24, 2988		9
110	AFM thermal imaging as an optimization tool for a bulk micromachined thermopile. <i>Sensors and Actuators A: Physical</i> , <b>2004</b> , 115, 440-446	3.9	9
109	Nano-confinement of block copolymers in high accuracy topographical guiding patterns: modelling the emergence of defectivity due to incommensurability. <i>Soft Matter</i> , <b>2018</b> , 14, 6799-6808	3.6	9
108	Controlled deposition of nanodroplets on a surface by liquid nanodispensing: Application to the study of the evaporation of femtoliter sessile droplets. <i>European Physical Journal: Special Topics</i> , <b>2009</b> , 166, 15-20	2.3	8
107	Response of carbon nanotube transistors to electron beam exposure. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1596-1600	2.5	8
106	CVD oriented growth of carbon nanotubes using AlPO <sub>4</sub> -5 and L type zeolites. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 1202-1205	2.5	8
105	A new method to perform in situ current voltage curves with an electrochemical scanning tunnelling microscope. <i>Ultramicroscopy</i> , <b>1996</b> , 66, 133-139	3.1	8
104	Arrays of suspended silicon nanowires defined by ion beam implantation: mechanical coupling and combination with CMOS technology. <i>Nanotechnology</i> , <b>2018</b> , 29, 155303	3.4	7

103	Suspended tungsten-based nanowires with enhanced mechanical properties grown by focused ion beam induced deposition. <i>Nanotechnology</i> , <b>2017</b> , 28, 445301	3.4	7
102	Boosting the local anodic oxidation of silicon through carbon nanofiber atomic force microscopy probes. <i>Beilstein Journal of Nanotechnology</i> , <b>2015</b> , 6, 215-22	3	7
101	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> , <b>2010</b> , 28, C6P1-C6P5	1.3	7
100	Oxide nanocrystal based nanocomposites for fabricating photoplastic AFM probes. <i>Nanoscale</i> , <b>2011</b> , 3, 4632-9	7.7	7
99	Nanometer scale gaps for capacitive transduction improvement on RF-MEMS resonators. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1384-1387	2.5	7
98	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> , <b>2007</b> , 6, 509-512	2.6	7
97	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> , <b>2003</b> , 52, 859-864	5.2	7
96	Confinement of water droplets on rectangular micro/nano-arrayed surfaces. <i>Lab on A Chip</i> , <b>2016</b> , 16, 2487-93	7.2	7
95	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> , <b>2015</b> , 14, 033511	0.7	6
94	Fabrication of functional electromechanical nanowire resonators by focused ion beam implantation. <i>Journal of Micro/Nanolithography, MEMS, and MOEMS</i> , <b>2015</b> , 14, 031207	0.7	6
93	Identifying the nature of surface chemical modification for directed self-assembly of block copolymers. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 1972-1981	3	6
92	Exploring the Influence of Variability on Single-Electron Transistors Into SET-Based Circuits. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 5172-5180	2.9	6
91	Resonant tunnelling features in a suspended silicon nanowire single-hole transistor. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 223501	3.4	6
90	Fast on-wafer electrical, mechanical, and electromechanical characterization of piezoresistive cantilever force sensors. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 015002	1.7	6
89	Mass measurements based on nanomechanical devices: differential measurements. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 100, 052031	0.3	6
88	Fabrication of nanogaps for MEMS prototyping using focused ion beam as a lithographic tool and reactive ion etching pattern transfer. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1215-1218	2.5	6
87	Characterization at the nanometer scale of local electron beam irradiation of CNT based devices. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 1413-1416	2.5	6
86	High-sensitivity capacitive sensing interfacing circuit for monolithic CMOS M/NEMS resonators. <i>Electronics Letters</i> , <b>2007</b> , 43, 1274	1.1	6



85	Nanofabrication of Fresnel zone plate lenses for X-ray optics. <i>Microelectronic Engineering</i> , <b>2006</b> , 83, 1355-1359	6	6
84	Implementation of Bënger layers as boundary conditions for the beam propagation method: applications to integrated waveguides. <i>Optics Communications</i> , <b>1999</b> , 159, 43-48	2	6
83	Role of Penetrability into a Brush-Coated Surface in Directed Self-Assembly of Block Copolymers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 3571-3581	9.5	6
82	Replication of nanoscale surface gratings via injection molding. <i>Micro and Nano Engineering</i> , <b>2019</b> , 3, 37-43	3.4	5
81	Functional dependence of resonant harmonics on nanomechanical parameters in dynamic mode atomic force microscopy. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 883-891	3	5
80	Nonlinear detection mechanism in quantitative atomic force microscopy characterization of high-frequency nanoelectromechanical systems. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	5
79	Protein patterning on the micro- and nanoscale by thermal nanoimprint lithography on a new functionalized copolymer. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2009</b> , 27, 2439		5
78	Monolithic CMOS-MEMS oscillators with micro-degree temperature resolution in air conditions <b>2009</b> ,		5
77	Full wafer integration of NEMS on CMOS by nanostencil lithography <b>2006</b> ,		5
76	High Mass and Spatial Resolution Mass Sensor based on Resonating Nano-Cantilevers Integrated with CMOS <b>2001</b> , 72-75		5
75	Self-assembly morphology of block copolymers in sub-10 nm topographical guiding patterns. <i>Molecular Systems Design and Engineering</i> , <b>2019</b> , 4, 175-185	4.6	4
74	Nanomechanical properties of solvent cast polystyrene and poly(methyl methacrylate) polymer blends and self-assembled block copolymers. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , <b>2015</b> , 14, 033509	0.7	4
73	Continuous monitoring of tip radius during atomic force microscopy imaging <b>2015</b> ,		4
72	Tuning piezoresistive transduction in nanomechanical resonators by geometrical asymmetries. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 073104	3.4	4
71	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> , <b>2009</b> , 56, 957-965	3.9	4
70	Fabrication Of Nanomechanical Devices Integrated In CMOS Circuits By Ion Beam Exposure Of Silicon <b>2011</b> ,		4
69	Coupling Resonant Micro and Nanocantilevers to Improve Mass Responsivity by Detectability Product <b>2007</b> ,		4
68	Electrical detection of multiple resonant modes in a CMOSMEMS cantilever. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 1374-1378	2.5	4

67	Determination of stress build-up during nanoimprint process in triangular polymer structures. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 838-841	2.5	4
66	Novel methods to pattern polymers for microfluidics. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 972-975	2.5	4
65	VHF CMOS-MEMS resonator monolithically integrated in a standard 0.35 $\mu$ m CMOS technology <b>2007</b>		4
64	SOI-silicon as structural layer for NEMS applications <b>2003</b> ,		4
63	High-sensitivity capacitive readout system for resonant submicrometer-scale cantilevers based sensors		4
62	Improved boundary conditions for the beam propagation method. <i>IEEE Photonics Technology Letters</i> , <b>1999</b> , 11, 1000-1002	2.2	4
61	Nanoscale Modification of H-Terminated n-Si(100) Surfaces in Aqueous Solutions with an in Situ Electrochemical Scanning Tunneling Microscope. <i>The Journal of Physical Chemistry</i> , <b>1995</b> , 99, 17650-17652		4
60	Evaluating the compressive stress generated during fabrication of Si doubly clamped nanobeams with AFM. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2016</b> , 34, 06KK02	1.3	4
59	Au cylindrical nanocup: A geometrically, tunable optical nanoresonator. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 033102	3.4	3
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55	Guided self-assembly of block-copolymer for CMOS technology: a comparative study between grapho-epitaxy and surface chemical modification <b>2011</b> ,		3
54	Excitation of fluorescent nanoparticles by channel plasmon polaritons propagating in V-grooves. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 203102	3.4	3
53	Piezoresistive Microcantilevers for Biomolecular Force Detection <b>2007</b> ,		3
52	Polysilicon piezoresistive cantilevers for intermolecular force detection		3
51	Self-assembly of block copolymers under non-isothermal annealing conditions as revealed by grazing-incidence small-angle X-ray scattering. <i>Journal of Synchrotron Radiation</i> , <b>2020</b> , 27, 1278-1288	2.4	3
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49	Fabrication of functional electromechanical nanowire resonators by focused ion-beam (FIB) implantation <b>2015</b> ,		2
48	Piezoresistive cantilever force sensors based on polycrystalline silicon <b>2015</b> ,		2
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44	Top-Down CMOS-NEMS Polysilicon Nanowire with Piezoresistive Transduction. <i>Sensors</i> , <b>2015</b> , 15, 17036-38	3.8	2
43	Nanomechanical properties of solvent cast PS and PMMA polymer blends and block co-polymers <b>2015</b> ,		2
42	Growth of Few Graphene Layers on 6H, 4H and 3C-SiC Substrates. <i>Materials Science Forum</i> , <b>2009</b> , 615-617, 203-206	0.4	2
41	Magnetic Nanocrystals Modified Epoxy Photoresist for Microfabrication of AFM probes. <i>Procedia Chemistry</i> , <b>2009</b> , 1, 580-584		2
40	Block co-polymer guided self-assembly by surface chemical modification: optimization of multiple patterning process and pattern transfer <b>2012</b> ,		2
39	Compact CMOS current conveyor for integrated NEMS resonators. <i>IET Circuits, Devices and Systems</i> , <b>2008</b> , 2, 317	1.1	2
38	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> , <b>2008</b> , 100, 052009	0.3	2
37	Local growth of carbon nanotubes by thermal chemical vapor deposition from iron based precursor nanoparticles <b>2007</b> ,		2
36	Mixing in a 220MHz CMOS-MEMS <b>2007</b> ,		2
35	Determining radial breathing mode frequencies of single-walled carbon nanotubes with an atomic force microscope. <i>Europhysics Letters</i> , <b>2007</b> , 78, 16001	1.6	2
34	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> , <b>2001</b> , 18, 2015-25	1.8	2
33	Influence of Quantum Dot Characteristics on the Performance of Hybrid SET-FET Circuits. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 4461-4467	2.9	1
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31	Morphology of poly(propylene azelate) gratings prepared by nanoimprint lithography as revealed by atomic force microscopy and grazing incidence X-ray scattering. <i>Polymer</i> , <b>2015</b> , 61, 61-67	3.9	1
30	Graphene crystal growth by thermal precipitation of focused ion beam induced deposition of carbon precursor via patterned-iron thin layers. <i>Nanofabrication</i> , <b>2014</b> , 1,	4	1
29	Opto-thermal actuation in double layer polymer microcantilevers <b>2011</b> ,		1
28	Towards individual electrical contact of nanoparticles in nanocomposites. <i>Microelectronic Engineering</i> , <b>2011</b> , 88, 2439-2443	2.5	1
27	Post-CMOS Integration of Nanomechanical Devices by Direct Ion Beam Irradiation of Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>2011</b> , 1354, 103		1
26	Pattern transfer optimization for the fabrication of arrays of silicon nanowires. <i>Microelectronic Engineering</i> , <b>2010</b> , 87, 1479-1482	2.5	1
25	Electrochemical modifications at the nanometer scale on Si(100) surfaces with Scanning Tunnelling Microscopy. <i>Thin Solid Films</i> , <b>1998</b> , 317, 493-496	2.2	1
24	The effect of hydrophobicity of micro/nanostructured-surfaces on behaviours of water spreading <b>2008</b> ,		1
23	Fabrication of ordered arrays of quantum wires through hole patterning. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 100, 052049	0.3	1
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21	CMOS-SOI platform for monolithic integration of crystalline silicon MEMS. <i>Electronics Letters</i> , <b>2006</b> , 42, 800	1.1	1
20	CMOS integrated MEMS resonator for RF applications		1
19	Monitoring the evaporation of femtoliter droplets with CMOS integrated nanomechanical mass sensors <b>2007</b> ,		1
18	CMOS integrated nanomechanical mass sensors: determination of evaporation rate of femtoliter droplets <b>2007</b> ,		1
17	Thermal AFM: a thermopile case study. <i>Ultramicroscopy</i> , <b>2004</b> , 101, 153-9	3.1	1
16	Characterization of antiresonant reflecting optical waveguide devices by scanning near-field optical microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2000</b> , 17, 2243-8	1.8	1
15	Light propagation studies on laser modified waveguides using scanning near-field optical microscopy. <i>IEEE Photonics Technology Letters</i> , <b>2001</b> , 13, 809-811	2.2	1
14	Optical Integrated Waveguides Characterization by Scanning Near Field Optical Microscope. <i>Materials Research Society Symposia Proceedings</i> , <b>1999</b> , 588, 37		1

13	Morphologic and spectroscopic characterization of porous PtGaAs Schottky diodes by scanning tunnelling microscopy. <i>Thin Solid Films</i> , <b>1995</b> , 261, 299-306	2.2	1
12	Nanomodification of silicon (100) surface with scanning tunnelling microscopy using polysilicon on silicon structure. <i>Materials Science and Technology</i> , <b>1995</b> , 11, 85-89	1.5	1
11	Synchrotron Radiation for the Understanding of Block Copolymer Self-assembly. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2019</b> , 32, 423-427	0.7	1
10	Thermal Imaging of Block Copolymers with Sub-10 nm Resolution. <i>ACS Nano</i> , <b>2021</b> , 15, 9005-9016	16.7	1
9	Uncapped Gold Nanoparticles for the Metallization of Organic Monolayers. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2100876	4.6	1
8	Batch fabrication of insulated conductive scanning probe microscopy probes with reduced capacitive coupling. <i>Microelectronic Engineering</i> , <b>2014</b> , 119, 44-47	2.5	0
7	Introducing surface functionality on thermoformed polymeric films. <i>Micro and Nano Engineering</i> , <b>2022</b> , 14, 100112	3.4	0
6	Sub-30 nm patterning of molecular resists based on crosslinking through tip based oxidation. <i>Applied Surface Science</i> , <b>2018</b> , 442, 106-113	6.7	
5	Conductive Atomic Force Microscopy for Nanolithography Based on Local Anodic Oxidation <b>2017</b> , 211-223		
4	NEMS/CMOS sensor for monitoring deposition rates in stencil lithography. <i>Procedia Chemistry</i> , <b>2009</b> , 1, 425-428		
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2	Spectroscopic Characterization of Nanoscale Modification of Passivated Si(100) Surface by STM. <i>Materials Research Society Symposia Proceedings</i> , <b>1994</b> , 332, 549		
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