

Tadashi Nakano

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

2,965
citations

394286

19
h-index

254106

43
g-index

73
all docs

73
docs citations

73
times ranked

1160
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Communication and Networking: Opportunities and Challenges. IEEE Transactions on Nanobioscience, 2012, 11, 135-148.	2.2	497
2	Molecular Communication Among Biological Nanomachines: A Layered Architecture and Research Issues. IEEE Transactions on Nanobioscience, 2014, 13, 169-197.	2.2	202
3	Channel Model and Capacity Analysis of Molecular Communication with Brownian Motion. IEEE Communications Letters, 2012, 16, 797-800.	2.5	158
4	Addressing by beacon distances using molecular communication. Nano Communication Networks, 2011, 2, 161-173.	1.6	140
5	Measuring Distance From Single Spike Feedback Signals in Molecular Communication. IEEE Transactions on Signal Processing, 2012, 60, 3576-3587.	3.2	139
6	Design and Analysis of Molecular Relay Channels: An Information Theoretic Approach. IEEE Transactions on Nanobioscience, 2010, 9, 213-221.	2.2	97
7	TCP-Like Molecular Communications. IEEE Journal on Selected Areas in Communications, 2014, 32, 2354-2367.	9.7	90
8	Transmission Rate Control for Molecular Communication among Biological Nanomachines. IEEE Journal on Selected Areas in Communications, 2013, 31, 835-846.	9.7	86
9	In-sequence molecule delivery over an aqueous medium. Nano Communication Networks, 2010, 1, 181-188.	1.6	76
10	Oscillation and Synchronization of Molecular Machines by the Diffusion of Inhibitory Molecules. IEEE Nanotechnology Magazine, 2013, 12, 601-608.	1.1	72
11	Performance Evaluation of Leader-Follower-Based Mobile Molecular Communication Networks for Target Detection Applications. IEEE Transactions on Communications, 2017, 65, 663-676.	4.9	65
12	Externally Controllable Molecular Communication. IEEE Journal on Selected Areas in Communications, 2014, 32, 2417-2431.	9.7	59
13	Methods and Applications of Mobile Molecular Communication. Proceedings of the IEEE, 2019, 107, 1442-1456.	16.4	59
14	Cooperative Target Tracking by a Mobile Bionanosensor Network. IEEE Transactions on Nanobioscience, 2014, 13, 267-277.	2.2	56
15	Molecular Communication: A 10 Year Retrospective. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2017, 3, 71-78.	1.4	56
16	Biologically Inspired Network Systems: A Review and Future Prospects. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2011, 41, 630-643.	3.3	54
17	Inhibitory-autapse-enhanced signal transmission in neural networks. Nonlinear Dynamics, 2019, 97, 1425-1437.	2.7	48
18	Repeater design and modeling for molecular communication networks. , 2011, , .		43

#	ARTICLE	IF	CITATIONS
19	Touchable Computing: Computing-Inspired Bio-Detection. IEEE Transactions on Nanobioscience, 2017, 16, 810-821.	2.2	29
20	A Mathematical Model of Non-Diffusion-Based Mobile Molecular Communication Networks. IEEE Communications Letters, 2017, 21, 1969-1972.	2.5	26
21	Green Touchable Nanorobotic Sensor Networks. , 2016, 54, 136-142.		24
22	Packet Fragmentation and Reassembly in Molecular Communication. IEEE Transactions on Nanobioscience, 2016, 15, 284-288.	2.2	19
23	A locally-induced increase in intracellular Ca^{2+} propagates cell-to-cell in the presence of plasma membrane Ca^{2+} ATPase inhibitors in non-excitable cells. FEBS Letters, 2009, 583, 3593-3599.	1.3	17
24	Molecular Communication: A Personal Perspective. IEEE Transactions on Nanobioscience, 2018, 17, 424-432.	2.2	17
25	Cooperative drug delivery through molecular communication among biological nanomachines. , 2013, , .		15
26	Autonomous mobile bionanosensor networks for target tracking: A two-dimensional model. Nano Communication Networks, 2014, 5, 63-71.	1.6	15
27	Graph-Based Modeling of Mobile Molecular Communication Systems. IEEE Communications Letters, 2018, 22, 376-379.	2.5	14
28	Molecular Communication Using Dynamic Properties of Oscillating and Propagating Patterns in Concentration of Information Molecules. IEEE Transactions on Communications, 2017, , 1-1.	4.9	13
29	Throughput and efficiency of molecular communication between nanomachines. , 2012, , .		12
30	Inbody mobile bionanosensor networks through non-diffusion-based molecular communication. , 2015, , .		12
31	Bio-Inspired Design and Implementation of Mobile Molecular Communication Systems at the Macroscale. , 2018, , .		12
32	Adaptive Dynamic Routing Supporting Service Management for Future Internet. , 2009, , .		11
33	Stochastic Channel Switching of Frequency-Encoded Signals in Molecular Communication Networks. IEEE Communications Letters, 2018, 22, 332-335.	2.5	11
34	A brief review on DNA storage, compression, and digitalization. Nano Communication Networks, 2022, 31, 100391.	1.6	11
35	Addressing by beacon coordinates using molecular communication. , 2011, , .		10
36	Nanomachine placement strategies for detecting Brownian molecules in nanonetworks. , 2012, , .		10

#	ARTICLE	IF	CITATIONS
37	Comparing transmission, propagation, and receiving options for nanomachines to measure distance by molecular communication. , 2012, , .		10
38	Design and wet-laboratory implementation of reliable end-to-end molecular communication. <i>Wireless Networks</i> , 2018, 24, 1809-1819.	2.0	10
39	Random Cell Motion Enhances the Capacity of Cell-Cell Communication. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2019, 5, 158-162.	1.4	10
40	Roles of Remote and Contact Forces in Epithelial Cell Structure Formation. <i>Biophysical Journal</i> , 2020, 118, 1466-1478.	0.2	10
41	Spiking patterns of a neuron model to stimulus: Rich dynamics and oxygen's role. <i>Chaos</i> , 2018, 28, 083112.	1.0	9
42	Enhanced vibrational resonance in a single neuron with chemical autapse for signal detection*. <i>Chinese Physics B</i> , 2020, 29, 128702.	0.7	9
43	Channel Switching in Molecular Communication Networks through Calcium Signaling. , 2017, , .		8
44	Mobile Molecular Communication Through Multiple Measurements of the Concentration of Molecules. <i>IEEE Access</i> , 2020, 8, 179606-179615.	2.6	8
45	Cooperative Resource Pricing in Service Overlay Networks for Mobile Agents. <i>IEICE Transactions on Communications</i> , 2010, E93-B, 1927-1930.	0.4	8
46	Modeling and simulations of bio-nanomachines for spatiotemporal pattern formation. , 2018, , .		8
47	Multiplexing over molecular communication channels from nanomachines to a micro-scale sensor device. , 2012, , .		7
48	Stochastic cargo transport by molecular motors in molecular communication. , 2012, , .		7
49	Principles and Methods for Nanomechanics: Signaling, Structure, and Functions Toward Nanorobots. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , 2012, 42, 357-366.	3.3	7
50	Intracellular ATP levels influence cell fates in <i>Dictyostelium discoideum</i> differentiation. <i>Genes To Cells</i> , 2020, 25, 312-326.	0.5	7
51	Modeling Multi-Target Detection and Gravitation by Intelligent Self-Organizing Bioparticles. , 2016, , .		6
52	Epidemic Information Dissemination in Mobile Molecular Communication Systems. , 2018, , .		6
53	Calcium Signaling in Mobile Molecular Communication Networks. , 2019, , .		5
54	Bionanomachine Diagnostics and Nanonetwork Therapeutic in Brain Malignancies With Bionanodevice Interfaces. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2022, 8, 28-35.	1.4	5

#	ARTICLE	IF	CITATIONS
55	Growing Bio-nanomachine Networks: Application to Malignant Tumor Evolution and Progression. , 2020, , .		5
56	Price Stability in Peer-to-Peer Resource Markets. , 2010, , .		4
57	Modeling Gene Expression and Protein Delivery as an End-to-End Digital Communication System. Open Bioinformatics Journal, 2021, 14, 21-35.	1.0	4
58	Chemotaxis-based Multi-hop Molecular Nanonetworks for Target Detection. , 2019, , .		3
59	Resource pricing games on graphs: existence of Nash equilibria. Optimization Letters, 2013, 7, 231-240.	0.9	2
60	Binary Concentration Shift Keying with Multiple Measurements of Molecule Concentration in Mobile Molecular Communication. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 42-51.	0.2	2
61	Cooperative signaling and directed migration of bio-nanomachines in mobile molecular communication. , 2020, , .		2
62	Editorial: Biologically Inspired Computing and Networking. Mobile Networks and Applications, 2021, 26, 1344-1346.	2.2	1
63	Performance Optimization of Self-organizing Bioparticles for Multi-target Detection and Gravitation Problems. , 2017, , .		1
64	A web page transmission mechanism with transmission order control of inline objects. Systems and Computers in Japan, 2002, 33, 14-24.	0.2	0
65	Non-cooperative optimization games in market-oriented overlay networks: an integrated model of resource pricing and network formation. Frontiers of Computer Science, 2011, 5, 496-505.	0.6	0
66	Data-driven Simulation of Epidemic Information Dissemination in Mobile Molecular Communication. , 2019, , .		0
67	Guest Editorial Special Section on Molecular Communications for Interfacing and Modeling Living Systems. IEEE Transactions on Nanobioscience, 2019, 18, 28-30.	2.2	0
68	Applications of Molecular Communication Systems. , 2020, , 31-37.		0
69	Guest Editorial: AI-enabled intelligent network for 5G and beyond. IET Communications, 0, , .	1.5	0