Jeroen Lammertyn

List of Publications by Year
in descending order

85 papers	2,881 citations	172457 29 h-index	182427 51 g-index
86 all docs	86 docs citations	86 times ranked	3386 citing authors

#	Article	IF	Citations
1	Integrated Microwell Array Technologies for Single Cell Analysis. , 2022, , 311-341.		0
2	Multiplex Analysis to Unravel the Mode of Antifungal Activity of the Plant Defensin HsAFP1 in Single Yeast Cells. International Journal of Molecular Sciences, 2022, 23, 1515.	4.1	1
3	Innovative FO-SPR Label-free Strategy for Detecting Anti-RBD Antibodies in COVID-19 Patient Serum and Whole Blood. ACS Sensors, 2022, 7, 477-487.	7.8	31
4	Paving the way towards continuous biosensing by implementing affinity-based nanoswitches on state-dependent readout platforms. Analyst, The, 2022, 147, 1006-1023.	3.5	6
5	Point-of-care therapeutic drug monitoring of adalimumab by integrating a FO-SPR biosensor in a self-powered microfluidic cartridge. Biosensors and Bioelectronics, 2022, 206, 114125.	10.1	21
6	Next generation point-of-care test for therapeutic drug monitoring of adalimumab in patients diagnosed with autoimmune diseases. Biosensors and Bioelectronics, 2022, 208, 114189.	10.1	17
7	Bridging the Gap between Digital Assays and Point-of-Care Testing: Automated, Low Cost, and Ultrasensitive Detection of Thyroid Stimulating Hormone. Analytical Chemistry, 2022, 94, 8919-8927.	6.5	10
8	Miniaturized single-cell technologies for monoclonal antibody discovery. Lab on A Chip, 2021, 21, 3627-3654.	6.0	10
9	Tuning the Surface Interactions between Single Cells and an OSTE+ Microwell Array for Enhanced Single Cell Manipulation. ACS Applied Materials & Interfaces, 2021, 13, 2316-2326.	8.0	15
10	FOâ€SPR biosensor calibrated with recombinant extracellular vesicles enables specific and sensitive detection directly in complex matrices. Journal of Extracellular Vesicles, 2021, 10, e12059.	12.2	10
11	Evaluation of Immuno-Rolling Circle Amplification for Multiplex Detection and Profiling of Antigen-Specific Antibody Isotypes. Analytical Chemistry, 2021, 93, 6169-6177.	6.5	12
12	3D Printing of Monolithic Capillarityâ€Driven Microfluidic Devices for Diagnostics. Advanced Materials, 2021, 33, e2008712.	21.0	36
13	Unraveling the effect of the aptamer complementary element on the performance of duplexed aptamers: a thermodynamic study. Analytical and Bioanalytical Chemistry, 2021, 413, 4739-4750.	3.7	9
14	DNA-only bioassay for simultaneous detection of proteins and nucleic acids. Analytical and Bioanalytical Chemistry, 2021, 413, 4925-4937.	3.7	8
15	Synthetic Antiferromagnetic Gold Nanoparticles as Bimodal Contrast Agents in MRI and CTâ€"An Experimental In Vitro and In Vivo Study. Pharmaceutics, 2021, 13, 1494.	4.5	4
16	Gold nanoparticle enhanced multiplexed biosensing on a fiber optic surface plasmon resonance probe. Biosensors and Bioelectronics, 2021, 192, 113549.	10.1	11
17	Novel Regeneration Approach for Creating Reusable FO-SPR Probes with NTA Surface Chemistry. Nanomaterials, 2021, 11, 186.	4.1	8
18	Precise sample metering method by coordinated burst action of hydrophobic burst valves applied to dried blood spot collection. Lab on A Chip, 2021, 21, 4445-4454.	6.0	2

#	Article	IF	Citations
19	A Versatile One-Step Competitive Fiber Optic Surface Plasmon Resonance Bioassay Enabled by DNA Nanotechnology. ACS Sensors, 2021, 6, 3677-3684.	7.8	9
20	Boosting biomolecular interactions through DNA origami nano-tailored biosensing interfaces. Journal of Materials Chemistry B, 2020, 8, 3606-3615.	5.8	13
21	Advancements in SPR biosensing technology: An overview of recent trends in smart layers design, multiplexing concepts, continuous monitoring and inÂvivo sensing. Analytica Chimica Acta, 2020, 1104, 10-27.	5.4	83
22	Co(III)-NTA Mediated Antigen Immobilization on a Fiber Optic-SPR Biosensor for Detection of Autoantibodies in Autoimmune Diseases: Application in Immune-Mediated Thrombotic Thrombocytopenic Purpura. Analytical Chemistry, 2020, 92, 13880-13887.	6.5	19
23	RNA-Cleaving NAzymes: The Next Big Thing in Biosensing?. Trends in Biotechnology, 2020, 38, 1343-1359.	9.3	20
24	A VersaTile-driven platform for rapid hit-to-lead development of engineered lysins. Science Advances, 2020, 6, eaaz1136.	10.3	75
25	Digital Microfluidics for Single Bacteria Capture and Selective Retrieval Using Optical Tweezers. Micromachines, 2020, 11, 308.	2.9	21
26	Expanding a Portfolio of (FO-) SPR Surface Chemistries with the Co(III)-NTA Oriented Immobilization of His₆-Tagged Bioreceptors for Applications in Complex Matrices. ACS Sensors, 2020, 5, 960-969.	7.8	23
27	Solid-Phase PCR-Amplified DNAzyme Activity for Real-Time FO-SPR Detection of the MCR-2 Gene. Analytical Chemistry, 2020, 92, 10783-10791.	6.5	24
28	DNA-only, microwell-based bioassay for multiplex nucleic acid detection with single base-pair resolution using MNAzymes. Biosensors and Bioelectronics, 2020, 152, 112017.	10.1	13
29	Neuromedin U signaling regulates retrieval of learned salt avoidance in a C. elegans gustatory circuit. Nature Communications, 2020, 11, 2076.	12.8	24
30	Integrated Microwell Array Technologies for Single Cell Analysis. , 2020, , 1-32.		1
31	Controlling the Bioreceptor Spatial Distribution at the Nanoscale for Single Molecule Counting in Microwell Arrays. ACS Sensors, 2019, 4, 2327-2335.	7.8	11
32	Real-Time FO-SPR Monitoring of Solid-Phase DNAzyme Cleavage Activity for Cutting-Edge Biosensing. ACS Applied Materials & Interfaces, 2019, 11, 6759-6768.	8.0	27
33	Reaction injection molding of hydrophilic-in-hydrophobic femtolitre-well arrays. Microsystems and Nanoengineering, 2019, 5, 25.	7.0	15
34	Innovative Hydrophobic Valve Allows Complex Liquid Manipulations in a Self-Powered Channel-Based Microfluidic Device. ACS Sensors, 2019, 4, 694-703.	7.8	23
35	Re-engineering 10â€"23 core DNA- and MNAzymes for applications at standard room temperature. Analytical and Bioanalytical Chemistry, 2019, 411, 205-215.	3.7	9
36	SIMPLE analytical model for smart microfluidic chip design. Sensors and Actuators A: Physical, 2019, 287, 131-137.	4.1	9

#	Article	IF	Citations
37	Digital ELISA for the quantification of attomolar concentrations of Alzheimer's disease biomarker protein Tau in biological samples. Analytica Chimica Acta, 2018, 1015, 74-81.	5.4	60
38	Development of a coaxial extrusion deposition for 3D printing of customizable pectin-based food simulant. Journal of Food Engineering, 2018, 225, 42-52.	5.2	66
39	Target Confinement in Small Reaction Volumes Using Microfluidic Technologies: A Smart Approach for Single-Entity Detection and Analysis. ACS Sensors, 2018, 3, 264-284.	7.8	31
40	Development and validation of an optical biosensor for rapid monitoring of adalimumab in serum of patients with Crohn's disease. Drug Testing and Analysis, 2018, 10, 592-596.	2.6	30
41	Creasensor: SIMPLE technology for creatinine detection in plasma. Analytica Chimica Acta, 2018, 1000, 191-198.	5.4	34
42	Teflon-on-Glass Molding Enables High-Throughput Fabrication of Hydrophilic-in-Hydrophobic Microwells for Bead-Based Digital Bioassays. Materials, 2018, 11, 2154.	2.9	3
43	Sub-femtomolar detection of DNA and discrimination of mutant strands using microwell-array assisted digital enzyme-linked oligonucleotide assay. Analytica Chimica Acta, 2018, 1041, 122-130.	5.4	9
44	Self-powered infusion microfluidic pump for ex vivo drug delivery. Biomedical Microdevices, 2018, 20, 44.	2.8	22
45	Three-Dimensional DNA Origami as Programmable Anchoring Points for Bioreceptors in Fiber Optic Surface Plasmon Resonance Biosensing. ACS Applied Materials & Interfaces, 2018, 10, 23539-23547.	8.0	60
46	Exploring of the feature space of de novo developed post-transcriptional riboregulators. PLoS Computational Biology, 2018, 14, e1006170.	3.2	4
47	Immunoassay for Detection of Infliximab in Whole Blood Using a Fiber-Optic Surface Plasmon Resonance Biosensor. Analytical Chemistry, 2017, 89, 3664-3671.	6.5	65
48	Single-Step Imprinting of Femtoliter Microwell Arrays Allows Digital Bioassays with Attomolar Limit of Detection. ACS Applied Materials & Interfaces, 2017, 9, 10418-10426.	8.0	48
49	Parts per Million Detection of Alcohol Vapors via Metal Organic Framework Functionalized Surface Plasmon Resonance Sensors. Analytical Chemistry, 2017, 89, 4480-4487.	6.5	40
50	Digital Microfluidics Assisted Sealing of Individual Magnetic Particles in Femtoliter-Sized Reaction Wells for Single-Molecule Detection. Methods in Molecular Biology, 2017, 1547, 85-101.	0.9	7
51	Pectin based food-ink formulations for 3-D printing of customizable porous food simulants. Innovative Food Science and Emerging Technologies, 2017, 42, 138-150.	5.6	128
52	Competitive inhibition assay for the detection of progesterone in dairy milk using a fiber optic SPR biosensor. Analytica Chimica Acta, 2017, 950, 1-6.	5.4	48
53	Identification and Quantification of Celery Allergens Using Fiber Optic Surface Plasmon Resonance PCR. Sensors, 2017, 17, 1754.	3.8	19
54	The Antifungal Plant Defensin HsAFP1 Is a Phosphatidic Acid-Interacting Peptide Inducing Membrane Permeabilization. Frontiers in Microbiology, 2017, 8, 2295.	3.5	36

#	Article	IF	Citations
55	Increasing the Fungicidal Action of Amphotericin B by Inhibiting the Nitric Oxide-Dependent Tolerance Pathway. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-17.	4.0	16
56	Generation and characterization of a unique panel of anti-adalimumab specific antibodies and their application in therapeutic drug monitoring assays. Journal of Pharmaceutical and Biomedical Analysis, 2016, 125, 62-67.	2.8	29
57	Bioassay Development for Ultrasensitive Detection of Influenza A Nucleoprotein Using Digital ELISA. Analytical Chemistry, 2016, 88, 8450-8458.	6.5	89
58	Optical Manipulation of Single Magnetic Beads in a Microwell Array on a Digital Microfluidic Chip. Analytical Chemistry, 2016, 88, 8596-8603.	6.5	23
59	Evaluation of different strategies for magnetic particle functionalization with DNA aptamers. New Biotechnology, 2016, 33, 755-762.	4.4	13
60	Real-time PCR melting analysis with fiber optic SPR enables multiplex DNA identification of bacteria. Analyst, The, 2016, 141, 1906-1911.	3.5	28
61	Fiber optic-SPR platform for fast and sensitive infliximab detection in serum of inflammatory bowel disease patients. Biosensors and Bioelectronics, 2016, 79, 173-179.	10.1	104
62	Transferability of antibody pairs from ELISA to fiber optic surface plasmon resonance for infliximab detection. Proceedings of SPIE, 2015, , .	0.8	3
63	Real-time ligation chain reaction for DNA quantification and identification on the FO-SPR. Biosensors and Bioelectronics, 2015, 67, 394-399.	10.1	26
64	Digital microfluidics for time-resolved cytotoxicity studies on single non-adherent yeast cells. Lab on A Chip, 2015, 15, 1852-1860.	6.0	41
65	Ara h 1 proteinâ€"antibody dissociation study: evidence for binding inhomogeneities on a molecular scale. New Biotechnology, 2015, 32, 458-466.	4.4	2
66	Smart design of fiber optic surfaces for improved plasmonic biosensing. New Biotechnology, 2015, 32, 473-484.	4.4	63
67	Mechanism of Nonpolar Model Substances to Inhibit Primary Gushing Induced by Hydrophobin HFBI. Journal of Agricultural and Food Chemistry, 2015, 63, 4673-4682.	5.2	2
68	Improved surface plasmon resonance biosensing using silanized optical fibers. Sensors and Actuators B: Chemical, 2015, 216, 518-526.	7.8	49
69	Building bio-assays with magnetic particles on a digital microfluidic platform. New Biotechnology, 2015, 32, 485-503.	4.4	29
70	Putting RNA to work: Translating RNA fundamentals into biotechnological engineering practice. Biotechnology Advances, 2015, 33, 1829-1844.	11.7	19
71	Circle-to-circle amplification on a digital microfluidic chip for amplified single molecule detection. Lab on A Chip, 2014, 14, 2983-2992.	6.0	77
72	Synthetic Antiferromagnetic Nanoparticles as Potential Contrast Agents in MRI. ACS Nano, 2014, 8, 2269-2278.	14.6	33

#	Article	IF	Citations
73	Probing the Force-Induced Dissociation of Aptamer-Protein Complexes. Analytical Chemistry, 2014, 86, 3084-3091.	6.5	17
74	Isolation and Validation of an Endogenous Fluorescent Nucleoid Reporter in Salmonella Typhimurium. PLoS ONE, 2014, 9, e93785.	2.5	5
75	Spherical Nucleic Acid Enhanced FO-SPR DNA Melting for Detection of Mutations in <i>Legionella pneumophila</i>. Analytical Chemistry, 2013, 85, 1734-1742.	6.5	31
76	Selection of aptamers against Ara h 1 protein for FO-SPR biosensing of peanut allergens in food matrices. Biosensors and Bioelectronics, 2013, 43, 245-251.	10.1	126
77	Digital microfluidics-enabled single-molecule detection by printing and sealing single magnetic beads in femtoliter droplets. Lab on A Chip, 2013, 13, 2047.	6.0	119
78	Enabling fiber optic serotyping of pathogenic bacteria through improved anti-fouling functional surfaces. Nanotechnology, 2012, 23, 235503.	2.6	14
79	Fiberâ€Optic Highâ€Resolution Genetic Screening Using Goldâ€Labeled Gene Probes. Small, 2012, 8, 868-872.	10.0	25
80	Sequential enzymatic quantification of two sugars in a single microchannel. Microfluidics and Nanofluidics, 2012, 12, 779-786.	2.2	2
81	A versatile electrowetting-based digital microfluidic platform for quantitative homogeneous and heterogeneous bio-assays. Journal of Micromechanics and Microengineering, 2011, 21, 054026.	2.6	110
82	Biofunctionalization of electrowetting-on-dielectric digital microfluidic chips for miniaturized cell-based applications. Lab on A Chip, 2011, 11, 2790.	6.0	73
83	Fast and accurate peanut allergen detection with nanobead enhanced optical fiber SPR biosensor. Talanta, 2011, 83, 1436-1441.	5.5	134
84	Realâ€Time Monitoring of Solidâ€Phase PCR Using Fiberâ€Optic SPR. Small, 2011, 7, 1003-1006.	10.0	31
85	Fiber optic SPR biosensing of DNA hybridization and DNAâ€“protein interactions. Biosensors and Bioelectronics, 2009, 25, 864-869.	10.1	208