

Rosemary L Smith

List of Publications by Year in descending order

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100
papers

4,982
citations

109321

35
h-index

91884

69
g-index

100
all docs

100
docs citations

100
times ranked

3924
citing authors

#	ARTICLE	IF	CITATIONS
1	A microfluidic approach to rescue ALS motor neuron degeneration using rapamycin. Scientific Reports, 2021, 11, 18168.	3.3	12
2	MEMS Micromixer for Ultra Fast Mixing of Fluids. , 2020, , .		0
3	Dermal ISF Collection Using a Si Microneedle Array. , 2020, , .		1
4	Development-on-chip: <i>in vitro</i> neural tube patterning with a microfluidic device. Development (Cambridge), 2016, 143, 1884-1892.	2.5	116
5	Directing the spatial patterning of motor neuron differentiation in engineered microenvironments. , 2016, 2016, 477-480.		2
6	A microfabricated, flow driven mill for the mechanical lysis of algae. , 2015, , .		1
7	Rapid Colorimetric Detection of the Fungal Phytopathogen <i>Synchytrium endobioticum</i> Using Cyanine dye-Indicated PNA Hybridization. American Journal of Potato Research, 2015, 92, 398-409.	0.9	8
8	A field-deployable colorimetric bioassay for the rapid and specific detection of ribosomal RNA. Biosensors and Bioelectronics, 2014, 52, 433-437.	10.1	15
9	Mechanism of nanowire formation in metal assisted chemical etching. Electrochimica Acta, 2013, 92, 139-147.	5.2	90
10	Fabrication and characterization of a solid-state nanopore with self-aligned carbon nanoelectrodes for molecular detection. Nanotechnology, 2012, 23, 135501.	2.6	23
11	Fabrication and characterization of a solid state nanopore with self-aligned carbon nanoelectrodes for molecular detection. , 2012, , .		0
12	Low-cost colorimeter development for the field-based detection of harmful algal blooms. , 2011, , .		2
13	Microfluidic device for the combinatorial application and maintenance of dynamically imposed diffusional gradients. Microfluidics and Nanofluidics, 2010, 9, 613-622.	2.2	14
14	Preparation of surfactant-stabilized gold nanoparticle-peptide nucleic acid conjugates. Journal of Nanoparticle Research, 2010, 12, 2363-2369.	1.9	38
15	Nanopore formation by low-energy focused electron beam machining. Nanotechnology, 2010, 21, 375301.	2.6	65
16	Fabrication of nano-gap electrodes and nano wires using an electrochemical and chemical etching technique. Journal of Micromechanics and Microengineering, 2010, 20, 045016.	2.6	9
17	Electrical characterization of a carbon nanoelectrode instrumented nanopore sensor. , 2009, , .		2
18	Electron Beam Stimulated Oxidation of Carbon (EBSOC). , 2009, , .		1

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19	Spectroscopic Analysis of Hemolymph from the American Lobster (<i>Homarus americanus</i>). Journal of Shellfish Research, 2009, 28, 905-912.	0.9	11
20	Development of a direct detection method for Alexandrium spp. Using surface plasmon resonance and peptide nucleic acid probes. , 2009, , .		0
21	Electron beam stimulated oxidation of carbon. Nanotechnology, 2009, 20, 465301.	2.6	24
22	The Applications of In Situ Electron Energy Loss Spectroscopy to the Study of Electron Beam Nanofabrication. Microscopy and Microanalysis, 2009, 15, 204-212.	0.4	4
23	Photomediated crosslinking of cinnamated PDMS for <i>in situ</i> direct photopatterning. Journal of Polymer Science Part A, 2008, 46, 3482-3487.	2.3	16
24	Nanopore with transverse nanoelectrodes for electrical characterization and sequencing of DNA. Sensors and Actuators B: Chemical, 2008, 132, 593-600.	7.8	59
25	An electron microscopy investigation of the structure of porous silicon by oxide replication. Nanotechnology, 2008, 19, 225301.	2.6	16
26	The electron beam hole drilling of silicon nitride thin films. Journal of Applied Physics, 2008, 103, .	2.5	50
27	Application of solid phase direct write (SPDW) via scanning force microscopy for electrical devices and sensors. , 2008, , .		0
28	Solid Phase Direct Write (SPDW) of Carbon Via Scanning Force Microscopy. , 2007, , .		0
29	A Multi-Parameter Platform For Gas Sensing Using Semiconducting Metal Oxide Films. , 2007, , .		0
30	Nanopore with Transverse Nanoelectrodes for Electrical Characterization and Sequencing of DNA. , 2007, , .		5
31	Solid-Phase Direct Write (SPDW) of Carbon via Scanning Force Microscopy. Nano Letters, 2007, 7, 1512-1515.	9.1	8
32	Frequency Dependence of Gold Nanoparticle Superassembly by Dielectrophoresis. Langmuir, 2007, 23, 12450-12456.	3.5	130
33	A Low-noise Low-offset Op Amp in 0.35µm CMOS Process. , 2006, , .		4
34	Micro-Instruments for BioMedicine. , 2006, 6223, 83.		0
35	Analysis of G-wire DNA Conductivity. AIP Conference Proceedings, 2006, , .	0.4	0
36	Thermally actuated, bistable, oxide/silicon/metal membranes. Journal of Micromechanics and Microengineering, 2006, 16, 40-47.	2.6	10

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37	A microfabricated electromagnetic linear synchronous motor. <i>Sensors and Actuators A: Physical</i> , 2005, 121, 566-575.	4.1	39
38	Biomolecule detection via target mediated nanoparticle aggregation and dielectrophoretic impedance measurement. <i>Lab on A Chip</i> , 2005, 5, 606.	6.0	21
39	Dielectrophoretic manipulation of finite sized species and the importance of the quadrupolar contribution. <i>Physical Review E</i> , 2004, 70, 066617.	2.1	17
40	Removable tubing interconnects for glass-based micro-fluidic systems made using ECDM. <i>Journal of Micromechanics and Microengineering</i> , 2004, 14, 535-541.	2.6	89
41	Interlocking mechanical and fluidic interconnections for microfluidic circuit boards. <i>Sensors and Actuators A: Physical</i> , 2004, 112, 18-24.	4.1	45
42	Microneedle array for transdermal biological fluid extraction and in situ analysis. <i>Sensors and Actuators A: Physical</i> , 2004, 114, 267-275.	4.1	263
43	Electrostatic inchworm microsystem with long range translation. <i>Sensors and Actuators A: Physical</i> , 2004, 114, 379-386.	4.1	17
44	A bulk micromachined silicon thermopile with high sensitivity. <i>Sensors and Actuators A: Physical</i> , 2003, 104, 32-39.	4.1	36
45	A Micromachined Double-Tuned NMR Microprobe. <i>Analytical Chemistry</i> , 2003, 75, 5030-5036.	6.5	42
46	Micromachined, silicon filament light source for spectrophotometric microsystems. <i>Applied Optics</i> , 2003, 42, 2388.	2.1	11
47	<title>Miniature linear synchronous motor</title>. , 2003, , .		1
48	Microchannel Platform for the Study of Endothelial Cell Shape and Function. <i>Biomedical Microdevices</i> , 2002, 4, 9-16.	2.8	67
49	Electrophoresis Separation in Open Microchannels. A Method for Coupling Electrophoresis with MALDI-MS. <i>Analytical Chemistry</i> , 2001, 73, 2147-2151.	6.5	57
50	Active Load Control for Airfoils using Microtabs. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2001, 123, 282-289.	1.8	91
51	<title>Long-range translation actuator</title>. , 2000, 3912, 158.		0
52	<title>Modular microinstrumentation for endothelial cell research</title>. , 2000, , .		1
53	A single-fringe etalon silicon pressure transducer. <i>Sensors and Actuators A: Physical</i> , 2000, 86, 21-25.	4.1	0
54	Vaporizing liquid microthruster. <i>Sensors and Actuators A: Physical</i> , 2000, 83, 231-236.	4.1	78

#	ARTICLE	IF	CITATIONS
55	Title is missing!. Biomedical Microdevices, 2000, 2, 221-229.	2.8	6
56	Fourier-transform optical microsystems. Optics Letters, 1999, 24, 844.	3.3	58
57	<title>Fabrication and design of open microchannels for capillary electrophoresis separations and matrix-assisted laser/desorption mass spectroscopy analysis</title>. , 1999, 3606, 137.		2
58	A physical model for drift in pH ISFETs. Sensors and Actuators B: Chemical, 1998, 49, 146-155.	7.8	218
59	A physical model for threshold voltage instability in Si/sub 3/N/sub 4/-gate H/sup +/-sensitive FET's (pH) Tj ETQq1 1 0.784314 r/BT /Over	3.0	116
60	MicroJoinery: concept, definition, and application to microsystem development. Sensors and Actuators A: Physical, 1998, 66, 315-332.	4.1	32
61	Fluidic interconnects for modular assembly of chemical microsystems. Sensors and Actuators B: Chemical, 1998, 49, 40-45.	7.8	247
62	DNA quantification with an electrochemiluminescence microcell. Sensors and Actuators B: Chemical, 1998, 49, 1-4.	7.8	45
63	Electrochemiluminescence of Tris(2,2â€-bipyridine)ruthenium in Water at Carbon Microelectrodes. Analytical Chemistry, 1998, 70, 4157-4161.	6.5	56
64	<title>Modular assembly and interconnects for fluidic microsystems</title>. , 1998, , .		0
65	<title>Electrochemiluminescence at microelectrodes for biosensing</title>. , 1997, 2978, 64.		1
66	<title>Microjoinery for optomechanical systems</title>. , 1997, 3008, 171.		1
67	A microfabricated, electrochemiluminescence cell for the detection of amplified DNA. Sensors and Actuators B: Chemical, 1996, 33, 110-114.	7.8	45
68	Microfabricated high-energy particle detector. Sensors and Actuators A: Physical, 1996, 54, 594-600.	4.1	1
69	An active, microfabricated, scalp electrode array for EEG recording. Sensors and Actuators A: Physical, 1996, 54, 606-611.	4.1	24
70	A micromachined pressure sensor with fiber-optic interferometric readout. Sensors and Actuators A: Physical, 1994, 43, 196-201.	4.1	43
71	Microfabricated surface plasmon sensing system. Sensors and Actuators A: Physical, 1994, 43, 202-207.	4.1	30
72	A dry electrode for EEG recording. Electroencephalography and Clinical Neurophysiology, 1994, 90, 376-383.	0.3	127

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73	Silicon wafer-to-wafer bonding at $T < 200^{\circ}\text{C}$ with polymethylmethacrylate. Applied Physics Letters, 1994, 65, 439-441.	3.3	32
74	Surface-plasmon excitation using a polarization-preserving optical fiber and an index-matching fluid optical cell. Applied Optics, 1993, 32, 2901.	2.1	8
75	<title>Micromachined fiber optic pressure sensor for in-vivo biomedical applications</title>. , 1993, , .		1
76	The Relationship of Porous Silicon Film Morphology to The Photoluminescence Spectra. Materials Research Society Symposia Proceedings, 1993, 298, 193.	0.1	0
77	Porous silicon formation mechanisms. Journal of Applied Physics, 1992, 71, R1-R22.	2.5	1,041
78	The design and fabrication of a magnetically actuated micromachined flow valve. Sensors and Actuators A: Physical, 1990, 24, 47-53.	4.1	30
79	Movable micromachined silicon plates with integrated position sensing. Sensors and Actuators A: Physical, 1990, 21, 211-214.	4.1	15
80	Thick films of silicon nitride. Sensors and Actuators A: Physical, 1990, 23, 830-834.	4.1	8
81	Porous silicon morphologies and formation mechanism. Sensors and Actuators A: Physical, 1990, 23, 825-829.	4.1	23
82	Generalized model for the diffusion-limited aggregation and Eden models of cluster growth. Physical Review A, 1989, 39, 5409-5413.	2.5	48
83	Porous silicon microstructure as studied by transmission electron microscopy. Applied Physics Letters, 1989, 55, 1540-1542.	3.3	61
84	A wafer-to-wafer alignment technique. Sensors and Actuators, 1989, 20, 315-316.	1.7	8
85	Preferential propagation of pores during the formation of porous silicon: A transmission electron microscopy study. Applied Physics Letters, 1989, 55, 675-677.	3.3	129
86	Study of electrochemical etch-stop for high-precision thickness control of silicon membranes. IEEE Transactions on Electron Devices, 1989, 36, 663-669.	3.0	195
87	Porous Silicon Formation and Electropolishing of Silicon by Anodic Polarization in HF Solution. Journal of the Electrochemical Society, 1989, 136, 1561-1565.	2.9	237
88	A New Technique for Determination of Tensile Stress in Thin Films. Journal of the Electrochemical Society, 1989, 136, 1566-1568.	2.9	8
89	Materials And Technologies For Microstructure Engineering. Proceedings of SPIE, 1989, 1068, 10.	0.8	0
90	Micromachined packaging for chemical microsensors. IEEE Transactions on Electron Devices, 1988, 35, 787-792.	3.0	50

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91	Microsensor packaging and system partitioning. Sensors and Actuators, 1988, 15, 221-234.	1.7	37
92	A theoretical model of the formation morphologies of porous silicon. Journal of Electronic Materials, 1988, 17, 533-541.	2.2	157
93	Anodic Passivation of {111} Silicon in 10% KOH. Journal of the Electrochemical Society, 1988, 135, 2001-2008.	2.9	16
94	The potential dependence of silicon anisotropic etching in KOH at 60°C. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1987, 238, 103-113.	0.1	46
95	An Integrated Sensor for Electrochemical Measurements. IEEE Transactions on Biomedical Engineering, 1986, BME-33, 83-90.	4.2	102
96	Electrostatically protected ion sensitive field effect transistors. Sensors and Actuators, 1984, 5, 127-136.	1.7	37
97	Transient Phenomena in Ion Sensitive Field Effect Transistors. Journal of the Electrochemical Society, 1980, 127, 1599-1603.	2.9	21
98	Thermally actuated, bi-stable, snapping silicon membranes. , 0, , .		2
99	Microneedle array with integrated microchannels for transdermal sample extraction and in situ analysis. , 0, , .		4
100	Electrostatic actuators with long range translation. , 0, , .		3