Evgeny Katz

List of Publications by Year
in descending order

227 papers	10,393 citations	28190 55 h-index	45213 90 g-index
343 all docs	343 docs citations	343 times ranked	5365 citing authors

#	Article	IF	Citations
1	Enzyme-based logic systems for information processing. Chemical Society Reviews, 2010, 39, 1835.	18.7	489
2	Implanted Biofuel Cell Operating in a Living Snail. Journal of the American Chemical Society, 2012, 134, 5040-5043.	6.6	437
3	From â€œcyborgâ€•lobsters to a pacemaker powered by implantable biofuel cells. Energy and Environmental Science, 2013, 6, 81-86.	15.6	283
4	Living battery â€“ biofuel cells operating in vivo in clams. Energy and Environmental Science, 2012, 5, 8891.	15.6	225
5	Biocomputing Security System:â€‰ Concatenated Enzyme-Based Logic Gates Operating as a Biomolecular Keypad Lock. Journal of the American Chemical Society, 2008, 130, 4234-4235.	6.6	224
6	Implanted biofuel cells operating in vivo â€“ methods, applications and perspectives â€“ feature article. Energy and Environmental Science, 2013, 6, 2791.	15.6	197
7	Chemical Gating with Nanostructured Responsive Polymer Brushes: Mixed Brush <i>versus</i> Homopolymer Brush. ACS Nano, 2008, 2, 41-52.	7.3	172
8	Polymer Brush-Modified Electrode with Switchable and Tunable Redox Activity for Bioelectronic Applications. Journal of Physical Chemistry C, 2008, 112, 8438-8445.	1.5	164
9	Biofuel Cell Controlled by Enzyme Logic Systems. Journal of the American Chemical Society, 2009, 131, 826-832.	6.6	161
10	Digital biosensors with built-in logic for biomedical applicationsâ€"biosensors based on a biocomputing concept. Analytical and Bioanalytical Chemistry, 2010, 398, 1591-1603.	1.9	158
11	Stimuli-Responsive Hydrogel Membranes Coupled with Biocatalytic Processes. ACS Applied Materials & Interfaces, 2009, 1, 532-536.	4.0	156
12	Switchable Electrode Controlled by Enzyme Logic Network System: Approaching Physiologically Regulated Bioelectronics. Journal of the American Chemical Society, 2009, 131, 1314-1321.	6.6	154
13	A pacemaker powered by an implantable biofuel cell operating under conditions mimicking the human blood circulatory system â€“ battery not included. Physical Chemistry Chemical Physics, 2013, 15, 6278.	1.3	142
14	A Selfâ€Powered â€œSenseâ€Actâ€Treatâ€•System that is Based on a Biofuel Cell and Controlled by Boolean Logic. Angewandte Chemie - International Edition, 2012, 51, 2686-2689.	7.2	139
15	â€œChemical Transformersâ€•from Nanoparticle Ensembles Operated with Logic. Nano Letters, 2008, 8, 2993-2997.	4.5	131
16	Biofuel Cell Operating in Vivo in Rat. Electroanalysis, 2013, 25, 1579-1584.	1.5	125
17	Electrochemically Controlled Drug-Mimicking Protein Release from Iron-Alginate Thin-Films Associated with an Electrode. ACS Applied Materials & Interfaces, 2012, 4, 466-475.	4.0	124
18	Optimization of Enzymatic Biochemical Logic for Noise Reduction and Scalability: How Many Biocomputing Gates Can Be Interconnected in a Circuit?. Journal of Physical Chemistry B, 2008, 112, 11777-11784.	1.2	107

#	Article	IF	Citations
19	Bridging the Two Worlds: A Universal Interface between Enzymatic and DNA Computing Systems. Angewandte Chemie - International Edition, 2015, 54, 6562-6566.	7.2	106
20	Network Analysis of Biochemical Logic for Noise Reduction and Stability: A System of Three Coupled Enzymatic AND Gates. Journal of Physical Chemistry B, 2009, 113, 5301-5310.	1.2	105
21	Boolean Logic Gates that Use Enzymes as Input Signals. ChemBioChem, 2008, 9, 1260-1266.	1.3	102
22	Multianalyte Digital Enzyme Biosensors with Built-in Boolean Logic. Analytical Chemistry, 2012, 84, 5463-5469.	3.2	102
23	Biofuel cells â€“ Activation of micro- and macro-electronic devices. Bioelectrochemistry, 2018, 119, 33-42.	2.4	100
24	Bicomponent Microneedle Array Biosensor for Minimallyâ€Invasive Glutamate Monitoring. Electroanalysis, 2011, 23, 2302-2309.	1.5	99
25	Multiple Logic Gates Based on Electrically Wired Surface-Reconstituted Enzymes. Journal of the American Chemical Society, 2008, 130, 36-37.	6.6	98
26	Biofuel Cells Controlled by Logically Processed Biochemical Signals: Towards Physiologically Regulated Bioelectronic Devices. Chemistry - A European Journal, 2009, 15, 12554-12564.	1.7	97
27	Biochemically Controlled Bioelectrocatalytic Interface. Journal of the American Chemical Society, 2008, 130, 10888-10889.	6.6	96
28	Multiplexing of injury codes for the parallel operation of enzyme logic gates. Analyst, The, 2010, 135, 2249.	1.7	96
29	Enzyme-BasedNANDandNORLogic Gates with Modular Design. Journal of Physical Chemistry B, 2009, 113, 16065-16070.	1.2	95
30	Switchable selectivity for gating ion transport with mixed polyelectrolyte brushes: approaching â€˜smartâ€™ drug delivery systems. Nanotechnology, 2009, 20, 434006.	1.3	88
31	Enzyme-Based Biosensors: Tackling Electron Transfer Issues. Sensors, 2020, 20, 3517.	2.1	88
32	Responsive Interface Switchable by Logically Processed Physiological Signals: Toward â€œSmartâ€• Actuators for Signal Amplification and Drug Delivery. ACS Applied Materials & Interfaces, 2011, 3, 1620-1623.	4.0	87
33	Biocomputing â€” tools, aims, perspectives. Current Opinion in Biotechnology, 2015, 34, 202-208.	3.3	85
34	Reversible â€œClosingâ€•of an Electrode Interface Functionalized with a Polymer Brush by an Electrochemical Signal. Langmuir, 2010, 26, 4506-4513.	1.6	84
35	Magnetic field remotely controlled selective biocatalysis. Nature Catalysis, 2018, 1, 73-81.	16.1	84
36	A wireless transmission system powered by an enzyme biofuel cell implanted in an orange. Bioelectrochemistry, 2015, 106, 28-33.	2.4	82

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37	Synthesis, Properties and Applications of Magnetic Nanoparticles and Nanowiresâ€"A Brief Introduction. Magnetochemistry, 2019, 5, 61.	1.0	82
38	Enzyme logic gates for the digital analysis of physiological level upon injury. Biosensors and Bioelectronics, 2009, 24, 3569-3574.	5.3	81
39	Multi-enzyme logic network architectures for assessing injuries: digital processing of biomarkers. Molecular BioSystems, 2010, 6, 2554.	2.9	80
40	Bioelectrocatalytic System Coupled with Enzyme-Based Biocomputing Ensembles Performing Boolean Logic Operations: Approaching â€œSmartâ€•Physiologically Controlled Biointerfaces. ACS Applied Materials & Interfaces, 2009, 1, 144-149.	4.0	79
41	Substance Release Triggered by Biomolecular Signals in Bioelectronic Systems. Journal of Physical Chemistry Letters, 2015, 6, 1340-1347.	2.1	74
42	Keypad Lock Security System Based on Immune-Affinity Recognition Integrated with a Switchable Biofuel Cell. Journal of Physical Chemistry Letters, 2010, 1, 973-977.	2.1	69
43	Digital Biosensors with Builtâ€in Logic for Biomedical Applications. Israel Journal of Chemistry, 2011, 51, 141-150.	1.0	69
44	Optoelectronic Properties of Nanostructured Ensembles Controlled by Biomolecular Logic Systems. ACS Nano, 2008, 2, 2160-2166.	7.3	64
45	Biofuel cell controlled by enzyme logic network â€" Approaching physiologically regulated devices. Bioelectrochemistry, 2009, 76, 4-9.	2.4	64
46	An Integrated Multifunctional Nanosystem from Command Nanoparticles and Enzymes. Small, 2009, 5, 817-820.	5.2	63
47	Electrochemically stimulated release of lysozyme from an alginate matrix cross-linked with iron cations. Journal of Materials Chemistry, 2012, 22, 19523.	6.7	63
48	Electrode interfaces switchable by physical and chemical signals for biosensing, biofuel, and biocomputing applications. Analytical and Bioanalytical Chemistry, 2013, 405, 3659-3672.	1.9	61
49	Magneto-Induced Self-Assembling of Conductive Nanowires for Biosensor Applications. Journal of Physical Chemistry C, 2008, 112, 7337-7344.	1.5	60
50	Enzyme-based logic systems interfaced with signal-responsive materials and electrodes. Chemical Communications, 2015, 51, 3493-3500.	2.2	60
51	Bio-logic analysis of injury biomarker patterns in human serum samples. Talanta, 2011, 83, 955-959.	2.9	59
52	Modified Electrodes with Switchable Selectivity for Cationic and Anionic Redox Species. Electroanalysis, 2010, 22, 35-40.	1.5	57
53	Self-powered biomolecular keypad lock security system based on a biofuel cell. Chemical Communications, 2010, 46, 2405.	2.2	57
54	Electronic interfaces switchable by logically processed multiple biochemical and physiological signals. Journal of Materials Chemistry, 2012, 22, 8171.	6.7	57

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55	Switchable Electrodes: How Can the System Complexity be Scaled up?. Electroanalysis, 2009, 21, 252-260.	1.5	56
56	Fieldâ€Effect Nanoparticleâ€Based Glucose Sensor on a Chip: Amplification Effect of Coimmobilized Redox Species. Electroanalysis, 2008, 20, 1748-1753.	1.5	55
57	Coupling of Biocomputing Systems with Electronic Chips: Electronic Interface for Transduction of Biochemical Information. Journal of Physical Chemistry C, 2009, 113, 2573-2579.	1.5	55
58	Enzymatic AND Logic Gates Operated Under Conditions Characteristic of Biomedical Applications. Journal of Physical Chemistry B, 2010, 114, 12166-12174.	1.2	55
59	Enzyme-based logic gates and circuitsâ€"analytical applications and interfacing with electronics. Analytical and Bioanalytical Chemistry, 2017, 409, 81-94.	1.9	54
60	Biofuel Cells with Switchable Power Output. Electroanalysis, 2010, 22, 744-756.	1.5	53
61	Enzyme-Based Logic: OR Gate with Double-Sigmoid Filter Response. Journal of Physical Chemistry B, 2012, 116, 9683-9689.	1.2	53
62	Pacemaker Activated by an Abiotic Biofuel Cell Operated in Human Serum Solution. Electroanalysis, 2014, 26, 2445-2457.	1.5	53
63	Enzyme-based logic systems and their applications for novel multi-signal-responsive materials. Journal of Materials Science: Materials in Medicine, 2009, 20, 457-462.	1.7	52
64	Enzymatic AND-gate based on electrode-immobilized glucose-6-phosphate dehydrogenase: Towards digital biosensors and biochemical logic systems with low noise. Biosensors and Bioelectronics, 2009, 25, 695-701.	5.3	52
65	Realization and Properties of Biochemical-Computing Biocatalytic XOR Gate Based on Signal Change. Journal of Physical Chemistry B, 2010, 114, 13601-13608.	1.2	52
66	Analysis of biomarkers characteristic of porcine liver injuryâ€"from biomolecular logic gates to an animal model. Analyst, The, 2012, 137, 1768.	1.7	52
67	A model system for targeted drug release triggered by biomolecular signals logically processed through enzyme logic networks. Analyst, The, 2014, 139, 982.	1.7	52
68	Analog Noise Reduction in Enzymatic Logic Gates. Journal of Physical Chemistry B, 2009, 113, 10472-10479.	1.2	49
69	Majority and Minority Gates Realized in Enzyme-Biocatalyzed Systems Integrated with Logic Networks and Interfaced with Bioelectronic Systems. Journal of Physical Chemistry B, 2014, 118, 6775-6784.	1.2	49
70	Reversible Logic Gates Based on Enzymeâ€Biocatalyzed Reactions and Realized in Flow Cells: A Modular Approach. ChemPhysChem, 2015, 16, 1405-1415.	1.0	49
71	Enzyme-Based Logic Analysis of Biomarkers at Physiological Concentrations: AND Gate with Double-Sigmoid â€œFilterâ€•Response. Journal of Physical Chemistry B, 2012, 116, 4457-4464.	1.2	48
72	Iron(<scp>iii</scp>)-cross-linked alginate hydrogels: a critical review. Materials Advances, 2022, 3, 1849-1873.	2.6	48

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73	Biomolecular Filters for Improved Separation of Output Signals in Enzyme Logic Systems Applied to Biomedical Analysis. Analytical Chemistry, 2011, 83, 8383-8386.	3.2	47
74	Boolean Logic Gates Realized with Enzymeâ€catalyzed Reactions â€“ Unusual Look at Usual Chemical Reactions. ChemPhysChem, 2019, 20, 9-22.	1.0	47
75	Switchable electrode controlled by Boolean logic gates using enzymes as input signals. Bioelectrochemistry, 2009, 77, 69-73.	2.4	46
76	Biochemical Filter with Sigmoidal Response: Increasing the Complexity of Biomolecular Logic. Journal of Physical Chemistry B, 2010, 114, 14103-14109.	1.2	46
77	High-fidelity determination of security threats via a Boolean biocatalytic cascade. Chemical Communications, 2011, 47, 3087.	2.2	46
78	A biochemical logic approach to biomarker-activated drug release. Journal of Materials Chemistry, 2012, 22, 19709.	6.7	46
79	Enzymatic AND Logic Gate with Sigmoid Response Induced by Photochemically Controlled Oxidation of the Output. Journal of Physical Chemistry B, 2013, 117, 7559-7568.	1.2	46
80	Electrochemical Nanotransistor from Mixedâ€Polymer Brushes. Advanced Materials, 2010, 22, 1863-1866.	11.1	45
81	Networked Enzymatic Logic Gates with Filtering: New Theoretical Modeling Expressions and Their Experimental Application. Journal of Physical Chemistry B, 2013, 117, 14928-14939.	1.2	45
82	An enzyme-based reversible CNOT logic gate realized in a flow system. Analyst, The, 2014, 139, 1839.	1.7	45
83	Enzymeâ€Based Logic Gates and Networks with Output Signals Analyzed by Various Methods. ChemPhysChem, 2017, 18, 1688-1713.	1.0	45
84	Magnetic Field-Activated Sensing of mRNA in Living Cells. Journal of the American Chemical Society, 2017, 139, 12117-12120.	6.6	44
85	A Microelectronic Sensor Device Powered by a Small Implantable Biofuel Cell. ChemPhysChem, 2020, 21, 120-128.	1.0	44
86	Implantable Biofuel Cells Operating In Vivoâ€"Potential Power Sources for Bioelectronic Devices. Bioelectronic Medicine, 2015, 2, 1-12.	1.0	42
87	Logic Networks Based on Immunorecognition Processes. Journal of Physical Chemistry B, 2009, 113, 12154-12159.	1.2	40
88	Reversible gating controlled by enzymes at nanostructured interface. Chemical Communications, 2010, 46, 2088.	2.2	40
89	Modularity of Biochemical Filtering for Inducing Sigmoid Response in Both Inputs in an Enzymatic AND Gate. Journal of Physical Chemistry B, 2013, 117, 9857-9865.	1.2	39
90	Artificial Muscle Reversibly Controlled by Enzyme Reactions. Journal of Physical Chemistry Letters, 2010, 1, 839-843.	2.1	38

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91	Fuel Cells and Biofuel Cells: From Past to Perspectives. Israel Journal of Chemistry, 2021, 61, 68-84.	1.0	38
92	Activation of a Biocatalytic Electrode by Removing Glucose Oxidase from the Surfaceâ€"Application to Signal Triggered Drug Release. ACS Applied Materials & Interfaces, 2014, 6, 13349-13354.	4.0	37
93	Self-powered electrochemical memristor based on a biofuel cell â€" towards memristors integrated with biocomputing systems. Chemical Communications, 2014, 50, 4816.	2.2	37
94	DNA Release from Fe³⁺â€Crossâ€Linked Alginate Films Triggered by Logically Processed Biomolecular Signals: Integration of Biomolecular Computing and Actuation. ChemPhysChem, 2017, 18, 1811-1821.	1.0	37
95	Nanocomposite hydrogel films and coatings â€" Features and applications. Applied Materials Today, 2020, 20, 100776.	2.3	37
96	Towards biochemical filters with a sigmoidal response to pH changes: buffered biocatalytic signal transduction. Physical Chemistry Chemical Physics, 2011, 13, 4507.	1.3	36
97	Molecular AND logic gate based on bacterial anaerobic respiration. Chemical Communications, 2012, 48, 10174.	2.2	36
98	Bioelectronic Interface Connecting Reversible Logic Gates Based on Enzyme and DNA Reactions. ChemPhysChem, 2016, 17, 2247-2255.	1.0	35
99	Controlled Logic Gatesâ€"Switch Gate and Fredkin Gate Based on Enzymeâ€Biocatalyzed Reactions Realized in Flow Cells. ChemPhysChem, 2016, 17, 1046-1053.	1.0	35
100	Realization and Properties of Biochemical-Computing Biocatalytic XOR Gate Based on Enzyme Inhibition by a Substrate. Journal of Physical Chemistry B, 2011, 115, 9838-9845.	1.2	34
101	Biomolecular release triggered by glucose input â€" bioelectronic coupling of sensing and actuating systems. Chemical Communications, 2013, 49, 4755.	2.2	34
102	Biosensorsâ€"Recent Advances and Future Challenges. Sensors, 2020, 20, 6645.	2.1	34
103	Enzymatic filter for improved separation of output signals in enzyme logic systems towards â€˜sense and treatâ€™ medicine. Biomaterials Science, 2014, 2, 184-191.	2.6	32
104	A Biofuel Cell Based on Biocatalytic Reactions of Lactate on Both Anode and Cathode Electrodes â€" Extracting Electrical Power from Human Sweat. Electroanalysis, 2017, 29, 1602-1611.	1.5	31
105	Materials with Built-in Logic. Journal of Computational and Theoretical Nanoscience, 2011, 8, 356-364.	0.4	30
106	A bioinspired associative memory system based on enzymatic cascades. Chemical Communications, 2013, 49, 6962.	2.2	30
107	Modified Electrodes and Electrochemical Systems Switchable by Temperature Changes. Electroanalysis, 2016, 28, 1916-1929.	1.5	30
108	Antibacterial Drug Release Electrochemically Stimulated by the Presence of Bacterial Cells â€" Theranostic Approach. Electroanalysis, 2014, 26, 2552-2557.	1.5	29

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109	Enzyme-Based Multiplexer and Demultiplexer. Journal of Physical Chemistry B, 2010, 114, 5222-5226.	1.2	28
110	Biocatalytic analysis of biomarkers for forensic identification of ethnicity between Caucasian and African American groups. Analyst, The, 2013, 138, 6251.	1.7	28
111	Switchable Bioelectrocatalysis Controlled by pH Changes. Electroanalysis, 2015, 27, 2063-2073.	1.5	27
112	Biomolecular Release from Alginateâ€modified Electrode Triggered by Chemical Inputs Processed through a Biocatalytic Cascade â€“ Integration of Biomolecular Computing and Actuation. Electroanalysis, 2018, 30, 426-435.	1.5	27
113	Enzyme-based NAND gate for rapid electrochemical screening of traumatic brain injury in serum. Analytica Chimica Acta, 2011, 703, 94-100.	2.6	25
114	An Enzymeâ€Based Halfâ€Adder and Halfâ€Subtractor with a Modular Design. ChemPhysChem, 2016, 17, 2210-2217.	1.0	25
115	A Biofuel Cell Based on Biocatalytic Reactions of Glucose on Both Anode and Cathode Electrodes. Electroanalysis, 2017, 29, 950-954.	1.5	25
116	Magnetic Nanoparticles. Magnetochemistry, 2020, 6, 6.	1.0	25
117	Kinetic Model for a Threshold Filter in an Enzymatic System for Bioanalytical and Biocomputing Applications. Journal of Physical Chemistry B, 2014, 118, 12435-12443.	1.2	24
118	Nanoreactors based on DNAzyme-functionalized magnetic nanoparticles activated by magnetic field. Nanoscale, 2018, 10, 1356-1365.	2.8	24
119	Towards Nanomaterials for Cancer Theranostics: A System of DNA-Modified Magnetic Nanoparticles for Detection and Suppression of RNA Marker in Cancer Cells. Magnetochemistry, 2019, 5, 24.	1.0	24
120	Biofuel Cell Based on Carbon Fiber Electrodes Functionalized with Graphene Nanosheets. ECS Journal of Solid State Science and Technology, 2016, 5, M3037-M3040.	0.9	23
121	A biocatalytic cascade with several output signalsâ€”towards biosensors with different levels of confidence. Analytical and Bioanalytical Chemistry, 2014, 406, 3365-3370.	1.9	22
122	Model system for targeted drug release triggered by immune-specific signals. Analytical and Bioanalytical Chemistry, 2014, 406, 4825-4829.	1.9	22
123	Enzyme-based logic gates switchable between OR, NXOR and NAND Boolean operations realized in a flow system. Chemical Communications, 2014, 50, 12043-12046.	2.2	22
124	Glucoseâ€Triggered Insulin Release from Fe³⁺â€Crossâ€Linked Alginate Hydrogel: Experimental Study and Theoretical Modeling. ChemPhysChem, 2017, 18, 1541-1551.	1.0	22
125	DNA Computing Systems Activated by Electrochemicallyâ€triggered DNA Release from a Polymerâ€brushâ€modified Electrode Array. Electroanalysis, 2017, 29, 398-408.	1.5	22
126	Controlling Porosity of Calcium Alginate Hydrogels by Interpenetrating Polyvinyl Alcoholâ€“Diboronate Polymer Network. ACS Applied Polymer Materials, 2021, 3, 1499-1507.	2.0	22

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127	High sensitivity molecular detection with enzyme-linked immuno-sorbent assay (ELISA)-type immunosensing. Nanotechnology, 2008, 19, 375502.	1.3	21
128	Enzyme logic gate associated with a single responsive microparticle: scaling biocomputing to microsize systems. Chemical Communications, 2010, 46, 94-96.	2.2	21
129	A bioelectronic system for insulin release triggered by ketone body mimicking diabetic ketoacidosis in vitro. Chemical Communications, 2015, 51, 7618-7621.	2.2	21
130	Coupling of Biomolecular Logic Gates with Electronic Transducers: From Single Enzyme Logic Gates to Sense/Act/Treat Chips. Electroanalysis, 2017, 29, 1840-1849.	1.5	21
131	Notes on stochastic (bio)-logic gates: computing with allosteric cooperativity. Scientific Reports, 2015, 5, 9415.	1.6	20
132	Wireless Information Transmission System Powered by an Abiotic Biofuel Cell Implanted in an Orange. Electroanalysis, 2015, 27, 276-280.	1.5	20
133	Electrochemically stimulated molecule release associated with interfacial pH changes. Chemical Communications, 2019, 55, 7856-7859.	2.2	20
134	â€œSmartâ€•alginate hydrogels in biosensing, bioactuation and biocomputing: State-of-the-art and perspectives. Sensors and Actuators Reports, 2022, 4, 100095.	2.3	20
135	Bioelectronic system for the control and readout of enzyme logic gates. Sensors and Actuators B: Chemical, 2011, 155, 206-213.	4.0	19
136	Magnetoâ€switchable Electrodes and Electrochemical Systems. Electroanalysis, 2016, 28, 904-919.	1.5	19
137	Ca²⁺-Switchable Glucose Dehydrogenase Associated with Electrochemical/Electronic Interfaces: Applications to Signal-Controlled Power Production and Biomolecular Release. Journal of Physical Chemistry B, 2017, 121, 11465-11471.	1.2	19
138	Logic Gates Based on Magnetic Nanoparticles Functionalized with a Bioelectrocatalytic System. Electroanalysis, 2008, 20, 22-29.	1.5	18
139	Enzyme logic network analyzing combinations of biochemical inputs and producing fluorescent output signals: Towards multi-signal digital biosensors. Sensors and Actuators B: Chemical, 2009, 140, 1-4.	4.0	18
140	Grapheneâ€Functionalized 3Dâ€Carbon Fiber Electrodes â€“ Preparation and Electrochemical Characterization. Electroanalysis, 2016, 28, 1943-1946.	1.5	18
141	Magnetoâ€Controlled Biocatalytic Cascades with Logically Processed Input Signals â€“ Substrate Channeling versus Free Diffusion. ChemPhysChem, 2018, 19, 3035-3043.	1.0	18
142	Electrochemicallyâ€controlled DNA Release under Physiological Conditions from a Monolayerâ€modified Electrode. Electroanalysis, 2017, 29, 324-329.	1.5	17
143	Modified Electrodes and Electrochemical Systems Switchable by Light Signals. Electroanalysis, 2018, 30, 759-797.	1.5	17
144	Bioelectrocatalytic Electrodes Modified with PQQâ€Glucose Dehydrogenaseâ€Calmodulin Chimera Switchable by Peptide Signals: Pathway to Generic Bioelectronic Systems Controlled by Biomolecular Inputs. ChemElectroChem, 2019, 6, 638-645.	1.7	17

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145	Design of a methotrexate-controlled chemical dimerization system and its use in bio-electronic devices. Nature Communications, 2021, 12, 7137.	5.8	17
146	Starchâ€Powered Biofuel Cell Activated by Logically Processed Biomolecular Signals. ChemElectroChem, 2014, 1, 1822-1827.	1.7	16
147	An enzyme-based reversible Controlled NOT (CNOT) logic gate operating on a semiconductor transducer. Applied Materials Today, 2017, 9, 266-270.	2.3	16
148	Electrochemically Generated Interfacial pH Change: Application to Signalâ€Triggered Molecule Release. ChemElectroChem, 2020, 7, 3386-3403.	1.7	16
149	Biomolecular AND Logic Gate Based on Immobilized Enzymes with Precise Spatial Separation Controlled by Scanning Electrochemical Microscopy. Journal of Physical Chemistry B, 2013, 117, 16058-16065.	1.2	15
150	Diffusion of Oligonucleotides from within Ironâ€Crossâ€Linked, Polyelectrolyteâ€Modified Alginate Beads: A Model System for Drug Release. ChemPhysChem, 2016, 17, 976-984.	1.0	15
151	Electrochemically Triggered DNA Release from a Mixedâ€brush Polymerâ€modified Electrode. Electroanalysis, 2016, 28, 2613-2625.	1.5	14
152	Molecular Release Associated with Interfacial pH Change Stimulated by a Small Electrical Potential Applied. ChemElectroChem, 2020, 7, 59-63.	1.7	14
153	Control of Allosteric Protein Electrochemical Switches with Biomolecular and Electronic Signals. Journal of Physical Chemistry Letters, 2020, 11, 5549-5554.	2.1	14
154	Switchable Biocatalytic Reactions Controlled by Interfacial pH Changes Produced by Orthogonal Biocatalytic Processes. ACS Applied Materials & Interfaces, 2021, 13, 33830-33839.	4.0	14
155	Circular Permutated PQQâ€Glucose Dehydrogenase as an Ultrasensitive Electrochemical Biosensor. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
156	Biosensor Techniques Used for Determination of Telomerase Activity in Cancer Cells. Sensors, 2008, 8, 347-369.	2.1	13
157	Bioelectronic Devices Controlled by Biocomputing Systems. Israel Journal of Chemistry, 2011, 51, 132-140.	1.0	13
158	Biocatalytic Enzyme Networks Designed for Binary-Logic Control of Smart Electroactive Nanobiointerfaces. Topics in Catalysis, 2012, 55, 1201-1216.	1.3	13
159	Bioelectrocatalysis at carbon nanotubes. Methods in Enzymology, 2020, 630, 215-247.	0.4	13
160	<i>Operando</i> Local pH Mapping of Electrochemical and Bioelectrochemical Reactions Occurring at an Electrode Surface: Effect of the Buffer Concentration. ChemElectroChem, 2021, 8, 3923-3935.	1.7	13
161	Enzyme-Based Reversible Logic Gates Operated in Flow Cells. Emergence, Complexity and Computation, 2017, , 29-59.	0.2	12
162	Interfacing of biocomputing systems with silicon chips: Enzyme logic gates based on field-effect devices. Procedia Chemistry, 2009, 1, 682-685.	0.7	11

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163	Electrochemically Stimulated DNA Release from a Polymerâ€Brush Modified Electrode. Electroanalysis, 2015, 27, 2171-2179.	1.5	11
164	Can bio-inspired information processing steps be realized as synthetic biochemical processes?. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 219-228.	0.8	11
165	Biomolecular Computing Realized in Parallel Flow Systems: Enzyme-Based Double Feynman Logic Gate. Parallel Processing Letters, 2015, 25, 1540001.	0.4	11
166	Implantable biofuel cells operating in vivo: Providing sustainable power for bioelectronic devices: From biofuel cells to cyborgs. , 2015, , .		11
167	Electrochemically Stimulated Insulin Release from a Modified Grapheneâ€functionalized Carbon Fiber Electrode. Electroanalysis, 2017, 29, 1543-1553.	1.5	11
168	Nanoâ€species Release System Activated by Enzymeâ€based XOR Logic Gate. Electroanalysis, 2018, 30, 1281-1286.	1.5	11
169	Electrochemical control of the catalytic activity of immobilized enzymes. Chemical Communications, 2020, 56, 13800-13803.	2.2	11
170	DNA Release from a Bioelectronic Interface Stimulated by a DNA Signal â€" Amplification of DNA Signals. Electroanalysis, 2016, 28, 2692-2696.	1.5	10
171	Molecular Logic: From Single Logic Gates to Sophisticated Logic Circuits, from Fundamental Science to Practical Applications. ChemPhysChem, 2017, 18, 1665-1666.	1.0	10
172	Boolean Logic Networks Mimicked with Chimeric Enzymes Activated/Inhibited by Several Input Signals. ChemPhysChem, 2020, 21, 589-593.	1.0	10
173	Nanozyme-Triggered DNA Release from Alginate Films. ACS Applied Bio Materials, 2020, 3, 3741-3750.	2.3	10
174	Experimental Realization of a Highâ€Quality Biochemical XOR Gate. ChemPhysChem, 2017, 18, 2908-2915.	1.0	10
175	Biochemical flip-flop memory systems: essential additions to autonomous biocomputing and biosensing systems. International Journal of General Systems, 2014, 43, 722-739.	1.2	9
176	Photobiofuel Cell with Sustainable Energy Generation Based on Micro/Nanostructured Electrode Materials. ACS Applied Energy Materials, 2020, 3, 9543-9549.	2.5	9
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