Yan Du

List of Publications by Citations

207 papers	19,743 citations	73 h-index	137 g-index
218 ext. papers	21,745 ext. citations	8.6 avg, IF	7.4 L-index

#	Paper	IF	Citations
207	Electrochemical sensing and biosensing platform based on chemically reduced graphene oxide. *Analytical Chemistry*, **2009**, 81, 5603-13	7.8	1491
206	Graphene nanosheet: synthesis, molecular engineering, thin film, hybrids, and energy and analytical applications. *Chemical Society Reviews*, **2011**, 40, 2644-72	58.5	1085
205	Three-dimensional Pt-on-Pd bimetallic nanodendrites supported on graphene nanosheet: facile synthesis and used as an advanced nanoelectrocatalyst for methanol oxidation. *ACS Nano*, **2010**, 4, 547-55	16.7	1041
204	Platinum nanoparticle ensemble-on-graphene hybrid nanosheet: one-pot, rapid synthesis, and used as new electrode material for electrochemical sensing. *ACS Nano*, **2010**, 4, 3959-68	16.7	660
203	Cyclodextrin functionalized graphene nanosheets with high supramolecular recognition capability: synthesis and host-guest inclusion for enhanced electrochemical performance. *ACS Nano*, **2010**, 4, 4001-10	16.7	543
202	Hemin-graphene hybrid nanosheets with intrinsic peroxidase-like activity for label-free colorimetric detection of single-nucleotide polymorphism. *ACS Nano*, **2011**, 5, 1282-90	16.7	511
201	Label-free colorimetric detection of aqueous mercury ion (Hg2+) using Hg2+-modulated G-quadruplex-based DNAzymes. *Analytical Chemistry*, **2009**, 81, 2144-9	7.8	437
200	Simple and sensitive aptamer-based colorimetric sensing of protein using unmodified gold nanoparticle probes. *Chemical Communications*, **2007**, 3735-7	5.8	406
199	Chemically doped fluorescent carbon and graphene quantum dots for bioimaging, sensor, catalytic and photoelectronic applications. *Nanoscale*, **2016**, 8, 2532-43	7.7	356
198	Potassium-lead-switched G-quadruplexes: a new class of DNA logic gates. *Journal of the American Chemical Society*, **2009**, 131, 15082-3	16.4	339
197	Single-atom nanozymes. *Science Advances*, **2019**, 5, eaav5490	14.3	329
196	Nanozyme: An emerging alternative to natural enzyme for biosensing and immunoassay. *TrAC - Trends in Analytical Chemistry*, **2018**, 105, 218-224	14.6	319
195	A lead(II)-driven DNA molecular device for turn-on fluorescence detection of lead(II) ion with high selectivity and sensitivity. *Journal of the American Chemical Society*, **2010**, 132, 13156-7	16.4	317
194	Recent progress in graphene-based nanomaterials as advanced electrocatalysts towards oxygen reduction reaction. *Nanoscale*, **2013**, 5, 1753-67	7.7	312
193	Shape-Control of Pt-Ru Nanocrystals: Tuning Surface Structure for Enhanced Electrocatalytic Methanol Oxidation. *Journal of the American Chemical Society*, **2018**, 140, 1142-1147	16.4	311
192	Lead(II)-induced allosteric G-quadruplex DNAzyme as a colorimetric and chemiluminescence sensor for highly sensitive and selective Pb2+ detection. *Analytical Chemistry*, **2010**, 82, 1515-20	7.8	306
191	Bioelectrochemical interface engineering: toward the fabrication of electrochemical biosensors, biofuel cells, and self-powered logic biosensors. *Accounts of Chemical Research*, **2011**, 44, 1232-43	24.3	253

190	Nucleic Acid Biosensors: Recent Advances and Perspectives. *Analytical Chemistry*, **2017**, 89, 189-215	7.8	249
189	Silver-ion-mediated DNAzyme switch for the ultrasensitive and selective colorimetric detection of aqueous Ag+ and cysteine. *Chemistry - A European Journal*, **2009**, 15, 3347-50	4.8	233
188	GOx@ZIF-8(NiPd) Nanoflower: An Artificial Enzyme System for Tandem Catalysis. *Angewandte Chemie - International Edition*, **2017**, 56, 16082-16085	16.4	231
187	Double-strand DNA-templated formation of copper nanoparticles as fluorescent probe for label-free aptamer sensor. *Analytical Chemistry*, **2011**, 83, 5122-7	7.8	225
186	Biomolecule-nanoparticle hybrids for electrochemical biosensors. *TrAC - Trends in Analytical Chemistry*, **2009**, 28, 96-109	14.6	225
185	"Fitting" makes "sensing" simple: label-free detection strategies based on nucleic acid aptamers. *Accounts of Chemical Research*, **2013**, 46, 203-13	24.3	199
184	Multifunctional label-free electrochemical biosensor based on an integrated aptamer. *Analytical Chemistry*, **2008**, 80, 5110-7	7.8	177
183	Sensitive detection of cysteine based on fluorescent silver clusters. *Biosensors and Bioelectronics*, **2009**, 24, 1569-73	11.8	173
182	G-quadruplex-based DNAzyme for sensitive mercury detection with the naked eye. *Chemical Communications*, **2009**, 3551-3	5.8	173
181	Parallel G-quadruplex-specific fluorescent probe for monitoring DNA structural changes and label-free detection of potassium ion. *Analytical Chemistry*, **2010**, 82, 7576-80	7.8	166
180	Fluorescent silver nanoclusters in hybridized DNA duplexes for the turn-on detection of Hg2+ ions. *Chemical Communications*, **2011**, 47, 11065-7	5.8	164
179	One-Pot Synthesis of FeO Nanoparticle Loaded 3D Porous Graphene Nanocomposites with Enhanced Nanozyme Activity for Glucose Detection. *ACS Applied Materials & Interfaces*, **2017**, 9, 7465-7471	9.5	149
178	Reagentless, ratiometric electrochemical DNA sensors with improved robustness and reproducibility. *Analytical Chemistry*, **2014**, 86, 8010-6	7.8	140
177	Solid-state probe based electrochemical aptasensor for cocaine: a potentially convenient, sensitive, repeatable, and integrated sensing platform for drugs. *Analytical Chemistry*, **2010**, 82, 1556-63	7.8	134
176	Enzyme-free unlabeled DNA logic circuits based on toehold-mediated strand displacement and split G-quadruplex enhanced fluorescence. *Advanced Materials*, **2013**, 25, 2440-4	24	129
175	Progress in graphene-based photoactive nanocomposites as a promising class of photocatalyst. *Nanoscale*, **2012**, 4, 5814-25	7.7	128
174	DNA based gold nanoparticles colorimetric sensors for sensitive and selective detection of Ag(I) ions. *Analytica Chimica Acta*, **2009**, 644, 78-82	6.6	128
173	G-quadruplex-based DNAzyme for facile colorimetric detection of thrombin. *Chemical Communications*, **2008**, 3654-6	5.8	128

172	Method for effective immobilization of Ru(bpy)(3)2+ on an electrode surface for solid-state electrochemiluminescene detection. *Analytical Chemistry*, **2005**, 77, 8166-9	7.8	126
171	Introducing Ratiometric Fluorescence to MnO Nanosheet-Based Biosensing: A Simple, Label-Free Ratiometric Fluorescent Sensor Programmed by Cascade Logic Circuit for Ultrasensitive GSH Detection. *ACS Applied Materials & Interfaces*, **2017**, 9, 25870-25877	9.5	123
170	Aptamer-controlled biofuel cells in logic systems and used as self-powered and intelligent logic aptasensors. *Journal of the American Chemical Society*, **2010**, 132, 2172-4	16.4	123
169	A general route to construct diverse multifunctional Fe3O4/metal hybrid nanostructures. *Chemistry - A European Journal*, **2009**, 15, 2416-24	4.8	122
168	G-Quadruplex-based DNAzyme as a sensing platform for ultrasensitive colorimetric potassium detection. *Chemical Communications*, **2009**, 580-2	5.8	120
167	Sensitive detection of protein by an aptamer-based label-free fluorescing molecular switch. *Chemical Communications*, **2007**, 73-5	5.8	114
166	DNA-Ag nanoclusters as fluorescence probe for turn-on aptamer sensor of small molecules. *Biosensors and Bioelectronics*, **2011**, 28, 33-7	11.8	113
165	Self-powered sensor for trace Hg2+ detection. *Analytical Chemistry*, **2011**, 83, 3968-72	7.8	113
164	Triple-enzyme mimetic activity of nickel-palladium hollow nanoparticles and their application in colorimetric biosensing of glucose. *Chemical Communications*, **2016**, 52, 5410-3	5.8	112
163	G-quadruplex aptamers with peroxidase-like DNAzyme functions: which is the best and how does it work?. *Chemistry - an Asian Journal*, **2009**, 4, 918-22	4.5	111
162	In situ loading of well-dispersed gold nanoparticles on two-dimensional graphene oxide/SiO2 composite nanosheets and their catalytic properties. *Nanoscale*, **2012**, 4, 1641-6	7.7	110
161	An integrated sensing system for detection of DNA using new parallel-motif DNA triplex system and graphene--mesoporous silica--gold nanoparticle hybrids. *Biomaterials*, **2011**, 32, 8584-92	15.6	108
160	Amplified electrochemical aptasensor taking AuNPs based sandwich sensing platform as a model. *Biosensors and Bioelectronics*, **2008**, 23, 965-70	11.8	108
159	Label-free, regenerative and sensitive surface plasmon resonance and electrochemical aptasensors based on graphene. *Chemical Communications*, **2011**, 47, 7794-6	5.8	107
158	Sensing H2O2 with layer-by-layer assembled Fe3O4PDDA nanocomposite film. *Electrochemistry Communications*, **2008**, 10, 1524-1526	5.1	106
157	Graphene and its derivative-based sensing materials for analytical devices. *Journal of Materials Chemistry*, **2011**, 21, 18503		104
156	Nucleobase Metal Hybrid Materials: Preparation of Submicrometer-Scale, Spherical Colloidal Particles of Adenine Gold(III) via a Supramolecular Hierarchical Self-Assembly Approach. *Chemistry of Materials*, **2007**, 19, 2987-2993	9.6	104
155	A new approach to light up DNA/Ag nanocluster-based beacons for bioanalysis. *Chemical Science*, **2013**, 4, 4004	9.4	102

154	TiO(2) nanotube arrays: intrinsic peroxidase mimetics. *Chemical Communications*, **2013**, 49, 10480-2	5.8	102
153	Graphene enhanced electron transfer at aptamer modified electrode and its application in biosensing. *Analytical Chemistry*, **2012**, 84, 7301-7	7.8	100
152	Coupling Sensitive Nucleic Acid Amplification with Commercial Pregnancy Test Strips. *Angewandte Chemie - International Edition*, **2017**, 56, 992-996	16.4	98
151	Integrated cascade nanozyme catalyzes in vivo ROS scavenging for anti-inflammatory therapy. *Science Advances*, **2020**, 6, eabb2695	14.3	97
150	Nanozymes: A clear definition with fuzzy edges. *Nano Today*, **2021**, 40, 101269	17.9	97
149	G-Quadruplex-based DNAzyme for colorimetric detection of cocaine: using magnetic nanoparticles as the separation and amplification element. *Analyst, The*, **2011**, 136, 493-7	5	93
148	Small-size biofuel cell on paper. *Biosensors and Bioelectronics*, **2012**, 35, 155-159	11.8	92
147	Enhanced catalytic DNAzyme for label-free colorimetric detection of DNA. *Chemical Communications*, **2007**, 4209-11	5.8	91
146	Toxicity detection in water containing heavy metal ions with a self-powered microbial fuel cell-based biosensor. *Talanta*, **2017**, 168, 210-216	6.2	89
145	Integrated self-powered microchip biosensor for endogenous biological cyanide. *Analytical Chemistry*, **2010**, 82, 4283-7	7.8	89
144	Investigation of 3,3',5,5'-tetramethylbenzidine as colorimetric substrate for a peroxidatic DNAzyme. *Analytica Chimica Acta*, **2009**, 651, 234-40	6.6	89
143	Oxidase-like MOF-818 Nanozyme with High Specificity for Catalysis of Catechol Oxidation. *Journal of the American Chemical Society*, **2020**, 142, 15569-15574	16.4	89
142	Four-way junction-driven DNA strand displacement and its application in building majority logic circuit. *ACS Nano*, **2013**, 7, 10211-7	16.7	88
141	Au NPs-enhanced surface plasmon resonance for sensitive detection of mercury(II) ions. *Biosensors and Bioelectronics*, **2010**, 25, 2622-6	11.8	88
140	Luminescent supramolecular microstructures containing Ru(bpy)3(2+): solution-based self-assembly preparation and solid-state electrochemiluminescence detection application. *Analytical Chemistry*, **2007**, 79, 2588-92	7.8	87
139	Solid-state label-free integrated aptasensor based on graphene-mesoporous silica-gold nanoparticle hybrids and silver microspheres. *Analytical Chemistry*, **2011**, 83, 8035-40	7.8	86
138	Microfluidic electrochemical aptameric assay integrated on-chip: a potentially convenient sensing platform for the amplified and multiplex analysis of small molecules. *Analytical Chemistry*, **2011**, 83, 1523-9	7.8	85
137	Recent advances in spectroelectrochemistry. *Nanoscale*, **2018**, 10, 3089-3111	7.7	79

136	Engineering the bioelectrochemical interface using functional nanomaterials and microchip technique toward sensitive and portable electrochemical biosensors. *Biosensors and Bioelectronics*, **2016**, 76, 80-90	11.8	78
135	Microchip capillary electrophoresis with solid-state electrochemiluminescence detector. *Analytical Chemistry*, **2005**, 77, 7993-7	7.8	78
134	One-step synthesis of ultrathin PtPb nerve-like nanowires as robust catalysts for enhanced methanol electrooxidation. *Nanoscale*, **2017**, 9, 201-207	7.7	73
133	Label-free and enzyme-free platform for the construction of advanced DNA logic devices based on the assembly of graphene oxide and DNA-templated AgNCs. *Nanoscale*, **2016**, 8, 3834-40	7.7	70
132	Au nanoparticles grafted sandwich platform used amplified small molecule electrochemical aptasensor. *Biosensors and Bioelectronics*, **2009**, 24, 1979-83	11.8	70
131	Chemiluminescence thrombin aptasensor using high-activity DNAzyme as catalytic label. *Chemical Communications*, **2008**, 5520-2	5.8	69
130	Label free electrochemiluminescence protocol for sensitive DNA detection with a tris(2,2?-bipyridyl)ruthenium(II) modified electrode based on nucleic acid oxidation. *Electrochemistry Communications*, **2007**, 9, 1474-1479	5.1	69
129	Layer-by-layer electrochemical biosensor with aptamer-appended active polyelectrolyte multilayer for sensitive protein determination. *Biosensors and Bioelectronics*, **2010**, 25, 1902-7	11.8	67
128	Prussian blue with intrinsic heme-like structure as peroxidase mimic. *Nano Research*, **2018**, 11, 4905-4913	10	66
127	G-quadruplex DNAzyme based molecular catalytic beacon for label-free colorimetric logic gates. *Biomaterials*, **2011**, 32, 7318-24	15.6	66
126	Methylene blue as an indicator for sensitive electrochemical detection of adenosine based on aptamer switch. *Journal of Electroanalytical Chemistry*, **2009**, 626, 1-5	4.1	65
125	Reusable, label-free electrochemical aptasensor for sensitive detection of small molecules. *Chemical Communications*, **2007**, 3780-2	5.8	65
124	High-Index Facets Bounded Platinum–Lead Concave Nanocubes with Enhanced Electrocatalytic Properties. *Chemistry of Materials*, **2017**, 29, 4557-4562	9.6	63
123	A label-free, G-quadruplex DNAzyme-based fluorescent probe for signal-amplified DNA detection and turn-on assay of endonuclease. *Biosensors and Bioelectronics*, **2012**, 34, 100-5	11.8	63
122	Capillary electrophoresis and microchip capillary electrophoresis with electrochemical and electrochemiluminescence detection. *Journal of Separation Science*, **2007**, 30, 875-90	3.4	62
121	Field-amplified sample stacking capillary electrophoresis with electrochemiluminescence applied to the determination of illicit drugs on banknotes. *Journal of Chromatography A*, **2006**, 1115, 260-6	4.5	61
120	Fabrication of integrated microelectrodes for electrochemical detection on electrophoresis microchip by electroless deposition and micromolding in capillary technique. *Analytical Chemistry*, **2003**, 75, 5406-12	7.8	61
119	Polydopamine Nanotubes as an Effective Fluorescent Quencher for Highly Sensitive and Selective Detection of Biomolecules Assisted with Exonuclease III Amplification. *Analytical Chemistry*, **2016**, 88, 9158-65	7.8	60

118	In Situ Analysis of Electropolymerization of Aniline by Combined Electrochemistry and Surface Plasmon Resonance. *Langmuir*, **2002**, 18, 1713-1718	4	59
117	Label-free aptamer biosensor for thrombin detection based on functionalized graphene nanocomposites. *Talanta*, **2015**, 141, 247-52	6.2	58
116	Synthesis of PtNPs/AQ/Ru(bpy)3(2+) colloid and its application as a sensitive solid-state electrochemiluminescence sensor material. *Journal of Physical Chemistry B*, **2006**, 110, 21662-6	3.4	57
115	Aptamer-based sensing platform using three-way DNA junction-driven strand displacement and its application in DNA logic circuit. *Analytical Chemistry*, **2014**, 86, 312-6	7.8	55
114	A Sweet Spot for Molecular Diagnostics: Coupling Isothermal Amplification and Strand Exchange Circuits to Glucometers. *Scientific Reports*, **2015**, 5, 11039	4.9	54
113	Synthesis of graphene-supported noble metal hybrid nanostructures and their applications as advanced electrocatalysts for fuel cells. *Nanoscale*, **2013**, 5, 10765-75	7.7	53
112	Microfabricated on-chip integrated Au-Ag-Au three-electrode system for in situ mercury ion determination. *Analyst, The*, **2010**, 135, 1010-4	5	53
111	An Orally Administered CeO2@Montmorillonite Nanozyme Targets Inflammation for Inflammatory Bowel Disease Therapy. *Advanced Functional Materials*, **2020**, 30, 2004692	15.6	52
110	Target-induced conjunction of split aptamer as new chiral selector for oligopeptide on graphene-mesoporous silica-gold nanoparticle hybrids modified sensing platform. *Chemical Communications*, **2012**, 48, 799-801	5.8	51
109	Porous CoO nanoplates with pH-switchable peroxidase- and catalase-like activity. *Nanoscale*, **2018**, 10, 19140-19146	7.7	50
108	A resettable and reprogrammable DNA-based security system to identify multiple users with hierarchy. *ACS Nano*, **2014**, 8, 2796-803	16.7	48
107	How to split a G-quadruplex for DNA detection: new insight into the formation of DNA split G-quadruplex. *Chemical Science*, **2015**, 6, 4822-4827	9.4	48
106	G-quadruplex-based fluorescent assay of S1 nuclease activity and K+. *Analytical Chemistry*, **2013**, 85, 2431-8	7.8	46
105	A simplified design of the staggered herringbone micromixer for practical applications. *Biomicrofluidics*, **2010**, 4,	3.2	46
104	Direct toxicity assessment of toxic chemicals with electrochemical method. *Analytica Chimica Acta*, **2009**, 641, 59-63	6.6	46
103	A DNA-based parity generator/checker for error detection through data transmission with visual readout and an output-correction function. *Chemical Science*, **2017**, 8, 1888-1895	9.4	44
102	Pt nanoparticles: Heat treatment-based preparation and Ru(bpy)(3)2+-mediated formation of aggregates that can form stable films on bare solid electrode surfaces for solid-state electrochemiluminescence detection. *Analytical Chemistry*, **2006**, 78, 6674-7	7.8	44
101	Cascade DNA logic device programmed ratiometric DNA analysis and logic devices based on a fluorescent dual-signal probe of a G-quadruplex DNAzyme. *Chemical Communications*, **2016**, 52, 3766-9	5.8	43

100	Metal nanomaterial-based self-assembly: Development, electrochemical sensing and SERS applications. *Journal of Materials Chemistry*, **2011**, 21, 16704		43
99	A visible multi-digit DNA keypad lock based on split G-quadruplex DNAzyme and silver microspheres. *Chemical Communications*, **2013**, 49, 5459-61	5.8	40
98	A graphene-based real-time fluorescent assay of deoxyribonuclease I activity and inhibition. *Analytica Chimica Acta*, **2012**, 740, 88-92	6.6	39
97	Engineering DNA Three-Way Junction with Multifunctional Moieties: Sensing Platform for Bioanalysis. *Analytical Chemistry*, **2015**, 87, 11295-300	7.8	38
96	Molecular aptamer beacon tuned DNA strand displacement to transform small molecules into DNA logic outputs. *Chemical Communications*, **2014**, 50, 3321-3	5.8	37
95	GOx@ZIF-8(NiPd) Nanoflower: An Artificial Enzyme System for Tandem Catalysis. *Angewandte Chemie*, **2017**, 129, 16298-16301	3.6	37
94	Cell-based biosensor for measurement of phenol and nitrophenols toxicity. *Talanta*, **2011**, 84, 766-70	6.2	37
93	A self-powered and reusable biocomputing security keypad lock system based on biofuel cells. *Chemistry - A European Journal*, **2010**, 16, 7719-24	4.8	37
92	Multiplexed bioactive paper based on GO@SiO2@CeO2 nanosheets for a low-cost diagnostics platform. *Biosensors and Bioelectronics*, **2014**, 52, 324-9	11.8	36
91	Simultaneous determination of pethidine and methadone by capillary electrophoresis with electrochemiluminescence detection of tris(2,2?-bipyridyl)ruthenium(II). *Microchemical Journal*, **2008**, 89, 137-141	4.8	34
90	Exploiting Polydopamine Nanospheres to DNA Computing: A Simple, Enzyme-Free and G-Quadruplex-Free DNA Parity Generator/Checker for Error Detection during Data Transmission. *ACS Applied Materials & Interfaces*, **2017**, 9, 1322-1330	9.5	33
89	Fuel-Free Bio-photoelectrochemical Cells Based on a Water/Oxygen Circulation System with a Ni:FeOOH/BiVO Photoanode. *Angewandte Chemie - International Edition*, **2018**, 57, 1547-1551	16.4	33
88	Self-powered fluorescence controlled switch systems based on biofuel cells. *Energy and Environmental Science*, **2013**, 6, 3015	35.4	33
87	Gold nanocluster-based electrochemically controlled fluorescence switch surface with prussian blue as the electrical signal receptor. *Chemical Communications*, **2013**, 49, 243-5	5.8	33
86	An IMP-Reset gate-based reusable and self-powered "smart" logic aptasensor on a microfluidic biofuel cell. *Lab on A Chip*, **2010**, 10, 2932-6	7.2	33
85	Nanoscale-enhanced Ru(bpy)3(2+) electrochemiluminescence labels and related aptamer-based biosensing system. *Analyst, The*, **2008**, 133, 1209-13	5	33
84	Biomimetic design for enhancing the peroxidase mimicking activity of hemin. *Nanoscale*, **2019**, 11, 12603-12609	7.7	32
83	Recent development of biofuel cell based self-powered biosensors. *Journal of Materials Chemistry B*, **2020**, 8, 3393-3407	7.3	32

82	Self-powered fluorescence display devices based on a fast self-charging/recharging battery (Mg/Prussian blue). *Chemical Science*, **2016**, 7, 6721-6727	9.4	32
81	Implementation of Arithmetic Functions on a Simple and Universal Molecular Beacon Platform. *Advanced Science*, **2015**, 2, 1500054	13.6	31
80	Propelling DNA Computing with Materials' Power: Recent Advancements in Innovative DNA Logic Computing Systems and Smart Bio-Applications. *Advanced Science*, **2020**, 7, 2001766	13.6	31
79	Fluorescent switch constructed based on hemin-sensitive anionic conjugated polymer and its applications in DNA-related sensors. *Analytical Chemistry*, **2009**, 81, 3544-50	7.8	31
78	A DNA-based and electrochemically transduced keypad lock system with reset function. *Chemistry - A European Journal*, **2012**, 18, 14939-42	4.8	30
77	Multifunctional polyoxometalates-modified upconversion nanoparticles: integration of electrochromic devices and antioxidants detection. *Chemical Communications*, **2013**, 49, 2400-2	5.8	29
76	Self-Rechargeable-Battery-Driven Device for Simultaneous Electrochromic Windows, ROS Biosensing, and Energy Storage. *ACS Applied Materials & Interfaces*, **2019**, 11, 28072-28077	9.5	28
75	Evaluation of Floor-grooved Micromixers using Concentration-channel Length Profiles. *Micromachines*, **2010**, 1, 19-33	3.3	28
74	Analytical potential of gold nanoparticles in functional aptamer-based biosensors. *Bioanalytical Reviews*, **2010**, 1, 187-208	1	28
73	Direct electrochemical detection of glucose in human plasma on capillary electrophoresis microchips. *Electrophoresis*, **2004**, 25, 3853-9	3.6	27
72	Polyethyleneimine-functionalized platinum nanoparticles with high electrochemiluminescence activity and their applications to amplified analysis of biomolecules. *Chemistry - an Asian Journal*, **2008**, 3, 1942-8	4.5	26
71	A simple, label-free, electrochemical DNA parity generator/checker for error detection during data transmission based on "aptamer-nanoclaw"-modulated protein steric hindrance. *Chemical Science*, **2018**, 9, 6981-6987	9.4	25
70	DNA-templated Ag nanoclusters as signal transducers for a label-free and resettable keypad lock. *Chemical Communications*, **2013**, 49, 3107-9	5.8	25
69	A label-free colorimetric aptasensor for simple, sensitive and selective detection of Pt (II) based on platinum (II)-oligonucleotide coordination induced gold nanoparticles aggregation. *Biosensors and Bioelectronics*, **2016**, 85, 771-776	11.8	24
68	A rapid and sensitive p-benzoquinone-mediated bioassay for determination of heavy metal toxicity in water. *Analyst, The*, **2013**, 138, 3297-302	5	24
67	Fabrication of a sensor chip containing Au and Ag electrodes and its application for sensitive Hg(II) determination using chronocoulometry. *Analytica Chimica Acta*, **2012**, 738, 45-50	6.6	24
66	Energetic Graphene-Based Electrochemical Analytical Devices in Nucleic Acid, Protein and Cancer Diagnostics and Detection. *Electroanalysis*, **2014**, 26, 14-29	3	23
65	Boolean logic gates based on oxygen-controlled biofuel cell in one pot *Electrochimica Acta*, **2011**, 56, 4112-4118	6.7	23

64	Enhanced Stability of Enzyme Immobilized in Rationally Designed Amphiphilic Aerogel and Its Application for Sensitive Glucose Detection. *Analytical Chemistry*, **2020**, 92, 5319-5328	7.8	22
63	Electrochemical fabrication of nanoporous gold electrodes in a deep eutectic solvent for electrochemical detections. *Chemical Communications*, **2018**, 54, 8853-8856	5.8	22
62	Reversible photo-chem-electrotriggered three-state luminescence switching based on core-shell nanostructures. *Nanoscale*, **2013**, 5, 4344-50	7.7	22
61	Simple, fast, label-free, and nanoquencher-free system for operating multivalued DNA logic gates using polythymine templated CuNPs as signal reporters. *Nano Research*, **2017**, 10, 2560-2569	10	21
60	Interfacial Electron Engineering of Palladium and Molybdenum Carbide for Highly Efficient Oxygen Reduction. *Journal of the American Chemical Society*, **2021**, 143, 6933-6941	16.4	21
59	A Self-Powered Biosensor with a Flake Electrochromic Display for Electrochemical and Colorimetric Formaldehyde Detection. *ACS Sensors*, **2019**, 4, 2631-2637	9.2	20
58	A label-free and enzyme-free system for operating various logic devices using poly(thymine)-templated CuNPs and SYBR Green I as signal transducers. *Nanoscale*, **2016**, 8, 14243-9	7.7	19
57	A miniature origami biofuel cell based on a consumed cathode. *Chemical Communications*, **2016**, 52, 13499-13502	5.8	18
56	'Non-destructive' biocomputing security system based on gas-controlled biofuel cell and potentially used for intelligent medical diagnostics. *Bioinformatics*, **2011**, 27, 399-404	7.2	18
55	Facile separation and determination of Aconitine alkaloids in traditional Chinese medicines by CE with tris(2,2'-bipyridyl) ruthenium(II)-based electrochemiluminescence detection. *Electrophoresis*, **2006**, 27, 4836-41	3.6	18
54	Small Microbial Three-Electrode Cell Based Biosensor for Online Detection of Acute Water Toxicity. *ACS Sensors*, **2017**, 2, 1637-1643	9.2	17
53	Point-of-care testing of various analytes by means of a one-step competitive displacement reaction and pregnancy test strips. *Sensors and Actuators B: Chemical*, **2019**, 288, 163-170	8.5	17
52	A novel colorimetric biosensor for monitoring and detecting acute toxicity in water. *Analyst, The*, **2013**, 138, 702-7	5	17
51	Separation and Detection of Narcotic Drugs on a Microchip Using Micellar Electrokinetic Chromatography and Electrochemiluminescence. *Electroanalysis*, **2008**, 20, 643-647	3	17
50	Microfluidic chip with electrochemiluminescence detection using 2-(2-aminoethyl)-1-methylpyrrolidine labeling. *Journal of Chromatography A*, **2005**, 1091, 158-62	4.5	17
49	Coupling Sensitive Nucleic Acid Amplification with Commercial Pregnancy Test Strips. *Angewandte Chemie*, **2017**, 129, 1012-1016	3.6	16
48	On the Use of Carbon Nanotubes to Promote the Electricity Generation During Sulfate Removal. *Electroanalysis*, **2013**, 25, 833-837	3	15
47	New applications of genetically modified Pseudomonas aeruginosa for toxicity detection in water. *Chemosphere*, **2017**, 184, 106-111	8.4	14

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45	Engineering Signaling Aptamers That Rely on Kinetic Rather Than Equilibrium Competition. *Analytical Chemistry*, **2016**, 88, 2250-7	7.8	14
44	Direct dissolution of Au nanoparticles induced by potassium ferricyanide. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2009**, 335, 207-210	5.1	14
43	Visual detection of the toxicity of wastewater containing heavy metal ions using a microbial fuel cell biosensor with a Prussian blue cathode. *Sensors and Actuators B: Chemical*, **2020**, 302, 127177	8.5	14
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