

Enzyme-based logic systems for information processing

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Light-powered molecular devices and machines. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 1561-1573.	1.6	49
2	Digital biosensors with built-in logic for biomedical applications—biosensors based on a biocomputing concept. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 398, 1591-1603.	1.9	158
4	Boolean-format biocatalytic processing of enzyme biomarkers for the diagnosis of soft tissue injury. <i>Sensors and Actuators B: Chemical</i> , 2010, 150, 285-290.	4.0	21
5	Combinatorial protein recognition as an alternative approach to antibody-mimetics. <i>Current Opinion in Chemical Biology</i> , 2010, 14, 705-712.	2.8	40
6	pH-switchable bioelectrocatalysis based on layer-by-layer films assembled through specific boronic acid-diol recognition. <i>Electrochimica Acta</i> , 2010, 55, 9185-9192.	2.6	28
7	Learning through play. <i>Nature Nanotechnology</i> , 2010, 5, 767-768.	15.6	16
8	pH-Controllable On~Off Bioelectrocatalysis of Bienzyme Layer-by-Layer Films Assembled by Concanavalin A and Glucoenzymes with an Electroactive Mediator. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9926-9933.	1.2	46
9	Artificial Muscle Reversibly Controlled by Enzyme Reactions. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 839-843.	2.1	38
10	Realization and Properties of Biochemical-Computing Biocatalytic XOR Gate Based on Signal Change. <i>Journal of Physical Chemistry B</i> , 2010, 114, 13601-13608.	1.2	52
11	Biochemical Filter with Sigmoidal Response: Increasing the Complexity of Biomolecular Logic. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14103-14109.	1.2	46
12	Multi-enzyme logic network architectures for assessing injuries: digital processing of biomarkers. <i>Molecular BioSystems</i> , 2010, 6, 2554.	2.9	80
13	Molecular Logic Gates and Luminescent Sensors Based on Photoinduced Electron Transfer. <i>Topics in Current Chemistry</i> , 2010, 300, 1-28.	4.0	38
14	A pH responsive electrochemical switch sensor based on Fe(notpH3) [notpH6=1,4,7-triazacyclononane-1,4,7-triyl-tris(methylene-phosphonic acid)]. <i>Talanta</i> , 2010, 83, 145-148.	2.9	8
15	Enzymatic AND Logic Gates Operated Under Conditions Characteristic of Biomedical Applications. <i>Journal of Physical Chemistry B</i> , 2010, 114, 12166-12174.	1.2	55
16	Multiplexing of injury codes for the parallel operation of enzyme logic gates. <i>Analyst, The</i> , 2010, 135, 2249.	1.7	96
17	Self-powered biomolecular keypad lock security system based on a biofuel cell. <i>Chemical Communications</i> , 2010, 46, 2405.	2.2	57
18	Bioelectrocatalytic generation of directly readable code: harnessing cathodic current for long-term information relay. <i>Chemical Communications</i> , 2011, 47, 7662.	2.2	46
19	Realization and Properties of Biochemical-Computing Biocatalytic XOR Gate Based on Enzyme Inhibition by a Substrate. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9838-9845.	1.2	34

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20	High-fidelity determination of security threats via a Boolean biocatalytic cascade. <i>Chemical Communications</i> , 2011, 47, 3087.	2.2	46
21	Towards biochemical filters with a sigmoidal response to pH changes: buffered biocatalytic signal transduction. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4507.	1.3	36
22	Triply Responsive Films in Bioelectrocatalysis with a Binary Architecture: Combined Layer-by-Layer Assembly and Hydrogel Polymerization. <i>Journal of Physical Chemistry B</i> , 2011, 115, 6691-6699.	1.2	32
23	Replication NAND gate with light as input and output. <i>Chemical Communications</i> , 2011, 47, 710-712.	2.2	47
24	An All-Photonic Molecule-Based D Flip-Flop. <i>Journal of the American Chemical Society</i> , 2011, 133, 20742-20745.	6.6	89
25	Biomolecular Filters for Improved Separation of Output Signals in Enzyme Logic Systems Applied to Biomedical Analysis. <i>Analytical Chemistry</i> , 2011, 83, 8383-8386.	3.2	47
26	Resettable Multiple-Mode Molecular Arithmetic Systems Based on Spectral Properties of 2-Quinolin-2-ylmethylene-malonic Acids. <i>Journal of Physical Chemistry C</i> , 2011, 115, 23970-23977.	1.5	20
27	Bacteria-based biocomputing with Cellular Computing Circuits to sense, decide, signal, and act. <i>Energy and Environmental Science</i> , 2011, 4, 4907.	15.6	43
28	Surface-Confined Assemblies and Polymers for Molecular Logic. <i>Accounts of Chemical Research</i> , 2011, 44, 563-573.	7.6	190
29	Bacteria-based AND logic gate: a decision-making and self-powered biosensor. <i>Chemical Communications</i> , 2011, 47, 3060.	2.2	115
30	Bioelectrochemical Interface Engineering: Toward the Fabrication of Electrochemical Biosensors, Biofuel Cells, and Self-Powered Logic Biosensors. <i>Accounts of Chemical Research</i> , 2011, 44, 1232-1243.	7.6	262
31	Bio-logic analysis of injury biomarker patterns in human serum samples. <i>Talanta</i> , 2011, 83, 955-959.	2.9	59
32	Alert-type biological dosimeter based on enzyme logic system. <i>Talanta</i> , 2011, 85, 800-803.	2.9	11
33	Responsive Interface Switchable by Logically Processed Physiological Signals: Toward "Smart" Actuators for Signal Amplification and Drug Delivery. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 1620-1623.	4.0	87
34	Workshop on merging fields of computational intelligence and sensor technology (IEEE CompSens) Tj ETQq0 0 0 rgBT /Overlqck 10 Tf 5		
35	Sequential logic and random access memory (RAM): a molecular approach. <i>Journal of Materials Chemistry</i> , 2011, 21, 17575.	6.7	68
36	The "logicome" of environmental bacteria: merging catabolic and regulatory events with Boolean formalisms. <i>Environmental Microbiology</i> , 2011, 13, 2389-2402.	1.8	36
37	A 1,8-naphthalimide group modified magnetic silica nanoparticles INHIBIT logic gate with H ⁺ and F ^{âˆ’} as inputs. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 387, 29-34.	2.3	7

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39	Nanoscale Digital Devices Based on the Photoelectrochemical Photocurrent Switching Effect: Preparation, Properties and Applications. <i>Israel Journal of Chemistry</i> , 2011, 51, 36-55.	1.0	36
40	2010: A Small Space Odyssey with Luminescent Molecules. <i>Israel Journal of Chemistry</i> , 2011, 51, 16-22.	1.0	7
41	Processing Chemical and Photonic Signals by Artificial Multicomponent Molecular Systems. <i>Israel Journal of Chemistry</i> , 2011, 51, 23-35.	1.0	9
42	Control of Noise in Chemical and Biochemical Information Processing. <i>Israel Journal of Chemistry</i> , 2011, 51, 118-131.	1.0	36
43	Bioelectronic Devices Controlled by Biocomputing Systems. <i>Israel Journal of Chemistry</i> , 2011, 51, 132-140.	1.0	13
44	Digital Biosensors with Built-in Logic for Biomedical Applications. <i>Israel Journal of Chemistry</i> , 2011, 51, 141-150.	1.0	69
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49	Processing electrochemical signals at both sides of interface: electronic vs. chemical signal processing. <i>Journal of Solid State Electrochemistry</i> , 2011, 15, 1471-1480.	1.2	4
50	Towards biomolecule-based information processing using engineered nanopores. <i>Nano Communication Networks</i> , 2011, 2, 62-73.	1.6	1
52	Resettable, Multi-Readout Logic Gates Based on Controllably Reversible Aggregation of Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4103-4107.	7.2	229
53	Steganography and encrypting based on immunochemical systems. <i>Biotechnology and Bioengineering</i> , 2011, 108, 1100-1107.	1.7	21
54	Multiplexed sensing of mercury(II) and silver(I) ions: A new class of DNA electrochemiluminescent-molecular logic gates. <i>Biosensors and Bioelectronics</i> , 2011, 26, 3570-3576.	5.3	58
55	Î±-Tocotrienol quinone modulates oxidative stress response and the biochemistry of aging. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 3693-3698.	1.0	85
56	Bioelectronic system for the control and readout of enzyme logic gates. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 206-213.	4.0	19

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58	CELLULAR AUTOMATON SUPERCOLLIDERS. <i>International Journal of Modern Physics C</i> , 2011, 22, 419-439.	0.8	24
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60	Artificial enzymes based on supramolecular scaffolds. <i>Chemical Society Reviews</i> , 2012, 41, 7890.	18.7	345
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67	An aptamer-based keypad lock system. <i>Chemical Communications</i> , 2012, 48, 802-804.	2.2	49
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75	Electrogenerated Chemiluminescence for Potentiometric Sensors. <i>Journal of the American Chemical Society</i> , 2012, 134, 205-207.	6.6	73
76	Enzyme-Based Logic: OR Gate with Double-Sigmoid Filter Response. <i>Journal of Physical Chemistry B</i> , 2012, 116, 9683-9689.	1.2	53

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77	Label-free colorimetric sensing of ascorbic acid based on Fenton reaction with unmodified gold nanoparticle probes and multiple molecular logic gates. <i>Analytica Chimica Acta</i> , 2012, 717, 127-133.	2.6	46
87	A biochemical logic approach to biomarker-activated drug release. <i>Journal of Materials Chemistry</i> , 2012, 22, 19709.	6.7	46
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90	Exploration of Two-Enzyme Coupled Catalysis System Using Scanning Electrochemical Microscopy. <i>Analytical Chemistry</i> , 2012, 84, 10586-10592.	3.2	23
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96	Biocatalytic Enzyme Networks Designed for Binary-Logic Control of Smart Electroactive Nanobiointerfaces. <i>Topics in Catalysis</i> , 2012, 55, 1201-1216.	1.3	13
97	A differential ICT based molecular probe for multi-ions and multifunction logic circuits. <i>Dalton Transactions</i> , 2012, 41, 4588.	1.6	20
98	Molecular AND logic gate based on bacterial anaerobic respiration. <i>Chemical Communications</i> , 2012, 48, 10174.	2.2	36
99	<i>Microrobotics.</i> , 2012, , 1436-1436.		0
100	Allosteric effects in coiled-coil proteins folding and lanthanide-ion binding. <i>Chemical Communications</i> , 2012, 48, 9577.	2.2	6
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113	Information Processing with Molecules—Quo Vadis?. <i>ChemPhysChem</i> , 2013, 14, 28-46.	1.0	114
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142	An All-Photonic Molecule-Based Parity Generator/Checker for Error Detection in Data Transmission. <i>Journal of the American Chemical Society</i> , 2013, 135, 10230-10233.	6.6	88
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171	Installing logic-gate responses to a variety of biological substances in supramolecular hydrogel-enzyme hybrids. <i>Nature Chemistry</i> , 2014, 6, 511-518.	6.6	370
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176	Route 20, Autobahn 7, and Slime Mold: Approximating the Longest Roads in USA and Germany With Slime Mold on 3-D Terrains. <i>IEEE Transactions on Cybernetics</i> , 2014, 44, 126-136.	6.2	35
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179	Biocatalytic analysis of biomarkers for forensic identification of gender. <i>Analyst, The</i> , 2014, 139, 559-563.	1.7	22
180	A model system for targeted drug release triggered by biomolecular signals logically processed through enzyme logic networks. <i>Analyst, The</i> , 2014, 139, 982.	1.7	52
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184	Nucleic Acids and Smart Materials: Advanced Building Blocks for Logic Systems. <i>Advanced Materials</i> , 2014, 26, 5742-5757.	11.1	89
185	Trace vapour detection at room temperature using Raman spectroscopy. <i>Analyst, The</i> , 2014, 139, 1960-1966.	1.7	9
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