

Yamuna Krishnan

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

5,876
citations

117453

34
h-index

79541

73
g-index

101
all docs

101
docs citations

101
times ranked

5878
citing authors

#	ARTICLE	IF	CITATIONS
1	A DNA nanomachine that maps spatial and temporal pH changes inside living cells. <i>Nature Nanotechnology</i> , 2009, 4, 325-330.	15.6	697
2	ATP as a biological hydrotrope. <i>Science</i> , 2017, 356, 753-756.	6.0	677
3	Nucleic Acid Based Molecular Devices. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3124-3156.	7.2	527
4	Two DNA nanomachines map pH changes along intersecting endocytic pathways inside the same cell. <i>Nature Nanotechnology</i> , 2013, 8, 459-467.	15.6	305
5	An autonomous DNA nanomachine maps spatiotemporal pH changes in a multicellular living organism. <i>Nature Communications</i> , 2011, 2, 340.	5.8	227
6	A synthetic icosahedral DNA-based host-cargo complex for functional in vivo imaging. <i>Nature Communications</i> , 2011, 2, 339.	5.8	215
7	Designing DNA nanodevices for compatibility with the immune system of higher organisms. <i>Nature Nanotechnology</i> , 2015, 10, 741-747.	15.6	203
8	Icosahedral DNA Nanocapsules by Modular Assembly. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 4134-4137.	7.2	196
9	A pH-independent DNA nanodevice for quantifying chloride transport in organelles of living cells. <i>Nature Nanotechnology</i> , 2015, 10, 645-651.	15.6	179
10	Quantum dot-loaded monofunctionalized DNA icosahedra for single-particle tracking of endocytic pathways. <i>Nature Nanotechnology</i> , 2016, 11, 1112-1119.	15.6	142
11	A DNA nanomachine chemically resolves lysosomes in live cells. <i>Nature Nanotechnology</i> , 2019, 14, 176-183.	15.6	139
12	Nucleic Acid-Based Nanodevices in Biological Imaging. <i>Annual Review of Biochemistry</i> , 2016, 85, 349-373.	5.0	124
13	The poly dA helix: a new structural motif for high performance DNA-based molecular switches. <i>Nucleic Acids Research</i> , 2009, 37, 2810-2817.	6.5	122
14	A pH-correctable, DNA-based fluorescent reporter for organellar calcium. <i>Nature Methods</i> , 2019, 16, 95-102.	9.0	115
15	Controlled Release of Encapsulated Cargo from a DNA Icosahedron using a Chemical Trigger. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6854-6857.	7.2	109
16	Cell-targetable DNA nanocapsules for spatiotemporal release of caged bioactive small molecules. <i>Nature Nanotechnology</i> , 2017, 12, 1183-1189.	15.6	103
17	High luminal chloride in the lysosome is critical for lysosome function. <i>ELife</i> , 2017, 6, .	2.8	86
18	A DNA-based voltmeter for organelles. <i>Nature Nanotechnology</i> , 2021, 16, 96-103.	15.6	82

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19	Photostable Voltage-Sensitive Dyes Based on Simple, Solvatofluorochromic, Asymmetric Thiazolothiazoles. <i>Journal of the American Chemical Society</i> , 2019, 141, 18780-18790.	6.6	73
20	DNA nanodevices map enzymatic activity in organelles. <i>Nature Nanotechnology</i> , 2019, 14, 252-259.	15.6	72
21	Designer nucleic acids to probe and program the cell. <i>Trends in Cell Biology</i> , 2012, 22, 624-633.	3.6	68
22	First blueprint, now bricks: DNA as construction material on the nanoscale. <i>Chemical Society Reviews</i> , 2006, 35, 1111.	18.7	67
23	Structural DNA Nanotechnology: From Bases to Bricks, From Structure to Function. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1994-2005.	2.1	63
24	Organelle-level precision with next-generation targeting technologies. <i>Nature Reviews Materials</i> , 2022, 7, 355-371.	23.3	63
25	A DNA-based fluorescent reporter maps HOCl production in the maturing phagosome. <i>Nature Chemical Biology</i> , 2019, 15, 1165-1172.	3.9	61
26	Combining Gâ€Quadruplex Targeting Motifs on a Single Peptide Nucleic Acid Scaffold: A Hybrid (3+1) PNAâ€DNA Bimolecular Quadruplex. <i>Chemistry - A European Journal</i> , 2008, 14, 8682-8689.	1.7	57
27	A method to study in vivo stability of DNA nanostructures. <i>Methods</i> , 2013, 64, 94-100.	1.9	57
28	Pri-miR-17-92a transcript folds into a tertiary structure and autoregulates its processing. <i>Rna</i> , 2012, 18, 1014-1028.	1.6	56
29	A DNA-based fluorescent probe maps NOS3 activity with subcellular spatial resolution. <i>Nature Chemical Biology</i> , 2020, 16, 660-666.	3.9	55
30	Tuning the pH Response of iâ€Motif DNA Oligonucleotides. <i>ChemBioChem</i> , 2015, 16, 1647-1656.	1.3	52
31	The I-Tetraplex Building Block: Rational Design and Controlled Fabrication of Robust 1D DNA Scaffolds through Non-Watsonâ€Crick Interactions. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2646-2649.	7.2	47
32	The PNAâ€DNA hybrid I-motif: implications for sugarâ€sugar contacts in i-motif tetramerization. <i>Nucleic Acids Research</i> , 2006, 34, 4354-4363.	6.5	44
33	Fast, Efficient, and Stable Conjugation of Multiple DNA Strands on Colloidal Quantum Dots. <i>Bioconjugate Chemistry</i> , 2015, 26, 1582-1589.	1.8	42
34	A lysosome-targeted DNA nanodevice selectively targets macrophages to attenuate tumours. <i>Nature Nanotechnology</i> , 2021, 16, 1394-1402.	15.6	42
35	Subcellular Nanorheology Reveals Lysosomal Viscosity as a Reporter for Lysosomal Storage Diseases. <i>Nano Letters</i> , 2018, 18, 1351-1359.	4.5	35
36	DNA-based fluorescent probes of NOS2 activity in live brains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14694-14702.	3.3	32

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37	Proton-activated chloride channel PAC regulates endosomal acidification and transferrin receptor-mediated endocytosis. <i>Cell Reports</i> , 2021, 34, 108683.	2.9	32
38	Recombinant antibody mediated delivery of organelle-specific DNA pH sensors along endocytic pathways. <i>Nanoscale</i> , 2014, 6, 1144-1152.	2.8	31
39	Introduction: Nucleic Acid Nanotechnology. <i>Chemical Reviews</i> , 2019, 119, 6271-6272.	23.0	31
40	Synthetic, biofunctional nucleic acid-based molecular devices. <i>Current Opinion in Biotechnology</i> , 2011, 22, 475-484.	3.3	30
41	Design of ultrasensitive DNA-based fluorescent pH sensitive nanodevices. <i>Nanoscale</i> , 2015, 7, 10008-10012.	2.8	30
42	Visualization of Calcium Ion Loss from Rotavirus during Cell Entry. <i>Journal of Virology</i> , 2018, 92, .	1.5	27
43	Precision immunomodulation with synthetic nucleic acid technologies. <i>Nature Reviews Materials</i> , 2019, 4, 451-458.	23.3	27
44	What biologists want from their chloride reporters – a conversation between chemists and biologists. <i>Journal of Cell Science</i> , 2020, 133, .	1.2	27
45	pH-Toggled DNA Architectures: Reversible Assembly of Three-Way Junctions into Extended 1D Architectures Through A-Motif Formation. <i>Small</i> , 2010, 6, 1288-1292.	5.2	22
46	Quantitative Imaging of Biochemistry in Situ and at the Nanoscale. <i>ACS Central Science</i> , 2020, 6, 1938-1954.	5.3	22
47	Tubular lysosomes harbor active ion gradients and poise macrophages for phagocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	21
48	Rational design of a quantitative, pH-insensitive, nucleic acid based fluorescent chloride reporter. <i>Chemical Science</i> , 2016, 7, 1946-1953.	3.7	18
49	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3073-3076.	7.2	16
50	A Fluorescent Nucleic Acid Nanodevice Quantitatively Images Elevated Cyclic Adenosine Monophosphate in Membrane-Bound Compartments. <i>Small</i> , 2014, 10, 4276-4280.	5.2	15
51	Probing the structure and in silico stability of cargo loaded DNA icosahedra using MD simulations. <i>Nanoscale</i> , 2017, 9, 4467-4477.	2.8	14
52	At a long-awaited turning point. <i>Nature Nanotechnology</i> , 2014, 9, 491-494.	15.6	13
53	A structural map of oncomiR-1 at single-nucleotide resolution. <i>Nucleic Acids Research</i> , 2017, 45, 9694-9705.	6.5	13
54	The Predictive Power of Synthetic Nucleic Acid Technologies in RNA Biology. <i>Accounts of Chemical Research</i> , 2014, 47, 1710-1719.	7.6	12

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55	Kinetic hybrid i-motifs: Intercepting DNA with RNA to form a DNA ² RNA ² i-motif. <i>Biochimie</i> , 2008, 90, 1088-1095.	1.3	11
56	Chemical control over membrane-initiated steroid signaling with a DNA nanocapsule. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 9432-9437.	3.3	11
57	Designer DNA give RNAi more spine. <i>Nature Nanotechnology</i> , 2012, 7, 344-346.	15.6	10
58	Nucleic Acids – Chemistry and Applications. <i>Journal of Organic Chemistry</i> , 2013, 78, 12283-12287.	1.7	8
59	A novel type of quantum dot–transferrin conjugate using DNA hybridization mimics intracellular recycling of endogenous transferrin. <i>Nanoscale</i> , 2017, 9, 15453-15460.	2.8	7
60	Dynamic RNA Nanotechnology Enters the CRISPR Toolbox. <i>ACS Central Science</i> , 2019, 5, 1111-1113.	5.3	7
61	Tissue-specific targeting of DNA nanodevices in a multicellular living organism. <i>ELife</i> , 2021, 10, .	2.8	6
62	A DNA Aptamer for Cyclic Adenosine Monophosphate that Shows Adaptive Recognition. <i>ChemBioChem</i> , 2020, 21, 157-162.	1.3	5
63	A Method to Encapsulate Molecular Cargo Within DNA Icosahedra. <i>Methods in Molecular Biology</i> , 2013, 991, 65-80.	0.4	4
64	Voices of biotech. <i>Nature Biotechnology</i> , 2016, 34, 270-275.	9.4	4
65	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. <i>Angewandte Chemie</i> , 2019, 131, 3105-3108.	1.6	4
66	New Vistas for Cell-Surface GlycoRNAs. <i>New England Journal of Medicine</i> , 2021, 385, 658-660.	13.9	3
67	Chemically Resolving Lysosome Populations in Live Cells. <i>Trends in Biochemical Sciences</i> , 2020, 45, 365-366.	3.7	3
68	A Method to Map Spatiotemporal pH Changes in a Multicellular Living Organism Using a DNA Nanosensor. <i>Methods in Molecular Biology</i> , 2013, 991, 9-23.	0.4	2
69	Quantifying phagosomal HOCl at single immune-cell resolution. <i>Methods in Cell Biology</i> , 2020, 164, 119-136.	0.5	1
70	Controlled release of bioactive signaling molecules. <i>Methods in Enzymology</i> , 2020, 638, 129-138.	0.4	1
71	Making Worms Glow. <i>Resonance</i> , 2018, 23, 291-298.	0.2	0
72	Give It All You've Got. <i>ChemistryViews</i> , 0, , .	0.0	0