Sara Tombelli

List of Publications by Year
in descending order

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121 papers	6,463 citations	81743 39 h-index	62479 80 g-index
131 all docs	131 docs citations	131 times ranked	6413 citing authors

#	Article	IF	Citations
1	Analytical applications of aptamers. Biosensors and Bioelectronics, 2005, 20, 2424-2434.	5.3	906
2	Aptamer-Based Detection of Plasma Proteins by an Electrochemical Assay Coupled to Magnetic Beads. Analytical Chemistry, 2007, 79, 1466-1473.	3.2	396
3	Nucleic Acid and Peptide Aptamers: Fundamentals and Bioanalytical Aspects. Angewandte Chemie - International Edition, 2012, 51, 1316-1332.	7.2	315
4	Aptamers-based assays for diagnostics, environmental and food analysis. New Biotechnology, 2007, 24, 191-200.	2.7	258
5	Aptamer-based biosensors for the detection of HIV-1 Tat protein. Bioelectrochemistry, 2005, 67, 135-141.	2.4	242
6	Electrochemical and piezoelectric DNA biosensors for hybridisation detection. Analytica Chimica Acta, 2008, 609, 139-159.	2.6	240
7	Biosensing with optical fiber gratings. Nanophotonics, 2017, 6, 663-679.	2.9	224
8	Quartz crystal microbalance (QCM) affinity biosensor for genetically modified organisms (GMOs) detection. Biosensors and Bioelectronics, 2003, 18, 129-140.	5.3	210
9	New trends in affinity sensing. TrAC - Trends in Analytical Chemistry, 2003, 22, 810-818.	5.8	207
10	Development of biosensors with aptamers as bio-recognition element: the case of HIV-1 Tat protein. Biosensors and Bioelectronics, 2004, 20, 1149-1156.	5.3	196
11	Femtomolar Detection by Nanocoated Fiber Label-Free Biosensors. ACS Sensors, 2018, 3, 936-943.	4.0	193
12	Analytical Performances of Aptamer-Based Sensing for Thrombin Detection. Analytical Chemistry, 2007, 79, 3016-3019.	3.2	190
13	Biosensors for biomarkers in medical diagnostics. Biomarkers, 2008, 13, 637-657.	0.9	158
14	Polyphenol Content and Antioxidative Activity in Some Species of Freshly Consumed Salads. Journal of Agricultural and Food Chemistry, 2007, 55, 1724-1729.	2.4	144
15	Immobilisation of DNA probes for the development of SPR-based sensing. Biosensors and Bioelectronics, 2004, 20, 967-974.	5.3	104
16	Solâ€“Gel-Based Titaniaâ€“Silica Thin Film Overlay for Long Period Fiber Grating-Based Biosensors. Analytical Chemistry, 2015, 87, 12024-12031.	3.2	102
17	Detection of C Reactive Protein (CRP) in Serum by an Electrochemical Aptamerâ€Based Sandwich Assay. Electroanalysis, 2009, 21, 1309-1315.	1.5	98
18	Direct immobilisation of DNA probes for the development of affinity biosensors. Bioelectrochemistry, 2005, 66, 129-138.	2.4	97

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19	Detection of Fragmented Genomic DNA by PCR-Free Piezoelectric Sensing Using a Denaturation Approach. Journal of the American Chemical Society, 2005, 127, 7966-7967.	6.6	95
20	A DNA piezoelectric biosensor assay coupled with a polymerase chain reaction for bacterial toxicity determination in environmental samples. Analytica Chimica Acta, 2000, 418, 1-9.	2.6	94
21	Different approaches for the detection of thrombin by an electrochemical aptamer-based assay coupled to magnetic beads. Biosensors and Bioelectronics, 2008, 23, 1602-1609.	5.3	94
22	Towards sensitive label-free immunosensing by means of turn-around point long period fiber gratings. Biosensors and Bioelectronics, 2014, 60, 305-310.	5.3	92
23	Development of an optical RNA-based aptasensor for C-reactive protein. Analytical and Bioanalytical Chemistry, 2008, 390, 1077-1086.	1.9	89
24	Improved procedures for immobilisation of oligonucleotides on gold-coated piezoelectric quartz crystals. Biosensors and Bioelectronics, 2002, 17, 929-936.	5.3	84
25	Piezoelectric biosensors: Strategies for coupling nucleic acids to piezoelectric devices. Methods, 2005, 37, 48-56.	1.9	76
26	SPR-based plastic optical fibre biosensor for the detection of C-reactive protein in serum. Journal of Biophotonics, 2016, 9, 1077-1084.	1.1	73
27	An Electrochemical Immunoassay for HER2 Detection. Electroanalysis, 2012, 24, 735-742.	1.5	72
28	A new approach for the detection of DNA sequences in amplified nucleic acids by a surface plasmon resonance biosensor. Biosensors and Bioelectronics, 2004, 20, 598-605.	5.3	69
29	Coupling of a DNA piezoelectric biosensor and polymerase chain reaction to detect apolipoprotein E polymorphisms. Biosensors and Bioelectronics, 2000, 15, 363-370.	5.3	66
30	Detection of clinically relevant point mutations by a novel piezoelectric biosensor. Biosensors and Bioelectronics, 2006, 21, 1876-1879.	5.3	65
31	Electrochemical biosensors for biogenic amines: a comparison between different approaches. Analytica Chimica Acta, 1998, 358, 277-284.	2.6	64
32	A novel low-cost and easy to develop functionalization platform. Case study: Aptamer-based detection of thrombin by surface plasmon resonance. Talanta, 2010, 80, 2157-2164.	2.9	63
33	Biosensors as new analytical tool for detection of Genetically Modified Organisms (GMOs). Fresenius' Journal of Analytical Chemistry, 2001, 369, 589-593.	1.5	58
34	Combination of amplification and post-amplification strategies to improve optical DNA sensing. Biosensors and Bioelectronics, 2003, 19, 337-344.	5.3	57
35	Detection of Î²-thalassemia by a DNA piezoelectric biosensor coupled with polymerase chain reaction. Analytica Chimica Acta, 2003, 481, 55-64.	2.6	56
36	An optical DNA-based biosensor for the analysis of bioactive constituents with application in drug and herbal drug screening. Talanta, 2005, 65, 578-585.	2.9	54

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37	Development of combined DNA-based piezoelectric biosensors for the simultaneous detection and genotyping of high risk Human Papilloma Virus strains. Clinica Chimica Acta, 2007, 383, 140-146.	0.5	49
38	Magnetically driven drug delivery systems improving targeted immunotherapy for colon-rectal cancer. Journal of Controlled Release, 2018, 280, 76-86.	4.8	47
39	A DNA-based piezoelectric biosensor: Strategies for coupling nucleic acids to piezoelectric devices. Talanta, 2006, 68, 806-812.	2.9	43
40	Transgenes monitoring in an industrial soybean processing chain by DNA-based conventional approaches and biosensors. Food Chemistry, 2009, 113, 658-664.	4.2	40
41	Design, fabrication and characterisation of silica-titania thin film coated over coupled long period fibre gratings: Towards bio-sensing applications. Sensors and Actuators B: Chemical, 2017, 253, 418-427.	4.0	39
42	Long-period fiber grating: a specific design for biosensing applications. Applied Optics, 2017, 56, 9846.	0.9	38
43	A PIEZOELECTRIC AFFINITY BIOSENSOR FOR GENETICALLY MODIFIED ORGANISMS (GMOs) DETECTION. Analytical Letters, 2001, 34, 825-840.	1.0	33
44	Oligonucleotide optical switches for intracellular sensing. Analytical and Bioanalytical Chemistry, 2013, 405, 6181-6196.	1.9	32
45	A SURFACE PLASMON RESONANCE BIOSENSOR FOR THE DETERMINATION OF THE AFFINITY OF DRUGS FOR NUCLEIC ACIDS. Analytical Letters, 2002, 35, 599-613.	1.0	26
46	Molecular beacon-decorated polymethylmethacrylate core-shell fluorescent nanoparticles for the detection of survivin mRNA in human cancer cells. Biosensors and Bioelectronics, 2017, 88, 15-24.	5.3	26
47	Detection of human apolipoprotein E genotypes by DNA biosensors coupled with PCR. Clinica Chimica Acta, 2001, 307, 241-248.	0.5	24
48	Theranostic Properties of a Survivin-Directed Molecular Beacon in Human Melanoma Cells. PLoS ONE, 2014, 9, e114588.	1.1	24
49	Bulk acoustic wave affinity biosensor for genetically modified organisms detection. IEEE Sensors Journal, 2003, 3, 369-375.	2.4	23
50	Detection of highly repeated sequences in non-amplified genomic DNA by bulk acoustic wave (BAW) affinity biosensor. Analytica Chimica Acta, 2004, 526, 19-25.	2.6	23
51	A Complete Optical Sensor System Based on a POF-SPR Platform and a Thermo-Stabilized Flow Cell for Biochemical Applications. Sensors, 2016, 16, 196.	2.1	23
52	Aptamers Biosensors for Pharmaceutical Compounds. Combinatorial Chemistry and High Throughput Screening, 2010, 13, 641-649.	0.6	23
53	Electronic Detection of DNA Hybridization by Coupling Organic Field-Effect Transistor-Based Sensors and Hairpin-Shaped Probes. Sensors, 2018, 18, 990.	2.1	21
54	DNA biosensors for the detection of aflatoxin producing Aspergillus flavus and A. parasiticus. Monatshefte FÃ¼r Chemie, 2009, 140, 901-907.	0.9	19

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55	Optical Fiber Nanotips Coated with Molecular Beacons for DNA Detection. Sensors, 2015, 15, 9666-9680.	2.1	19
56	Recent Advances in Optical DNA Biosensors Technology. Chimia, 2005, 59, 236-242.	0.3	18
57	Optical Monitoring of Therapeutic Drugs with a Novel Fluorescence- Based POCT Device. Procedia Engineering, 2014, 87, 392-395.	1.2	18
58	Detection of biomarkers for inflammatory diseases by an electrochemical immunoassay: The case of neopterin. Talanta, 2015, 134, 48-53.	2.9	18
59	Analysis of the Lowest Order Cladding Mode of Long Period Fiber Gratings Near Turn Around Point. Journal of Lightwave Technology, 2021, 39, 4006-4012.	2.7	18
60	Biosensors exploiting unconventional platforms: The case of plasmonic light-diffusing fibers. Sensors and Actuators B: Chemical, 2021, 337, 129771.	4.0	16
61	A Biosensor Approach for DNA Sequences Detection in Nonâ€amplified Genomic DNA. Analytical Letters, 2007, 40, 1360-1370.	1.0	14
62	Fluorescence biosensing in selectively photoâ€“activated microbubble resonators. Sensors and Actuators B: Chemical, 2017, 242, 1057-1064.	4.0	14
63	Real-time kinetic binding studies at attomolar concentrations in solution phase using a single-stage opto-biosensing platform based upon infrared surface plasmons. Optics Express, 2017, 25, 39.	1.7	13
64	A Heteroâ€Bifunctional Spacer for the Smart Engineering of Carbonâ€Based Nanostructures. ChemPlusChem, 2015, 80, 704-714.	1.3	10
65	Aptamer optical switches: From biosensing to intracellular sensing. Sensors and Actuators Reports, 2021, 3, 100030.	2.3	10
66	Polymeric nanoparticles promote endocytosis of a survivin molecular beacon: Localization and fate of nanoparticles and beacon in human A549 cells. Life Sciences, 2018, 215, 106-112.	2.0	8
67	Immunosuppressant quantification in intravenous microdialysateÂâ€“ towards novel quasi-continuous therapeutic drug monitoring in transplanted patients. Clinical Chemistry and Laboratory Medicine, 2021, 59, 935-945.	1.4	8
68	Recent Advances on DNA Biosensors. International Journal of Environmental Analytical Chemistry, 2001, 80, 87-99.	1.8	7
69	Optical Fibre Micro/Nano Tips as Fluorescence-Based Sensors and Interrogation Probes. Optics, 2020, 1, 213-242.	0.6	7
70	Label-free immunosensing by long period fiber gratings at the lowest order cladding mode and near turn around point. Optics and Laser Technology, 2021, 142, 107194.	2.2	7
71	New Trends in Nucleic Acids Based Biosensorsâ€"Florence, Italy, October 25â€“28, 2003. Analytical Letters, 2004, 37, 1037-1052.	1.0	6
72	An integrated device for fast and sensitive immunosuppressant detection. Analytical and Bioanalytical Chemistry, 2022, 414, 3243-3255.	1.9	6

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73	Biosensors for RNA Aptamersâ€"Protein Interaction. Methods in Molecular Biology, 2008, 419, 109-119.	0.4	5
74	Piezoelectric Biosensors for Aptamerâ€"Protein Interaction. Methods in Molecular Biology, 2009, 504, 23-36.	0.4	5
75	Sensitivity Analysis of Sidelobes of the Lowest Order Cladding Mode of Long Period Fiber Gratings at Turn Around Point. Sensors, 2022, 22, 2965.	2.1	5
76	Complex Nanostructures Based on Oligonucleotide Optical Switches and Nanoparticles for Intracellular mRNA Sensing and Silencing. Procedia Engineering, 2014, 87, 751-754.	1.2	4
77	Optical micro-bubble resonators as promising biosensors. Proceedings of SPIE, 2015, , .	0.8	4
78	Label-free IgG/anti-IgG biosensing based on long period fiber gratings: a comprehensive feasibility study. , 2015, , .		4
79	Optical sensing in POCT: the contribution of the Institute of Applied Physics of the Italian CNR. Laboratoriums Medizin, 2017, 41, .	0.1	4
80	In-Parallel Polar Monitoring of Chemiluminescence Emission Anisotropy at the Solidâ€"Liquid Interface by an Optical Fiber Radial Array. Chemosensors, 2020, 8, 18.	1.8	4
81	Analytical Applicationsof QCM-based Nucleic Acid Biosensors. , 2006, , 211-235.		3
82	A newly designed optical biochip for a TDM-POCT device. , 2014, , .		3
83	Localized biomolecules immobilization in optical microbubble resonators. Proceedings of SPIE, 2016, , .	0.8	3
84	A Point-of-Care Device for Immunosuppressants Monitoring in Transplanted Patients. Lecture Notes in Electrical Engineering, 2015, , 27-31.	0.3	3
85	Analytical applications of aptamers. , 2007, 6585, 255.		2
86	Aptamer-Based Bioanalytical Assays: Amplification Strategies. , 0, , 159-179.		2
87	Development of an Aptamer-Based Electrochemical Sandwich Assay for the Detection of a Clinical Biomarker. Lecture Notes in Electrical Engineering, 2010, , 207-210.	0.3	2
88	Intracellular delivery of molecular beacons by PMMA nanoparticles and carbon nanotubes for mRNA sensing. , 2013, , .		2
89	Total Internal Reflection Fluorescence-based Optical Biochip for the Detection of Immunosuppressants in Transplanted Patients. , 2015, , .		2
90	A waveguide absorption filter for fluorescence measurements. Sensors and Actuators B: Chemical, 2019, 281, 90-95.	4.0	2

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91	Detection of a Tumor Marker in Serum by an Electrochemical Assay Coupled to Magnetic Beads. Lecture Notes in Electrical Engineering, 2011, , 157-161.	0.3	2
92	In Vitro Radical Scavenging and Anti-Yeast Activity of Extracts from Leaves of Aloe Species Growing in Congo. Natural Product Communications, 2008, 3, 1934578X0800301.	0.2	1
93	Oligonucleotide switches and nanomaterials for intracellular mRNA sensing. , 2013, , .		1
94	IgG/anti-IgG immunoassay based on a turn-around point long period grating. , 2014, , .		1
95	New Affinity Biosensors as Diagnostic Tools for Tumour Marker Analysis. Lecture Notes in Electrical Engineering, 2014, , 19-23.	0.3	1
96	Optical heterogeneous bioassay for the detection of the inflammatory biomarker suPAR. , 2015, , .		1
97	Localized immunoassay in flow-through optical microbubble resonator (Conference Presentation). , 2016, , .		1
98	Lossy Mode Resonance Fiber-Optic Biosensing Allowing Ultra-Low Detection Limit. , 2019, , .		1
99	Realization of Enhanced Evanescent Field Long Period Fiber Grating near Turn around Point for Label-Free Immunosensing. , 0, , .		1
100	Silencing Survivin: a Key Therapeutic Strategy for Cardiac Hypertrophy. Journal of Cardiovascular Translational Research, 2021, , 1.	1.1	1
101	Analytical Applications of QCM-based Nucleic Acid Biosensors. , 2006, , 211-235.		1
102	Biosensing with microresonators and fibre nanotips. , 2013, , .		0
103	Optical fiber nanotips as carriers for molecular beacon-based biosensors. , 2013, , .		0
104	Miniaturised optical fiber pH sensor for gastro-esophageal applications. Proceedings of SPIE, 2013, , .	0.8	0
105	Impact of thermal oxidation, surface chemistry and porous silicon morphology for sensing applications. Proceedings of SPIE, 2013, , .	0.8	0
106	Comparative assessment of the performance of long period fiber grating-based biosensors. , 2015, , .		0
107	Polymethylmethacrylate Nanoparticles as Vehicle for a Molecular Beacon Specific for Survivin mRNA in A549 Cells. , 2015, , .		0
108	A Hetero-Bifunctional Spacer for the Smart Engineering of Carbon-Based Nanostructures. ChemPlusChem, 2015, 80, 636-636.	1.3	0

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109	Polymethylmethacrylate nanoparticles as carrier of an oligodeoxynucleotide molecular beacon specific for survivin mRNA in A549 human lung adenocarcinoma epithelial cells. , 2015, , .		0
110	A thermo-stabilized flow cell for surface plasmon resonance sensors in D-shaped plastic optical fibers. Proceedings of SPIE, 2016, , .	0.8	0
111	The light at the service of medicine: optical sensing beside the patient's bed (Conference Presentation). , 2017, , .		0
112	Novel fluorescence-based POCT platform for therapeutic drug monitoring in transplanted patients (Conference Presentation). , 2017, , .		0
113	A POCT platform for sepsis biomarkers (Conference Presentation). , 2017, , .		0
114	Manufacturing and Optimization of Sol-gel-based TiO2-SiO2 thin Films as High Refractive Index Overlays for Long Period Grating-based Biosensing. , 2016, , .		0
115	DNA-Surfactant Thin-Film Processing and Characterization. , 2016, , 192-243.		0
116	Oligonucleotide molecular beacons for intracellular diagnosis and therapy. SPIE Newsroom, 0, , .	0.1	0
117	High numerical aperture waveguide absorption filter for fluorescence detection. , 2019, , .		0
118	Internalization by PMMA nanoparticle-mediated endocytosis of a survivin molecular beacon as theranostic agent in human cancer cells.. , 2020, , .		0
119	Optimization of optical fiber long period gratings for biosensing applications. , 2020, , .		0
120	A fluorescence-based POCT device for immunosuppressant-drug monitoring in transplanted patient. , 0, , .		0
121	Intracellular sensing by a survivin molecular beacon coupled to PMMA nanoparticles in human cancer cells. , 0, , .		0