Jeroen Lammertyn

List of Publications by Year
in descending order

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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	Fiber optic SPR biosensing of DNA hybridization and DNAâ€“protein interactions. Biosensors and Bioelectronics, 2009, 25, 864-869.	10.1	208
2	Fast and accurate peanut allergen detection with nanobead enhanced optical fiber SPR biosensor. Talanta, 2011, 83, 1436-1441.	5.5	134
3	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
4	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
5	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
6	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
7	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
8	Bioassay Development for Ultrasensitive Detection of Influenza A Nucleoprotein Using Digital ELISA. Analytical Chemistry, 2016, 88, 8450-8458.	6.5	89
9	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
10	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
11	A VersaTile-driven platform for rapid hit-to-lead development of engineered lysins. Science Advances, 2020, 6, eaaz1136.	10.3	75
12	Biofunctionalization of electrowetting-on-dielectric digital microfluidic chips for miniaturized cell-based applications. Lab on A Chip, 2011, 11, 2790.	6.0	73
13	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
14	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
15	Smart design of fiber optic surfaces for improved plasmonic biosensing. New Biotechnology, 2015, 32, 473-484.	4.4	63
16	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
17	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
18	Improved surface plasmon resonance biosensing using silanized optical fibers. Sensors and Actuators B: Chemical, 2015, 216, 518-526.	7.8	49

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19	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
20	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
21	Digital microfluidics for time-resolved cytotoxicity studies on single non-adherent yeast cells. Lab on A Chip, 2015, 15, 1852-1860.	6.0	41
22	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
23	The Antifungal Plant Defensin HsAFP1 Is a Phosphatidic Acid-Interacting Peptide Inducing Membrane Permeabilization. Frontiers in Microbiology, 2017, 8, 2295.	3.5	36
24	3D Printing of Monolithic Capillarityâ€Driven Microfluidic Devices for Diagnostics. Advanced Materials, 2021, 33, e2008712.	21.0	36
25	Creasensor: SIMPLE technology for creatinine detection in plasma. Analytica Chimica Acta, 2018, 1000, 191-198.	5.4	34
26	Synthetic Antiferromagnetic Nanoparticles as Potential Contrast Agents in MRI. ACS Nano, 2014, 8, 2269-2278.	14.6	33
27	Realâ€Time Monitoring of Solidâ€Phase PCR Using Fiberâ€Optic SPR. Small, 2011, 7, 1003-1006.	10.0	31
28	Spherical Nucleic Acid Enhanced FO-SPR DNA Melting for Detection of Mutations in Legionella pneumophila. Analytical Chemistry, 2013, 85, 1734-1742.	6.5	31
29	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
30	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
31	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
32	Building bio-assays with magnetic particles on a digital microfluidic platform. New Biotechnology, 2015, 32, 485-503.	4.4	29
33	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
34	Real-time PCR melting analysis with fiber optic SPR enables multiplex DNA identification of bacteria. Analyst, The, 2016, 141, 1906-1911.	3.5	28
35	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
36	Real-time ligation chain reaction for DNA quantification and identification on the FO-SPR. Biosensors and Bioelectronics, 2015, 67, 394-399.	10.1	26

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37	Fiberâ€Optic Highâ€Resolution Genetic Screening Using Goldâ€Labeled Gene Probes. Small, 2012, 8, 868-872.	10.0	25
38	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
39	Neuromedin U signaling regulates retrieval of learned salt avoidance in a C. elegans gustatory circuit. Nature Communications, 2020, 11, 2076.	12.8	24
40	Optical Manipulation of Single Magnetic Beads in a Microwell Array on a Digital Microfluidic Chip. Analytical Chemistry, 2016, 88, 8596-8603.	6.5	23
41	Innovative Hydrophobic Valve Allows Complex Liquid Manipulations in a Self-Powered Channel-Based Microfluidic Device. ACS Sensors, 2019, 4, 694-703.	7.8	23
42	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
43	Self-powered infusion microfluidic pump for ex vivo drug delivery. Biomedical Microdevices, 2018, 20, 44.	2.8	22
44	Digital Microfluidics for Single Bacteria Capture and Selective Retrieval Using Optical Tweezers. Micromachines, 2020, 11, 308.	2.9	21
45	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
46	RNA-Cleaving NAzymes: The Next Big Thing in Biosensing?. Trends in Biotechnology, 2020, 38, 1343-1359.	9.3	20
47	Putting RNA to work: Translating RNA fundamentals into biotechnological engineering practice. Biotechnology Advances, 2015, 33, 1829-1844.	11.7	19
48	Identification and Quantification of Celery Allergens Using Fiber Optic Surface Plasmon Resonance PCR. Sensors, 2017, 17, 1754.	3.8	19
49	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
50	Probing the Force-Induced Dissociation of Aptamer-Protein Complexes. Analytical Chemistry, 2014, 86, 3084-3091.	6.5	17
51	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
52	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
53	Reaction injection molding of hydrophilic-in-hydrophobic femtolitre-well arrays. Microsystems and Nanoengineering, 2019, 5, 25.	7.0	15
54	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

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55	Enabling fiber optic serotyping of pathogenic bacteria through improved anti-fouling functional surfaces. Nanotechnology, 2012, 23, 235503.	2.6	14
56	Evaluation of different strategies for magnetic particle functionalization with DNA aptamers. New Biotechnology, 2016, 33, 755-762.	4.4	13
57	Boosting biomolecular interactions through DNA origami nano-tailored biosensing interfaces. Journal of Materials Chemistry B, 2020, 8, 3606-3615.	5.8	13
58	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
59	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
60	Controlling the Bioreceptor Spatial Distribution at the Nanoscale for Single Molecule Counting in Microwell Arrays. ACS Sensors, 2019, 4, 2327-2335.	7.8	11
61	Gold nanoparticle enhanced multiplexed biosensing on a fiber optic surface plasmon resonance probe. Biosensors and Bioelectronics, 2021, 192, 113549.	10.1	11
62	Miniaturized single-cell technologies for monoclonal antibody discovery. Lab on A Chip, 2021, 21, 3627-3654.	6.0	10
63	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
64	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
65	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
66	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
67	SIMPLE analytical model for smart microfluidic chip design. Sensors and Actuators A: Physical, 2019, 287, 131-137.	4.1	9
68	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
69	A Versatile One-Step Competitive Fiber Optic Surface Plasmon Resonance Bioassay Enabled by DNA Nanotechnology. ACS Sensors, 2021, 6, 3677-3684.	7.8	9
70	DNA-only bioassay for simultaneous detection of proteins and nucleic acids. Analytical and Bioanalytical Chemistry, 2021, 413, 4925-4937.	3.7	8
71	Novel Regeneration Approach for Creating Reusable FO-SPR Probes with NTA Surface Chemistry. Nanomaterials, 2021, 11, 186.	4.1	8
72	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

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73	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
74	Isolation and Validation of an Endogenous Fluorescent Nucleoid Reporter in Salmonella Typhimurium. PLoS ONE, 2014, 9, e93785.	2.5	5
75	Exploring of the feature space of de novo developed post-transcriptional riboregulators. PLoS Computational Biology, 2018, 14, e1006170.	3.2	4
76	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
77	Transferability of antibody pairs from ELISA to fiber optic surface plasmon resonance for infliximab detection. Proceedings of SPIE, 2015, , .	0.8	3
78	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
79	Sequential enzymatic quantification of two sugars in a single microchannel. Microfluidics and Nanofluidics, 2012, 12, 779-786.	2.2	2
80	Ara h 1 proteinâ€"antibody dissociation study: evidence for binding inhomogeneities on a molecular scale. New Biotechnology, 2015, 32, 458-466.	4.4	2
81	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
82	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
83	Integrated Microwell Array Technologies for Single Cell Analysis. , 2020, , 1-32.		1
84	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
85	Integrated Microwell Array Technologies for Single Cell Analysis. , 2022, , 311-341.		0