Vincent Tabard-Cossa

List of Publications by Year
in descending order

56 papers	5,035 citations	159358 30 h-index	161609 54 g-index
64 all docs	64 docs citations	64 times ranked	4502 citing authors

#	Article	IF	Citations
1	The potential and challenges of nanopore sequencing. Nature Biotechnology, 2008, 26, 1146-1153.	9.4	2,201
2	Nanopore Fabrication by Controlled Dielectric Breakdown. PLoS ONE, 2014, 9, e92880.	1.1	341
3	Noise analysis and reduction in solid-state nanopores. Nanotechnology, 2007, 18, 305505.	1.3	251
4	Surface Stress, Kinetics, and Structure of Alkanethiol Self-Assembled Monolayers. Langmuir, 2004, 20, 7090-7096.	1.6	167
5	Automated Fabrication of 2â€nm Solidâ€State Nanopores for Nucleic Acid Analysis. Small, 2014, 10, 2077-2086.	5.2	138
6	Cantilever-based sensing: the origin of surface stress and optimization strategies. Nanotechnology, 2010, 21, 075501.	1.3	117
7	Solid-state nanopore fabrication by automated controlled breakdown. Nature Protocols, 2020, 15, 122-143.	5.5	116
8	Quantitative surface stress measurements using a microcantilever. Applied Physics Letters, 2001, 79, 551-553.	1.5	86
9	MOSAIC: A Modular Single-Molecule Analysis Interface for Decoding Multistate Nanopore Data. Analytical Chemistry, 2016, 88, 11900-11907.	3.2	85
10	Kinetics of nanopore fabrication during controlled breakdown of dielectric membranes in solution. Nanotechnology, 2015, 26, 084004.	1.3	84
11	Serum neurofilament light chain predicts long term clinical outcomes in multiple sclerosis. Scientific Reports, 2020, 10, 10381.	1.6	82
12	Precise control of the size and noise of solid-state nanopores using high electric fields. Nanotechnology, 2012, 23, 405301.	1.3	78
13	Control of DNA Capture by Nanofluidic Transistors. ACS Nano, 2012, 6, 6767-6775.	7.3	75
14	Single-Molecule Bonds Characterized by Solid-State Nanopore Force Spectroscopy. ACS Nano, 2009, 3, 3009-3014.	7.3	69
15	Integrating nanopore sensors within microfluidic channel arrays using controlled breakdown. Lab on A Chip, 2015, 15, 1407-1411.	3.1	67
16	Microcantilever-Based Sensors:â€‰ Effect of Morphology, Adhesion, and Cleanliness of the Sensing Surface on Surface Stress. Analytical Chemistry, 2007, 79, 8136-8143.	3.2	64
17	DNA Translocations through Nanopores under Nanoscale Preconfinement. Nano Letters, 2018, 18, 660-668.	4.5	59
18	A differential microcantilever-based system for measuring surface stress changes induced by electrochemical reactions. Sensors and Actuators B: Chemical, 2005, 107, 233-241.	4.0	53

#	Article	IF	Citations
19	A complete analysis of the laser beam deflection systems used in cantilever-based systems. Ultramicroscopy, 2007, 107, 422-430.	0.8	53
20	Solid-state nanopore localization by controlled breakdown of selectively thinned membranes. Nanotechnology, 2017, 28, 085304.	1.3	53
21	High serum neurofilament light chain normalizes after hematopoietic stem cell transplantation for MS. Neurology: Neuroimmunology and NeuroInflammation, 2019, 6, e598.	3.1	50
22	Nonexponential Kinetics of DNA Escape from Î±-Hemolysin Nanopores. Biophysical Journal, 2008, 95, 5317-5323.	0.2	46
23	Redox-Induced Surface Stress of Polypyrrole-Based Actuators. Journal of Physical Chemistry B, 2005, 109, 17531-17537.	1.2	44
24	Digital immunoassay for biomarker concentration quantification using solid-state nanopores. Nature Communications, 2021, 12, 5348.	5.8	44
25	Nanopore-Based Target Sequence Detection. PLoS ONE, 2016, 11, e0154426.	1.1	43
26	Nanomechanical Cantilever Motion Generated by a Surface-Confined Redox Reaction. Journal of Physical Chemistry B, 2003, 107, 10691-10695.	1.2	38
27	Precise DNA Concentration Measurements with Nanopores by Controlled Counting. Analytical Chemistry, 2019, 91, 12228-12237.	3.2	36
28	Combined in situ micromechanical cantilever-based sensing and ellipsometry. Review of Scientific Instruments, 2003, 74, 4902-4907.	0.6	35
29	Interfacing solidâ€state nanopores with gel media to slow DNA translocations. Electrophoresis, 2015, 36, 1759-1767.	1.3	35
30	Long Passage Times of Short ssDNA Molecules through Metallized Nanopores Fabricated by Controlled Breakdown. Advanced Functional Materials, 2014, 24, 7745-7753.	7.8	34
31	Descreening of field effect in electrically gated nanopores. Applied Physics Letters, 2010, 97, 143109.	1.5	32
32	Manipulating Electrical and Fluidic Access in Integrated Nanoporeâ€Microfluidic Arrays Using Microvalves. Small, 2017, 13, 1602601.	5.2	30
33	Identifying Structure in Short DNA Scaffolds Using Solid-State Nanopores. ACS Sensors, 2017, 2, 1814-1820.	4.0	30
34	Calibrating laser beam deflection systems for use in atomic force microscopes and cantilever sensors. Applied Physics Letters, 2006, 88, 083108.	1.5	28
35	Programmable DNA Nanoswitch Sensing with Solid-State Nanopores. ACS Sensors, 2019, 4, 2458-2464.	4.0	23
36	Portable cytometry using microscale electronic sensing. Sensors and Actuators B: Chemical, 2016, 224, 275-281.	4.0	22

#	Article	IF	Citations
37	Entropic Trapping of DNA with a Nanofiltered Nanopore. ACS Applied Nano Materials, 2019, 2, 4773-4781.	2.4	22
38	Capture and Translocation Characteristics of Short Branched DNA Labels in Solid-State Nanopores. ACS Sensors, 2018, 3, 1308-1315.	4.0	21
39	Instrumentation for Low-Noise High-Bandwidth Nanopore Recording. , 2013, , 59-93.		20
40	Neurotoxicity after hematopoietic stem cell transplant in multiple sclerosis. Annals of Clinical and Translational Neurology, 2020, 7, 767-775.	1.7	20
41	Fast capture and multiplexed detection of short multi-arm DNA stars in solid-state nanopores. Nanoscale, 2019, 11, 16342-16350.	2.8	19
42	DNA Capture by Nanopore Sensors under Flow. Analytical Chemistry, 2020, 92, 8108-8116.	3.2	19
43	Instrumentation for low noise nanopore-based ionic current recording under laser illumination. Review of Scientific Instruments, 2018, 89, 015007.	0.6	16
44	Mechanisms of solid-state nanopore enlargement under electrical stress. Nanotechnology, 2020, 31, 44LT01.	1.3	12
45	Long Dwell-Time Passage of DNA through Nanometer-Scale Pores: Kinetics and Sequence Dependence of Motion. Biophysical Journal, 2011, 100, 2974-2980.	0.2	10
46	Fine-tuning the Size and Minimizing the Noise of Solid-state Nanopores. Journal of Visualized Experiments, 2013, , e51081.	0.2	10
47	Monolithic Fabrication of NPN/SiN x Dual Membrane Cavity for Nanoporeâ€Based DNA Sensing. Advanced Materials Interfaces, 2019, 6, 1900684.	1.9	10
48	Screening for Group A Streptococcal Disease via Solid-State Nanopore Detection of PCR Amplicons. ACS Sensors, 2022, 7, 207-214.	4.0	10
49	Mapping shifts in nanopore signal to changes in protein and proteinâ€DNA conformation. Proteomics, 2022, 22, e2100068.	1.3	9
50	Digital counting of nucleic acid targets using solid-state nanopores. Nanoscale, 2020, 12, 17833-17840.	2.8	8
51	Central and peripheral delivered AAV9-SMN are both efficient but target different pathomechanisms in a mouse model of spinal muscular atrophy. Gene Therapy, 2022, 29, 544-554.	2.3	6
52	Nanopore Sensors: Manipulating Electrical and Fluidic Access in Integrated Nanoporeâ€Microfluidic Arrays Using Microvalves (Small 10/2017). Small, 2017, 13, .	5.2	2
53	No small matter. Nature Chemistry, 2021, 13, 216-217.	6.6	1
54	Efficient Simulation of Arbitrary Multicomponent First-Order Binding Kinetics for Improved Assay Design and Molecular Assembly. ACS Measurement Science Au, 2022, 2, 139-146.	1.9	1

#	Article	IF	Citations
55	Experimental demonstration and analysis of DNA passage in nanopore-based nanofluidic transistors. , 2011, , .		0
56	Capture and Translocation Characteristics of DNA Nanostructures Through Solid-State Nanopores. Biophysical Journal, 2020, 118, 475a.	0.2	0