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	Rationally Engineered Nucleic Acid Architectures for Biosensing Applications. Chemical Reviews, 2019, 119, 11631-11717.	47.7	207
2	Nuclease resistance of DNA nanostructures. Nature Reviews Chemistry, 2021, 5, 225-239.	30.2	166
3	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
4	An Update on Nanomaterialsâ€Based Textiles for Protection and Decontamination. Journal of the American Ceramic Society, 2010, 93, 3955-3975.	3.8	111
5	DNA Nanocarriers: Programmed to Deliver. Trends in Biochemical Sciences, 2018, 43, 997-1013.	7.5	94
6	DNA nanotechnology approaches for microRNA detection and diagnosis. Nucleic Acids Research, 2019, 47, 10489-10505.	14.5	92
7	Affinity-Modulated Molecular Beacons on MoS₂ Nanosheets for MicroRNA Detection. ACS Applied Materials & Interfaces, 2018, 10, 35794-35800.	8.0	87
8	DNA Nanocages. Chemistry of Materials, 2016, 28, 5569-5581.	6.7	81
9	Triplex-forming oligonucleotides: a third strand for DNA nanotechnology. Nucleic Acids Research, 2018, 46, 1021-1037.	14.5	81
10	Beyond the Fold: Emerging Biological Applications of DNA Origami. ChemBioChem, 2016, 17, 1081-1089.	2.6	79
11	Paranemic Crossover DNA: There and Back Again. Chemical Reviews, 2019, 119, 6273-6289.	47.7	69
12	Addressable configurations of DNA nanostructures for rewritable memory. Nucleic Acids Research, 2017, 45, 11459-11465.	14.5	66
13	Cellular microRNA detection with miRacles: microRNA- activated conditional looping of engineered switches. Science Advances, 2019, 5, eaau9443.	10.3	66
14	Functionalizing Designer DNA Crystals with a Tripleâ€Helical Veneer. Angewandte Chemie - International Edition, 2014, 53, 3979-3982.	13.8	63
15	Programmable DNA scaffolds for spatially-ordered protein assembly. Nanoscale, 2016, 8, 4436-4446.	5.6	55
16	Programmable DNA Nanoswitches for Detection of Nucleic Acid Sequences. ACS Sensors, 2016, 1, 120-123.	7.8	55
17	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
18	Postâ€Assembly Stabilization of Rationally Designed DNA Crystals. Angewandte Chemie - International Edition, 2015, 54, 9936-9939.	13.8	50

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19	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
20	DNA-based construction at the nanoscale: emerging trends and applications. Nanotechnology, 2018, 29, 062001.	2.6	45
21	A â€˜tileâ€™ tale: Hierarchical self-assembly of DNA lattices. Applied Materials Today, 2016, 2, 7-16.	4.3	41
22	Designing Higher Resolution Self-Assembled 3D DNA Crystals via Strand Terminus Modifications. ACS Nano, 2019, 13, 7957-7965.	14.6	40
23	Nucleic Acid Nanostructures for Chemical and Biological Sensing. Small, 2016, 12, 2689-2700.	10.0	39
24	Programmable low-cost DNA-based platform for viral RNA detection. Science Advances, 2020, 6, .	10.3	37
25	A versatile biomolecular detection platform based on photo-induced enhanced Raman spectroscopy. Biosensors and Bioelectronics, 2020, 147, 111742.	10.1	33
26	Stabilisation of self-assembled DNA crystals by triplex-directed photo-cross-linking. Chemical Communications, 2016, 52, 8014-8017.	4.1	32
27	Covalent Linkage of One-Dimensional DNA Arrays Bonded by Paranemic Cohesion. ACS Nano, 2015, 9, 10304-10312.	14.6	31
28	Bio-functional G-molecular hydrogels for accelerated wound healing. Materials Science and Engineering C, 2019, 105, 110067.	7.3	29
29	DNA Nanoswitch Barcodes for Multiplexed Biomarker Profiling. Nano Letters, 2021, 21, 469-475.	9.1	29
30	Topological Linkage of DNA Tiles Bonded by Paranemic Cohesion. ACS Nano, 2015, 9, 10296-10303.	14.6	26
31	<scp>DNA</scp> origami and biotechnology applications: a perspective. Journal of Chemical Technology and Biotechnology, 2016, 91, 843-846.	3.2	25
32	Designer, Programmable 3D DNA Nanodevices to Probe Biological Systems. ACS Applied Bio Materials, 2020, 3, 7265-7277.	4.6	25
33	DNA Nanobiosensors: An Outlook on Signal Readout Strategies. Journal of Nanomaterials, 2017, 2017, 1-9.	2.7	23
34	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
35	Evolution of DNA origami scaffolds. Materials Letters, 2016, 170, 221-224.	2.6	20
36	Shear Dependent LC Purification of an Engineered DNA Nanoswitch and Implications for DNA Origami. Analytical Chemistry, 2017, 89, 5673-5677.	6.5	20

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37	Self-Assembly of 3D DNA Crystals Containing a Torsionally Stressed Component. Cell Chemical Biology, 2017, 24, 1401-1406.e2.	5.2	20
38	Controlled disassembly of a DNA tetrahedron using strand displacement. Nanoscale Advances, 2019, 1, 969-972.	4.6	19
39	A Molecular Hero Suit for In Vitro and In Vivo DNA Nanostructures. Small, 2019, 15, e1805386.	10.0	19
40	Aptamer-Programmed DNA Nanodevices for Advanced, Targeted Cancer Theranostics. ACS Applied Bio Materials, 2021, 4, 5392-5404.	4.6	17
41	Aptamers for Viral Detection and Inhibition. ACS Infectious Diseases, 2022, 8, 667-692.	3.8	17
42	Nuclease Degradation Analysis of DNA Nanostructures Using Gel Electrophoresis. Current Protocols in Nucleic Acid Chemistry, 2020, 82, e115.	0.5	16
43	pH-Operated Triplex DNA Device on MoS₂ Nanosheets. Langmuir, 2019, 35, 5050-5053.	3.5	15
44	Biointerface Engineering with Nucleic Acid Materials for Biosensing Applications. Advanced Functional Materials, 2022, 32, .	14.9	15
45	Integration of a photocleavable element into DNA nanoswitches. Chemical Communications, 2019, 55, 6587-6590.	4.1	14
46	DNA-Based Smart Reagent for Detecting Alzheimerâ€™s Associated MicroRNAs. ACS Sensors, 2021, 6, 3176-3181.	7.8	14
47	Ribonuclease-Responsive DNA Nanoswitches. Cell Reports Physical Science, 2020, 1, 100117.	5.6	13
48	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
49	Ring crystals of oligonucleotides: Growth stages and X-ray diffraction studies. Journal of Crystal Growth, 2012, 354, 20-26.	1.5	11
50	Reconfigurable DNA Nanoswitches for Graphical Readout of Molecular Signals. ChemBioChem, 2018, 19, 1018-1021.	2.6	11
51	A mini DNAâ€“RNA hybrid origami nanobrick. Nanoscale Advances, 2021, 3, 4048-4051.	4.6	10
52	Click and photo-release dual-functional nucleic acid nanostructures. Chemical Communications, 2019, 55, 9709-9712.	4.1	9
53	Rapid one-step detection of SARS-CoV-2 RNA. Nature Biomedical Engineering, 2020, 4, 1123-1124.	22.5	9
54	Postâ€Assembly Stabilization of Rationally Designed DNA Crystals. Angewandte Chemie, 2015, 127, 10074-10077.	2.0	8

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55	Designer DNA Architectures: Applications in Nanomedicine. Nanobiomedicine, 2016, 3, 6.	5.7	8
56	Bio-surface engineering with DNA scaffolds for theranostic applications. Nanofabrication, 2018, 4, 1-16.	1.1	8
57	DNA-Functionalized Nanoparticles for Targeted Biosensing and Biological Applications. ACS Omega, 2020, 5, 30767-30774.	3.5	8
58	Hybrid DNA/RNA nanostructures with 2â€²-5â€² linkages. Nanoscale, 2020, 12, 21583-21590.	5.6	8
59	Short DNA Oligonucleotide as a Ag⁺ Binding Detector. ACS Omega, 2020, 5, 28565-28570.	3.5	8
60	DNA Nanotechnology in the Undergraduate Laboratory: Analysis of Molecular Topology Using DNA Nanoswitches. Journal of Chemical Education, 2020, 97, 1448-1453.	2.3	8
61	DNAâ€Nanoparticle Tinkertoys. ChemBioChem, 2016, 17, 1090-1092.	2.6	7
62	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
63	Microbial flow cytometry: An ideal tool for prospective antimicrobial drug development. Analytical Biochemistry, 2016, 509, 89-91.	2.4	5
64	Processing DNA-Based Molecular Signals into Graphical Displays. ACS Synthetic Biology, 2020, 9, 1490-1498.	3.8	5
65	Sequence-selective purification of biological RNAs using DNA nanoswitches. Cell Reports Methods, 2021, 1, 100126.	2.9	5
66	Fluorescent Aptaswitch for Detection of Lead Ions. ACS Applied Bio Materials, 2022, 5, 5089-5093.	4.6	5
67	DNA-based ribonuclease detection assays. Journal of Materials Chemistry B, 2021, 9, 7023-7029.	5.8	4
68	DNA Arrays with a Silver Lining. ChemBioChem, 2017, 18, 1886-1887.	2.6	3
69	Detecting miRNAs Using DNA Nanoswitches. Trends in Biochemical Sciences, 2019, 44, 819-820.	7.5	2
70	Nucleic Acid Nanotechnology. , 2019, , 13-34.		1
71	Parallel poly(A) homo- and hetero-duplex formation detection with an adapted DNA nanoswitch technique. Rna, 2020, 26, 1118-1130.	3.5	1
72	Pop-culture references in peer-reviewed scientific articles. Matter, 2021, 4, 759-760.	10.0	1

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73	Undergraduate students in research. EMBO Reports, 2021, 22, e53024.	4.5	1
74	Horizons Community Board Collection: Biosensors. Materials Horizons, 2020, 7, 2475-2476.	12.2	0
75	Orthogonal Control of DNA Nanoswitches with Mixed Physical and Biochemical Cues. Biochemistry, 2021, 60, 250-253.	2.5	0
76	A DNA-Based Display Console For Molecular Readouts. , 2018, , .		0
77	Single species RNA purification using DNA nanoswitches. Trends in Biochemical Sciences, 2022, , .	7.5	0