Ilaria Palchetti

List of Publications by Year
in descending order

129 papers	5,476 citations	66343 42 h-index	85541 71 g-index
143 all docs	143 docs citations	143 times ranked	5789 citing authors

#	Article	IF	Citations
1	Nucleic Acid and Peptide Aptamers: Fundamentals and Bioanalytical Aspects. Angewandte Chemie - International Edition, 2012, 51, 1316-1332.	13.8	315
2	Electrochemical sensor and biosensor for polyphenols detection in olive oils. Food Chemistry, 2000, 71, 553-562.	8.2	232
3	Nucleic acid biosensors for environmental pollution monitoring. Analyst, The, 2008, 133, 846.	3.5	203
4	Electroanalytical biosensors and their potential for food pathogen and toxin detection. Analytical and Bioanalytical Chemistry, 2008, 391, 455-471.	3.7	201
5	Electrochemical nucleic acid-based biosensors: Concepts, terms, and methodology (IUPAC Technical) Tj ETQq1 1 0.784314 rgBT /Ove	1.9	200
6	Determination of anticholinesterase pesticides in real samples using a disposable biosensor. Analytica Chimica Acta, 1997, 337, 315-321.	5.4	190
7	DNA electrochemical biosensors. Fresenius' Journal of Analytical Chemistry, 2001, 369, 15-22.	1.5	188
8	Gold-based screen-printed sensor for detection of trace lead. Sensors and Actuators B: Chemical, 2006, 114, 460-465.	7.8	168
9	Disposable electrochemical genosensor for the simultaneous analysis of different bacterial food contaminants. Biosensors and Bioelectronics, 2007, 22, 1544-1549.	10.1	121
10	Electrochemical DNA biosensor as a screening tool for the detection of toxicants in water and wastewater samples. Talanta, 2002, 56, 949-957.	5.5	117
11	Self-powered microneedle-based biosensors for pain-free high-accuracy measurement of glycaemia in interstitial fluid. Biosensors and Bioelectronics, 2015, 66, 162-168.	10.1	114
12	Electrochemical detection of miRNA-222 by use of a magnetic bead-based bioassay. Analytical and Bioanalytical Chemistry, 2013, 405, 1025-1034.	3.7	113
13	A review on the electrochemical biosensors for determination of microRNAs. Talanta, 2013, 115, 74-83.	5.5	113
14	Miniaturised stripping-based carbon modified sensor for in field analysis of heavy metals. Analytica Chimica Acta, 2005, 530, 61-67.	5.4	111
15	Electrochemical DNA biosensor for analysis of wastewater samples. Bioelectrochemistry, 2002, 58, 113-118.	4.6	101
16	Disposable ruthenized screen-printed biosensors for pesticides monitoring. Sensors and Actuators B: Chemical, 1995, 24, 85-89.	7.8	99
17	Electrochemical nanomaterial-based nucleic acid aptasensors. Analytical and Bioanalytical Chemistry, 2012, 402, 3103-3114.	3.7	99
18	Detection of C Reactive Protein (CRP) in Serum by an Electrochemical Aptamerâ€Based Sandwich Assay. Electroanalysis, 2009, 21, 1309-1315.	2.9	98

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19	Different approaches for the detection of thrombin by an electrochemical aptamer-based assay coupled to magnetic beads. Biosensors and Bioelectronics, 2008, 23, 1602-1609.	10.1	94
20	Disposable electrochemical DNA-array for PCR amplified detection of hazelnut allergens in foodstuffs. Analytica Chimica Acta, 2008, 614, 93-102.	5.4	78
21	A disposable electrochemical sensor for vanillin detection. Analytica Chimica Acta, 2006, 555, 134-138.	5.4	75
22	Coupling of an indicator-free electrochemical DNA biosensor with polymerase chain reaction for the detection of DNA sequences related to the apolipoprotein E. Analytica Chimica Acta, 2002, 469, 93-99.	5.4	74
23	Trends and Perspectives in Immunosensors for Determination of Currently-Used Pesticides: The Case of Glyphosate, Organophosphates, and Neonicotinoids. Biosensors, 2019, 9, 20.	4.7	73
24	Microbial surface display of glucose dehydrogenase for amperometric glucose biosensor. Biosensors and Bioelectronics, 2013, 45, 19-24.	10.1	71
25	PBDEs in Italian sewage sludge and environmental risk of using sewage sludge for land application. Environmental Pollution, 2012, 161, 229-234.	7.5	68
26	Evaluation of pesticide-induced acetylcholinesterase inhibition by means of disposable carbon-modified electrochemical biosensors. Enzyme and Microbial Technology, 2007, 40, 485-489.	3.2	66
27	Cell surface display of organophosphorus hydrolase for sensitive spectrophotometric detection of p-nitrophenol substituted organophosphates. Enzyme and Microbial Technology, 2014, 55, 107-112.	3.2	62
28	Development of disposable low density screen-printed electrode arrays for simultaneous electrochemical measurements of the hybridisation reaction. Journal of Electroanalytical Chemistry, 2006, 593, 211-218.	3.8	60
29	Polychlorinated biphenyls (PCBs) detection in milk samples by an electrochemical magneto-immunosensor (EMI) coupled to solid-phase extraction (SPE) and disposable low-density arrays. Analytica Chimica Acta, 2007, 594, 9-16.	5.4	60
30	Electrochemical, Electrochemiluminescence, and Photoelectrochemical Aptamer-Based Nanostructured Sensors for Biomarker Analysis. Biosensors, 2016, 6, 39.	4.7	59
31	Disposable strip potentiometric electrodes with solvent-polymeric ion-selective membranes fabricated using screen-printing technology. Analytica Chimica Acta, 1999, 385, 451-459.	5.4	52
32	Enzyme-amplified electrochemical hybridization assay based on PNA, LNA and DNA probe-modified micro-magnetic beads. Bioelectrochemistry, 2009, 76, 214-220.	4.6	52
33	Aligned carbon nanotube thin films for DNA electrochemical sensing. Electrochimica Acta, 2009, 54, 5035-5041.	5.2	52
34	Strategies for the development of an electrochemical bioassay for TNF-alpha detection by using a non-immunoglobulin bioreceptor. Talanta, 2016, 151, 141-147.	5.5	51
35	Direct determination of small RNAs using a biotinylated polythiophene impedimetric genosensor. Biosensors and Bioelectronics, 2017, 87, 1012-1019.	10.1	51
36	Electrochemical Imaging of Localized Sandwich DNA Hybridization Using Scanning Electrochemical Microscopy. Analytical Chemistry, 2007, 79, 7206-7213.	6.5	50

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37	Microfluidic-based electrochemical genosensor coupled to magnetic beads for hybridization detection. Talanta, 2009, 77, 971-978.	5.5	50
38	Electrochemical bioassay for the detection of TNF-Î± using magnetic beads and disposable screen-printed array of electrodes. Bioanalysis, 2013, 5, 11-19.	1.5	48
39	The Role of Peptides in the Design of Electrochemical Biosensors for Clinical Diagnostics. Biosensors, 2021, 11, 246.	4.7	48
40	Amperometric separation-free immunosensor for real-time environmental monitoring. Analytica Chimica Acta, 2001, 427, 173-180.	5.4	47
41	Disposable genosensor, a new tool for the detection of NOS-terminator, a genetic element present in GMOs. Food Control, 2004, 15, 621-626.	5.5	47
42	Disposable Screen-Printed Electrodes (Spe) Mercury-Free for Lead Detection. Analytical Letters, 2000, 33, 1231-1246.	1.8	44
43	Glyphosate Determination by Coupling an Immuno-Magnetic Assay with Electrochemical Sensors. Sensors, 2018, 18, 2965.	3.8	43
44	Ruthenized screen-printed choline oxidase-based biosensors for measurement of anticholinesterase activity. Mikrochimica Acta, 1995, 121, 155-166.	5.0	41
45	Direct energy conversion from xylose using xylose dehydrogenase surface displayed bacteria based enzymatic biofuel cell. Biosensors and Bioelectronics, 2013, 44, 160-163.	10.1	41
46	Gold nanoparticles modified graphene platforms for highly sensitive electrochemical detection of vitamin C in infant food and formulae. Food Chemistry, 2021, 344, 128692.	8.2	40
47	Functional polymers in photoelectrochemical biosensing. Bioelectrochemistry, 2020, 136, 107590.	4.6	38
48	Determination of Anticholinesterase Activity for Pesticides Monitoring Using a Thiocholine Sensor. International Journal of Environmental Analytical Chemistry, 2000, 78, 263-278.	3.3	36
49	A new gravityâ€driven microfluidicâ€based electrochemical assay coupled to magnetic beads for nucleic acid detection. Electrophoresis, 2010, 31, 3727-3736.	2.4	36
50	A Genosensor for Point Mutation Detection of P53 Gene PCR Product Using Magnetic Particles. Electroanalysis, 2015, 27, 1378-1386.	2.9	35
51	Disposable electrochemical sensor for rapid determination of heavy metals in herbal drugs. Journal of Pharmaceutical and Biomedical Analysis, 2003, 32, 251-256.	2.8	33
52	Novel enzyme biosensor for hydrogen peroxide via supramolecular associations. Biosensors and Bioelectronics, 2009, 24, 2028-2033.	10.1	32
53	Improving impedimetric nucleic acid detection by using enzyme-decorated liposomes and nanostructured screen-printed electrodes. Analytical and Bioanalytical Chemistry, 2016, 408, 7271-7281.	3.7	31
54	NEW PROCEDURES TO OBTAIN ELECTROCHEMICAL SENSORS FOR HEAVY METAL DETECTION. Analytical Letters, 2001, 34, 813-824.	1.8	30

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55	Electrochemical behavior of colchicine using graphite-based screen-printed electrodes. Talanta, 2008, 76, 288-294.	5.5	29
56	Ascorbic acid-sensitized Au nanorods-functionalized nanostructured TiO2 transparent electrodes for photoelectrochemical genosensing. Electrochimica Acta, 2018, 276, 389-398.	5.2	29
57	Sustainable Printed Electrochemical Platforms for Greener Analytics. Frontiers in Chemistry, 2020, 8, 644.	3.6	29
58	Electrochemical Biosensor Technology: Application to Pesticide Detection. Methods in Molecular Biology, 2009, 504, 115-126.	0.9	27
59	Affinity biosensors for tumor-marker analysis. Bioanalysis, 2014, 6, 3417-3435.	1.5	27
60	Photoelectrochemical genosensors for the determination of nucleic acid cancer biomarkers. Current Opinion in Electrochemistry, 2018, 12, 51-59.	4.8	27
61	Disposable electrodes modified with multi-wall carbon nanotubes for biosensor applications. Irbm, 2008, 29, 202-207.	5.6	26
62	Health and carcinogenic risk evaluation for cohorts exposed to PAHs in petrochemical workplaces in Rawalpindi city (Pakistan). International Journal of Environmental Health Research, 2016, 26, 37-57.	2.7	25
63	Au nanoparticle in situ decorated RGO nanocomposites for highly sensitive electrochemical genosensors. Journal of Materials Chemistry B, 2019, 7, 768-777.	5.8	25
64	As(III) Voltammetric Detection by Means of Disposable Screenâ€Printed Gold Electrochemical Sensors. Analytical Letters, 2007, 40, 3002-3013.	1.8	24
65	Photoelectrochemical Biosensors for Nucleic Acid Detection. Journal of Nanoscience and Nanotechnology, 2015, 15, 3320-3332.	0.9	24
66	Determination of Glyphosate in Water from a Rural Locality in MÃ©xico and Its Implications for the Population Based on Water Consumption and Use Habits. International Journal of Environmental Research and Public Health, 2020, 17, 7102.	2.6	24
67	Biosensors and Related Bioanalytical Tools. Comprehensive Analytical Chemistry, 2017, 77, 1-33.	1.3	23
68	Electrochemical and PEC platforms for miRNA and other epigenetic markers of cancer diseases: Recent updates. Electrochemistry Communications, 2021, 124, 106929.	4.7	23
69	Advances in Antimicrobial Resistance Monitoring Using Sensors and Biosensors: A Review. Chemosensors, 2021, 9, 232.	3.6	23
70	The Translational Potential of Electrochemical DNA-Based Liquid Biopsy. Frontiers in Chemistry, 2020, 8, 143.	3.6	21
71	Nanotoxicity assessment: A challenging application for cutting edge electroanalytical tools. Analytica Chimica Acta, 2019, 1072, 61-74.	5.4	20
72	Soft Tissue Sarcoma: An Insight on Biomarkers at Molecular, Metabolic and Cellular Level. Cancers, 2021, 13, 3044.	3.7	20

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73	Nitroimidazole-Based Ruthenium(II) Complexes: Playing with Structural Parameters to Design Photostable and Light-Responsive Antibacterial Agents. Inorganic Chemistry, 2022, 61, 6689-6694.	4.0	20
74	Detection of biomarkers for inflammatory diseases by an electrochemical immunoassay: The case of neopterin. Talanta, 2015, 134, 48-53.	5.5	18
75	Enhanced photoactivity and conductivity in transparent TiO₂nanocrystals/graphene hybrid anodes. Journal of Materials Chemistry A, 2017, 5, 9307-9315.	10.3	18
76	Optical whispering gallery mode resonators for label-free detection of water contaminants. TrAC - Trends in Analytical Chemistry, 2020, 126, 115856.	11.4	18
77	New Trends in the Design of Enzyme-based Biosensors for Medical Applications. Mini-Reviews in Medicinal Chemistry, 2016, 16, 1125-1133.	2.4	18
78	Imidazo[1,2-a]pyrazin-8-amine core for the design of new adenosine receptor antagonists: Structural exploration to target the A3 and A2A subtypes. European Journal of Medicinal Chemistry, 2017, 125, 611-628.	5.5	17
79	Polymer-Mercury Coated Screen-Printed Sensors for Electrochemical Stripping Analysis of Heavy Metals. International Journal of Environmental Analytical Chemistry, 2003, 83, 701-711.	3.3	16
80	Alkaline-Phosphatase-Based Nanostructure Assemblies for Electrochemical Detection of microRNAs. Journal of Nanoscience and Nanotechnology, 2015, 15, 3378-3384.	0.9	16
81	Spectrophotometric Detection of Glyphosate in Water by Complex Formation between Bis 5-Phenyldipyrrinate of Nickel (II) and Glyphosate. Water (Switzerland), 2019, 11, 719.	2.7	16
82	Label-Free Bioelectrochemical Methods for Evaluation of Anticancer Drug Effects at a Molecular Level. Sensors, 2020, 20, 1812.	3.8	15
83	Stimulation of Ca²⁺â€ATPase Transport Activity by a Smallâ€Molecule Drug. ChemMedChem, 2021, 16, 3293-3299.	3.2	15
84	Biosensor Technology: A Brief History. Lecture Notes in Electrical Engineering, 2010, , 15-23.	0.4	14
85	Development of an Electrochemical Immunoassay for the Detection of Polybrominated Diphenyl Ethers (PBDEs). Electroanalysis, 2016, 28, 1817-1823.	2.9	14
86	Optical and Electrochemical Study of Acridine-Based Polyaza Ligands for Anion Sensing. European Journal of Inorganic Chemistry, 2018, 2018, 2675-2679.	2.0	13
87	Innovative Biocatalysts as Tools to Detect and Inactivate Nerve Agents. Scientific Reports, 2018, 8, 13773.	3.3	13
88	Electrochemical Adsorption Technique for Immobilization of Single-Stranded Oligonucleotides onto Carbon Screen-Printed Electrodes. , 0, , 27-43.		10
89	Amperometric Biosensor for Pathogenic Bacteria Detection. , 2008, , 299-312.		9
90	Introduction of an Electrochemical Genosensor for Detection of P53 Gene Via Sandwich Hybridization Method. Lecture Notes in Electrical Engineering, 2012, , 37-41.	0.4	9

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91	Dipyridineâ€Containing Macrocyclic Polyamine â€“ Nafionâ€Modified Screenâ€Printed Carbon Electrode for Voltammetric Detection of Lead. Electroanalysis, 2012, 24, 591-599.	2.9	8
92	On the electrochemical flow measurements using carbon-based screen-printed electrodiffusion probes. Journal of Applied Electrochemistry, 2005, 35, 599-607.	2.9	7
93	A simple and selective electrochemical magneto-assay for sea lice eDNA detection developed with a Quality by Design approach. Science of the Total Environment, 2021, 791, 148111.	8.0	7
94	Au Nanoparticles Decorated Graphene-Based Hybrid Nanocomposite for As(III) Electroanalytical Detection. Chemosensors, 2022, 10, 67.	3.6	7
95	Electrochemical sensors based on sewage sludgeâ€derived biochar for the analysis of anthocyanins in berry fruits. Analytical and Bioanalytical Chemistry, 2022, 414, 6295-6307.	3.7	7
96	Evaluation of a QuEChERS-like extraction approach for the determination of PBDEs in mussels by immuno-assay-based screening methods. Talanta, 2017, 170, 540-545.	5.5	6
97	Bicyclic peptide-based assay for uPA cancer biomarker. Biosensors and Bioelectronics, 2022, 213, 114477.	10.1	6
98	Chip-Based and Wearable Tools for Isothermal Amplification and Electrochemical Analysis of Nucleic Acids. Chemosensors, 2022, 10, 278.	3.6	6
99	Chapter 1. Biosensor Techniques for Environmental Monitoring. , 2011, , 1-16.		4
100	TiO 2 Nanocrystals Decorated CVD Graphene Based Hybrid for UV-Light Active Photoanodes. Procedia Engineering, 2016, 168, 396-402.	1.2	4
101	Nanostructured Photoelectrochemical Biosensing Platform for Cancer Biomarker Detection. Procedia Technology, 2017, 27, 144-145.	1.1	3
102	A simple spectroscopic method to determine dimethoate in water samples by complex formation. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2020, 55, 310-318.	1.5	3
103	Development of an Aptamer-Based Electrochemical Sandwich Assay for the Detection of a Clinical Biomarker. Lecture Notes in Electrical Engineering, 2010, , 207-210.	0.4	2
104	A Mercuryâ€Free Sensor to Control Trace Metal Ionization Used to Treat Pathogens in Water Distribution Systems. Electroanalysis, 2012, 24, 882-888.	2.9	2
105	To the memory of Marco Mascini: His contribution in the field of biosensors. TrAC - Trends in Analytical Chemistry, 2016, 79, 2-8.	11.4	2
106	Emerging Biosensor for Pesticide Detection. Advanced Sciences and Technologies for Security Applications, 2016, , 431-442.	0.5	2
107	Microcantilever-based Biosensor Array for Tumor Angiogenic Marker Detection. , 2012, , 59-77.		1
108	New Affinity Biosensors as Diagnostic Tools for Tumour Marker Analysis. Lecture Notes in Electrical Engineering, 2014, , 19-23.	0.4	1

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109	Label-Free Impedimetric Determination of miRNA Using Biotinylated Conducting Polymer Modified Carbon Electrodes. Lecture Notes in Electrical Engineering, 2015, , 59-64.	0.4	1
110	Electrochemical Hybridization-Based Biosensor in Environmental Monitoring. , 2018, , 353-374.		1
111	Chapter 3. Genosensing Environmental Pollution. , 2011, , 34-60.		1
112	Biosensors, Electrochemical. , 2014, , 136-140.		1
113	Editorial: Electrochemical aptasensors are gaining momentum. Electrochimica Acta, 2022, 401, 139520.	5.2	1
114	POLYPHENOLS DETERMINATION IN OLIVE OIL SAMPLES BASED ON A THICK FILM VOLTAMMETRIC SENSOR AND A TYROSINASE BIOSENSOR. , 2000, , .		0
115	Electrochemical application of DNA biosensors. , 2001, , .		0
116	Biosensor for Defence Against Terrorism. , 2005, , 245-259.		0
117	Ion Selective Electrodes: Enzyme Electrodes. , 2013, , .		0
118	Different enzyme-based strategies for the development of disposable electrochemical biosensors: Application to environmental pollutant monitoring. , 2015, , .		0
119	A <I>Special Section</I> on Analytical Aspects of Nanoscience and Nanotechnology. Journal of Nanoscience and Nanotechnology, 2015, 15, 3305-3306.	0.9	0
120	Different strategies for the detection of bioagents using electrochemical and photoelectrochemical genosensors. , 2015, , .		0
121	Electrochemical Biosensors for miRNA Detection. RNA Technologies, 2015, , 1-19.	0.3	0
122	TiO₂nanocrystals decorated CVD graphene for electroanalytical sensing. , 2017, , .		0
123	INDICATOR-FREE ELECTROCHEMICAL DNA BIOSENSOR FOR THE DETECTION OF HYBRIDISATION REACTION. , 2002, , .		0
124	Rapid Electrochemical Sensors And Biosensors For Environmental Analysis. , 2003, , .		0
125	DETECTION OF HEAVY METALS USING DISPOSABLE MODIFIED ELECTROCHEMICAL SENSORS. , 2004, , .		0
126	Disposable Electrochemical Biosensors for Environmental Analysis. , 2009, , 115-140.		0

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127	Chapter 9. Conclusions and Criticisms. , 2011, , 165-167.		0
128	DNA-Surfactant Thin-Film Processing and Characterization. , 2016, , 192-243.		0
129	Solvent Dispersible Nanocomposite Based on RGO Surface Decorated with Au Nanoparticles for Electrochemical Genosensors. NATO Science for Peace and Security Series B: Physics and Biophysics, 2020, , 225-234.	0.3	0