Ashok Mulchandani

List of Publications by Year
in descending order

357 papers	20,494 citations	8755 75 h-index	18130 120 g-index
361 all docs	361 docs citations	361 times ranked	19342 citing authors

#	Article	IF	Citations
1	Nanowire-Based Electrochemical Biosensors. Electroanalysis, 2006, 18, 533-550.	2.9	439
2	Microbial biosensors. Analytica Chimica Acta, 2006, 568, 200-210.	5.4	403
3	Bioaffinity Sensing Using Biologically Functionalized Conducting-Polymer Nanowire. Journal of the American Chemical Society, 2005, 127, 496-497.	13.7	385
4	Reversible Conversion of Conducting Polymer Films from Superhydrophobic to Superhydrophilic. Angewandte Chemie - International Edition, 2005, 44, 6009-6012.	13.8	368
5	Electrochemical Impedance Spectroscopy (EIS): Principles, Construction, and Biosensing Applications. Sensors, 2021, 21, 6578.	3.8	360
6	MoS₂-Based Optoelectronic Gas Sensor with Sub-parts-per-billion Limit of NO₂ Gas Detection. ACS Nano, 2019, 13, 3196-3205.	14.6	349
7	Biosensors for direct determination of organophosphate pesticides. Biosensors and Bioelectronics, 2001, 16, 225-230.	10.1	348
8	Biodegradation of organophosphorus pesticides by surface-expressed organophosphorus hydrolase. Nature Biotechnology, 1997, 15, 984-987.	17.5	298
9	Engineering Plant-Microbe Symbiosis for Rhizoremediation of Heavy Metals. Applied and Environmental Microbiology, 2006, 72, 1129-1134.	3.1	261
10	Determination of organophosphate pesticides at a carbon nanotube/organophosphorus hydrolase electrochemical biosensor. Analytica Chimica Acta, 2005, 530, 185-189.	5.4	251
11	Individually Addressable Conducting Polymer Nanowires Array. Nano Letters, 2004, 4, 1237-1239.	9.1	227
12	Graphene Nanomesh As Highly Sensitive Chemiresistor Gas Sensor. Analytical Chemistry, 2012, 84, 8171-8178.	6.5	226
13	A Disposable Biosensor for Organophosphorus Nerve Agents Based on Carbon Nanotubes Modified Thick Film Strip Electrode. Electroanalysis, 2005, 17, 54-58.	2.9	220
14	Thermal conductivity of graphene with defects induced by electron beam irradiation. Nanoscale, 2016, 8, 14608-14616.	5.6	187
15	Enhanced bioaccumulation of heavy metals by bacterial cells displaying synthetic phytochelatins. Biotechnology and Bioengineering, 2000, 70, 518-524.	3.3	185
16	Biosensor for Direct Determination of Organophosphate Nerve Agents Using RecombinantEscherichia coliwith Surface-Expressed Organophosphorus Hydrolase. 1. Potentiometric Microbial Electrode. Analytical Chemistry, 1998, 70, 4140-4145.	6.5	181
17	Enhanced Arsenic Accumulation in Engineered Bacterial Cells Expressing ArsR. Applied and Environmental Microbiology, 2004, 70, 4582-4587.	3.1	181
18	Polyaniline nanowires-gold nanoparticles hybrid network based chemiresistive hydrogen sulfide sensor. Applied Physics Letters, 2009, 94, .	3.3	181

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19	Sensitive Detection of H₂S Using Gold Nanoparticle Decorated Single-Walled Carbon Nanotubes. Analytical Chemistry, 2010, 82, 250-257.	6.5	180
20	Biosensor for direct determination of organophosphate nerve agents. 1. Potentiometric enzyme electrode. Biosensors and Bioelectronics, 1999, 14, 77-85.	10.1	178
21	Bacterial Cell Surface Display of Organophosphorus Hydrolase for Selective Screening of Improved Hydrolysis of Organophosphate Nerve Agents. Applied and Environmental Microbiology, 2002, 68, 2026-2030.	3.1	175
22	Amperometric Thick-Film Strip Electrodes for Monitoring Organophosphate Nerve Agents Based on Immobilized Organophosphorus Hydrolase. Analytical Chemistry, 1999, 71, 2246-2249.	6.5	172
23	Carbon nanomaterial-based electrochemical biosensors for label-free sensing of environmental pollutants. Chemosphere, 2016, 143, 85-98.	8.2	170
24	Phylogenetic Diversity and Metabolic Potential of Activated Sludge Microbial Communities in Full-Scale Wastewater Treatment Plants. Environmental Science & Technology, 2011, 45, 7408-7415.	10.0	166
25	Single Conducting Polymer Nanowire Chemiresistive Label-Free Immunosensor for Cancer Biomarker. Analytical Chemistry, 2009, 81, 2168-2175.	6.5	165
26	Single Polypyrrole Nanowire Ammonia Gas Sensor. Electroanalysis, 2007, 19, 2125-2130.	2.9	163
27	Bioremediation: environmental clean-up through pathway engineering. Current Opinion in Biotechnology, 2008, 19, 437-444.	6.6	159
28	Single-Walled Carbon Nanotube-Based Chemiresistive Affinity Biosensors for Small Molecules: Ultrasensitive Glucose Detection. Journal of the American Chemical Society, 2010, 132, 5024-5026.	13.7	149
29	Single-Channel Microchip for Fast Screening and Detailed Identification of Nitroaromatic Explosives or Organophosphate Nerve Agents. Analytical Chemistry, 2002, 74, 1187-1191.	6.5	148
30	Amperometric microbial biosensor for p-nitrophenol using Moraxella sp.-modified carbon paste electrode. Biosensors and Bioelectronics, 2005, 21, 523-527.	10.1	147
31	Molecular Beacons: A Real-Time Polymerase Chain Reaction Assay for Detecting Salmonella. Analytical Biochemistry, 2000, 280, 166-172.	2.4	146
32	V-Type Nerve Agent Detection Using a Carbon Nanotube-Based Amperometric Enzyme Electrode. Analytical Chemistry, 2006, 78, 331-336.	6.5	146
33	Capillary Electrophoresis Microchips for Separation and Detection of Organophosphate Nerve Agents. Analytical Chemistry, 2001, 73, 1804-1808.	6.5	144
34	Conducting polymer nanowires for chemiresistive and FET-based bio/chemical sensors. Journal of Materials Chemistry, 2010, 20, 3131.	6.7	138
35	Simultaneous degradation of organophosphorus pesticides and pâ€nitrophenol by a genetically engineered Moraxella sp. with surfaceâ€expressed organophosphorus hydrolase. Biotechnology and Bioengineering, 2001, 76, 318-324.	3.3	137
36	Use of Real-Time Polymerase Chain Reaction and Molecular Beacons for the Detection of Escherichia coli O157:H7. Analytical Biochemistry, 2001, 289, 281-288.	2.4	131

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37	Measurements of Chemical Warfare Agent Degradation Products Using an Electrophoresis Microchip with Contactless Conductivity Detector. Analytical Chemistry, 2002, 74, 6121-6125.	6.5	131
38	Amperometric microbial biosensor for direct determination of organophosphate pesticides using recombinant microorganism with surface expressed organophosphorus hydrolase. Biosensors and Bioelectronics, 2001, 16, 433-437.	10.1	130
39	Biosensor for Direct Determination of Organophosphate Nerve Agents Using RecombinantEscherichia coliwith Surface-Expressed Organophosphorus Hydrolase. 2. Fiber-Optic Microbial Biosensor. Analytical Chemistry, 1998, 70, 5042-5046.	6.5	129
40	Carbon nanotubes and graphene nano field-effect transistor-based biosensors. TrAC - Trends in Analytical Chemistry, 2016, 79, 222-232.	11.4	128
41	Genetic Engineering of Escherichia coli for Enhanced Uptake and Bioaccumulation of Mercury. Applied and Environmental Microbiology, 2001, 67, 5335-5338.	3.1	127
42	Microbial Synthesis of CdS Nanocrystals in Genetically Engineered E.â€...coli. Angewandte Chemie - International Edition, 2008, 47, 5186-5189.	13.8	125
43	Porphyrin-Functionalized Single-Walled Carbon Nanotube Chemiresistive Sensor Arrays for VOCs. Journal of Physical Chemistry C, 2012, 116, 3845-3850.	3.1	125
44	Carbon nanotubes-based chemiresistive biosensors for detection of microorganisms. Biosensors and Bioelectronics, 2010, 26, 1437-1441.	10.1	123
45	Enhanced Mercury Biosorption by Bacterial Cells with Surface-Displayed MerR. Applied and Environmental Microbiology, 2003, 69, 3176-3180.	3.1	122
46	Removal of Estrogenic Pollutants from Contaminated Water Using Molecularly Imprinted Polymers. Environmental Science & Technology, 2005, 39, 8958-8962.	10.0	121
47	Novel synthetic phytochelatin-based capacitive biosensor for heavy metal ion detection. Biosensors and Bioelectronics, 2003, 18, 547-553.	10.1	120
48	Flow Injection Amperometric Enzyme Biosensor for Direct Determination of Organophosphate Nerve Agents. Environmental Science & Technology, 2001, 35, 2562-2565.	10.0	111
49	Biofunctionalized Nanostructured Zirconia for Biomedical Application: A Smart Approach for Oral Cancer Detection. Advanced Science, 2015, 2, 1500048.	11.2	111
50	Fiber-Optic Enzyme Biosensor for Direct Determination of Organophosphate Nerve Agents. Biotechnology Progress, 1999, 15, 130-134.	2.6	109
51	Cell Surface Display of Organophosphorus Hydrolase Using Ice Nucleation Protein. Biotechnology Progress, 2001, 17, 76-80.	2.6	109
52	Altering the Substrate Specificity of Organophosphorus Hydrolase for Enhanced Hydrolysis of Chlorpyrifos. Applied and Environmental Microbiology, 2004, 70, 4681-4685.	3.1	106
53	Tunable Biopolymers for Heavy Metal Removal. Macromolecules, 2001, 34, 2257-2261.	4.8	105
54	Bacteria Metabolically Engineered for Enhanced Phytochelatin Production and Cadmium Accumulation. Applied and Environmental Microbiology, 2007, 73, 6317-6320.	3.1	104

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55	Versatile microbial surface-display for environmental remediation and biofuels production. Trends in Microbiology, 2008, 16, 181-188.	7.7	104
56	Hexavalent chromium removal mechanism using conducting polymers. Journal of Hazardous Materials, 2013, 252-253, 99-106.	12.4	102
57	Expression, immobilization, and enzymatic characterization of cellulose-binding domain-organophosphorus hydrolase fusion enzymes. Biotechnology and Bioengineering, 2000, 69, 591-596.	3.3	100
58	Electronic Detection of MicroRNA at Attomolar Level with High Specificity. Analytical Chemistry, 2013, 85, 8061-8064.	6.5	98
59	Remote Biosensor for In-Situ MOnitoring of Organophosphate Nerve Agents. Electroanalysis, 1999, 11, 866-869.	2.9	97
60	Engineering of improved microbes and enzymes for bioremediation. Current Opinion in Biotechnology, 1999, 10, 137-141.	6.6	96
61	Nano Aptasensor for Protective Antigen Toxin of Anthrax. Analytical Chemistry, 2010, 82, 2042-2047.	6.5	95
62	Organophosphorus hydrolase multilayer modified microcantilevers for organophosphorus detection. Biosensors and Bioelectronics, 2007, 22, 2636-2642.	10.1	94
63	Label-free, chemiresistor immunosensor for stress biomarker cortisol in saliva. Biosensors and Bioelectronics, 2011, 26, 4382-4386.	10.1	94
64	Microbial inhibition kinetics revisited. Enzyme and Microbial Technology, 1989, 11, 66-73.	3.2	92
65	Highly Sensitive and Selective Amperometric Microbial Biosensor for Direct Determination ofp-Nitrophenyl-Substituted Organophosphate Nerve Agents. Environmental Science & Technology, 2005, 39, 8853-8857.	10.0	90
66	Efficient reduction of CO2 by the molybdenum-containing formate dehydrogenase from Cupriavidus necator (Ralstonia eutropha). Journal of Biological Chemistry, 2017, 292, 16872-16879.	3.4	88
67	Coimmobilization of Urease and Glutamate Dehydrogenase in Electrochemically Prepared Polypyrrole - Polyvinyl Sulfonate Films. Applied Biochemistry and Biotechnology, 2001, 96, 249-258.	2.9	85
68	Aqueous solâ€"gel encapsulation of genetically engineered Moraxella spp. cells for the detection of organophosphates. Biosensors and Bioelectronics, 2005, 20, 1433-1437.	10.1	85
69	Detoxification of organophosphate nerve agents by immobilizedEscherichia coli with surface-expressed organophosphorus hydrolase. Biotechnology and Bioengineering, 1999, 63, 216-223.	3.3	84
70	The use of live biocatalysts for pesticide detoxification. Trends in Biotechnology, 1998, 16, 71-76.	9.3	83
71	A heparin-functionalized carbon nanotube-based affinity biosensor for dengue virus. Biosensors and Bioelectronics, 2017, 91, 811-816.	10.1	82
72	Size-controlled electrochemical synthesis and properties of SnO₂nanotubes. Nanotechnology, 2009, 20, 185602.	2.6	79

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73	Amperometric Detection of Peroxides with Poly(anilinomethylferrocene)-Modified Enzyme Electrodes. Analytical Chemistry, 1995, 67, 94-100.	6.5	77
74	Field-Effect Transistors Based on Single Nanowires of Conducting Polymers. Journal of Physical Chemistry C, 2007, 111, 5218-5221.	3.1	77
75	A dual amperometric/potentiometric FIA-based biosensor for the distinctive detection of organophosphorus pesticides. Sensors and Actuators B: Chemical, 2003, 95, 291-296.	7.8	76
76	Carbon nanotubes-based chemiresistive immunosensor for small molecules: Detection of nitroaromatic explosives. Biosensors and Bioelectronics, 2010, 26, 1297-1301.	10.1	76
77	Nonenzymatic Glucose Sensor Based on Platinum Nanoflowers Decorated Multiwalled Carbon Nanotubesâ€Graphene Hybrid Electrode. Electroanalysis, 2014, 26, 103-108.	2.9	76
78	Simple and label-free electrochemical impedance Amelogenin gene hybridization biosensing based on reduced graphene oxide. Biosensors and Bioelectronics, 2014, 58, 145-152.	10.1	76
79	Recent biosensing developments in environmental security. Journal of Environmental Monitoring, 2008, 10, 703.	2.1	75
80	Carbon Nanotubesâ€Modified Screenâ€Printed Electrodes for Chemical Sensors and Biosensors. Analytical Letters, 2004, 37, 3185-3204.	1.8	74
81	Cell surface display of synthetic phytochelatins using ice nucleation protein for enhanced heavy metal bioaccumulation. Journal of Inorganic Biochemistry, 2002, 88, 223-227.	3.5	73
82	Fabrication of Antibody Arrays Using Thermally Responsive Elastin Fusion Proteins. Journal of the American Chemical Society, 2006, 128, 676-677.	13.7	73
83	Electrodeposition of maghemite (Î³-Fe2O3) nanoparticles. Chemical Engineering Journal, 2008, 139, 208-212.	12.7	73
84	Flow injection amperometric detection of OP nerve agents based on an organophosphorusâ€“hydrolase biosensor detector. Biosensors and Bioelectronics, 2003, 18, 255-260.	10.1	72
85	A Temperature Responsive Biopolymer for Mercury Remediation. Environmental Science & Technology, 2003, 37, 4457-4462.	10.0	72
86	Electrochemical Synthesis of Perfluorinated Ion Doped Conducting Polyaniline Films Consisting of Helical Fibers and their Reversible Switching between Superhydrophobicity and Superhydrophilicity. Macromolecular Rapid Communications, 2008, 29, 832-838.	3.9	72
87	Highly Selective and Rapid Arsenic Removal by Metabolically Engineered Escherichia coli Cells Expressing Fucus vesiculosus Metallothionein. Applied and Environmental Microbiology, 2008, 74, 2924-2927.	3.1	72
88	Molecular beaconâ€“quantum dotâ€“Au nanoparticle hybrid nanoprobes for visualizing virus replication in living cells. Chemical Communications, 2010, 46, 3914.	4.1	72
89	Conducting polymer nanowires-based label-free biosensors. Current Opinion in Biotechnology, 2011, 22, 502-508.	6.6	71
90	Organophosphorus Hydrolase-Based Assay for Organophosphate Pesticides. Biotechnology Progress, 1999, 15, 517-521.	2.6	70

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91	Microbial biosensor for direct determination of nitrophenyl-substituted organophosphate nerve agents using genetically engineered Moraxella sp.. Analytica Chimica Acta, 2006, 568, 217-221.	5.4	70
92	Oxygen requirement in pullulan fermentation. Applied Microbiology and Biotechnology, 1988, 28, 361-366.	3.6	67
93	Principles and Applications of Biosensors for Bioprocess Monitoring and Control. Critical Reviews in Biotechnology, 1995, 15, 105-124.	9.0	67
94	Graphene hybrids: synthesis strategies and applications in sensors and sensitized solar cells. Frontiers in Chemistry, 2015, 3, 38.	3.6	67
95	Thermally triggered purification and immobilization of elastin-OPH fusions. Biotechnology and Bioengineering, 2003, 81, 74-79.	3.3	66
96	Conducting polymer coated single-walled carbon nanotube gas sensors for the detection of volatile organic compounds. Talanta, 2014, 123, 109-114.	5.5	65
97	An electrochemically reduced graphene oxide chemiresistive sensor for sensitive detection of Hg2+ ion in water samples. Journal of Hazardous Materials, 2016, 320, 226-233.	12.4	65
98	Visualizing the dynamics of viral replication in living cells via Tat peptide delivery of nuclease-resistant molecular beacons. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17522-17525.	7.1	64
99	Mediator-free microfluidics biosensor based on titaniaâ€“zirconia nanocomposite for urea detection. RSC Advances, 2013, 3, 228-235.	3.6	64
100	Magnetically Assembled Multisegmented Nanowires and Their Applications. Electroanalysis, 2009, 21, 61-67.	2.9	62
101	A simple colorimetric DNA detection by target-induced hybridization chain reaction for isothermal signal amplification. Analytical Biochemistry, 2014, 457, 19-23.	2.4	62
102	Surface Display of Organophosphorus Hydrolase on Saccharomyces cerevisiae. Biotechnology Progress, 2006, 22, 939-943.	2.6	61
103	Electrochemically Functionalized Seamless Three-Dimensional Graphene-Carbon Nanotube Hybrid for Direct Electron Transfer of Glucose Oxidase and Bioelectrocatalysis. Langmuir, 2015, 31, 13054-13061.	3.5	61
104	Batch kinetics of microbial polysaccharide biosynthesis. Biotechnology and Bioengineering, 1988, 32, 639-646.	3.3	60
105	Biomolecules-carbon nanotubes doped conducting polymer nanocomposites and their sensor application. Talanta, 2007, 74, 370-375.	5.5	60
106	Specific Adhesion to Cellulose and Hydrolysis of Organophosphate Nerve Agents by a Genetically Engineered Escherichia coli Strain with a Surface-Expressed Cellulose-Binding Domain and Organophosphorus Hydrolase. Applied and Environmental Microbiology, 2002, 68, 1684-1689.	3.1	59
107	Microchip Capillary Electrophoresis with Electrochemical Detection of Thiol-Containing Degradation Products of V-Type Nerve Agents. Analytical Chemistry, 2004, 76, 4721-4726.	6.5	59
108	Conducting polymer nanowire-based chemiresistive biosensor for the detection of bacterial spores. Biosensors and Bioelectronics, 2010, 25, 2309-2312.	10.1	59

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109	Sensitive Detection of Elemental Mercury Vapor by Gold-Nanoparticle-Decorated Carbon Nanotube Sensors. Journal of Physical Chemistry C, 2011, 115, 13927-13931.	3.1	59
110	Developments and applications of biosensors. Trends in Biotechnology, 1988, 6, 310-316.	9.3	58
111	Dual amperometricâ€"potentiometric biosensor detection system for monitoring organophosphorus neurotoxins. Analytica Chimica Acta, 2002, 469, 197-203.	5.4	58
112	Real-Time Nucleic Acid Sequence-Based Amplification Assay for Detection of Hepatitis A Virus. Applied and Environmental Microbiology, 2005, 71, 7113-7116.	3.1	58
113	Organophosphorus Hydrolase-Based Amperometric Sensor: Modulation of Sensitivity and Substrate Selectivity. Electroanalysis, 2002, 14, 273-276.	2.9	57
114	Microchip enzymatic assay of organophosphate nerve agents. Analytica Chimica Acta, 2004, 505, 183-187.	5.4	57
115	Electrical and gas sensing properties of polyaniline functionalized single-walled carbon nanotubes. Nanotechnology, 2010, 21, 075502.	2.6	57
116	Hybrid tin oxide-SWNT nanostructures based gas sensor. Electrochimica Acta, 2013, 92, 484-490.	5.2	57
117	Ferrocene-Conjugated Polyaniline-Modified Enzyme Electrodes for Determination of Peroxides in Organic Media. Analytical Chemistry, 1995, 67, 1109-1114.	6.5	56
118	Molecular beacons: A real-time polymerase chain reaction assay for detecting Escherichia coli from fresh produce and water. Analytica Chimica Acta, 2008, 614, 208-212.	5.4	56
119	Bactericidal and ammonia removal activity of silver ion-exchanged zeolite. Bioresource Technology, 2012, 117, 86-91.	9.6	56
120	Label-Free Electrical Immunosensor for Highly Sensitive and Specific Detection of Microcystin-LR in Water Samples. Environmental Science & Technology, 2015, 49, 9256-9263.	10.0	56
121	Development and application of a biosensor for hypoxanthine in fish extract. Analytica Chimica Acta, 1989, 221, 215-222.	5.4	55
122	Detoxification of the organophosphate nerve agent coumaphos using organophosphorus hydrolase immobilized on cellulose materials. Journal of Industrial Microbiology and Biotechnology, 2005, 32, 554-560.	3.0	55
123	Primary amine-functionalized polyaniline nanothin film sensor for detecting formaldehyde. Sensors and Actuators B: Chemical, 2014, 194, 255-259.	7.8	54
124	A paper-based chemiresistive biosensor employing single-walled carbon nanotubes for low-cost, point-of-care detection. Biosensors and Bioelectronics, 2019, 130, 367-373.	10.1	54
125	Optimization of a wholeâ€cell cadmium sensor with a toggle gene circuit. Biotechnology Progress, 2009, 25, 898-903.	2.6	53
126	Genetically Engineered Elastin-Protein A Fusion as a Universal Platform for Homogeneous, Phase-separation Immunoassay. Analytical Chemistry, 2005, 77, 2318-2322.	6.5	52

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127	Simple Conjugation and Purification of Quantum Dotâ˜Antibody Complexes Using a Thermally Responsive Elastin-Protein L Scaffold As Immunofluorescent Agents. Journal of the American Chemical Society, 2006, 128, 14756-14757.	13.7	52
128	Coexpression of two detoxifying pesticide-degrading enzymes in a genetically engineered bacterium. International Biodeterioration and Biodegradation, 2006, 58, 70-76.	3.9	52
129	Functional analysis of organophosphorus hydrolase variants with high degradation activity towards organophosphate pesticides. Protein Engineering, Design and Selection, 2006, 19, 99-105.	2.1	52
130	Biosensor for direct determination of fenitrothion and EPN using recombinant Pseudomonas putida JS444 with surface-expressed organophosphorous hydrolase. 2. Modified carbon paste electrode. Applied Biochemistry and Biotechnology, 2007, 136, 243-250.	2.9	52
131	Synthesis and characterization of cadmium telluride nanowire. Nanotechnology, 2008, 19, 325711.	2.6	52
132	Non-lytic M13 phage-based highly sensitive impedimetric cytosensor for detection of coliforms. Biosensors and Bioelectronics, 2020, 148, 111794.	10.1	52
133	Single-Walled Carbon Nanotubeâ€"Poly(porphyrin) Hybrid for Volatile Organic Compounds Detection. Journal of Physical Chemistry C, 2014, 118, 1602-1610.	3.1	51
134	A Potentiometric Microbial Biosensor for Direct Determination of Organophosphate Nerve Agents. Electroanalysis, 1998, 10, 733-737.	2.9	50
135	Combined Immunomagnetic Separation-Molecular Beacon-Reverse Transcription-PCR Assay for Detection of Hepatitis A Virus from Environmental Samples. Applied and Environmental Microbiology, 2004, 70, 4371-4374.	3.1	50
136	Surface display of MPH onPseudomonas putida JS444 using ice nucleation protein and its application in detoxification of organophosphates. Biotechnology and Bioengineering, 2008, 99, 30-37.	3.3	50
137	Raman spectra of twisted CVD bilayer graphene. Carbon, 2017, 123, 302-306.	10.3	50
138	One-step metal-affinity purification of histidine-tagged proteins by temperature-triggered precipitation. Biotechnology and Bioengineering, 2003, 82, 605-611.	3.3	49
139	Temperature-triggered purification of antibodies. Biotechnology and Bioengineering, 2005, 90, 373-379.	3.3	49
140	Platinum nanoflowers decorated three-dimensional grapheneâ€"carbon nanotubes hybrid with enhanced electrocatalytic activity. Journal of Power Sources, 2013, 223, 23-29.	7.8	49
141	Biosynthesis of pullulan using immobilizedAureobasidium pullulans cells. Biotechnology and Bioengineering, 1989, 33, 306-312.	3.3	48
142	Cadmium Removal from Contaminated Soil by Tunable Biopolymers. Environmental Science & Technology, 2004, 38, 3148-3152.	10.0	48
143	Direct Determination ofp-Nitrophenyl Substituent Organophosphorus Nerve Agents Using a RecombinantPseudomonas putidaJS444-Modified Clark Oxygen Electrode. Journal of Agricultural and Food Chemistry, 2005, 53, 524-527.	5.2	48
144	Fabrication and Properties of Conducting Polypyrrole/SWNT-PABS Composite Films and Nanotubes. Electroanalysis, 2006, 18, 1047-1054.	2.9	48

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145	Carbon allotropes as sensors for environmental monitoring. Current Opinion in Electrochemistry, 2017, 3, 106-113.	4.8	48
146	Enhanced arsenic accumulation by engineered yeast cells expressing Arabidopsis thaliana phytochelatin synthase. Biotechnology and Bioengineering, 2008, 99, 333-340.	3.3	47
147	Single-walled carbon nanotube chemoresistive label-free immunosensor for salivary stress biomarkers. Analyst, The, 2010, 135, 2637.	3.5	47
148	Development of a glucose sensor employing quick and easy modification method with mediator for altering electron acceptor preference. Bioelectrochemistry, 2018, 121, 185-190.	4.6	47
149	Ferrocene-Conjugatedm-Phenylenediamine Conducting Polymer-Incorporated Peroxidase Biosensors. Analytical Biochemistry, 1999, 267, 141-147.	2.4	46
150	Genetic Engineering of Self-Assembled Protein Hydrogel Based on Elastin-like Sequences with Metal Binding Functionality. Biomacromolecules, 2007, 8, 3736-3739.	5.4	45
151	Graphene based biosensors for healthcare. Journal of Materials Research, 2017, 32, 2905-2929.	2.6	45
152	Cell Surface Display of Organophosphorus Hydrolase in Pseudomonas putida Using an Ice-Nucleation Protein Anchor. Biotechnology Progress, 2003, 19, 1612-1614.	2.6	44
153	Detection of tumor markers based on extinction spectra of visible light passing through gold nanoholes. Applied Physics Letters, 2007, 90, 073901.	3.3	44
154	Label-Free Chemiresistive Immunosensors for Viruses. Environmental Science & Technology, 2010, 44, 9030-9035.	10.0	44
155	A quantum-dot based protein module for in vivo monitoring of protease activity through fluorescence resonance energy transfer. Chemical Communications, 2011, 47, 5259.	4.1	44
156	Graphene and carbon nanotubeâ€"graphene hybrid nanomaterials for human embryonic stem cell culture. Materials Letters, 2013, 92, 122-125.	2.6	44
157	Detection of a secreted protein biomarker for citrus Huanglongbing using a single-walled carbon nanotubes-based chemiresistive biosensor. Biosensors and Bioelectronics, 2020, 147, 111766.	10.1	44
158	Gas Sensing Mechanism of Gold Nanoparticles Decorated Singleâ€Walled Carbon Nanotubes. Electroanalysis, 2011, 23, 2687-2692.	2.9	43
159	Pt nanoparticles-chemical vapor deposited graphene composite based immunosensor for the detection of human cardiac troponin I. Sensors and Actuators B: Chemical, 2014, 205, 363-370.	7.8	43
160	Selective Discrimination among Benzene, Toluene, and Xylene: Probing Metalloporphyrin-Functionalized Single-Walled Carbon Nanotube-Based Field Effect Transistors. Journal of Physical Chemistry C, 2014, 118, 24034-24041.	3.1	43
161	A miniature chemiresistor sensor for carbon dioxide. Analytica Chimica Acta, 2015, 874, 54-58.	5.4	43
162	Development of a biosensor for assaying postmortem nucleotide degradation in fish tissues. Biotechnology and Bioengineering, 1990, 35, 739-745.	3.3	41

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163	Microbial Biosensors for Organophosphate Pesticides. Applied Biochemistry and Biotechnology, 2011, 165, 687-699.	2.9	41
164	MoS2-graphene heterostructures as efficient organic compounds sensing 2D materials. Carbon, 2019, 142, 504-512.	10.3	41
165	A capacitive field-effect sensor for the direct determination of organophosphorus pesticides. Sensors and Actuators B: Chemical, 2003, 91, 92-97.	7.8	40
166	Conducting polymer 1-dimensional nanostructures for FET sensors. Thin Solid Films, 2010, 519, 964-973.	1.8	40
167	Effect of Aspect Ratio (Length:Diameter) on a Single Polypyrrole Nanowire FET Device. Journal of Physical Chemistry C, 2010, 114, 13375-13380.	3.1	40
168	Label-free chemiresistive biosensor for mercury (II) based on single-walled carbon nanotubes and structure-switching DNA. Applied Physics Letters, 2013, 102, 13701.	3.3	40
169	A Pathogen Secreted Protein as a Detection Marker for Citrus Huanglongbing. Frontiers in Microbiology, 2017, 8, 2041.	3.5	40
170	A mediated amperometric enzyme electrode using tetrathiafulvalene and l-glutamate oxidase for the determination of l-glutamic acid. Analytica Chimica Acta, 1993, 282, 353-361.	5.4	39
171	Bienzyme sensors based on poly(anilinomethylferrocene)-modified electrodes. Electroanalysis, 1996, 8, 414-419.	2.9	39
172	Bioelectrochemistry of Heme Peptide at Seamless Three-Dimensional Carbon Nanotubes/Graphene Hybrid Films for Highly Sensitive Electrochemical Biosensing. ACS Applied Materials & Interfaces, 2015, 7, 3647-3654.	8.0	39
173	A microbial biosensor for trimethylamine using Pseudomonas aminovorans cells. Biosensors and Bioelectronics, 1991, 6, 125-131.	10.1	38
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