Aurelien Bancaud

List of Publications by Year
in descending order

57 papers	2,749 citations	257450 24 h-index	189892 50 g-index
59 all docs	59 docs citations	59 times ranked	3202 citing authors

#	Article	IF	Citations
1	micro-RNA 21 detection with a limit of 2 pM in 1Âmin using a size-accordable concentration module operated by electrohydrodynamic actuation. Biosensors and Bioelectronics, 2021, 178, 112992.	10.1	5
2	A tunable filter for high molecular weight DNA selection and linked-read sequencing. Lab on A Chip, 2020, 20, 175-184.	6.0	5
3	Characterization and minimization of band broadening in DNA electrohydrodynamic migration for enhanced size separation. Soft Matter, 2020, 16, 5640-5649.	2.7	4
4	Single-step electrohydrodynamic separation of 1â€“150 kbp in less than 5Âmin using homogeneous glass/adhesive/glass microchips. Talanta, 2020, 217, 121013.	5.5	4
5	Î¼LAS technology for DNA isolation coupled to Cas9-assisted targeting for sequencing and assembly of a 30 kb region in plant genome. Nucleic Acids Research, 2019, 47, 8050-8060.	14.5	6
6	Rouse model with transient intramolecular contacts on a timescale of seconds recapitulates folding and fluctuation of yeast chromosomes. Nucleic Acids Research, 2019, 47, 6195-6207.	14.5	53
7	Contraction and Tumbling Dynamics of DNA in Shear Flows under Confinement Induced by Transverse Viscoelastic Forces. Macromolecules, 2019, 52, 1843-1852.	4.8	8
8	DNA Self-Assembly for the Design of Advanced Functional Materials and Nanocomposites. , 2019, , .		0
9	Technological Challenges and Future Issues for the Detection of Circulating MicroRNAs in Patients With Cancer. Frontiers in Chemistry, 2019, 7, 815.	3.6	24
10	ÂµLAS: Sizing of expanded trinucleotide repeats with femtomolar sensitivity in less than 5â€‰minutes. Scientific Reports, 2019, 9, 23.	3.3	13
11	Spatial Analysis of Nanofluidic-Embedded Biosensors for Wash-Free Single-Nucleotide Difference Discrimination. ACS Sensors, 2018, 3, 606-611.	7.8	13
12	BIABooster: Online DNA Concentration and Size Profiling with a Limit of Detection of 10 fg/Î¼L and Application to High-Sensitivity Characterization of Circulating Cell-Free DNA. Analytical Chemistry, 2018, 90, 3766-3774.	6.5	33
13	Accelerated Transport of Particles in Confined Channels with a High Roughness Amplitude. Langmuir, 2018, 34, 1394-1399.	3.5	1
14	DNA polymerase Î½ gene expression influences fludarabine resistance in chronic lymphocytic leukemia independently of p53 status. Haematologica, 2018, 103, 1038-1046.	3.5	2
15	Microfluidics for minute DNA sample analysis: open challenges for genetic testing of cell-free circulating DNA in blood plasma. Micro and Nano Engineering, 2018, 1, 25-32.	2.9	8
16	Modeling of DNA transport in viscoelastic electro-hydrodynamic flows for enhanced size separation. Soft Matter, 2018, 14, 5069-5079.	2.7	10
17	Correlation between DNA Self-Assembly Kinetics, Microstructure, and Thermal Properties of Tunable Highly Energetic Alâ€“CuO Nanocomposites for Micropyrotechnic Applications. ACS Applied Nano Materials, 2018, 1, 4716-4725.	5.0	24
18	DNA Grafting and Arrangement on Oxide Surfaces for Self-Assembly of Al and CuO Nanoparticles. Langmuir, 2017, 33, 12193-12203.	3.5	23

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19	Real-Time Imaging of a Single Gene Reveals Transcription-Initiated Local Confinement. Biophysical Journal, 2017, 113, 1383-1394.	0.5	158
20	Capturing Chromosome Structural Properties From Their Spatial and Temporal Fluctuations. , 2017, , 239-263.		1
21	Analysis of DNA Replication by Optical Mapping in Nanochannels. Small, 2016, 12, 5963-5970.	10.0	19
22	DNA separation and enrichment using electro-hydrodynamic bidirectional flows in viscoelastic liquids. Lab on A Chip, 2016, 16, 1243-1253.	6.0	38
23	Investigation of the selectivity of thrombin-binding aptamers for thrombin titration in murine plasma. Biosensors and Bioelectronics, 2016, 78, 58-66.	10.1	62
24	Thrombin detection in murine plasma using engineered fluorescence resonance energy transfer aptadimers. Applied Physics Letters, 2015, 107, 233701.	3.3	0
25	Metrology of confined flows using wide field nanoparticle velocimetry. Scientific Reports, 2015, 5, 10128.	3.3	8
26	Binding modes of thrombin binding aptamers investigated by simulations and experiments. Applied Physics Letters, 2015, 106, .	3.3	12
27	Principles of chromatin organization in yeast: relevance of polymer models to describe nuclear organization and dynamics. Current Opinion in Cell Biology, 2015, 34, 54-60.	5.4	34
28	Relevance and Limitations of Crowding, Fractal, and Polymer Models to Describe Nuclear Architecture. International Review of Cell and Molecular Biology, 2014, 307, 443-479.	3.2	27
29	High-throughput chromatin motion tracking in living yeast reveals the flexibility of the fiber throughout the genome. Genome Research, 2013, 23, 1829-1838.	5.5	195
30	Conformational Manipulation of DNA in Nanochannels Using Hydrodynamics. Macromolecules, 2013, 46, 6195-6202.	4.8	9
31	Systematic characterization of the conformation and dynamics of budding yeast chromosome XII. Journal of Cell Biology, 2013, 202, 201-210.	5.2	51
32	Single molecule study of DNA collision with elliptical nanoposts conveyed by hydrodynamics. Electrophoresis, 2013, 34, 3300-3304.	2.4	4
33	A fractal model for nuclear organization: current evidence and biological implications. Nucleic Acids Research, 2012, 40, 8783-8792.	14.5	97
34	Bringing aptamers into technologies: Impact of spacer terminations. Applied Physics Letters, 2012, 100, .	3.3	4
35	Highâ€Energy Al/CuO Nanocomposites Obtained by DNAâ€Directed Assembly. Advanced Functional Materials, 2012, 22, 323-329.	14.9	144
36	Nanocomposites: Highâ€Energy Al/CuO Nanocomposites Obtained by DNAâ€Directed Assembly (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlo	14.9	3

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37	Efficient prototyping of large-scale pdms and silicon nanofluidic devices using pdms-based phase-shift lithography. Microfluidics and Nanofluidics, 2012, 12, 465-473.	2.2	13
38	Directed Assembly of Nanoparticles along Predictable Large-Scale Patterns Using Micromolded Hydrogels. Langmuir, 2011, 27, 6598-6605.	3.5	10
39	Optimized micromirrors for three-dimensional single-particle tracking in living cells. Applied Physics Letters, 2011, 98, 243701.	3.3	6
40	On chip magnetic actuator for batch-mode dynamic manipulation of magnetic particles in compact lab-on-chip. Sensors and Actuators B: Chemical, 2011, 160, 1520-1528.	7.8	29
41	Hydrodynamic Manipulation of DNA in Nanopost Arrays: Unhooking Dynamics and Size Separation. Small, 2011, 7, 3508-3518.	10.0	13
42	A system for imaging the regulatory noncoding <i>Xist</i> RNA in living mouse embryonic stem cells. Molecular Biology of the Cell, 2011, 22, 2634-2645.	2.1	45
43	Chromatin Topological Transitions. Progress of Theoretical Physics Supplement, 2011, 191, 30-39.	0.1	2
44	Fluorescence Perturbation Techniques to Study Mobility and Molecular Dynamics of Proteins in Live Cells: FRAP, Photoactivation, Photoconversion, and FLIP. Cold Spring Harbor Protocols, 2010, 2010, pdb.top90.	0.3	94
45	Trapping Biological Species in a Lab-on-Chip Microsystem: Micro Inductor Optimization Design and SU8 Process. International Federation for Information Processing, 2010, , 81-96.	0.4	0
46	Molecular crowding affects diffusion and binding of nuclear proteins in heterochromatin and reveals the fractal organization of chromatin. EMBO Journal, 2009, 28, 3785-3798.	7.8	376
47	Development of a flexible microfluidic system integrating magnetic micro-actuators for trapping biological species. Journal of Micromechanics and Microengineering, 2009, 19, 105019.	2.6	32
48	Lab-on-Chip for fast 3D particle tracking in living cells. Lab on A Chip, 2009, 9, 3054.	6.0	42
49	Right-Handed Nucleosome: Myth or Reality?. Cell, 2009, 139, 1216-1217.	28.9	23
50	Nucleosome Chiral Transition under Positive Torsional Stress in Single Chromatin Fibers. Molecular Cell, 2007, 27, 135-147.	9.7	122
51	Structural plasticity of single chromatin fibers revealed by torsional manipulation. Nature Structural and Molecular Biology, 2006, 13, 444-450.	8.2	156
52	Mechanism of RecA-mediated homologous recombination revisited by single molecule nanomanipulation. EMBO Journal, 2006, 25, 4293-4304.	7.8	40
53	Measurement of the Surface Concentration for Bioassay Kinetics in Microchannels. Analytical Chemistry, 2005, 77, 833-839.	6.5	15
54	Compaction Kinetics on Single DNAs: Purified Nucleosome Reconstitution Systems versus Crude Extract. Biophysical Journal, 2005, 89, 3647-3659.	0.5	32

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55	Twisting and Untwisting a Single DNA Molecule Covered by RecA Protein. Biophysical Journal, 2004, 87, 2552-2563.	0.5	40
56	Quantitative Microfluidic Separation of DNA in Self-Assembled Magnetic Matrixes. Analytical Chemistry, 2004, 76, 3770-3776.	6.5	103
57	Self-Assembled Magnetic Matrices for DNA Separation Chips. Science, 2002, 295, 2237-2237.	12.6	445