Albert Folch

List of Publications by Year
in descending order

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80	5,363	159525 30	82499 72
papers	citations	h-index	g-index

82	82	82	6901
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The upcoming 3D-printing revolution in microfluidics. Lab on A Chip, 2016, 16, 1720-1742.	3.1	848
2	3Dâ€Printed Microfluidics. Angewandte Chemie - International Edition, 2016, 55, 3862-3881.	7.2	616
3	Microengineering of Cellular Interactions. Annual Review of Biomedical Engineering, 2000, 2, 227-256.	5.7	565
4	Microvalves and Micropumps for BioMEMS. Micromachines, 2011, 2, 179-220.	1.4	266
5	3D-printed microfluidic automation. Lab on A Chip, 2015, 15, 1934-1941.	3.1	265
6	Desktopâ€Stereolithography 3Dâ€Printing of a Poly(dimethylsiloxane)â€Based Material with Sylgardâ€184 Properties. Advanced Materials, 2018, 30, e1800001.	11.1	229
7	3D-Printed Microfluidic Device for the Detection of Pathogenic Bacteria Using Size-based Separation in Helical Channel with Trapezoid Cross-Section. Scientific Reports, 2015, 5, 7717.	1.6	227
8	3D-printing of transparent bio-microfluidic devices in PEG-DA. Lab on A Chip, 2016, 16, 2287-2294.	3.1	216
9	Nitrate pollution of groundwater; all rightâ€¦, but nothing else?. Science of the Total Environment, 2016, 539, 241-251.	3.9	205
10	Traditional analysis of aquifer tests: Comparing apples to oranges?. Water Resources Research, 2005, 41, .	1.7	144
11	3D-printed Quake-style microvalves and micropumps. Lab on A Chip, 2018, 18, 1207-1214.	3.1	119
12	A multi-purpose microfluidic perfusion system with combinatorial choice of inputs, mixtures, gradient patterns, and flow rates. Lab on A Chip, 2009, 9, 417-426.	3.1	110
13	Measurement of cell migration in response to an evolving radial chemokine gradient triggered by a microvalve. Lab on A Chip, 2006, 6, 849.	3.1	76
14	Highâ€Precision Stereolithography of Biomicrofluidic Devices. Advanced Materials Technologies, 2019, 4, 1800395.	3.0	75
15	Digital Manufacturing for Microfluidics. Annual Review of Biomedical Engineering, 2019, 21, 325-364.	5.7	70
16	Constraining the temporal variations of Ra isotopes and Rn in the groundwater end-member: Implications for derived SGD estimates. Science of the Total Environment, 2017, 595, 849-857.	3.9	56
17	Multi-isotopic study (15N, 34S, 18O, 13C) to identify processes affecting nitrate and sulfate in response to local and regional groundwater mixing in a large-scale flow system. Applied Geochemistry, 2013, 32, 129-141.	1.4	55
18	Design and dynamic characterization of â€œsingle-strokeâ€•peristaltic PDMS micropumps. Lab on A Chip, 2011, 11, 336-342.	3.1	54

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19	Groundwater development effects on different scale hydrogeological systems using head, hydrochemical and isotopic data and implications for water resources management: The Selva basin (NE Spain). Journal of Hydrology, 2011, 403, 83-102.	2.3	47
20	Time-lapse cross-hole electrical resistivity tomography (CHERT) for monitoring seawater intrusion dynamics in a Mediterranean aquifer. Hydrology and Earth System Sciences, 2020, 24, 2121-2139.	1.9	45
21	Parallel mixing of photolithographically defined nanoliter volumes using elastomeric microvalve arrays. Electrophoresis, 2005, 26, 3758-3764.	1.3	42
22	Multiplexed drug testing of tumor slices using a microfluidic platform. Npj Precision Oncology, 2020, 4, 12.	2.3	41
23	Hydrogeological interactions between fault zones and alluvial aquifers in regional flow systems. Hydrological Processes, 2008, 22, 3476-3487.	1.1	40
24	Art on the Nanoscale and Beyond. Advanced Materials, 2016, 28, 1724-1742.	11.1	37
25	Improving degradation of emerging organic compounds by applying chaotic advection in <scp>M</scp>anaged <scp>A</scp>quifer <scp>R</scp>echarge in randomly heterogeneous porous media. Water Resources Research, 2017, 53, 4376-4392.	1.7	36
26	Spatio-temporally-complex concentration profiles using a tunable chaotic micromixer. Applied Physics Letters, 2006, 89, 144102.	1.5	35
27	Fungal permeable reactive barrier to remediate groundwater in an artificial aquifer. Journal of Hazardous Materials, 2013, 262, 554-560.	6.5	34
28	Large-scale microfluidic gradient arrays reveal axon guidance behaviors in hippocampal neurons. Microsystems and Nanoengineering, 2017, 3, 17003.	3.4	34
29	Microfluidic circuits with tunable flow resistances. Applied Physics Letters, 2006, 89, 164105.	1.5	32
30	Identifying key parameters to differentiate groundwater flow systems using multifactorial analysis. Journal of Hydrology, 2012, 472-473, 301-313.	2.3	32
31	Utilization of extracellular information before ligand-receptor binding reaches equilibrium expands and shifts the input dynamic range. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3860-9.	3.3	32
32	Partitioning of hydrogels in 3D-printed microchannels. Lab on A Chip, 2019, 19, 3086-3093.	3.1	30
33	Combining fiber optic DTS, cross-hole ERT and time-lapse induction logging to characterize and monitor a coastal aquifer. Journal of Hydrology, 2020, 588, 125050.	2.3	30
34	A risk assessment methodology to evaluate the risk failure of managed aquifer recharge in the Mediterranean Basin. Hydrology and Earth System Sciences, 2018, 22, 3213-3227.	1.9	29
35	Monitoring induced denitrification during managed aquifer recharge in an infiltration pond. Journal of Hydrology, 2018, 561, 123-135.	2.3	28
36	Isotope characterization of an in situ biodenitrification pilot-test in a fractured aquifer. Applied Geochemistry, 2013, 32, 153-163.	1.4	27

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37	Stable chemical bonding of porous membranes and poly(dimethylsiloxane) devices for long-term cell culture. Biomicrofluidics, 2014, 8, 036504.	1.2	27
38	Analyzing Hydrological Sustainability Through Water Balance. Environmental Management, 2010, 45, 1175-1190.	1.2	26
39	What are the main factors influencing the presence of faecal bacteria pollution in groundwater systems in developing countries?. Journal of Contaminant Hydrology, 2020, 228, 103556.	1.6	25
40	Microfluidics for interrogating live intact tissues. Microsystems and Nanoengineering, 2020, 6, 69.	3.4	25
41	Granulometry and Surfactants, Key Factors in Desorption and Biodegradation (T. versicolor) of PAHs in Soil and Groundwater. Water, Air, and Soil Pollution, 2013, 224, 1.	1.1	23
42	Heat Dissipation Test With Fiberâ€Optic Distributed Temperature Sensing to Estimate Groundwater Flux. Water Resources Research, 2021, 57, e2020WR027228.	1.7	23
43	Groundwater hydrodynamics of an Eastern Africa coastal aquifer, including La NiÃ±a 2016â€“17 drought. Science of the Total Environment, 2019, 661, 575-597.	3.9	22
44	Microfluidic devices with tunable microtopographies. Applied Physics Letters, 2005, 86, 023508.	1.5	21
45	A microfluidic D-subminiature connector. Lab on A Chip, 2013, 13, 2036.	3.1	20
46	Integrated modeling of biogeochemical reactions and associated isotope fractionations at batch scale: A tool to monitor enhanced biodenitrification applications. Chemical Geology, 2014, 365, 20-29.	1.4	20
47	Mikrofluidik aus dem 3Dâ€Drucker. Angewandte Chemie, 2016, 128, 3926-3946.	1.6	19
48	Modeling long term Enhanced in situ Biodenitrification and induced heterogeneity in column experiments under different feeding strategies. Journal of Hydrology, 2016, 538, 127-137.	2.3	19
49	A multidisciplinary approach to characterizing coastal alluvial aquifers to improve understanding of seawater intrusion and submarine groundwater discharge. Journal of Hydrology, 2022, 607, 127510.	2.3	19
50	Development of a streamâ€“aquifer numerical flow model to assess river water management under water scarcity in a Mediterranean basin. Science of the Total Environment, 2012, 440, 204-218.	3.9	18
51	Continuous-flow multi-pulse electroporation at low DC voltages by microfluidic flipping of the voltage space topology. Applied Physics Letters, 2016, 109, 163702.	1.5	18
52	Microbial community changes induced by Managed Aquifer Recharge activities: linking hydrogeological and biological processes. Hydrology and Earth System Sciences, 2019, 23, 139-154.	1.9	18
53	Modeling biogeochemical processes and isotope fractionation of enhanced in situ biodenitrification in a fractured aquifer. Chemical Geology, 2016, 425, 52-64.	1.4	17
54	Are dominant microbial sub-surface communities affected by water quality and soil characteristics?. Journal of Environmental Management, 2019, 237, 332-343.	3.8	16

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55	An approach to aquifer vulnerability including uncertainty in a spatial random function framework. Journal of Hydrology, 2014, 517, 889-900.	2.3	15
56	Coupling Flow, Heat, and Reactive Transport Modeling to Reproduce In Situ Redox Potential Evolution: Application to an Infiltration Pond. Environmental Science & Technology, 2020, 54, 12092-12101.	4.6	15
57	New perspectives on the use of 224Ra/228Ra and 222Rn/226Ra activity ratios in groundwater studies. Journal of Hydrology, 2021, 596, 126043.	2.3	13
58	Influence of Soil Granulometry on Pyrene Desorption in Groundwater Using Surfactants. Water, Air, and Soil Pollution, 2012, 223, 125-133.	1.1	12
59	Applicability of LandsatÂ8 thermal infrared sensor for identifying submarine groundwater discharge springs in the Mediterranean Sea basin. Hydrology and Earth System Sciences, 2021, 25, 4789-4805.	1.9	12
60	The impact of poplar tree plantations for biomass production on the aquifer water budget and base flow in a Mediterranean basin. Science of the Total Environment, 2015, 524-525, 213-224.	3.9	10
61	BaroFuse, a novel pressure-driven, adjustable-throughput perfusion system for tissue maintenance and assessment. Heliyon, 2016, 2, e00210.	1.4	10
62	Editorial for the Special Issue on 3D Printed Microfluidic Devices. Micromachines, 2018, 9, 609.	1.4	10
63	Organotypic platform for studying cancer cell metastasis. Experimental Cell Research, 2021, 401, 112527.	1.2	9
64	Microwell arrays reveal cellular heterogeneity during the clonal expansion of transformed human cells. Technology, 2015, 03, 163-171.	1.4	8
65	How does water-reliant industry affect groundwater systems in coastal Kenya?. Science of the Total Environment, 2019, 694, 133634.	3.9	8
66	An open-chamber flow-focusing device for focal stimulation of micropatterned cells. Biomicrofluidics, 2016, 10, 024122.	1.2	5
67	A Laser-Engraving Technique for Portable Micropneumatic Oscillators. Micromachines, 2018, 9, 426.	1.4	5
68	Identification and quantification of chemical reactions in a coastal aquifer to assess submarine groundwater discharge composition. Science of the Total Environment, 2022, 838, 155978.	3.9	5
69	Stratigraphic and structural controls on groundwater flow in an outcropping fossil fan delta: the case of Sant LlorenÃ§ del Munt range (NE Spain). Hydrogeology Journal, 2017, 25, 2467-2487.	0.9	3
70	Evidence of groundwater vulnerability to climate variability and economic growth in coastal Kenya. Journal of Hydrology, 2020, 586, 124920.	2.3	3
71	Combinatorial microfluidic devices for cell biology. , 0, , .		2
72	Analyzing Groundwater Resources Availability using Multivariate Analysis in the Selva Basin (NE) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	0.6	2

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73	Emerging Organic Contaminants in Aquifers: Sources, Transport, Fate, and Attenuation. Handbook of Environmental Chemistry, 2015, , 47-75.	0.2	2
74	Combining Isotopic and Compositional Data: A Discrimination of Regions Prone to Nitrate Pollution. , 0, , 302-317.		2
75	"Microcanals" for modulation of the microfluidic environment of cultured cells. , 0, , .		1
76	A neuron-benign microfluidic gradient generator for studying the growth of mammalian neurons towards axon guidance factors. , 2009, , .		1
77	â€œChip-on-a-Transwellâ€•Devices for User-Friendly Control of the Microenvironment of Cultured Cells. ACS Applied Bio Materials, 2019, 2, 4998-5011.	2.3	1
78	Hydrogeological and Geophysical Characterization of Fractured Aquifer of Ã'dena (Barcelona,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542		1
79	Evaluation of Two Carbon Sources for Inducing Denitrification: Batch and Column Experiments. Procedia Earth and Planetary Science, 2015, 13, 124-128.	0.6	0
80	Cross-hole Electrical Resistivity Tomography Characterization and Monitoring of Seawater Interface in an Alluvial Aquife. , 2016, , .		0