Laurent Malaquin

List of Publications by Citations

72 papers	2,705 citations	25 h-index	51 g-index
77 ext. papers	3,103 ext. citations	6.5 avg, IF	4.89 L-index

#	Paper	IF	Citations
72	Nanoparticle printing with single-particle resolution. *Nature Nanotechnology*, **2007**, 2, 570-6	28.7	360
71	Controlled particle placement through convective and capillary assembly. *Langmuir*, **2007**, 23, 11513-21	4	282
70	Microfluidic sorting and multimodal typing of cancer cells in self-assembled magnetic arrays. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 14524-9	11.5	260
69	A review of microfabrication and hydrogel engineering for micro-organs on chips. *Biomaterials*, **2014**, 35, 1816-32	15.6	166
68	Stress clamp experiments on multicellular tumor spheroids. *Physical Review Letters*, **2011**, 107, 188102	7.4	148
67	Microfluidic: an innovative tool for efficient cell sorting. *Methods*, **2012**, 57, 297-307	4.6	110
66	Printing chemical gradients. *Langmuir*, **2005**, 21, 7796-804	4	82
65	New family of fluorinated polymer chips for droplet and organic solvent microfluidics. *Lab on A Chip* , **2011**, 11, 508-12	7.2	67
64	Closing the Gap Between Self-Assembly and Microsystems Using Self-Assembly, Transfer, and Integration of Particles. *Advanced Materials*, **2005**, 17, 2438-2442	24	61
63	Fabrication of 3D scaffolds reproducing intestinal epithelium topography by high-resolution 3D stereolithography. *Biomaterials*, **2019**, 221, 119404	15.6	52
62	Programmable magnetic tweezers and droplet microfluidic device for high-throughput nanoliter multi-step assays. *Angewandte Chemie - International Edition*, **2012**, 51, 10765-9	16.4	52
61	Two-photon lithography and microscopy of 3D hydrogel scaffolds for neuronal cell growth. *Biomedical Physics and Engineering Express*, **2018**, 4, 027009	1.5	51
60	High purity microfluidic sorting and analysis of circulating tumor cells: towards routine mutation detection. *Lab on A Chip*, **2015**, 15, 2090-101	7.2	50
59	Combining microfluidics, optogenetics and calcium imaging to study neuronal communication in vitro. *PLoS ONE*, **2015**, 10, e0120680	3.7	49
58	A new microfluidic approach for the one-step capture, amplification and label-free quantification of bacteria from raw samples. *Chemical Science*, **2017**, 8, 1329-1336	9.4	47
57	A low cost and high throughput magnetic bead-based immuno-agglutination assay in confined droplets. *Lab on A Chip*, **2013**, 13, 2344-9	7.2	44
56	Design, modeling and characterization of microfluidic architectures for high flow rate, small footprint microfluidic systems. *Lab on A Chip*, **2011**, 11, 822-32	7.2	39

55	Collective beating of artificial microcilia. *Physical Review Letters*, **2011**, 107, 014501	7.4	38
54	Multiphoton Direct Laser Writing and 3D Imaging of Polymeric Freestanding Architectures for Cell Colonization. *Small*, **2017**, 13, 1700621	11	37
53	Microfluidic platform combining droplets and magnetic tweezers: application to HER2 expression in cancer diagnosis. *Scientific Reports*, **2016**, 6, 25540	4.9	37
52	Fabrication of thermoplastics chips through lamination based techniques. *Lab on A Chip*, **2012**, 12, 1849-56	7.2	36
51	Selective handling of droplets in a microfluidic device using magnetic rails. *Microfluidics and Nanofluidics*, **2015**, 19, 141-153	2.8	35
50	An in situ study of the adsorption behavior of functionalized particles on self-assembled monolayers via different chemical interactions. *Langmuir*, **2007**, 23, 9990-9	4	33
49	Continuous chemical operations and modifications on magnetic □Fe2O3 nanoparticles confined in nanoliter droplets for the assembly of fluorescent and magnetic SiO2@□Fe2O3. *Chemical Communications*, **2015**, 51, 16904-7	5.8	32
48	Patterning of polystyrene by scanning electrochemical microscopy. Biological applications to cell adhesion. *Langmuir*, **2010**, 26, 17348-56	4	30
47	FISH in chips: turning microfluidic fluorescence in situ hybridization into a quantitative and clinically reliable molecular diagnosis tool. *Lab on A Chip*, **2015**, 15, 811-22	7.2	25
46	Magnetic fluidized bed for solid phase extraction in microfluidic systems. *Lab on A Chip*, **2017**, 17, 1603-1615	7.2	24
45	New non-covalent strategies for stable surface treatment of thermoplastic chips. *Lab on A Chip*, **2013**, 13, 4409-18	7.2	24
44	Development of pH-ISFET sensors for the detection of bacterial activity. *Sensors and Actuators B: Chemical*, **2004**, 103, 247-251	8.5	24
43	In-mold patterning and actionable axo-somatic compartmentalization for on-chip neuron culture. *Lab on A Chip*, **2016**, 16, 2059-68	7.2	24
42	Resolution improvement of 3D stereo-lithography through the direct laser trajectory programming: Application to microfluidic deterministic lateral displacement device. *Analytica Chimica Acta*, **2018**, 1000, 239-247	6.6	24
41	Direct laser fabrication of free-standing PEGDA-hydrogel scaffolds for neuronal cell growth: Engineering 3D biocompatible microenvironments. *Materials Today*, **2018**, 21, 315-316	21.8	20
40	Centrifugal microfluidic platform for radiochemistry: potentialities for the chemical analysis of nuclear spent fuels. *Talanta*, **2013**, 116, 488-94	6.2	20
39	Using electrofluidic devices as hyper-elastic strain sensors: Experimental and theoretical analysis. *Microelectronic Engineering*, **2015**, 144, 27-31	2.5	18
38	Direct laser fabrication of meso-scale 2D and 3D architectures with micrometric feature resolution. *Additive Manufacturing*, **2018**, 22, 440-446	6.1	18

37	Experimental observation of ultrasound fast and slow waves through three-dimensional printed trabecular bone phantoms. *Journal of the Acoustical Society of America*, **2016**, 139, EL13-18	2.2	17
36	A three dimensional thermoplastic microfluidic chip for robust cell capture and high resolution imaging. *Biomicrofluidics*, **2014**, 8, 024109	3.2	17
35	Simple Synthetic Molecular Hydrogels from Self-Assembling Alkylgalactonamides as Scaffold for 3D Neuronal Cell Growth. *ACS Applied Materials & Interfaces*, **2018**, 10, 17004-17017	9.5	17
34	4D printing with spin-crossover polymer composites. *Journal of Materials Chemistry C*, **2020**, 8, 6001-6005	7.1	15
33	Water-in-PDMS Emulsion Templating of Highly Interconnected Porous Architectures for 3D Cell Culture. *ACS Applied Materials & Interfaces*, **2019**, 11, 28631-28640	9.5	15
32	Wet spinning and radial self-assembly of a carbohydrate low molecular weight gelator into well organized hydrogel filaments. *Nanoscale*, **2019**, 11, 15043-15056	7.7	13
31	A low-cost, label-free DNA detection method in lab-on-chip format based on electrohydrodynamic instabilities, with application to long-range PCR. *Lab on A Chip*, **2012**, 12, 4738-47	7.2	13
30	Cyclic olefin copolymer plasma millireactors. *Lab on A Chip*, **2014**, 14, 3037-42	7.2	12
29	Precision patterning with luminescent nanocrystal-functionalized beads. *Langmuir*, **2010**, 26, 14294-300	4	11
28	Effects of ultraviolet/ozone treatment on benzocyclobutene films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2003**, 21, 766-771	2.9	11
27	In vitro models of intestinal epithelium: Toward bioengineered systems. *Journal of Tissue Engineering*, **2021**, 12, 2041731420985202	7.5	11
26	VEGF (Vascular Endothelial Growth Factor) Functionalized Magnetic Beads in a Microfluidic Device to Improve the Angiogenic Balance in Preeclampsia. *Hypertension*, **2019**, 74, 145-153	8.5	10
25	Multiplexed Remote SPR Detection of Biological Interactions through Optical Fiber Bundles. *Sensors*, **2020**, 20,	3.8	10
24	Chromatin immunoprecipitation in microfluidic droplets: towards fast and cheap analyses. *Lab on A Chip*, **2017**, 17, 530-537	7.2	9
23	Extracellular Matrix Mechanical Properties and Regulation of the Intestinal Stem Cells: When Mechanics Control Fate. *Cells*, **2020**, 9,	7.9	8
22	Interdigitated nanoelectrodes for nanoparticle detection. *Nanotechnology*, **2005**, 16, S240-S245	3.4	8
21	High throughput micropatterning of interspersed cell arrays using capillary assembly. *Biofabrication* , **2017**, 9, 015015	10.5	7
20	Thermo-resistance based micro-calorimeter for continuous chemical enthalpy measurements. *Microelectronic Engineering*, **2008**, 85, 1367-1369	2.5	7

19	Building a microfluidic cell culture platform with stiffness control using Loctite 3525 glue. *Lab on A Chip*, **2019**, 19, 3512-3525	7.2	6
18	3D deterministic lateral displacement (3D-DLD) cartridge system for high throughput particle sorting. *Chemical Communications*, **2020**, 56, 5190-5193	5.8	6
17	Imprint lithography using thermo-polymerisation of MMA. *Microelectronic Engineering*, **2002**, 61-62, 429-433	2.3	6
16	Dynamic inking of large-scale stamps for multiplexed microcontact printing and fabrication of cell microarrays. *PLoS ONE*, **2018**, 13, e0202531	3.7	6
15	3D printing of a biocompatible low molecular weight supramolecular hydrogel by dimethylsulfoxide water solvent exchange. *Additive Manufacturing*, **2020**, 33, 101162	6.1	5
14	Programmable Magnetic Tweezers and Droplet Microfluidic Device for High-Throughput Nanoliter Multi-Step Assays. *Angewandte Chemie*, **2012**, 124, 10923-10927	3.6	5
13	A method for fast monitoring of flow rates in microfluidic channels. *Journal of Applied Physics*, **2008** , 104, 124909	2.5	5
12	Development of a Droplet Microfluidics Device Based on Integrated Soft Magnets and Fluidic Capacitor for Passive Extraction and Redispersion of Functionalized Magnetic Particles. *Advanced Materials Technologies*, **2020**, 5, 1901088	6.8	4
11	Fabrication of Biomolecule Microarrays for Cell Immobilization Using Automated Microcontact Printing. *Methods in Molecular Biology*, **2018**, 1771, 83-95	1.4	4
10	Polymeric coatings on micro- and nanometric particles for bioapplications. *Bioanalytical Reviews*, **2011**, 3, 41-66	1	4
9	Reversible magnetic clamp of a microfluidic interface for the seric detection of food allergies on allergen microarrays. *Microelectronic Engineering*, **2016**, 158, 16-21	2.5	4
8	Sliding walls: a new paradigm for fluidic actuation and protocol implementation in microfluidics. *Microsystems and Nanoengineering*, **2020**, 6, 18	7.7	3
7	A microfluidic fluidized bed to capture, amplify and detect bacteria from raw samples. *Methods in Cell Biology*, **2018**, 147, 59-75	1.8	3
6	Fabrication of high density gold nanoparticle arrays on glass for high sensitivity bio-detection. *Microelectronic Engineering*, **2011**, 88, 2474-2477	2.5	3
5	Tuning the Nanotopography and Chemical Functionality of 3D Printed Scaffolds through Cellulose Nanocrystal Coatings.. *ACS Applied Bio Materials*, **2021**, 4, 8443-8455	4.1	3
4	Wet spinning of a library of carbohydrate low molecular weight gels. *Journal of Colloid and Interface Science*, **2021**, 603, 333-343	9.3	3
3	Droplet Microfluidic and Magnetic Particles Platform for Cancer Typing. *Methods in Molecular Biology*, **2017**, 1547, 113-121	1.4	2
2	FISH-in-CHIPS: A Microfluidic Platform for Molecular Typing of Cancer Cells. *Methods in Molecular Biology*, **2017**, 1547, 211-220	1.4	1

1 Controlled sealing of nanopores using an easily fabricated silicon platform combining in situ optical and electrical monitoring. *Microelectronic Engineering*, **2015**, 144, 57-60 2.5 1