Arun Richard Chandrasekaran

List of Publications by Year
in descending order

77 papers	2,580 citations	201674 27 h-index	214800 47 g-index
90 all docs	90 docs citations	90 times ranked	2597 citing authors

#	Article	IF	Citations
1	Single species RNA purification using DNA nanoswitches. Trends in Biochemical Sciences, 2022, , .	7.5	0
2	Aptamers for Viral Detection and Inhibition. ACS Infectious Diseases, 2022, 8, 667-692.	3.8	17
3	Fluorescent Aptaswitch for Detection of Lead Ions. ACS Applied Bio Materials, 2022, 5, 5089-5093.	4.6	5
4	Biointerface Engineering with Nucleic Acid Materials for Biosensing Applications. Advanced Functional Materials, 2022, 32, .	14.9	15
5	A mini DNAâ€“RNA hybrid origami nanobrick. Nanoscale Advances, 2021, 3, 4048-4051.	4.6	10
6	Orthogonal Control of DNA Nanoswitches with Mixed Physical and Biochemical Cues. Biochemistry, 2021, 60, 250-253.	2.5	0
7	Nuclease resistance of DNA nanostructures. Nature Reviews Chemistry, 2021, 5, 225-239.	30.2	166
8	Pop-culture references in peer-reviewed scientific articles. Matter, 2021, 4, 759-760.	10.0	1
9	Undergraduate students in research. EMBO Reports, 2021, 22, e53024.	4.5	1
10	Aptamer-Programmed DNA Nanodevices for Advanced, Targeted Cancer Theranostics. ACS Applied Bio Materials, 2021, 4, 5392-5404.	4.6	17
11	DNA-Based Smart Reagent for Detecting Alzheimerâ€™s Associated MicroRNAs. ACS Sensors, 2021, 6, 3176-3181.	7.8	14
12	DNA Nanoswitch Barcodes for Multiplexed Biomarker Profiling. Nano Letters, 2021, 21, 469-475.	9.1	29
13	DNA-based ribonuclease detection assays. Journal of Materials Chemistry B, 2021, 9, 7023-7029.	5.8	4
14	Sequence-selective purification of biological RNAs using DNA nanoswitches. Cell Reports Methods, 2021, 1, 100126.	2.9	5
15	A versatile biomolecular detection platform based on photo-induced enhanced Raman spectroscopy. Biosensors and Bioelectronics, 2020, 147, 111742.	10.1	33
16	Ribonuclease-Responsive DNA Nanoswitches. Cell Reports Physical Science, 2020, 1, 100117.	5.6	13
17	DNA-Functionalized Nanoparticles for Targeted Biosensing and Biological Applications. ACS Omega, 2020, 5, 30767-30774.	3.5	8
18	Designer, Programmable 3D DNA Nanodevices to Probe Biological Systems. ACS Applied Bio Materials, 2020, 3, 7265-7277.	4.6	25

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19	Hybrid DNA/RNA nanostructures with 2â€²-5â€² linkages. Nanoscale, 2020, 12, 21583-21590.	5.6	8
20	Short DNA Oligonucleotide as a Ag⁺ Binding Detector. ACS Omega, 2020, 5, 28565-28570.	3.5	8
21	Horizons Community Board Collection: Biosensors. Materials Horizons, 2020, 7, 2475-2476.	12.2	0
22	Programmable low-cost DNA-based platform for viral RNA detection. Science Advances, 2020, 6, .	10.3	37
23	Rapid one-step detection of SARS-CoV-2 RNA. Nature Biomedical Engineering, 2020, 4, 1123-1124.	22.5	9
24	Nuclease Degradation Analysis of DNA Nanostructures Using Gel Electrophoresis. Current Protocols in Nucleic Acid Chemistry, 2020, 82, e115.	0.5	16
25	Parallel poly(A) homo- and hetero-duplex formation detection with an adapted DNA nanoswitch technique. Rna, 2020, 26, 1118-1130.	3.5	1
26	Exceptional Nuclease Resistance of Paranemic Crossover (PX) DNA and Crossover-Dependent Biostability of DNA Motifs. Journal of the American Chemical Society, 2020, 142, 6814-6821.	13.7	54
27	Transitioning undergraduate research from wet lab to the virtual in the wake of a pandemic. Biochemistry and Molecular Biology Education, 2020, 48, 436-438.	1.2	21
28	Processing DNA-Based Molecular Signals into Graphical Displays. ACS Synthetic Biology, 2020, 9, 1490-1498.	3.8	5
29	How to Perform miRacles: A Stepâ€byâ€Step microRNA Detection Protocol Using DNA Nanoswitches. Current Protocols in Molecular Biology, 2020, 130, e114.	2.9	7
30	DNA Nanotechnology in the Undergraduate Laboratory: Analysis of Molecular Topology Using DNA Nanoswitches. Journal of Chemical Education, 2020, 97, 1448-1453.	2.3	8
31	Paranemic Crossover DNA: There and Back Again. Chemical Reviews, 2019, 119, 6273-6289.	47.7	69
32	Detecting miRNAs Using DNA Nanoswitches. Trends in Biochemical Sciences, 2019, 44, 819-820.	7.5	2
33	DNA nanotechnology approaches for microRNA detection and diagnosis. Nucleic Acids Research, 2019, 47, 10489-10505.	14.5	92
34	Click and photo-release dual-functional nucleic acid nanostructures. Chemical Communications, 2019, 55, 9709-9712.	4.1	9
35	Bio-functional G-molecular hydrogels for accelerated wound healing. Materials Science and Engineering C, 2019, 105, 110067.	7.3	29
36	Rationally Engineered Nucleic Acid Architectures for Biosensing Applications. Chemical Reviews, 2019, 119, 11631-11717.	47.7	207

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37	Controlled disassembly of a DNA tetrahedron using strand displacement. Nanoscale Advances, 2019, 1, 969-972.	4.6	19
38	Designing Higher Resolution Self-Assembled 3D DNA Crystals via Strand Terminus Modifications. ACS Nano, 2019, 13, 7957-7965.	14.6	40
39	Integration of a photocleavable element into DNA nanoswitches. Chemical Communications, 2019, 55, 6587-6590.	4.1	14
40	Nucleic Acid Nanotechnology. , 2019, , 13-34.		1
41	Cellular microRNA detection with miRacles: microRNA- activated conditional looping of engineered switches. Science Advances, 2019, 5, eaau9443.	10.3	66
42	pH-Operated Triplex DNA Device on MoS₂ Nanosheets. Langmuir, 2019, 35, 5050-5053.	3.5	15
43	A Molecular Hero Suit for In Vitro and In Vivo DNA Nanostructures. Small, 2019, 15, e1805386.	10.0	19
44	Reconfigurable DNA Nanoswitches for Graphical Readout of Molecular Signals. ChemBioChem, 2018, 19, 1018-1021.	2.6	11
45	Triplex-forming oligonucleotides: a third strand for DNA nanotechnology. Nucleic Acids Research, 2018, 46, 1021-1037.	14.5	81
46	DNA-based construction at the nanoscale: emerging trends and applications. Nanotechnology, 2018, 29, 062001.	2.6	45
47	Affinity-Modulated Molecular Beacons on MoS₂ Nanosheets for MicroRNA Detection. ACS Applied Materials & Interfaces, 2018, 10, 35794-35800.	8.0	87
48	DNA Nanocarriers: Programmed to Deliver. Trends in Biochemical Sciences, 2018, 43, 997-1013.	7.5	94
49	Bio-surface engineering with DNA scaffolds for theranostic applications. Nanofabrication, 2018, 4, 1-16.	1.1	8
50	A DNA-Based Display Console For Molecular Readouts. , 2018, , .		0
51	Click-based functionalization of a 2â€²-O-propargyl-modified branched DNA nanostructure. Journal of Materials Chemistry B, 2017, 5, 2074-2077.	5.8	12
52	Shear Dependent LC Purification of an Engineered DNA Nanoswitch and Implications for DNA Origami. Analytical Chemistry, 2017, 89, 5673-5677.	6.5	20
53	Self-Assembly of 3D DNA Crystals Containing a Torsionally Stressed Component. Cell Chemical Biology, 2017, 24, 1401-1406.e2.	5.2	20
54	Addressable configurations of DNA nanostructures for rewritable memory. Nucleic Acids Research, 2017, 45, 11459-11465.	14.5	66

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55	DNA Arrays with a Silver Lining. ChemBioChem, 2017, 18, 1886-1887.	2.6	3
56	DNA Nanobiosensors: An Outlook on Signal Readout Strategies. Journal of Nanomaterials, 2017, 2017, 1-9.	2.7	23
57	Designer DNA Architectures: Applications in Nanomedicine. Nanobiomedicine, 2016, 3, 6.	5.7	8
58	DNAâ€Nanoparticle Tinkertoys. ChemBioChem, 2016, 17, 1090-1092.	2.6	7
59	<scp>DNA</scp> origami and biotechnology applications: a perspective. Journal of Chemical Technology and Biotechnology, 2016, 91, 843-846.	3.2	25
60	Nucleic Acid Nanostructures for Chemical and Biological Sensing. Small, 2016, 12, 2689-2700.	10.0	39
61	Beyond the Fold: Emerging Biological Applications of DNA Origami. ChemBioChem, 2016, 17, 1081-1089.	2.6	79
62	DNA Nanocages. Chemistry of Materials, 2016, 28, 5569-5581.	6.7	81
63	Stabilisation of self-assembled DNA crystals by triplex-directed photo-cross-linking. Chemical Communications, 2016, 52, 8014-8017.	4.1	32
64	Microbial flow cytometry: An ideal tool for prospective antimicrobial drug development. Analytical Biochemistry, 2016, 509, 89-91.	2.4	5
65	A â€˜tileâ€™ tale: Hierarchical self-assembly of DNA lattices. Applied Materials Today, 2016, 2, 7-16.	4.3	41
66	Evolution of DNA origami scaffolds. Materials Letters, 2016, 170, 221-224.	2.6	20
67	Programmable DNA scaffolds for spatially-ordered protein assembly. Nanoscale, 2016, 8, 4436-4446.	5.6	55
68	Programmable DNA Nanoswitches for Detection of Nucleic Acid Sequences. ACS Sensors, 2016, 1, 120-123.	7.8	55
69	Postâ€Assembly Stabilization of Rationally Designed DNA Crystals. Angewandte Chemie, 2015, 127, 10074-10077.	2.0	8
70	Postâ€Assembly Stabilization of Rationally Designed DNA Crystals. Angewandte Chemie - International Edition, 2015, 54, 9936-9939.	13.8	50
71	Topological Linkage of DNA Tiles Bonded by Paranemic Cohesion. ACS Nano, 2015, 9, 10296-10303.	14.6	26
72	Covalent Linkage of One-Dimensional DNA Arrays Bonded by Paranemic Cohesion. ACS Nano, 2015, 9, 10304-10312.	14.6	31

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73	Functionalizing Designer DNA Crystals with a Tripleâ€Helical Veneer. Angewandte Chemie - International Edition, 2014, 53, 3979-3982.	13.8	63
74	Self-Assembled DNA Crystals: The Impact on Resolution of 5â€²-Phosphates and the DNA Source. Nano Letters, 2013, 13, 793-797.	9.1	46
75	Ring crystals of oligonucleotides: Growth stages and X-ray diffraction studies. Journal of Crystal Growth, 2012, 354, 20-26.	1.5	11
76	Fabrication of a nanofibrous scaffold with improved bioactivity for culture of human dermal fibroblasts for skin regeneration. Biomedical Materials (Bristol), 2011, 6, 015001.	3.3	161
77	An Update on Nanomaterialsâ€Based Textiles for Protection and Decontamination. Journal of the American Ceramic Society, 2010, 93, 3955-3975.	3.8	111