

# Maria-Jose Bañuls

## List of Publications by Year in descending order

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66  
papers

1,538  
citations

361045

20  
h-index

315357

38  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1983  
citing authors

#	ARTICLE	IF	CITATIONS
1	A packaged optical slot-waveguide ring resonator sensor array for multiplex label-free assays in labs-on-chips. <i>Lab on A Chip</i> , 2010, 10, 281-290.	3.1	238
2	Label-free optical biosensing with slot-waveguides. <i>Optics Letters</i> , 2008, 33, 708.	1.7	201
3	Chemical surface modifications for the development of silicon-based label-free integrated optical (IO) biosensors: A review. <i>Analytica Chimica Acta</i> , 2013, 777, 1-16.	2.6	111
4	Label-free antibody detection using band edge fringes in SOI planar photonic crystal waveguides in the slow-light regime. <i>Optics Express</i> , 2010, 18, 24276.	1.7	84
5	Label-free biosensing by means of periodic lattices of high aspect ratio SU-8 nano-pillars. <i>Biosensors and Bioelectronics</i> , 2010, 25, 2553-2558.	5.3	61
6	Recovery of Shallow Charge-Trapping Defects in CsPbX <sub>3</sub> Nanocrystals through Specific Binding and Encapsulation with Amino-Functionalized Silanes. <i>ACS Energy Letters</i> , 2018, 3, 1409-1414.	8.8	60
7	Single-strand DNA detection using a planar photonic-crystal-waveguide-based sensor. <i>Optics Letters</i> , 2010, 35, 3673.	1.7	58
8	Selective chemical modification of silicon nitride/silicon oxide nanostructures to develop label-free biosensors. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1460-1466.	5.3	48
9	DNA microarrays on silicon surfaces through thiol-ene chemistry. <i>Chemical Communications</i> , 2012, 48, 2116.	2.2	42
10	Direct Covalent Attachment of DNA Microarrays by Rapid Thiol-ene Click Chemistry. <i>Bioconjugate Chemistry</i> , 2014, 25, 618-627.	1.8	41
11	Chemical Derivatization of Compact Disc Polycarbonate Surfaces for SNPs detection. <i>Bioconjugate Chemistry</i> , 2008, 19, 665-672.	1.8	36
12	Bio-Photonic Sensing Cells over transparent substrates for anti-gestrinone antibodies biosensing. <i>Biosensors and Bioelectronics</i> , 2011, 26, 4842-4847.	5.3	32
13	Site-specific immobilization of DNA on silicon surfaces by using the thiol-yne reaction. <i>Journal of Materials Chemistry B</i> , 2014, 2, 8510-8517.	2.9	30
14	Evaluation of a Novel Malathion Immunoassay for Groundwater and Surface Water Analysis. <i>Environmental Science &amp; Technology</i> , 2005, 39, 2786-2794.	4.6	29
15	Silicon nanopillar arrays with SiO <sub>2</sub> overlayer for biosensing application. <i>Optical Materials Express</i> , 2014, 4, 1345.	1.6	28
16	Thiol-ene click chemistry towards easy microarraying of half-antibodies. <i>Chemical Communications</i> , 2018, 54, 6144-6147.	2.2	28
17	Chemical silicon surface modification and bioreceptor attachment to develop competitive integrated photonic biosensors. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 404, 2831-2840.	1.9	23
18	Monodispersed CsPb <sub>2</sub> Br <sub>5</sub> @SiO <sub>2</sub> Core-Shell Nanoparticles as Luminescent Labels for Biosensing. <i>ACS Applied Nano Materials</i> , 2021, 4, 2011-2018.	2.4	22

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19	Development of Oligonucleotide Microarrays onto Si-Based Surfaces via Thioether Linkage Mediated by UV Irradiation. <i>Bioconjugate Chemistry</i> , 2012, 23, 2121-2128.	1.8	21
20	Development of Hapten-Linked Microimmunoassays on Polycarbonate Discs. <i>Analytical Chemistry</i> , 2010, 82, 1954-1963.	3.2	20
21	Improved Performance of DNA Microarray Multiplex Hybridization Using Probes Anchored at Several Points by Thiol-ene or Thiol-yne Coupling Chemistry. <i>Bioconjugate Chemistry</i> , 2017, 28, 496-506.	1.8	20
22	PMMA Isocyanate-Modified Digital Discs as a Support for Oligonucleotide-Based Assays. <i>Bioconjugate Chemistry</i> , 2007, 18, 1408-1414.	1.8	18
23	Label-free detection of C-Reactive protein using bioresponsive hydrogel-based surface relief diffraction gratings. <i>Biosensors and Bioelectronics</i> , 2021, 193, 113561.	5.3	18
24	Cation and anion fluorescent and electrochemical sensors derived from 4,4'-substituted biphenyl. <i>Tetrahedron</i> , 2005, 61, 10309-10320.	1.0	15
25	Addition of organolithium reagents to cinnamic acids. <i>Tetrahedron</i> , 1999, 55, 831-846.	1.0	14
26	Thiol-click photochemistry for surface functionalization applied to optical biosensing. <i>Analytica Chimica Acta</i> , 2019, 1060, 103-113.	2.6	14
27	On the mechanism of the addition of organolithium reagents to cinnamic acids. <i>Tetrahedron</i> , 2001, 57, 1067-1074.	1.0	13
28	Experimental Study of the Oriented Immobilization of Antibodies on Photonic Sensing Structures by Using Protein A as an Intermediate Layer. <i>Sensors</i> , 2018, 18, 1012.	2.1	12
29	High sensitivity and label-free oligonucleotides detection using photonic bandgap sensing structures biofunctionalized with molecular beacon probes. <i>Biomedical Optics Express</i> , 2018, 9, 1717.	1.5	12
30	4,4'-Substituted biphenyl coronands. Preparation of a new selective fluorescent sensor for mercury salts. <i>Tetrahedron</i> , 2006, 62, 11972-11978.	1.0	11
31	Cost-effective SU-8 micro-structures by DUV excimer laser lithography for label-free biosensing. <i>Applied Surface Science</i> , 2011, 257, 5403-5407.	3.1	11
32	Hydrogel-based holographic sensors and biosensors: past, present, and future. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 993-1014.	1.9	11
33	Direct and label-free monitoring oligonucleotide immobilization, non-specific binding and DNA biorecognition. <i>Sensors and Actuators B: Chemical</i> , 2014, 192, 221-228.	4.0	10
34	Title is missing!. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2003, 45, 241-249.	1.6	8
35	Biomolecular Interaction Analysis of Gestrinone-anti-Gestrinone Using Arrays of High Aspect Ratio SU-8 Nanopillars. <i>Biosensors</i> , 2012, 2, 291-304.	2.3	8
36	Experimental study of the evanescent-wave photonic sensors response in presence of molecular beacon conformational changes. <i>Journal of Biophotonics</i> , 2018, 11, e201800030.	1.1	8

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37	Fluor-thiol Photocoupling Reaction for Developing High Performance Nucleic Acid (NA) Microarrays. <i>Analytical Chemistry</i> , 2018, 90, 11224-11231.	3.2	8
38	Photopolymerization as a promising method to sense biorecognition events. <i>TrAC - Trends in Analytical Chemistry</i> , 2012, 41, 86-104.	5.8	7
39	Microarray Developed on Plastic Substrates. <i>Methods in Molecular Biology</i> , 2016, 1368, 37-51.	0.4	7
40	Phosphorylcholine-based hydrogel for immobilization of biomolecules. Application to fluorometric microarrays for use in hybridization assays and immunoassays, and nanophotonic biosensing. <i>Mikrochimica Acta</i> , 2019, 186, 570.	2.5	7
41	Modeling of the Role of Conformational Dynamics in Kinetics of the Antigen-Antibody Interaction in Heterogeneous Phase. <i>Journal of Physical Chemistry B</i> , 2012, 116, 5679-5688.	1.2	6
42	Development of a versatile biotinylated material based on SU-8. <i>Journal of Materials Chemistry B</i> , 2013, 1, 2750.	2.9	6
43	Sub-micrometric reflectometry for localized label-free biosensing. <i>Optics Express</i> , 2015, 23, 12544.	1.7	6
44	Detection of miRNA cancer biomarkers using light activated Molecular Beacons. <i>RSC Advances</i> , 2019, 9, 12766-12783.	1.7	6
45	Biphenyl Macrolactams as Colorimetric Sensors for Anions through Displacement Reactions. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2006, 54, 61-66.	1.6	5
46	Photoattachment of thiolated DNA probes on SU-8 spin-coated Blu-ray disk surfaces for biosensing. <i>Journal of Materials Chemistry B</i> , 2013, 1, 6245.	2.9	5
47	Versatile and Easy Fabrication of Advanced Surfaces for High Performance DNA Microarrays. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500850.	1.9	5
48	Covalent attachment of biotinylated molecular beacons via thiol-ene coupling. A study on conformational changes upon hybridization and streptavidin binding. <i>Mikrochimica Acta</i> , 2017, 184, 3231-3238.	2.5	5
49	Single strand DNA hybridization sensing using photonic crystal waveguide based sensor. , 2010, , .		4
50	Photonic Crystal Biosensor Chip for Label-Free Detection of Bacteria. , 2011, , .		4
51	Optimization of a label-free biosensor vertically characterized based on a periodic lattice of high aspect ratio SU-8 nano-pillars with a simplified 2D theoretical model. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 1087-1092.	0.8	4
52	Influenza A virus infection diagnosis based on DVD reader technology. <i>Analytical Methods</i> , 2012, 4, 3133.	1.3	4
53	Novel and rapid activation of polyvinylidene fluoride membranes by UV light. <i>Reactive and Functional Polymers</i> , 2019, 140, 56-61.	2.0	4
54	Real Time Monitoring of a UV Light-Assisted Biofunctionalization Protocol Using a Nanophotonic Biosensor. <i>Biosensors</i> , 2019, 9, 6.	2.3	4

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55	Processing of Holographic Hydrogels in Liquid Media: A Study by High-Performance Liquid Chromatography and Diffraction Efficiency. <i>Polymers</i> , 2022, 14, 2089.	2.0	4
56	Magnetochemical modulation of pre-organization processes in a 4,4'-dinitrobiphenyl azacrown macrocyclic lactam. <i>Electrochemistry Communications</i> , 2004, 6, 908-912.	2.3	3
57	Real-time observation of antigen-antibody association using a low-cost biosensing system based on photonic bandgap structures. <i>Optics Letters</i> , 2012, 37, 3684.	1.7	3
58	Modulating receptor-ligand binding in biorecognition by setting surface wettability. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 5723-5730.	1.9	3
59	Experimental study of an evanescent-field biosensor based on 1D photonic bandgap structures. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 967-974.	1.5	3
60	DNA-based hydrogels for high-performance optical biosensing application. <i>Talanta</i> , 2022, 244, 123427.	2.9	3
61	Magnetochemical chemistry of 4,4'-bis(dimethylamino)biphenyl and 4,4'-dinitrobiphenyl azacrown macrocyclic lactams. <i>Electrochimica Acta</i> , 2005, 50, 4063-4075.	2.6	2
62	Photoclick chemistry to create dextran-based nucleic acid microarrays. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 6745-6754.	1.9	2
63	New Method for Online Regeneration of Silicon-Based Nanophotonic Biosensors. <i>Proceedings (mdpi)</i> , 2018, 4, .	0.2	1
64	Photonic immobilization techniques used for the detection of cardiovascular disease biomarkers. , 2018, , .		1
65	Microfluidic and transducer technologies for lab on a chip applications. , 2010, 2010, 305-7.		0
66	Holographic transmission gratings stored in a hydrogel matrix. , 2020, , .		0