HÃ¼seyin Birkan Yilmaz

List of Publications by Year
in descending order

56 papers	2,672 citations	430874 18 h-index	395702 33 g-index
57 all docs	57 docs citations	57 times ranked	961 citing authors

#	Article	IF	Citations
1	A Comprehensive Survey of Recent Advancements in Molecular Communication. IEEE Communications Surveys and Tutorials, 2016, 18, 1887-1919.	39.4	681
2	Energy model for communication via diffusion in nanonetworks. Nano Communication Networks, 2010, 1, 86-95.	2.9	361
3	Three-Dimensional Channel Characteristics for Molecular Communications With an Absorbing Receiver. IEEE Communications Letters, 2014, 18, 929-932.	4.1	290
4	Molecular MIMO: From Theory to Prototype. IEEE Journal on Selected Areas in Communications, 2016, 34, 600-614.	14.0	155
5	Interference effects on modulation techniques in diffusion based nanonetworks. Nano Communication Networks, 2012, 3, 65-73.	2.9	151
6	ISI Mitigation Techniques in Molecular Communication. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2015, 1, 202-216.	2.1	123
7	Molecular communications: channel model and physical layer techniques. IEEE Wireless Communications, 2016, 23, 120-127.	9.0	89
8	Simulation study of molecular communication systems with an absorbing receiver: Modulation and ISI mitigation techniques. Simulation Modelling Practice and Theory, 2014, 49, 136-150.	3.8	75
9	Effect of Receptor Density and Size on Signal Reception in Molecular Communication via Diffusion With an Absorbing Receiver. IEEE Communications Letters, 2015, 19, 155-158.	4.1	75
10	Arrival modelling for molecular communication via diffusion. Electronics Letters, 2014, 50, 1667-1669.	1.0	65
11	Effect of Degradation in Molecular Communication: Impairment or Enhancement?. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2015, 1, 217-229.	2.1	64
12	A Survey on Modulation Techniques in Molecular Communication via Diffusion. IEEE Communications Surveys and Tutorials, 2021, 23, 7-28.	39.4	55
13	Machine learning based channel modeling for molecular MIMO communications. , 2017, , .		42
14	Arrival Modeling and Error Analysis for Molecular Communication via Diffusion with Drift. , 2015, , .		32
15	A tunnel-based approach for signal shaping in molecular communication. , 2013, , .		30
16	Chemical Propagation Pattern for Molecular Communications. IEEE Wireless Communications Letters, 2017, 6, 226-229.	5.0	26
17	Channel Model of Molecular Communication via Diffusion in a Vessel-Like Environment Considering a Partially Covering Receiver. , 2018, , .		26
18	Energy efficient ISI mitigation for communication via diffusion. , 2014, , .		24

#	Article	IF	Citations
19	Transmitter Localization in Vessel-Like Diffusive Channels Using Ring-Shaped Molecular Receivers. IEEE Communications Letters, 2018, 22, 2511-2514.	4.1	24
20	Array Gain Analysis in Molecular MIMO Communications. IEEE Access, 2018, 6, 61091-61102.	4.2	23
21	Novel quantizationâ€based spectrum sensing scheme under imperfect reporting channel and false reports. International Journal of Communication Systems, 2014, 27, 1459-1475.	2.5	20
22	Detection algorithms for molecular MIMO. , 2015, , .		18
23	Molecular Signal Modeling of a Partially Counting Absorbing Spherical Receiver. IEEE Transactions on Communications, 2018, 66, 6237-6246.	7.8	18
24	Two-Way Molecular Communications. IEEE Transactions on Communications, 2020, 68, 3550-3563.	7.8	18
25	Effective Enzyme Deployment for Degradation of Interference Molecules in Molecular Communication. , 2017, , .		17
26	ISI-Aware Modeling and Achievable Rate Analysis of the Diffusion Channel. IEEE Communications Letters, 2016, 20, 1729-1732.	4.1	16
27	A machine learning approach to model the received signal in molecular communications. , 2017, , .		16
28	ISI-Aware Channel Code Design for Molecular Communication via Diffusion. IEEE Transactions on Nanobioscience, 2019, 18, 205-213.	3.3	15
29	A Time-Slotted Molecular Communication (TS-MOC): Framework and Time-Slot Errors. IEEE Access, 2019, 7, 78146-78158.	4.2	12
30	Synchronization for Diffusion-Based Molecular Communication Systems via Faster Molecules. , 2019, , .		10
31	Multiple transmitter localization via single receiver in 3-D molecular communication via diffusion. , 2022, 124, 103185.		10
32	Linearity of Sequential Molecular Signals in Turbulent Diffusion Channels. , 2019, , .		7
33	Two way molecular communications. , 2018, , .		7
34	Reception enhancement with protrusions in communication via diffusion. , 2013, , .		6
35	Effective interâ€symbol interference mitigation with a limited amount of enzymes in molecular communications. Transactions on Emerging Telecommunications Technologies, 2017, 28, e3106.	3.9	6
36	Block Synchronization for Diffusion-based Molecular Communication Systems. , 2018, , .		6

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37	Analytical modeling of CAC in next generation wireless systems. Computer Networks, 2006, 50, 3466-3484.	5.1	5
38	Uniform quantizer for Cooperative Sensing in cognitive radio networks. , 2010, , .		5
39	Comparative performance of descriptors in a multiple linear and Kriging models: a case study on the acute toxicity of organic chemicals to algae. Environmental Science and Pollution Research, 2014, 21, 11924-11932.	5.3	5
40	Frequency assignment problem with net filter discrimination constraints. Journal of Communications and Networks, 2017, 19, 329-340.	2.6	5
41	MOL-eye: A new metric for the performance evaluation of a molecular signal. , 2018, , .		5
42	Transmit Signal Shaping for Molecular Communication. IEEE Wireless Communications Letters, 2021, 10, 1459-1463.	5.0	5
43	Effect of receiver shape and volume on the Alzheimer disease for molecular communication via diffusion. IET Nanobiotechnology, 2020, 14, 602-608.	3.8	5
44	Simulation Study and Analysis of Diffusive Molecular Communications With an Apertured Plane. IEEE Transactions on Nanobioscience, 2020, 19, 468-476.	3.3	4
45	Resource planning in cognitive radio networks. , 2009, , .		3
46	Effects of routing for communication via diffusion system in the multi-node environment. , 2011, , .		3
47	Spatial coding techniques for molecular MIMO. , 2017, , .		3
48	Optimal relaying in molecular communications. Nano Communication Networks, 2022, 32-33, 100404.	2.9	3
49	MAPLE: Mixed Path Calculation in Tile-Based 3D Maps. IEEE Communications Letters, 2020, 24, 461-465.	4.1	2
50	Analytical Investigation of Long-Time Diffusion Dynamics in a Synaptic Channel With Glial Cells. IEEE Communications Letters, 2021, 25, 3444-3448.	4.1	2
51	Machine Learning-Based Matching Medium Design for Implant Communications. IEEE Transactions on Antennas and Propagation, 2022, 70, 5199-5208.	5.1	2
52	Zone-based spectrum sensing in cognitive radio. , 2012, , .		1
53	Probability Distribution of a Signalâ€™s Peak Time in a Molecular Diffusive Media. IEEE Communications Letters, 2021, 25, 3833-3837.	4.1	1
54	Energy efficient MAC protocol for cluster formation in mobile cooperative spectrum sensing. , 2015, , .		0

#	Article	IF	Citations
55	Voxel-based simulation approach for molecular communications via diffusion. Nano Communication Networks, 2018, 18, 27-33.	2.9	0
56	Estimating Capture Probabilities for Complex Topologies in 2D Molecular Communication via Diffusion Channel using Artificial Neural Networks. , 2021, , .		0