Han J G E Gardeniers

List of Publications by Year
in descending order

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336 papers	12,575 citations	24978 57 h-index	35952 97 g-index
344 all docs	344 docs citations	344 times ranked	13292 citing authors

#	Article	IF	Citations
1	Plasmaâ€“liquid interactions: a review and roadmap. Plasma Sources Science and Technology, 2016, 25, 053002.	1.3	1,111
2	A survey on the reactive ion etching of silicon in microtechnology. Journal of Micromechanics and Microengineering, 1996, 6, 14-28.	1.5	389
3	Influence of Bubbles on the Energy Conversion Efficiency of Electrochemical Reactors. Joule, 2020, 4, 555-579.	11.7	356
4	Silicon micromachined hollow microneedles for transdermal liquid transport. Journal of Microelectromechanical Systems, 2003, 12, 855-862.	1.7	319
5	Characteristics of high quality ZnO thin films deposited by pulsed laser deposition. Applied Physics Letters, 1994, 65, 2963-2965.	1.5	264
6	Pathways to electrochemical solar-hydrogen technologies. Energy and Environmental Science, 2018, 11, 2768-2783.	15.6	238
7	Guidelines for etching silicon MEMS structures using fluorine high-density plasmas at cryogenic temperatures. Journal of Microelectromechanical Systems, 2002, 11, 385-401.	1.7	219
8	Droplet impact on superheated micro-structured surfaces. Soft Matter, 2013, 9, 3272.	1.2	216
9	The influence of nanoscale grooved substrates on osteoblast behavior and extracellular matrix deposition. Biomaterials, 2010, 31, 3307-3316.	5.7	200
10	Preferred orientation and piezoelectricity in sputtered ZnO films. Journal of Applied Physics, 1998, 83, 7844-7854.	1.1	182
11	Micromachining of buried micro channels in silicon. Journal of Microelectromechanical Systems, 2000, 9, 94-103.	1.7	161
12	Humin based by-products from biomass processing as a potential carbonaceous source for synthesis gas production. Green Chemistry, 2015, 17, 959-972.	4.6	153
13	Measuring reaction kinetics in a lab-on-a-chip by microcoil NMR. Lab on A Chip, 2005, 5, 280.	3.1	149
14	Pressure-Driven Reverse-Phase Liquid Chromatography Separations in Ordered Nonporous Pillar Array Columns. Analytical Chemistry, 2007, 79, 5915-5926.	3.2	149
15	Stability of thin platinum films implemented in high-temperature microdevices. Sensors and Actuators A: Physical, 2009, 152, 39-47.	2.0	147
16	A Microfluidic High-Resolution NMR Flow Probe. Journal of the American Chemical Society, 2009, 131, 5014-5015.	6.6	135
17	LPCVD siliconâ€rich silicon nitride films for applications in micromechanics, studied with statistical experimental design*. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 2879-2892.	0.9	128
18	The effect of surface roughness on direct wafer bonding. Journal of Applied Physics, 1999, 85, 7448-7454.	1.1	127

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19	High-resolution liquid- and solid-state nuclear magnetic resonance of nanoliter sample volumes using microcoil detectors. Journal of Chemical Physics, 2008, 128, 052202.	1.2	127
20	A Chip System for Size Separation of Macromolecules and Particles by Hydrodynamic Chromatography. Analytical Chemistry, 2002, 74, 3470-3475.	3.2	126
21	Massively parallel sequencing techniques for forensics: A review. Electrophoresis, 2018, 39, 2642-2654.	1.3	126
22	Spatial decoupling of light absorption and catalytic activity of Niâ€“Mo-loaded high-aspect-ratio silicon microwire photocathodes. Nature Energy, 2018, 3, 185-192.	19.8	118
23	Lab-on-a-chip systems for biomedical and environmental monitoring. Analytical and Bioanalytical Chemistry, 2004, 378, 1700-1703.	1.9	117
24	Fabrication, mechanical testing and application of high-pressure glass microreactor chips. Chemical Engineering Journal, 2007, 131, 163-170.	6.6	117
25	Building microscopic soccer balls with evaporating colloidal fakir drops. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16455-16458.	3.3	113
26	Microfluidic Devices for Forensic DNA Analysis: A Review. Biosensors, 2016, 6, 41.	2.3	107
27	Stripline probes for nuclear magnetic resonance. Journal of Magnetic Resonance, 2007, 189, 104-113.	1.2	103
28	An electrochemical microactuator: principle and first results. Journal of Microelectromechanical Systems, 1996, 5, 2-9.	1.7	101
29	Merging microfluidics and sonochemistry: towards greener and more efficient micro-sono-reactors. Chemical Communications, 2012, 48, 10935.	2.2	100
30	Pulsed-laser deposited ZnO for device applications. Applied Surface Science, 1996, 96-98, 811-818.	3.1	93
31	Surface Morphology of pâ€Type (100) Silicon Etched in Aqueous Alkaline Solution. Journal of the Electrochemical Society, 1996, 143, 1744-1750.	1.3	92
32	Growth of ZnO thin films on GaAs by pulsed laser deposition. Thin Solid Films, 1995, 259, 1-4.	0.8	89
33	Characterization of a planar microcoil for implantable microsystems. Sensors and Actuators A: Physical, 1997, 62, 599-611.	2.0	89
34	Microfluidics with ultrasound-driven bubbles. Journal of Fluid Mechanics, 2006, 568, 109.	1.4	88
35	Applications of fluorocarbon polymers in micromechanics and micromachining. Sensors and Actuators A: Physical, 1994, 41, 136-140.	2.0	79
36	Realization of 1 Ã— 10⁶ Theoretical Plates in Liquid Chromatography Using Very Long Pillar Array Columns. Analytical Chemistry, 2012, 84, 1214-1219.	3.2	79

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37	A Brushâ€Gel/Metalâ€Nanoparticle Hybrid Film as an Efficient Supported Catalyst in Glass Microreactors. Chemistry - A European Journal, 2010, 16, 12406-12411.	1.7	77
38	A single step methane conversion into synthetic fuels using microplasma reactor. Chemical Engineering Journal, 2011, 166, 288-293.	6.6	77
39	Experimental Study of Porous Silicon Shell Pillars under Retentive Conditions. Analytical Chemistry, 2008, 80, 5391-5400.	3.2	76
40	Effects of laser wavelength and fluence on the growth of ZnO thin films by pulsed laser deposition. Applied Surface Science, 1995, 86, 99-106.	3.1	74
41	The Extraction and Recovery Efficiency of Pure <scp>DNA</scp> for Different Types of Swabs. Journal of Forensic Sciences, 2018, 63, 1492-1499.	0.9	74
42	Design of a stable steam reforming catalystâ€"A promising route to sustainable hydrogen from biomass oxygenates. Applied Catalysis B: Environmental, 2009, 90, 38-44.	10.8	72
43	Nanostructure Based on Polymer Brushes for Efficient Heterogeneous Catalysis in Microreactors. Journal of the American Chemical Society, 2009, 131, 1650-1651.	6.6	70
44	A Digital Microfluidic System for the Investigation of Pre-Steady-State Enzyme Kinetics Using Rapid Quenching with MALDI-TOF Mass Spectrometry. Analytical Chemistry, 2007, 79, 8699-8704.	3.2	69
45	The electrolysis of water: an actuation principle for MEMS with a big opportunity. Mechatronics, 2000, 10, 571-581.	2.0	68
46	The potential for microfluidics in electrochemical energy systems. Energy and Environmental Science, 2016, 9, 3381-3391.	15.6	68
47	Efficient Sonochemistry through Microbubbles Generated with Micromachined Surfaces. Angewandte Chemie - International Edition, 2010, 49, 9699-9701.	7.2	67
48	Gas bubble evolution on microstructured silicon substrates. Energy and Environmental Science, 2018, 11, 3452-3462.	15.6	67
49	High quality ZnO layers with adjustable refractive indices for integrated optics applications. Optical Materials, 1995, 4, 741-755.	1.7	66
50	Porous silicon bulk micromachining for thermally isolated membrane formation. Sensors and Actuators A: Physical, 1997, 60, 235-239.	2.0	66
51	Optimization of stripline-based microfluidic chips for high-resolution NMR. Journal of Magnetic Resonance, 2009, 201, 175-185.	1.2	66
52	Fabrication of a high-temperature microreactor with integrated heater and sensor patterns on an ultrathin silicon membrane. Sensors and Actuators A: Physical, 2005, 119, 196-205.	2.0	65
53	Room-temperature intermediate layer bonding for microfluidic devices. Lab on A Chip, 2009, 9, 3481.	3.1	65
54	Optical fiber-based on-line UV/Vis spectroscopic monitoring of chemical reaction kinetics under high pressure in a capillary microreactor. Chemical Communications, 2005, , 2857.	2.2	62

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55	Formation and stabilization of pyramidal etch hillocks on silicon {100} in anisotropic etchants: Experiments and Monte Carlo simulation. Journal of Applied Physics, 2001, 89, 4113-4123.	1.1	60
56	Integration of porous layers in ordered pillar arrays for liquid chromatography. Lab on A Chip, 2007, 7, 1705.	3.1	60
57	Fabrication and Doping Methods for Silicon Nanoâ€•and Micropillar Arrays for Solarâ€Cell Applications: A Review. Advanced Materials, 2015, 27, 6781-6796.	11.1	60
58	Experimental Study on Band Dispersion in Channels Structured with Micropillars. Analytical Chemistry, 2006, 78, 6519-6525.	3.2	59
59	Labâ€scale fermentation tests of microchip with integrated electrochemical sensors for pH, temperature, dissolved oxygen and viable biomass concentration. Biotechnology and Bioengineering, 2008, 99, 884-892.	1.7	56
60	Substantial rate enhancements of the esterification reaction of phthalic anhydride with methanol at high pressure and using supercritical CO2 as a co-solvent in a glass microreactor. Lab on A Chip, 2007, 7, 1345.	3.1	55
61	A MALDI-chip integrated system with a monitoring window. Lab on A Chip, 2005, 5, 378.	3.1	54
62	Sonoluminescence and sonochemiluminescence from a microreactor. Ultrasonics Sonochemistry, 2012, 19, 1252-1259.	3.8	53
63	Dynamic cell adhesion and migration on nanoscale grooved substrates. , 2012, 23, 182-194.		53
64	Ultrasound artificially nucleated bubbles and their sonochemical radical production. Ultrasonics Sonochemistry, 2013, 20, 510-524.	3.8	51
65	Gas-to-liquids process using multi-phase flow, non-thermal plasma microreactor. Chemical Engineering Journal, 2011, 167, 560-566.	6.6	49
66	Field-effect control of electro-osmotic flow in microfluidic networks. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 267, 110-116.	2.3	48
67	Integrated Electrochemical Sensor Array for On-Line Monitoring of Yeast Fermentations. Analytical Chemistry, 2007, 79, 5567-5573.	3.2	48
68	Monitoring of yeast cell concentration using a micromachined impedance sensor. Sensors and Actuators B: Chemical, 2006, 115, 384-389.	4.0	47
69	Sonochemical and high-speed optical characterization of cavitation generated by an ultrasonically oscillating dental file in root canal models. Ultrasonics Sonochemistry, 2014, 21, 324-335.	3.8	47
70	Multi-walled microchannels: free-standing porous silicon membranes for use in /spl mu/TAS. Journal of Microelectromechanical Systems, 2000, 9, 495-501.	1.7	45
71	Design and fabrication of a hydrodynamic chromatography chip. Sensors and Actuators B: Chemical, 2002, 82, 111-116.	4.0	43
72	Micro- and nanofluidic devices for environmental and biomedical applications. International Journal of Environmental Analytical Chemistry, 2004, 84, 809-819.	1.8	43

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73	Directional flow induced by synchronized longitudinal and zeta-potential controlling AC-electrical fields. Lab on A Chip, 2006, 6, 1300.	3.1	43
74	Absence of an evaporation-driven wetting transition on omniphobic surfaces. Soft Matter, 2012, 8, 9765.	1.2	43
75	Design and evaluation of flow distributors for microfabricated pillar array columns. Lab on A Chip, 2010, 10, 349-356.	3.1	42
76	Localized removal of layers of metal, polymer, or biomaterial by ultrasound cavitation bubbles. Biomicrofluidics, 2012, 6, 34114.	1.2	42
77	A light detection cell to be used in a micro analysis system for ammonia. Talanta, 2002, 56, 331-339.	2.9	41
78	Fabrication and Chromatographic Performance of Porous-Shell Pillar-Array Columns. Analytical Chemistry, 2010, 82, 7208-7217.	3.2	41
79	Ruthenium catalyst on carbon nanofiber support layers for use in silicon-based structured microreactors. Part II: Catalytic reduction of bromate contaminants in aqueous phase. Applied Catalysis B: Environmental, 2011, 102, 243-250.	10.8	41
80	In vitro and in vivo evaluation of the inflammatory response to nanoscale grooved substrates. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 308-317.	1.7	41
81	An electrochemical active valve. Electrochimica Acta, 1997, 42, 3367-3373.	2.6	40
82	Silicon micromachined hollow microneedles for transdermal liquid transfer. , 0, , .		40
83	Microfabrication of palladium-silver alloy membranes for hydrogen separation. Journal of Microelectromechanical Systems, 2003, 12, 622-629.	1.7	40
84	Fabrication and characterization of high-temperature microreactors with thin film heater and sensor patterns in silicon nitride tubes. Lab on A Chip, 2005, 5, 326.	3.1	40
85	Chemistry in nanochannel confinement. Analytical and Bioanalytical Chemistry, 2009, 394, 385-397.	1.9	40
86	Etching technology for chromatography microchannels. Electrochimica Acta, 1997, 42, 3399-3406.	2.6	39
87	Microfabricated Palladiumâ^'Silver Alloy Membranes and Their Application in Hydrogen Separation. Industrial & Engineering Chemistry Research, 2004, 43, 4182-4187.	1.8	39
88	Disposable Attenuated Total Reflection-Infrared Crystals from Silicon Wafer: A Versatile Approach to Surface Infrared Spectroscopy. Analytical Chemistry, 2013, 85, 33-38.	3.2	39
89	Influence of temperature on the crystal habit of silicon in the Siî—¸Hî—¸Cl CVD system I. Experimental results. Journal of Crystal Growth, 1989, 96, 821-831.	0.7	38
90	Enhancing acoustic cavitation using artificial crevice bubbles. Ultrasonics, 2015, 56, 512-523.	2.1	38

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91	Comparison of capillary zone electrophoresis performance of powder-blasted and hydrogen fluoride-etched microchannels in glass. Electrophoresis, 2003, 24, 162-171.	1.3	37
92	Bacterial viability on chemically modified silicon nanowire arrays. Journal of Materials Chemistry B, 2016, 4, 3104-3112.	2.9	37
93	Use of Selective Anodic Bonding to Create Micropump Chambers with Virtually No Dead Volume. Journal of the Electrochemical Society, 2001, 148, G68.	1.3	34
94	Preparation of palladiumâ€“silver alloy films by a dual-sputtering technique and its application in hydrogen separation membrane. Thin Solid Films, 2005, 479, 89-94.	0.8	34
95	Ultra-rapid separation of an angiotensin mixture in nanochannels using shear-driven chromatography. Journal of Chromatography A, 2006, 1102, 96-103.	1.8	34
96	Integration of uniform porous shell layers in very long pillar array columns using electrochemical anodization for liquid chromatography. Analyst, The, 2014, 139, 618-625.	1.7	34
97	Microfluidic device for DNA amplification of single cancer cells isolated from whole blood by self-seeding microwells. Lab on A Chip, 2015, 15, 4331-4337.	3.1	34
98	Continuous Flow ¹H and ¹³C NMR Spectroscopy in Microfluidic Stripline NMR Chips. Analytical Chemistry, 2017, 89, 2296-2303.	3.2	34
99	Electrolysis-Driven and Pressure-Controlled Diffusive Growth of Successive Bubbles on Microstructured Surfaces. Langmuir, 2017, 33, 12873-12886.	1.6	34
100	Enzyme Kinetics by Directly Imaging a Porous Silicon Microfluidic Reactor Using Desorption/Ionization on Silicon Mass Spectrometry. Analytical Chemistry, 2008, 80, 8314-8319.	3.2	33
101	Efficient and Stable Silicon Microwire Photocathodes with a Nickel Silicide Interlayer for Operation in Strongly Alkaline Solutions. ACS Energy Letters, 2018, 3, 1086-1092.	8.8	33
102	Microsieve supporting palladium-silver alloy membrane and application to hydrogen separation. Journal of Microelectromechanical Systems, 2005, 14, 113-124.	1.7	32
103	Thermal and mechanical analysis of a microreactor for high temperature catalytic gas phase reactions. Sensors and Actuators A: Physical, 2004, 112, 267-277.	2.0	31
104	An array of ordered pillars with retentive properties for pressure-driven liquid chromatography fabricated directly from an unmodified cyclo olefin polymer. Lab on A Chip, 2009, 9, 1511.	3.1	31
105	Potassium hydrogen phthalate: Relation between crystal structure and crystal morphology. Journal of Crystal Growth, 1988, 92, 171-188.	0.7	30
106	Etching technology for microchannels. , 0, , .		30
107	Fusion bonding of rough surfaces with polishing technique for silicon micromachining. Microsystem Technologies, 1997, 3, 122-128.	1.2	30
108	Improving mixing in microbioreactors. Chemical Engineering Science, 2008, 63, 3036-3046.	1.9	30

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109	Characterization of porous silicon integrated in liquid chromatography chips. Lab on A Chip, 2009, 9, 456-463.	3.1	30
110	On the Advantages of Radially Elongated Structures in Microchip-Based Liquid Chromatography. Analytical Chemistry, 2013, 85, 5207-5212.	3.2	30
111	Low power micro-calorimetric sensors for analysis of gaseous samples. Sensors and Actuators B: Chemical, 2015, 206, 772-787.	4.0	30
112	Nanochannels in SU-8 with floor and ceiling metal electrodes and integrated microchannels. Lab on A Chip, 2008, 8, 173-175.	3.1	28
113	Growth of carbon nanofiber coatings on nickel thin films on fused silica by catalytic thermal chemical vapor deposition: On the use of titanium, titaniumâ€“tungsten and tantalum as adhesion layers. Surface and Coatings Technology, 2009, 203, 3435-3441.	2.2	28
114	Applicability of X-ray fluorescence spectroscopy as method to determine thickness and composition of stacks of metal thin films: A comparison with imaging and profilometry. Thin Solid Films, 2012, 520, 1740-1744.	0.8	28
115	Glucose level determination with a multi-enzymatic cascade reaction in a functionalized glass chip. Analyst, The, 2013, 138, 5019.	1.7	28
116	Cyclic Olefin Copolymer Microfluidic Devices for Forensic Applications. Biosensors, 2019, 9, 85.	2.3	28
117	Inline Reaction Monitoring of Amine-Catalyzed Acetylation of Benzyl Alcohol Using a Microfluidic Stripline Nuclear Magnetic Resonance Setup. Journal of the American Chemical Society, 2019, 141, 5369-5380.	6.6	28
118	Fabrication and mechanical testing of glass chips for high-pressure synthetic or analytical chemistry. Microsystem Technologies, 2006, 12, 450-454.	1.2	27
119	Synthesis and Atmospheric Pressure Field Emission Operation of W₁₈O₄₉ Nanorods. Journal of Physical Chemistry C, 2008, 112, 15183-15189.	1.5	27
120	Effect of the presence of an ordered micro-pillar array on the formation of silica monoliths. Journal of Chromatography A, 2009, 1216, 7360-7367.	1.8	27
121	Capillary liquid chromatography separations using non-porous pillar array columns. Journal of Chromatography A, 2012, 1230, 41-47.	1.8	27
122	Hydrodynamic cavitation in micro channels with channel sizes of 100 and 750 micrometers. Microfluidics and Nanofluidics, 2012, 12, 499-508.	1.0	27
123	Decoupling Gas Evolution from Water-Splitting Electrodes. Journal of the Electrochemical Society, 2019, 166, H769-H776.	1.3	27
124	New applications of r.f.-sputtered glass films as protection and bonding layers in silicon micromachining. Sensors and Actuators A: Physical, 1994, 41, 338-343.	2.0	26
125	Multichannel quench-flow microreactor chip for parallel reaction monitoring. Lab on A Chip, 2007, 7, 1717.	3.1	26
126	Experimental investigation of the band broadening originating from the top and bottom walls in micromachined nonporous pillar array columns. Journal of Separation Science, 2007, 30, 2605-2613.	1.3	26

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127	A Supramolecular Approach to Enzyme Immobilization in Microâ€€Channels. Small, 2012, 8, 3531-3537.	5.2	26
128	Influence of temperature on the crystal habit of silicon in the Siî—¸Hî—¸Cl CVD system II. Surface tension of faces in the ã€ˆ110ã€‰ zones. Journal of Crystal Growth, 1989, 96, 832-842.	0.7	24
129	Fluorescent sensor array in a microfluidic chip. Analytical and Bioanalytical Chemistry, 2008, 390, 307-315.	1.9	24
130	Propane Conversion at Ambient Temperatures Câ€“C and Câ€“H Bond Activation Using Cold Plasma in a Microreactor. Chemical Engineering and Technology, 2008, 31, 1116-1123.	0.9	24
131	Multivalent Binding of Small Guest Molecules and Proteins to Molecular Printboards inside Microchannels. Chemistry - A European Journal, 2008, 14, 136-142.	1.7	24
132	A Supramolecular Sensing Platform for Phosphate Anions and an Anthrax Biomarker in a Microfluidic Device. International Journal of Molecular Sciences, 2011, 12, 7335-7351.	1.8	24
133	Local anodic bonding of Kovar to Pyrex aimed at high-pressure, solvent-resistant microfluidic connections. Journal of Micromechanics and Microengineering, 2001, 11, 382-385.	1.5	23
134	A pressure driven injection system for an ultra-flat chromatographic microchannel. Lab on A Chip, 2002, 2, 235.	3.1	23
135	Analysis systems for the detection of ammonia based on micromachined components modular hybrid versus monolithic integrated approach. Sensors and Actuators B: Chemical, 2003, 92, 25-36.	4.0	23
136	Porous silicon as a stationary phase for shear-driven chromatography. Journal of Chromatography A, 2004, 1032, 185-191.	1.8	23
137	Submicron-patterning of bulk titanium by nanoimprint lithography and reactive ion etching. Nanotechnology, 2012, 23, 065306.	1.3	23
138	Controlled Doping Methods for Radial p/n Junctions in Silicon. Advanced Energy Materials, 2015, 5, 1401745.	10.2	23
139	Programmable v-type valve for cell and particle manipulation in microfluidic devices. Lab on A Chip, 2016, 16, 305-311.	3.1	23
140	Carbon nanofiber based catalyst supports to be used in microreactors: Synthesis and characterization. Chemical Engineering Journal, 2010, 160, 899-908.	6.6	22
141	Cryo DualBeam Focused Ion Beamâ€“Scanning Electron Microscopy to Evaluate the Interface Between Cells and Nanopatterned Scaffolds. Tissue Engineering - Part C: Methods, 2011, 17, 1-7.	1.1	22
142	Attenuated Total Reflection-Infrared Nanofluidic Chip with 71 nL Detection Volume for in Situ Spectroscopic Analysis of Chemical Reaction Intermediates. Analytical Chemistry, 2012, 84, 3132-3137.	3.2	22
143	Simulation of anisotropic wet chemical etching using a physical model. Sensors and Actuators A: Physical, 2000, 84, 324-329.	2.0	21
144	Ruthenium catalyst on carbon nanofiber support layers for use in silicon-based structured microreactors, Part I: Preparation and characterization. Applied Catalysis B: Environmental, 2011, 102, 232-242.	10.8	21

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145	Pattern Formation by Staphylococcus epidermidis via Droplet Evaporation on Micropillars Arrays at a Surface. Langmuir, 2016, 32, 7159-7169.	1.6	21
146	Coupling of CH4 to C2 Hydrocarbons in a Packed Bed DBD Plasma Reactor: The Effect of Dielectric Constant and Porosity of the Packing. Energies, 2020, 13, 468.	1.6	21
147	Present and Future Role of Chemical Mechanical Polishing in Wafer Bonding. Journal of the Electrochemical Society, 1998, 145, 2198-2204.	1.3	20
148	Failure mechanisms of pressurized microchannels: model and experiments. Journal of Microelectromechanical Systems, 2001, 10, 158-164.	1.7	20
149	Erosion evolution in mono-crystalline silicon surfaces caused by acoustic cavitation bubbles. Journal of Applied Physics, 2013, 113, .	1.1	20
150	Effects of Pillar Height and Junction Depth on the Performance of Radially Doped Silicon Pillar Arrays for Solar Energy Applications. Advanced Energy Materials, 2016, 6, 1501728.	10.2	20
151	Microfluidic devices as gas â€“ Ionic liquid membrane contactors for CO2 removal from anaesthesia gases. Journal of Membrane Science, 2018, 545, 107-115.	4.1	20
152	From Geometry to Activity: A Quantitative Analysis of WO₃/Si Micropillar Arrays for Photoelectrochemical Water Splitting. Advanced Functional Materials, 2020, 30, 1909157.	7.8	20
153	Etching pits and dislocations in Si{111}. Sensors and Actuators A: Physical, 2000, 86, 238-247.	2.0	19
154	The construction of orientation-dependent crystal growth and etch rate functions II: Application to wet chemical etching of silicon in potassium hydroxide. Journal of Applied Physics, 2000, 87, 8732-8740.	1.1	19
155	Use of 120-nm deep channels for liquid chromatographic separations. Journal of Chromatography A, 2008, 1189, 2-9.	1.8	19
156	Experimental Investigation of the Band Broadening Arising from Short-Range Interchannel Heterogeneities in Chromatographic Beds under the Condition of Identical External Porosity. Analytical Chemistry, 2009, 81, 705-715.	3.2	19
157	Experimental Optimization of Flow Distributors for Pressure-Driven Separations and Reactions in Flat-Rectangular Microchannels. Analytical Chemistry, 2011, 83, 467-477.	3.2	19
158	Mapping of Enzyme Kinetics on a Microfluidic Device. PLoS ONE, 2016, 11, e0153437.	1.1	19
159	State of the art of shear driven chromatography. Journal of Chromatography A, 2007, 1149, 2-11.	1.8	18
160	Measurement of reaction heats using a polysilicon-based microcalorimetric sensor. Sensors and Actuators A: Physical, 2011, 169, 308-316.	2.0	18
161	One-step sculpting of silicon microstructures from pillars to needles for water and oil repelling surfaces. Journal of Micromechanics and Microengineering, 2013, 23, 025004.	1.5	18
162	Oxidative Conversion of Propane in a Microreactor in the Presence of Plasma over MgO-Based Catalysts:â€‰ An Experimental Study. Journal of Physical Chemistry C, 2008, 112, 4267-4274.	1.5	17

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163	Hydrodynamic chromatography of polystyrene microparticles in micropillar array columns. Journal of Chromatography A, 2010, 1217, 6077-6084.	1.8	17
164	Flow of CO2â€“ethanol and of CO2â€“methanol in a non-adiabatic microfluidic T-junction at high pressures. Microfluidics and Nanofluidics, 2012, 12, 927-940.	1.0	17
165	Suppression of the sidewall effect in pillar array columns with radially elongated pillars. Journal of Chromatography A, 2014, 1367, 118-122.	1.8	17
166	A Standâ€Alone Siâ€Based Porous Photoelectrochemical Cell. Advanced Energy Materials, 2019, 9, 1803548.	10.2	17
167	Color Tuning of Electrochromic TiO₂ Nanofibrous Layers Loaded with Metal and Metal Oxide Nanoparticles for Smart Colored Windows. ACS Applied Nano Materials, 2021, 4, 8600-8610.	2.4	17
168	Spreading of thin-film metal patterns deposited on nonplanar surfaces using a shadow mask micromachined in Si (110). Journal of Vacuum Science & Technology B, 2007, 25, 1207.	1.3	16
169	Alkane Activation at Ambient Temperatures: Unusual Selectivities, Cï£¿C, Cï£¿H Bond Scission versus Cï£¿C Bond Coupling. ChemPhysChem, 2008, 9, 533-537.	1.0	16
170	Electrical properties of low pressure chemical vapor deposited silicon nitride thin films for temperatures up to 650â€‰Â°C. Journal of Applied Physics, 2009, 105, .	1.1	16
171	Fabrication of millimeter-long structures in sapphire using femtosecond infrared laser pulses and selective etching. Optics and Lasers in Engineering, 2020, 133, 106114.	2.0	16
172	Morphology of single picosecond pulse subsurface laser-induced modifications of sapphire and subsequent selective etching. Optics Express, 2018, 26, 29283.	1.7	16
173	Electrokinetic sorting and collection of fractions for preparative capillary electrophoresis on a chip. Lab on A Chip, 2008, 8, 801.	3.1	15
174	Visualization and quantification of the onset and the extent of viscous fingering in micro-pillar array columns. Journal of Chromatography A, 2009, 1216, 5511-5517.	1.8	15
175	Catalyst Activation by Microplasma for Carbon Nanofiber Synthesis in a Microreactor. IEEE Transactions on Plasma Science, 2009, 37, 985-992.	0.6	15
176	Experimental study of the depth influence on the band broadening effect in a cyclo-olefin polymer column containing an array of ordered pillars. Journal of Chromatography A, 2010, 1217, 5817-5821.	1.8	15
177	Fluorescent cyanine dyes for the quantification of low amounts ofÂdsDNA. Analytical Biochemistry, 2016, 511, 74-79.	1.1	15
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