Yamuna Krishnan

List of Publications by Citations

72 papers	4,545 citations	33 h-index	67 g-index
101 ext. papers	5,307 ext. citations	18 avg, IF	6.02 L-index

#	Paper	IF	Citations
72	A DNA nanomachine that maps spatial and temporal pH changes inside living cells. *Nature Nanotechnology*, **2009**, 4, 325-30	28.7	603
71	Nucleic acid based molecular devices. *Angewandte Chemie - International Edition*, **2011**, 50, 3124-56	16.4	493
70	ATP as a biological hydrotrope. *Science*, **2017**, 356, 753-756	33.3	417
69	Two DNA nanomachines map pH changes along intersecting endocytic pathways inside the same cell. *Nature Nanotechnology*, **2013**, 8, 459-67	28.7	271
68	An autonomous DNA nanomachine maps spatiotemporal pH changes in a multicellular living organism. *Nature Communications*, **2011**, 2, 340	17.4	193
67	A synthetic icosahedral DNA-based host-cargo complex for functional in vivo imaging. *Nature Communications*, **2011**, 2, 339	17.4	187
66	Icosahedral DNA nanocapsules by modular assembly. *Angewandte Chemie - International Edition*, **2009**, 48, 4134-7	16.4	169
65	Designing DNA nanodevices for compatibility with the immune system of higher organisms. *Nature Nanotechnology*, **2015**, 10, 741-7	28.7	153
64	A pH-independent DNA nanodevice for quantifying chloride transport in organelles of living cells. *Nature Nanotechnology*, **2015**, 10, 645-51	28.7	142
63	Quantum dot-loaded monofunctionalized DNA icosahedra for single-particle tracking of endocytic pathways. *Nature Nanotechnology*, **2016**, 11, 1112-1119	28.7	118
62	Nukleinsäure-basierte molekulare Werkzeuge. *Angewandte Chemie*, **2011**, 123, 3180-3215	3.6	107
61	Nucleic Acid-Based Nanodevices in Biological Imaging. *Annual Review of Biochemistry*, **2016**, 85, 349-73	29.1	101
60	The poly dA helix: a new structural motif for high performance DNA-based molecular switches. *Nucleic Acids Research*, **2009**, 37, 2810-7	20.1	100
59	A DNA nanomachine chemically resolves lysosomes in live cells. *Nature Nanotechnology*, **2019**, 14, 176-183	28.7	95
58	Controlled release of encapsulated cargo from a DNA icosahedron using a chemical trigger. *Angewandte Chemie - International Edition*, **2013**, 52, 6854-7	16.4	89
57	A pH-correctable, DNA-based fluorescent reporter for organellar calcium. *Nature Methods*, **2019**, 16, 95-102	21.6	78
56	Cell-targetable DNA nanocapsules for spatiotemporal release of caged bioactive small molecules. *Nature Nanotechnology*, **2017**, 12, 1183-1189	28.7	77

55	Designer nucleic acids to probe and program the cell. *Trends in Cell Biology*, **2012**, 22, 624-33	18.3	63
54	High lumenal chloride in the lysosome is critical for lysosome function. *ELife*, **2017**, 6,	8.9	62
53	First blueprint, now bricks: DNA as construction material on the nanoscale. *Chemical Society Reviews*, **2006**, 35, 1111-21	58.5	55
52	Structural DNA Nanotechnology: From Bases to Bricks, From Structure to Function. *Journal of Physical Chemistry Letters*, **2010**, 1, 1994-2005	6.4	52
51	DNA nanodevices map enzymatic activity in organelles. *Nature Nanotechnology*, **2019**, 14, 252-259	28.7	48
50	Combining G-quadruplex targeting motifs on a single peptide nucleic acid scaffold: a hybrid (3+1) PNA-DNA bimolecular quadruplex. *Chemistry - A European Journal*, **2008**, 14, 8682-9	4.8	48
49	A method to study in vivo stability of DNA nanostructures. *Methods*, **2013**, 64, 94-100	4.6	46
48	A DNA-based fluorescent reporter maps HOCl production in the maturing phagosome. *Nature Chemical Biology*, **2019**, 15, 1165-1172	11.7	46
47	The I-tetraplex building block: rational design and controlled fabrication of robust 1D DNA scaffolds through non-Watson-Crick interactions. *Angewandte Chemie - International Edition*, **2007**, 46, 2646-9	16.4	42
46	Tuning the pH Response of i-Motif DNA Oligonucleotides. *ChemBioChem*, **2015**, 16, 1647-56	3.8	40
45	Pri-miR-17-92a transcript folds into a tertiary structure and autoregulates its processing. *Rna*, **2012**, 18, 1014-28	5.8	40
44	Photostable Voltage-Sensitive Dyes Based on Simple, Solvatofluorochromic, Asymmetric Thiazolothiazoles. *Journal of the American Chemical Society*, **2019**, 141, 18780-18790	16.4	39
43	The PNA-DNA hybrid I-motif: implications for sugar-sugar contacts in i-motif tetramerization. *Nucleic Acids Research*, **2006**, 34, 4354-63	20.1	39
42	A DNA-based fluorescent probe maps NOS3 activity with subcellular spatial resolution. *Nature Chemical Biology*, **2020**, 16, 660-666	11.7	35
41	Fast, Efficient, and Stable Conjugation of Multiple DNA Strands on Colloidal Quantum Dots. *Bioconjugate Chemistry*, **2015**, 26, 1582-9	6.3	35
40	A DNA-based voltmeter for organelles. *Nature Nanotechnology*, **2021**, 16, 96-103	28.7	33
39	Design of ultrasensitive DNA-based fluorescent pH sensitive nanodevices. *Nanoscale*, **2015**, 7, 10008-12	7.7	28
38	Recombinant antibody mediated delivery of organelle-specific DNA pH sensors along endocytic pathways. *Nanoscale*, **2014**, 6, 1144-52	7.7	27

37	Synthetic, biofunctional nucleic acid-based molecular devices. *Current Opinion in Biotechnology*, **2011**, 22, 475-84	11.4	26
36	Controlled Release of Encapsulated Cargo from a DNA Icosahedron using a Chemical Trigger. *Angewandte Chemie*, **2013**, 125, 6992-6995	3.6	25
35	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	11.5	22
34	Subcellular Nanorheology Reveals Lysosomal Viscosity as a Reporter for Lysosomal Storage Diseases. *Nano Letters*, **2018**, 18, 1351-1359	11.5	20
33	Precision immunomodulation with synthetic nucleic acid technologies. *Nature Reviews Materials*, **2019**, 4, 451-458	73.3	19
32	pH-Toggled DNA architectures: reversible assembly of three-way junctions into extended 1D architectures through A-motif formation. *Small*, **2010**, 6, 1288-92	11	19
31	A fluorescent nucleic acid nanodevice quantitatively images elevated cyclic adenosine monophosphate in membrane-bound compartments. *Small*, **2014**, 10, 4276-80	11	14
30	Organelle-level precision with next-generation targeting technologies. *Nature Reviews Materials*,	73.3	14
29	Quantitative Imaging of Biochemistry and at the Nanoscale. *ACS Central Science*, **2020**, 6, 1938-1954	16.8	14
28	Visualization of Calcium Ion Loss from Rotavirus during Cell Entry. *Journal of Virology*, **2018**, 92,	6.6	14
27	What biologists want from their chloride reporters - a conversation between chemists and biologists. *Journal of Cell Science*, **2020**, 133,	5.3	13
26	Rational design of a quantitative, pH-insensitive, nucleic acid based fluorescent chloride reporter. *Chemical Science*, **2016**, 7, 1946-1953	9.4	13
25	Proton-activated chloride channel PAC regulates endosomal acidification and transferrin receptor-mediated endocytosis. *Cell Reports*, **2021**, 34, 108683	10.6	12
24	Probing the structure and in silico stability of cargo loaded DNA icosahedra using MD simulations. *Nanoscale*, **2017**, 9, 4467-4477	7.7	11
23	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	11.5	11
22	The predictive power of synthetic nucleic acid technologies in RNA biology. *Accounts of Chemical Research*, **2014**, 47, 1710-9	24.3	11
21	Kinetic hybrid i-motifs: intercepting DNA with RNA to form a DNA(2)-RNA(2) i-motif. *Biochimie*, **2008**, 90, 1088-95	4.6	10
20	At a long-awaited turning point. *Nature Nanotechnology*, **2014**, 9, 491-4	28.7	9

19	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. *Angewandte Chemie - International Edition*, **2019**, 58, 3073-3076	16.4	8
18	A lysosome-targeted DNA nanodevice selectively targets macrophages to attenuate tumours. *Nature Nanotechnology*, **2021**,	28.7	8
17	A novel type of quantum dot-transferrin conjugate using DNA hybridization mimics intracellular recycling of endogenous transferrin. *Nanoscale*, **2017**, 9, 15453-15460	7.7	6
16	A structural map of oncomiR-1 at single-nucleotide resolution. *Nucleic Acids Research*, **2017**, 45, 9694-9705	13.1	5
15	A method to encapsulate molecular cargo within DNA icosahedra. *Methods in Molecular Biology*, **2013**, 991, 65-80	1.4	4
14	A DNA Aptamer for Cyclic Adenosine Monophosphate that Shows Adaptive Recognition. *ChemBioChem*, **2020**, 21, 157-162	3.8	4
13	Tissue-specific targeting of DNA nanodevices in a multicellular living organism. *ELife*, **2021**, 10,	8.9	4
12	Voices of biotech. *Nature Biotechnology*, **2016**, 34, 270-5	44.5	3
11	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,	11.5	3
10	Tubular lysosomes harbor active ion gradients and poise macrophages for phagocytosis		3
9	A DNA-based voltmeter for organelles		3
8	Quantitative Mapping of Endosomal DNA Processing by Single Molecule Counting. *Angewandte Chemie*, **2019**, 131, 3105-3108	3.6	2
7	A method to map spatiotemporal pH changes in a multicellular living organism using a DNA nanosensor. *Methods in Molecular Biology*, **2013**, 991, 9-23	1.4	2
6	Chemically Resolving Lysosome Populations in Live Cells. *Trends in Biochemical Sciences*, **2020**, 45, 365-366	10.3	2
5	Author response: High lumenal chloride in the lysosome is critical for lysosome function **2017**,		2
4	New Vistas for Cell-Surface GlycoRNAs. *New England Journal of Medicine*, **2021**, 385, 658-660	59.2	2
3	Controlled release of bioactive signaling molecules. *Methods in Enzymology*, **2020**, 638, 129-138	1.7	1
2	Quantifying phagosomal HOCl at single immune-cell resolution. *Methods in Cell Biology*, **2021**, 164, 119-136	1.8	1

1 Making Worms Glow **2018**, 23, 291-298