

Igor Goryanin

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

7,093
citations

236925

25
h-index

71685

76
g-index

85
all docs

85
docs citations

85
times ranked

7944
citing authors

#	ARTICLE	IF	CITATIONS
1	The systems biology markup language (SBML): a medium for representation and exchange of biochemical network models. <i>Bioinformatics</i> , 2003, 19, 524-531.	4.1	2,811
2	A community-driven global reconstruction of human metabolism. <i>Nature Biotechnology</i> , 2013, 31, 419-425.	17.5	920
3	The Systems Biology Graphical Notation. <i>Nature Biotechnology</i> , 2009, 27, 735-741.	17.5	828
4	The Edinburgh human metabolic network reconstruction and its functional analysis. <i>Molecular Systems Biology</i> , 2007, 3, 135.	7.2	364
5	Metabolic modeling of microbial strains in silico. <i>Trends in Biochemical Sciences</i> , 2001, 26, 179-186.	7.5	291
6	Novel Electrochemically Active Bacterium Phylogenetically Related to <i>Arcobacter butzleri</i> , Isolated from a Microbial Fuel Cell. <i>Applied and Environmental Microbiology</i> , 2009, 75, 7326-7334.	3.1	169
7	Systems Biology Reveals New Strategies for Personalizing Cancer Medicine and Confirms the Role of PTEN in Resistance to Trastuzumab. <i>Cancer Research</i> , 2009, 69, 6713-6720.	0.9	152
8	Mathematical simulation and analysis of cellular metabolism and regulation. <i>Bioinformatics</i> , 1999, 15, 749-758.	4.1	135
9	A fragile metabolic network adapted for cooperation in the symbiotic bacterium <i>Buchnera aphidicola</i> . <i>BMC Systems Biology</i> , 2009, 3, 24.	3.0	98
10	Compartmentalization of the Edinburgh Human Metabolic Network. <i>BMC Bioinformatics</i> , 2010, 11, 393.	2.6	92
11	The metabolic pathway collection from EMP: the enzymes and metabolic pathways database. <i>Nucleic Acids Research</i> , 1996, 24, 26-28.	14.5	87
12	Temperature Dependence of the Epidermal Growth Factor Receptor Signaling Network Can Be Accounted for by a Kinetic Model. <i>Biochemistry</i> , 2002, 41, 306-320.	2.5	74
13	EchoBASE: an integrated post-genomic database for <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 2004, 33, D329-D333.	14.5	70
14	Human metabolic network reconstruction and its impact on drug discovery and development. <i>Drug Discovery Today</i> , 2008, 13, 402-408.	6.4	52
15	Passive microwave radiometry in biomedical studies. <i>Drug Discovery Today</i> , 2020, 25, 757-763.	6.4	49
16	Mathematical Modeling of Mitochondrial Adenine Nucleotide Translocase. <i>Biophysical Journal</i> , 2006, 90, 423-432.	0.5	43
17	EnzML: multi-label prediction of enzyme classes using InterPro signatures. <i>BMC Bioinformatics</i> , 2012, 13, 61.	2.6	43
18	DBSolve Optimum: a software package for kinetic modeling which allows dynamic visualization of simulation results. <i>BMC Systems Biology</i> , 2010, 4, 109.	3.0	39

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19	The metabolic pathway collection: an update. <i>Nucleic Acids Research</i> , 1997, 25, 37-38.	14.5	37
20	Microarray data can predict diurnal changes of starch content in the picoalga <i>Ostreococcus</i> . <i>BMC Systems Biology</i> , 2011, 5, 36.	3.0	37
21	Kinetic Model of Mitochondrial Krebs Cycle: Unraveling the Mechanism of Salicylate Hepatotoxic Effects. <i>Journal of Biological Physics</i> , 2006, 32, 245-271.	1.5	36
22	Model-based global sensitivity analysis as applied to identification of anti-cancer drug targets and biomarkers of drug resistance in the ErbB2/3 network. <i>European Journal of Pharmaceutical Sciences</i> , 2012, 46, 244-258.	4.0	35
23	Towards a computational reconstruction of the electrodynamics of premature and full term human labour. <i>Progress in Biophysics and Molecular Biology</i> , 2011, 107, 183-192.	2.9	29
24	Pathway-Consensus Approach to Metabolic Network Reconstruction for <i>Pseudomonas putida</i> KT2440 by Systematic Comparison of Published Models. <i>PLoS ONE</i> , 2017, 12, e0169437.	2.5	29
25	Modern Microwave Thermometry for Breast Cancer. <i>Journal of Molecular Imaging & Dynamics</i> , 2017, 7, .	0.2	27
26	Using medical microwave radiometry for brain temperature measurements. <i>Drug Discovery Today</i> , 2022, 27, 881-889.	6.4	26
27	The Pathway Editor: A tool for managing complex biological networks. <i>IBM Journal of Research and Development</i> , 2006, 50, 561-573.	3.1	25
28	The reconstruction and analysis of tissue specific human metabolic networks. <i>Molecular BioSystems</i> , 2012, 8, 663-670.	2.9	25
29	Kinetic Modeling of Energy Metabolism and Superoxide Generation in Hepatocyte Mitochondria. <i>Molecular Biology</i> , 2001, 35, 940-949.	1.3	23
30	Modelling nitrogen assimilation of <i>Escherichia coli</i> at low ammonium concentration. <i>Journal of Biotechnology</i> , 2009, 144, 175-183.	3.8	22
31	Multi-electrode microbial fuel cell with horizontal liquid flow. <i>Water Science and Technology</i> , 2009, 60, 347-355.	2.5	20
32	SBSI: an extensible distributed software infrastructure for parameter estimation in systems biology. <i>Bioinformatics</i> , 2013, 29, 664-665.	4.1	20
33	The kinetic model of the shikimate pathway as a tool to optimize enzyme assays for high-throughput screening. <i>Biotechnology and Bioengineering</i> , 2006, 95, 560-571.	3.3	19
34	Kinetic modelling of NSAID action on COX-1: Focus on in vitro/in vivo aspects and drug combinations. <i>European Journal of Pharmaceutical Sciences</i> , 2009, 36, 122-136.	4.0	19
35	Compensatory effects in the PI3K/PTEN/AKT signaling network following receptor tyrosine kinase inhibition. <i>Cellular Signalling</i> , 2011, 23, 407-416.	3.6	19
36	Single chamber air-cathode microbial fuel cells as biosensors for determination of biodegradable organics. <i>Biotechnology Letters</i> , 2019, 41, 555-563.	2.2	18

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37	The impact of the regulatory design on the response of epidermal growth factor receptor-mediated signal transduction towards oncogenic mutations. <i>FEBS Journal</i> , 2007, 274, 5505-5517.	4.7	15
38	A Graphical Notation to Describe the Logical Interactions of Biological Pathways. <i>Journal of Integrative Bioinformatics</i> , 2006, 3, 177-187.	1.5	14
39	Concurrent treatment of raw and aerated swine wastewater using an electrotrophic denitrification system. <i>Bioresource Technology</i> , 2021, 322, 124508.	9.6	14
40	Passive Microwave Radiometry for the Diagnosis of Coronavirus Disease 2019 Lung Complications in Kyrgyzstan. <i>Diagnostics</i> , 2021, 11, 259.	2.6	14
41	Simultaneous modelling of metabolic, genetic and product-interaction networks. <i>Briefings in Bioinformatics</i> , 2001, 2, 223-232.	6.5	13
42	Kinetic Modeling as a Tool to Integrate Multilevel Dynamic Experimental Data. <i>Methods in Molecular Biology</i> , 2009, 563, 197-218.	0.9	13
43	A semi-automated genome annotation comparison and integration scheme. <i>BMC Bioinformatics</i> , 2013, 14, 172.	2.6	13
44	Metabolic engineering of a novel strain of electrogenic bacterium <i>Arcobacter butzleri</i> to create a platform for single analyte detection using a microbial fuel cell. <i>Enzyme and Microbial Technology</i> , 2020, 139, 109564.	3.2	13
45	Application of Data Mining and Machine Learning in Microwave Radiometry (MWR). <i>Communications in Computer and Information Science</i> , 2020, , 265-288.	0.5	12
46	Application of Artificial Intelligence in Microwave Radiometry (MWR). , 2019, , .		12
47	KINETIC MODEL OF PHOSPHOFRUCTOKINASE-1 FROM <i>ESCHERICHIA COLI</i> . <i>Journal of Bioinformatics and Computational Biology</i> , 2008, 06, 843-867.	0.8	11
48	Use of Microwave Radiometry to Monitor Thermal Denaturation of Albumin. <i>Frontiers in Physiology</i> , 2018, 9, 956.	2.8	11
49	Microwave Radiometry (MWR) temperature measurement is related to symptom severity in patients with Low Back Pain (LBP). <i>Journal of Bodywork and Movement Therapies</i> , 2021, 26, 548-552.	1.2	11
50	Using AI and passive medical radiometry for diagnostics (MWR) of venous diseases. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 215, 106611.	4.7	11
51	Dynamic computational modeling in the search for better breast cancer drug therapy. <i>Pharmacogenomics</i> , 2007, 8, 1757-1761.	1.3	10
52	In Silico Screening of Nonsteroidal Anti-Inflammatory Drugs and Their Combined Action on Prostaglandin H Synthase-1. <i>Pharmaceuticals</i> , 2010, 3, 2059-2081.	3.8	9
53	Taxonomic and functional metagenomic analysis of anodic communities in two pilot-scale microbial fuel cells treating different industrial wastewaters. <i>Journal of Integrative Bioinformatics</i> , 2015, 12, 1-15.	1.5	9
54	Magnet-Facilitated Selection of Electrogenic Bacteria from Marine Sediment. <i>BioMed Research International</i> , 2015, 2015, 1-7.	1.9	9

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55	El of the Phosphotransferase System of Escherichia coli: Mathematical Modeling Approach to Analysis of Its Kinetic Properties. <i>Journal of Biophysics</i> , 2011, 2011, 1-17.	0.8	8
56	Comparative Metagenomic Analysis of Electrogenic Microbial Communities in Differentially Inoculated Swine Wastewater-Fed Microbial Fuel Cells. <i>Scientifica</i> , 2017, 2017, 1-10.	1.7	7
57	Computational optimization and biological evolution. <i>Biochemical Society Transactions</i> , 2010, 38, 1206-1209.	3.4	6
58	Modern microwave thermometry for breast cancer. , 2017, , .		6
59	Genome Sequence of the Electrogenic Petroleum-Degrading <i>Thalassospira</i> sp. Strain HJ. <i>Genome Announcements</i> , 2015, 3, .	0.8	5
60	ASAR: visual analysis of metagenomes in R. <i>Bioinformatics</i> , 2018, 34, 1404-1405.	4.1	5
61	Treatment and Companion Diagnostics of Lower Back Pain Using Self-Controlled Energo-Neuroadaptive Regulator (SCENAR) and Passive Microwave Radiometry (MWR). <i>Diagnostics</i> , 2022, 12, 1220.	2.6	5
62	A computer model of the gene network of the cholesterol biosynthesis regulation in the cell: analysis of the effect of mutations. <i>Doklady Biochemistry and Biophysics</i> , 2003, 389, 90-93.	0.9	4
63	Kinetic model of functioning and regulation of Escherichia coli isocitrate dehydrogenase. <i>Biophysics (Russian Federation)</i> , 2007, 52, 30-39.	0.7	4
64	KINETIC MODELING OF FACEOPERON GENETIC REGULATION IN ESCHERICHIA COLI. <i>Journal of Bioinformatics and Computational Biology</i> , 2008, 06, 933-959.	0.8	4
65	Taxonomic and functional metagenomic analysis of anodic communities in two pilot-scale microbial fuel cells treating different industrial wastewaters. <i>Journal of Integrative Bioinformatics</i> , 2015, 12, 273.	1.5	4
66	Passive Microwave Radiometry as a Component of Imaging Diagnostics in Juvenile Idiopathic Arthritis. <i>Rheumato</i> , 2022, 2, 55-68.	0.7	4
67	Reconstructing whole-cell models. <i>Drug Discovery Today</i> , 2001, 6, 109-112.	6.4	3
68	Kinetic model of imidazolglycerol-phosphate synthetase from Escherichia coli. <i>Biochemistry (Moscow)</i> , 2004, 69, 1324-1335.	1.5	3
69	Preface. <i>European Journal of Pharmaceutical Sciences</i> , 2012, 46, 189.	4.0	3
70	Processivity and Coupling in Messenger RNA Transcription. <i>PLoS ONE</i> , 2010, 5, e8845.	2.5	3
71	A Method of Microwave Radiothermometry in Studies of Circadian Rhythms of Brain Temperature. <i>Bulletin of Experimental Biology and Medicine</i> , 2022, 173, 380-383.	0.8	3
72	Cellular Kinetic Modeling of the Microbial Metabolism. <i>Methods of Biochemical Analysis</i> , 2005, , 437-488.	0.2	2

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73	Is there a Function for a Sex Pheromone Precursor?. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	2
74	Kinetic Modeling of E. coli Enzymes: Integration of in vitro Experimental Data. , 2009, , 177-207.		2
75	Preface. European Journal of Pharmaceutical Sciences, 2009, 36, 1-3.	4.0	1
76	A kinetic model of Escherichia coli Î²-galactosidase. Biophysics (Russian Federation), 2009, 54, 156-162.	0.7	1
77	A user-defined data type for the storage of time series data allowing efficient similarity screening. European Journal of Pharmaceutical Sciences, 2012, 46, 272-274.	4.0	1
78	Bioinformatic analysis of bacterial composition and metabolic mapping of selectively enriched microbial community within Microbial Fuel Cells. , 2017, , .		0
79	WikiSim. , 2008, , .		0
80	ASAR Database: An R Tool for Visual Analysis and Storage of Metagenomes. , 2018, , .		0
81	Monitoring Protein Denaturation of Egg White Using Passive Microwave Radiometry (MWR). Diagnostics, 2022, 12, 1498.	2.6	0