

Albert Folch

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

5,363
citations

159585

30
h-index

82547

72
g-index

82
all docs

82
docs citations

82
times ranked

6901
citing authors

#	ARTICLE	IF	CITATIONS
1	The upcoming 3D-printing revolution in microfluidics. Lab on A Chip, 2016, 16, 1720-1742.	6.0	848
2	3D-Printed Microfluidics. Angewandte Chemie - International Edition, 2016, 55, 3862-3881.	13.8	616
3	Microengineering of Cellular Interactions. Annual Review of Biomedical Engineering, 2000, 2, 227-256.	12.3	565
4	Microvalves and Micropumps for BioMEMS. Micromachines, 2011, 2, 179-220.	2.9	266
5	3D-printed microfluidic automation. Lab on A Chip, 2015, 15, 1934-1941.	6.0	265
6	Desktop Stereolithography 3D-Printing of a Poly(dimethylsiloxane)-Based Material with Sylgard Properties. Advanced Materials, 2018, 30, e1800001.	21.0	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.	3.3	227
8	3D-printing of transparent bio-microfluidic devices in PEG-DA. Lab on A Chip, 2016, 16, 2287-2294.	6.0	216
9	Nitrate pollution of groundwater; all right, but nothing else?. Science of the Total Environment, 2016, 539, 241-251.	8.0	205
10	Traditional analysis of aquifer tests: Comparing apples to oranges?. Water Resources Research, 2005, 41, .	4.2	144
11	3D-printed Quake-style microvalves and micropumps. Lab on A Chip, 2018, 18, 1207-1214.	6.0	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.	6.0	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.	6.0	76
14	High-Precision Stereolithography of Biomicrofluidic Devices. Advanced Materials Technologies, 2019, 4, 1800395.	5.8	75
15	Digital Manufacturing for Microfluidics. Annual Review of Biomedical Engineering, 2019, 21, 325-364.	12.3	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.	8.0	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.	3.0	55
18	Design and dynamic characterization of "single-stroke" peristaltic PDMS micropumps. Lab on A Chip, 2011, 11, 336-342.	6.0	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). <i>Journal of Hydrology</i> , 2011, 403, 83-102.	5.4	47
20	Time-lapse cross-hole electrical resistivity tomography (CHERT) for monitoring seawater intrusion dynamics in a Mediterranean aquifer. <i>Hydrology and Earth System Sciences</i> , 2020, 24, 2121-2139.	4.9	45
21	Parallel mixing of photolithographically defined nanoliter volumes using elastomeric microvalve arrays. <i>Electrophoresis</i> , 2005, 26, 3758-3764.	2.4	42
22	Multiplexed drug testing of tumor slices using a microfluidic platform. <i>Npj Precision Oncology</i> , 2020, 4, 12.	5.4	41
23	Hydrogeological interactions between fault zones and alluvial aquifers in regional flow systems. <i>Hydrological Processes</i> , 2008, 22, 3476-3487.	2.6	40
24	Art on the Nanoscale and Beyond. <i>Advanced Materials</i> , 2016, 28, 1724-1742.	21.0	37
25	Improving degradation of emerging organic compounds by applying chaotic advection in managed aquifer recharge in randomly heterogeneous porous media. <i>Water Resources Research</i> , 2017, 53, 4376-4392.	4.2	36
26	Spatio-temporally-complex concentration profiles using a tunable chaotic micromixer. <i>Applied Physics Letters</i> , 2006, 89, 144102.	3.3	35
27	Fungal permeable reactive barrier to remediate groundwater in an artificial aquifer. <i>Journal of Hazardous Materials</i> , 2013, 262, 554-560.	12.4	34
28	Large-scale microfluidic gradient arrays reveal axon guidance behaviors in hippocampal neurons. <i>Microsystems and Nanoengineering</i> , 2017, 3, 17003.	7.0	34
29	Microfluidic circuits with tunable flow resistances. <i>Applied Physics Letters</i> , 2006, 89, 164105.	3.3	32
30	Identifying key parameters to differentiate groundwater flow systems using multifactorial analysis. <i>Journal of Hydrology</i> , 2012, 472-473, 301-313.	5.4	32
31	Utilization of extracellular information before ligand-receptor binding reaches equilibrium expands and shifts the input dynamic range. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3860-9.	7.1	32
32	Partitioning of hydrogels in 3D-printed microchannels. <i>Lab on A Chip</i> , 2019, 19, 3086-3093.	6.0	30
33	Combining fiber optic DTS, cross-hole ERT and time-lapse induction logging to characterize and monitor a coastal aquifer. <i>Journal of Hydrology</i> , 2020, 588, 125050.	5.4	30
34	A risk assessment methodology to evaluate the risk failure of managed aquifer recharge in the Mediterranean Basin. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 3213-3227.	4.9	29
35	Monitoring induced denitrification during managed aquifer recharge in an infiltration pond. <i>Journal of Hydrology</i> , 2018, 561, 123-135.	5.4	28
36	Isotope characterization of an in situ biodenitrification pilot-test in a fractured aquifer. <i>Applied Geochemistry</i> , 2013, 32, 153-163.	3.0	27

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37	Stable chemical bonding of porous membranes and poly(dimethylsiloxane) devices for long-term cell culture. <i>Biomicrofluidics</i> , 2014, 8, 036504.	2.4	27
38	Analyzing Hydrological Sustainability Through Water Balance. <i>Environmental Management</i> , 2010, 45, 1175-1190.	2.7	26
39	What are the main factors influencing the presence of faecal bacteria pollution in groundwater systems in developing countries?. <i>Journal of Contaminant Hydrology</i> , 2020, 228, 103556.	3.3	25
40	Microfluidics for interrogating live intact tissues. <i>Microsystems and Nanoengineering</i> , 2020, 6, 69.	7.0	25
41	Granulometry and Surfactants, Key Factors in Desorption and Biodegradation (T. versicolor) of PAHs in Soil and Groundwater. <i>Water, Air, and Soil Pollution</i> , 2013, 224, 1.	2.4	23
42	Heat Dissipation Test With Fiber-Optic Distributed Temperature Sensing to Estimate Groundwater Flux. <i>Water Resources Research</i> , 2021, 57, e2020WR027228.	4.2	23
43	Groundwater hydrodynamics of an Eastern Africa coastal aquifer, including La Niña 2016-17 drought. <i>Science of the Total Environment</i> , 2019, 661, 575-597.	8.0	22
44	Microfluidic devices with tunable microtopographies. <i>Applied Physics Letters</i> , 2005, 86, 023508.	3.3	21
45	A microfluidic D-subminiature connector. <i>Lab on A Chip</i> , 2013, 13, 2036.	6.0	20
46	Integrated modeling of biogeochemical reactions and associated isotope fractionations at batch scale: A tool to monitor enhanced biodenitrification applications. <i>Chemical Geology</i> , 2014, 365, 20-29.	3.3	20
47	Mikrofluidik aus dem 3D-Drucker. <i>Angewandte Chemie</i> , 2016, 128, 3926-3946.	2.0	19
48	Modeling long term Enhanced in situ Biodenitrification and induced heterogeneity in column experiments under different feeding strategies. <i>Journal of Hydrology</i> , 2016, 538, 127-137.	5.4	19
49	A multidisciplinary approach to characterizing coastal alluvial aquifers to improve understanding of seawater intrusion and submarine groundwater discharge. <i>Journal of Hydrology</i> , 2022, 607, 127510.	5.4	19
50	Development of a stream-aquifer numerical flow model to assess river water management under water scarcity in a Mediterranean basin. <i>Science of the Total Environment</i> , 2012, 440, 204-218.	8.0	18
51	Continuous-flow multi-pulse electroporation at low DC voltages by microfluidic flipping of the voltage space topology. <i>Applied Physics Letters</i> , 2016, 109, 163702.	3.3	18
52	Microbial community changes induced by Managed Aquifer Recharge activities: linking hydrogeological and biological processes. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 139-154.	4.9	18
53	Modeling biogeochemical processes and isotope fractionation of enhanced in situ biodenitrification in a fractured aquifer. <i>Chemical Geology</i> , 2016, 425, 52-64.	3.3	17
54	Are dominant microbial sub-surface communities affected by water quality and soil characteristics?. <i>Journal of Environmental Management</i> , 2019, 237, 332-343.	7.8	16

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55	An approach to aquifer vulnerability including uncertainty in a spatial random function framework. <i>Journal of Hydrology</i> , 2014, 517, 889-900.	5.4	15
56	Coupling Flow, Heat, and Reactive Transport Modeling to Reproduce <i>In Situ</i> Redox Potential Evolution: Application to an Infiltration Pond. <i>Environmental Science & Technology</i> , 2020, 54, 12092-12101.	10.0	15
57	New perspectives on the use of ²²⁴ Ra/ ²²⁸ Ra and ²²² Rn/ ²²⁶ Ra activity ratios in groundwater studies. <i>Journal of Hydrology</i> , 2021, 596, 126043.	5.4	13
58	Influence of Soil Granulometry on Pyrene Desorption in Groundwater Using Surfactants. <i>Water, Air, and Soil Pollution</i> , 2012, 223, 125-133.	2.4	12
59	Applicability of Landsat-8 thermal infrared sensor for identifying submarine groundwater discharge springs in the Mediterranean Sea basin. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 4789-4805.	4.9	12
60	The impact of poplar tree plantations for biomass production on the aquifer water budget and base flow in a Mediterranean basin. <i>Science of the Total Environment</i> , 2015, 524-525, 213-224.	8.0	10
61	BaroFuse, a novel pressure-driven, adjustable-throughput perfusion system for tissue maintenance and assessment. <i>Heliyon</i> , 2016, 2, e00210.	3.2	10
62	Editorial for the Special Issue on 3D Printed Microfluidic Devices. <i>Micromachines</i> , 2018, 9, 609.	2.9	10
63	Organotypic platform for studying cancer cell metastasis. <i>Experimental Cell Research</i> , 2021, 401, 112527.	2.6	9
64	Microwell arrays reveal cellular heterogeneity during the clonal expansion of transformed human cells. <i>Technology</i> , 2015, 03, 163-171.	1.4	8
65	How does water-reliant industry affect groundwater systems in coastal Kenya?. <i>Science of the Total Environment</i> , 2019, 694, 133634.	8.0	8
66	An open-chamber flow-focusing device for focal stimulation of micropatterned cells. <i>Biomicrofluidics</i> , 2016, 10, 024122.	2.4	5
67	A Laser-Engraving Technique for Portable Micropneumatic Oscillators. <i>Micromachines</i> , 2018, 9, 426.	2.9	5
68	Identification and quantification of chemical reactions in a coastal aquifer to assess submarine groundwater discharge composition. <i>Science of the Total Environment</i> , 2022, 838, 155978.	8.0	5
69	Stratigraphic and structural controls on groundwater flow in an outcropping fossil fan delta: the case of Sant Llorenç del Munt range (NE Spain). <i>Hydrogeology Journal</i> , 2017, 25, 2467-2487.	2.1	3
70	Evidence of groundwater vulnerability to climate variability and economic growth in coastal Kenya. <i>Journal of Hydrology</i> , 2020, 586, 124920.	5.4	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.	0.4	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.	4.6	1
78	Hydrogeological and Geophysical Characterization of Fractured Aquifer of Ã’dena (Barcelona,) Tj ETQq0 0 0 rgBT /Overlock 1Q Tf 50 542		
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