Yamuna Krishnan

List of Publications by Year
in descending order

72 papers	5,876 citations	117625 34 h-index	79698 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. Nature Nanotechnology, 2009, 4, 325-330.	31.5	697
2	ATP as a biological hydrotrope. Science, 2017, 356, 753-756.	12.6	677
3	Nucleic Acid Based Molecular Devices. Angewandte Chemie - International Edition, 2011, 50, 3124-3156.	13.8	527
4	Two DNA nanomachines map pH changes along intersecting endocytic pathways inside the same cell. Nature Nanotechnology, 2013, 8, 459-467.	31.5	305
5	An autonomous DNA nanomachine maps spatiotemporal pH changes in a multicellular living organism. Nature Communications, 2011, 2, 340.	12.8	227
6	A synthetic icosahedral DNA-based hostâ€"cargo complex for functional in vivo imaging. Nature Communications, 2011, 2, 339.	12.8	215
7	Designing DNA nanodevices for compatibility with the immune system of higher organisms. Nature Nanotechnology, 2015, 10, 741-747.	31.5	203
8	Icosahedral DNA Nanocapsules by Modular Assembly. Angewandte Chemie - International Edition, 2009, 48, 4134-4137.	13.8	196
9	A pH-independent DNA nanodevice for quantifying chloride transport in organelles of living cells. Nature Nanotechnology, 2015, 10, 645-651.	31.5	179
10	Quantum dot-loaded monofunctionalized DNA icosahedra for single-particle tracking of endocytic pathways. Nature Nanotechnology, 2016, 11, 1112-1119.	31.5	142
11	A DNA nanomachine chemically resolves lysosomes in live cells. Nature Nanotechnology, 2019, 14, 176-183.	31.5	139
12	Nucleic Acidâ€"Based Nanodevices in Biological Imaging. Annual Review of Biochemistry, 2016, 85, 349-373.	11.1	124
13	The poly dA helix: a new structural motif for high performance DNA-based molecular switches. Nucleic Acids Research, 2009, 37, 2810-2817.	14.5	122
14	A pH-correctable, DNA-based fluorescent reporter for organellar calcium. Nature Methods, 2019, 16, 95-102.	19.0	115
15	Controlled Release of Encapsulated Cargo from a DNA Icosahedron using a Chemical Trigger. Angewandte Chemie - International Edition, 2013, 52, 6854-6857.	13.8	109
16	Cell-targetable DNA nanocapsules for spatiotemporal release of caged bioactive small molecules. Nature Nanotechnology, 2017, 12, 1183-1189.	31.5	103
17	High lumenal chloride in the lysosome is critical for lysosome function. ELife, 2017, 6, .	6.0	86
18	A DNA-based voltmeter for organelles. Nature Nanotechnology, 2021, 16, 96-103.	31.5	82

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19	Photostable Voltage-Sensitive Dyes Based on Simple, Solvatofluorochromic, Asymmetric Thiazolothiazoles. Journal of the American Chemical Society, 2019, 141, 18780-18790.	13.7	73
20	DNA nanodevices map enzymatic activity in organelles. Nature Nanotechnology, 2019, 14, 252-259.	31.5	72
21	Designer nucleic acids to probe and program the cell. Trends in Cell Biology, 2012, 22, 624-633.	7.9	68
22	First blueprint, now bricks: DNA as construction material on the nanoscale. Chemical Society Reviews, 2006, 35, 1111.	38.1	67
23	Structural DNA Nanotechnology: From Bases to Bricks, From Structure to Function. Journal of Physical Chemistry Letters, 2010, 1, 1994-2005.	4.6	63
24	Organelle-level precision with next-generation targeting technologies. Nature Reviews Materials, 2022, 7, 355-371.	48.7	63
25	A DNA-based fluorescent reporter maps HOCl production in the maturing phagosome. Nature Chemical Biology, 2019, 15, 1165-1172.	8.0	61
26	Combining Gâ€Quadruplex Targeting Motifs on a Single Peptide Nucleic Acid Scaffold: A Hybrid (3+1) PNAâ€“DNA Bimolecular Quadruplex. Chemistry - A European Journal, 2008, 14, 8682-8689.	3.3	57
27	A method to study in vivo stability of DNA nanostructures. Methods, 2013, 64, 94-100.	3.8	57
28	Pri-miR-17-92a transcript folds into a tertiary structure and autoregulates its processing. Rna, 2012, 18, 1014-1028.	3.5	56
29	A DNA-based fluorescent probe maps NOS3 activity with subcellular spatial resolution. Nature Chemical Biology, 2020, 16, 660-666.	8.0	55
30	Tuning the pH Response of iâ€Motif DNA Oligonucleotides. ChemBioChem, 2015, 16, 1647-1656.	2.6	52
31	The I-Tetraplex Building Block: Rational Design and Controlled Fabrication of Robust 1D DNA Scaffolds through Non-Watsonâ€“Crick Interactions. Angewandte Chemie - International Edition, 2007, 46, 2646-2649.	13.8	47
32	The PNAâ€“DNA hybrid I-motif: implications for sugarâ€“sugar contacts in i-motif tetramerization. Nucleic Acids Research, 2006, 34, 4354-4363.	14.5	44
33	Fast, Efficient, and Stable Conjugation of Multiple DNA Strands on Colloidal Quantum Dots. Bioconjugate Chemistry, 2015, 26, 1582-1589.	3.6	42
34	A lysosome-targeted DNA nanodevice selectively targets macrophages to attenuate tumours. Nature Nanotechnology, 2021, 16, 1394-1402.	31.5	42
35	Subcellular Nanorheology Reveals Lysosomal Viscosity as a Reporter for Lysosomal Storage Diseases. Nano Letters, 2018, 18, 1351-1359.	9.1	35
36	DNA-based fluorescent probes of NOS2 activity in live brains. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14694-14702.	7.1	32

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37	Proton-activated chloride channel PAC regulates endosomal acidification and transferrin receptor-mediated endocytosis. Cell Reports, 2021, 34, 108683.	6.4	32
38	Recombinant antibody mediated delivery of organelle-specific DNA pH sensors along endocytic pathways. Nanoscale, 2014, 6, 1144-1152.	5.6	31
39	Introduction: Nucleic Acid Nanotechnology. Chemical Reviews, 2019, 119, 6271-6272.	47.7	31
40	Synthetic, biofunctional nucleic acid-based molecular devices. Current Opinion in Biotechnology, 2011, 22, 475-484.	6.6	30
41	Design of ultrasensitive DNA-based fluorescent pH sensitive nanodevices. Nanoscale, 2015, 7, 10008-10012.	5.6	30
42	Visualization of Calcium Ion Loss from Rotavirus during Cell Entry. Journal of Virology, 2018, 92, .	3.4	27
43	Precision immunomodulation with synthetic nucleic acid technologies. Nature Reviews Materials, 2019, 4, 451-458.	48.7	27
44	What biologists want from their chloride reporters â€" a conversation between chemists and biologists. Journal of Cell Science, 2020, 133, .	2.0	27
45	pHâ€Toggled DNA Architectures: Reversible Assembly of Threeâ€Way Junctions into Extended 1D Architectures Through Aâ€Motif Formation. Small, 2010, 6, 1288-1292.	10.0	22
46	Quantitative Imaging of Biochemistryin Situand at the Nanoscale. ACS Central Science, 2020, 6, 1938-1954.	11.3	22
47	Tubular lysosomes harbor active ion gradients and poise macrophages for phagocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
48	Rational design of a quantitative, pH-insensitive, nucleic acid based fluorescent chloride reporter. Chemical Science, 2016, 7, 1946-1953.	7.4	18
49	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. Angewandte Chemie - International Edition, 2019, 58, 3073-3076.	13.8	16
50	A Fluorescent Nucleic Acid Nanodevice Quantitatively Images Elevated Cyclic Adenosine Monophosphate in Membraneâ€Bound Compartments. Small, 2014, 10, 4276-4280.	10.0	15
51	Probing the structure and in silico stability of cargo loaded DNA icosahedra using MD simulations. Nanoscale, 2017, 9, 4467-4477.	5.6	14
52	At a long-awaited turning point. Nature Nanotechnology, 2014, 9, 491-494.	31.5	13
53	A structural map of oncomiR-1 at single-nucleotide resolution. Nucleic Acids Research, 2017, 45, 9694-9705.	14.5	13
54	The Predictive Power of Synthetic Nucleic Acid Technologies in RNA Biology. Accounts of Chemical Research, 2014, 47, 1710-1719.	15.6	12

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55	Kinetic hybrid i-motifs: Intercepting DNA with RNA to form a DNA2â€"RNA2 i-motif. Biochimie, 2008, 90, 1088-1095.	2.6	11
56	Chemical control over membrane-initiated steroid signaling with a DNA nanocapsule. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9432-9437.	7.1	11
57	Designer DNA give RNAi more spine. Nature Nanotechnology, 2012, 7, 344-346.	31.5	10
58	Nucleic Acids â€" Chemistry and Applications. Journal of Organic Chemistry, 2013, 78, 12283-12287.	3.2	8
59	A novel type of quantum dotâ€"transferrin conjugate using DNA hybridization mimics intracellular recycling of endogenous transferrin. Nanoscale, 2017, 9, 15453-15460.	5.6	7
60	Dynamic RNA Nanotechnology Enters the CRISPR Toolbox. ACS Central Science, 2019, 5, 1111-1113.	11.3	7
61	Tissue-specific targeting of DNA nanodevices in a multicellular living organism. ELife, 2021, 10, .	6.0	6
62	A DNA Aptamer for Cyclic Adenosine Monophosphate that Shows Adaptive Recognition. ChemBioChem, 2020, 21, 157-162.	2.6	5
63	A Method to Encapsulate Molecular Cargo Within DNA Icosahedra. Methods in Molecular Biology, 2013, 991, 65-80.	0.9	4
64	Voices of biotech. Nature Biotechnology, 2016, 34, 270-275.	17.5	4
65	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. Angewandte Chemie, 2019, 131, 3105-3108.	2.0	4
66	New Vistas for Cell-Surface GlycoRNAs. New England Journal of Medicine, 2021, 385, 658-660.	27.0	3
67	Chemically Resolving Lysosome Populations in Live Cells. Trends in Biochemical Sciences, 2020, 45, 365-366.	7.5	3
68	A Method to Map Spatiotemporal pH Changes in a Multicellular Living Organism Using a DNA Nanosensor. Methods in Molecular Biology, 2013, 991, 9-23.	0.9	2
69	Quantifying phagosomal HOCl at single immune-cell resolution. Methods in Cell Biology, 2020, 164, 119-136.	1.1	1
70	Controlled release of bioactive signaling molecules. Methods in Enzymology, 2020, 638, 129-138.	1.0	1
71	Making Worms Glow. Resonance, 2018, 23, 291-298.	0.3	0
72	Give It All You've Got. ChemistryViews, 0, , .	0.0	0