

Dipankar Sen

List of Publications by Year in descending order

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84
papers

8,618
citations

87888

38
h-index

48315

88
g-index

94
all docs

94
docs citations

94
times ranked

5633
citing authors

#	ARTICLE	IF	CITATIONS
1	A heme- C DNAzyme activated by hydrogen peroxide catalytically oxidizes thioethers by direct oxygen atom transfer rather than by a Compound I-like intermediate. <i>Nucleic Acids Research</i> , 2021, 49, 1803-1815.	14.5	13
2	A Long and Reversibly Self-Assembling 1D DNA Nanostructure Built from Triplex and Quadruplex Hybrid Tiles. <i>Angewandte Chemie</i> , 2021, 133, 8804-8809.	2.0	2
3	A Long and Reversibly Self-Assembling 1D DNA Nanostructure Built from Triplex and Quadruplex Hybrid Tiles. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8722-8727.	13.8	15
4	Ultrasensitive detection of total copper with an electrochemical biosensor built on the in cis coupling of hexynyl CLICK-17 DNAzyme with azido self-assembled monolayers. <i>Electrochimica Acta</i> , 2021, 379, 138125.	5.2	5
5	DNAzyme-Catalyzed Click Chemistry for Facilitated Immobilization of Redox Functionalities on Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2020, 124, 19083-19090.	3.1	6
6	Immobilized DNA Switch Modulated by Intermolecular Interactions. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13779-13788.	3.1	3
7	CLICK-17, a DNA enzyme that harnesses ultra-low concentrations of either Cu^+ or Cu^{2+} to catalyze the azide-alkyne "click" reaction in water. <i>Nucleic Acids Research</i> , 2020, 48, 7356-7370.	14.5	14
8	High specificity and tight spatial restriction of self-biotinylation by DNA and RNA G-Quadruplexes complexed in vitro and in vivo with Heme. <i>Nucleic Acids Research</i> , 2020, 48, 5254-5267.	14.5	18
9	DNA G-Quadruplexes Activate Heme for Robust Catalysis of Carbene Transfer Reactions. <i>ACS Omega</i> , 2019, 4, 15280-15288.	3.5	26
10	Heme- C G-Quadruplex DNAzymes: Conditions for Maximizing Their Peroxidase Activity. <i>Methods in Molecular Biology</i> , 2019, 2035, 357-368.	0.9	3
11	Divergent Pair of Ultrasensitive Mechanoelectronic Nanoswitches Made out of DNA. <i>Analytical Chemistry</i> , 2019, 91, 8244-8251.	6.5	3
12	DNA Quadruple Helices in Nanotechnology. <i>Chemical Reviews</i> , 2019, 119, 6290-6325.	47.7	269
13	DNA's Encounter with Ultraviolet Light: An Instinct for Self-Preservation?. <i>Accounts of Chemical Research</i> , 2018, 51, 526-533.	15.6	18
14	Genome-wide discovery of somatic regulatory variants in diffuse large B-cell lymphoma. <i>Nature Communications</i> , 2018, 9, 4001.	12.8	102
15	(C2G4) _n repeat expansion sequences from the C9orf72 gene form an unusual DNA higher-order structure in the pH range of 5-6. <i>PLoS ONE</i> , 2018, 13, e0198418.	2.5	8
16	Hemin-utilizing G-quadruplex DNAzymes are strongly active in organic co-solvents. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 1455-1462.	2.4	25
17	Self-biotinylation of DNA G-quadruplexes via intrinsic peroxidase activity. <i>Nucleic Acids Research</i> , 2017, 45, 9813-9822.	14.5	30
18	DNA Repair by DNA: The UV1C DNAzyme Catalyzes Photoreactivation of Cyclobutane Thymine Dimers in DNA More Effectively than Their de Novo Formation. <i>Biochemistry</i> , 2016, 55, 6010-6018.	2.5	8

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19	<sc>DNA</sc> mechatronic devices switched by <sc>K</sc> ⁺ and by <sc>S</sc> ²⁺ are structurally, topologically, and electronically distinct. <i>Biopolymers</i> , 2015, 103, 460-468.	2.4	1
20	Heme activation by DNA: isoguanine pentaplexes, but not quadruplexes, bind heme and enhance its oxidative activity. <i>Nucleic Acids Research</i> , 2015, 43, 4191-4201.	14.5	32
21	A Twisting Electronic Nanoswitch Made of DNA. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 14055-14059.	13.8	17
22	Functional DNA switches: rational design and electrochemical signaling. <i>Chemical Society Reviews</i> , 2014, 43, 518-529.	38.1	109
23	Mechatronic DNA devices driven by a G-quadruplex-binding platinum ligand. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 4376-4383.	3.0	2
24	G-Quadruplex Structures Formed by Expanded Hexanucleotide Repeat RNA and DNA from the Neurodegenerative Disease-Linked C9orf72 Gene Efficiently Sequester and Activate Heme. <i>PLoS ONE</i> , 2014, 9, e106449.	2.5	45
25	Catalytic DNAs That Harness Violet Light To Repair Thymine Dimers in a DNA Substrate. <i>Journal of the American Chemical Society</i> , 2013, 135, 2596-2603.	13.7	21
26	A thiamin-utilizing ribozyme decarboxylates a pyruvate-like substrate. <i>Nature Chemistry</i> , 2013, 5, 971-977.	13.6	18
27	Analyte-Driven Switching of DNA Charge Transport: <i>De Novo</i> Creation of Electronic Sensors for an Early Lung Cancer Biomarker. <i>Journal of the American Chemical Society</i> , 2012, 134, 13823-13833.	13.7	33
28	A Mechano-Electronic DNA Switch. <i>Journal of the American Chemical Society</i> , 2012, 134, 13738-13748.	13.7	63
29	Guanine-Rich RNAs and DNAs That Bind Heme Robustly Catalyze Oxygen Transfer Reactions. <i>Journal of the American Chemical Society</i> , 2011, 133, 1877-1884.	13.7	120
30	RNA and DNA complexes with hemin [Fe(III) heme] are efficient peroxidases and peroxygenases: how do they do it and what does it mean?. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2011, 46, 478-492.	5.2	137
31	A Robust Electronic Switch Made of Immobilized Duplex/Quadruplex DNA. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9965-9967.	13.8	84
32	A Stereochemical Glimpse of the Active Site of the 8 [~] 17 Deoxyribozyme from Iodine-Mediated Cross-Links Formed with the Substrate's Scissile Site. <i>Biochemistry</i> , 2010, 49, 9072-9077.	2.5	21
33	A Contractile Electronic Switch Made of DNA. <i>Journal of the American Chemical Society</i> , 2010, 132, 2663-2671.	13.7	50
34	Local Rather than Global Folding Enables the Lead-dependent Activity of the 8-17 Deoxyribozyme: Evidence from Contact Photo-crosslinking. <i>Journal of Molecular Biology</i> , 2010, 395, 234-241.	4.2	20
35	The use of charge flow and quenching (CFQ) to probe nucleic acid folds and folding. <i>Methods</i> , 2010, 52, 141-149.	3.8	1
36	Towards light-induced control of gene expression using RNA. <i>FASEB Journal</i> , 2010, 24, 412.3.	0.5	0

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37	Design and testing of aptamer-based electrochemical biosensors for proteins and small molecules. <i>Bioelectrochemistry</i> , 2009, 77, 1-12.	4.6	142
38	Charge Conduction Properties of a Parallel-Stranded DNA G-Quadruplex: Implications for Chromosomal Oxidative Damage. <i>Biochemistry</i> , 2009, 48, 6794-6804.	2.5	39
39	Unusual DNA~DNA Cross-Links between a Photolyase Deoxyribozyme, UV1C, and Its Bound Oligonucleotide Substrate. <i>Biochemistry</i> , 2009, 48, 6335-6347.	2.5	12
40	A Deoxyribozyme, Sero1C, Uses Light and Serotonin to Repair Diverse Pyrimidine Dimers in DNA. <i>Journal of Molecular Biology</i> , 2009, 388, 21-29.	4.2	25
41	A Contact Photo-Cross-linking Investigation of the Active Site of the 8-17 Deoxyribozyme. <i>Journal of Molecular Biology</i> , 2008, 381, 845-859.	4.2	29
42	A guanine-linked end-effect is a sensitive reporter of charge flow through DNA and RNA double helices. <i>Biochimie</i> , 2008, 90, 1064-1073.	2.6	5
43	Immobilized DNA Switches as Electronic Sensors for Picomolar Detection of Plasma Proteins. <i>Journal of the American Chemical Society</i> , 2008, 130, 8023-8029.	13.7	87
44	The use of light to investigate and modulate DNA and RNA conformations. <i>Nucleic Acids Symposium Series</i> , 2008, 52, 11-12.	0.3	1
45	Towards Elucidation of the Mechanism of UV1C, a Deoxyribozyme with Photolyase Activity. <i>Journal of Molecular Biology</i> , 2007, 365, 1326-1336.	4.2	35
46	Reversible Photo-regulation of a Hammerhead Ribozyme Using a Diffusible Effector. <i>Journal of Molecular Biology</i> , 2007, 371, 1163-1173.	4.2	36
47	Electron Hole Flow Patterns through the RNA-Cleaving 8-17 Deoxyribozyme Yield Unusual Information about Its Structure and Folding. <i>Chemistry and Biology</i> , 2007, 14, 41-51.	6.0	31
48	Electrochemical investigation of DNA-modified surfaces: From quantitation methods to experimental conditions. <i>Journal of Electroanalytical Chemistry</i> , 2007, 602, 156-162.	3.8	49
49	DNA and RNA enzymes with peroxidase activity— An investigation into the mechanism of action. <i>Canadian Journal of Chemistry</i> , 2006, 84, 613-619.	1.1	56
50	The RNA-Cleaving Bipartite DNAzyme Is a Distinctive Metalloenzyme. <i>ChemBioChem</i> , 2006, 7, 98-105.	2.6	20
51	A deoxyribozyme that harnesses light to repair thymine dimers in DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 65-69.	7.1	176
52	Kinetics of Ion-Exchange Binding of Redox Metal Cations to Thiolate~DNA Monolayers on Gold. <i>Analytical Chemistry</i> , 2004, 76, 5953-5959.	6.5	34
53	DNA Helix-Stack Switching as the Basis for the Design of Versatile Deoxyribosensors. <i>Journal of Molecular Biology</i> , 2004, 340, 459-467.	4.2	24
54	Light-regulated Catalysis by an RNA-cleaving Deoxyribozyme. <i>Journal of Molecular Biology</i> , 2004, 341, 887-892.	4.2	87

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55	Voltammetric Procedure for Examining DNA-Modified Surfaces: Quantitation, Cationic Binding Activity, and Electron-Transfer Kinetics. <i>Analytical Chemistry</i> , 2003, 75, 3902-3907.	6.5	127
56	Duplex Pinching: A Structural Switch Suitable for Contractile DNA Nanoconstructions. <i>Nano Letters</i> , 2003, 3, 1073-1078.	9.1	54
57	Deoxyribozymes that catalyze photochemistry: cofactor-dependent and -independent photorepair of thymine dimers. <i>Nucleic Acids Symposium Series</i> , 2003, 3, 217-218.	0.3	2
58	A general approach for the use of oligonucleotide effectors to regulate the catalysis of RNA-cleaving ribozymes and DNAzymes. <i>Nucleic Acids Research</i> , 2002, 30, 1735-1742.	14.5	75
59	The Charge Conduction Properties of DNA Holliday Junctions Depend Critically on the Identity of the Tethered Photooxidant. <i>Journal of the American Chemical Society</i> , 2002, 124, 12477-12485.	13.7	23
60	Hemin-Stimulated Docking of Cytochrome c to a Hemin-DNA Aptamer Complex. <i>Biochemistry</i> , 2002, 41, 5202-5212.	2.5	77
61	DNA Conformational Switches as Sensitive Electronic Sensors of Analytes. <i>Journal of the American Chemical Society</i> , 2002, 124, 4610-4616.	13.7	105
62	Aptamer Rivalry. <i>Chemistry and Biology</i> , 2002, 9, 851-852.	6.0	5
63	Rationally Designed Allosteric Variants of Hammerhead Ribozymes Responsive to the HIV-1 Tat Protein. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2002, 5, 301-312.	1.1	23
64	The Peroxidase Activity of a Hemin-DNA Oligonucleotide Complex: Free Radical Damage to Specific Guanine Bases of the DNA. <i>Journal of the American Chemical Society</i> , 2001, 123, 1337-1348.	13.7	336
65	A novel mode of regulation of an RNA-cleaving DNAzyme by effectors that bind to both enzyme and substrate. <i>Journal of Molecular Biology</i> , 2001, 310, 723-734.	4.2	62
66	A new and efficient DNA enzyme for the sequence-specific cleavage of RNA. <i>Journal of Molecular Biology</i> , 2001, 313, 283-294.	4.2	97
67	A DNA Oligonucleotide-Hemin Complex Cleaves Butyl Hydroperoxide through a Homolytic Mechanism. <i>Inorganic Chemistry</i> , 2001, 40, 5017-5023.	4.0	49
68	Use of intrinsic binding energy for catalysis by a cofactor-independent DNA enzyme. <i>Journal of Molecular Biology</i> , 2000, 299, 1387-1398.	4.2	14
69	A ribozyme and a catalytic DNA with peroxidase activity: active sites versus cofactor-binding sites. <i>Chemistry and Biology</i> , 1999, 6, 779-787.	6.0	360
70	Synapsable DNA Double Helices: Self-Selective Modules for Assembling DNA Superstructures. <i>Journal of the American Chemical Society</i> , 1999, 121, 11079-11085.	13.7	37
71	DNA-enhanced peroxidase activity of a DNA aptamer-hemin complex. <i>Chemistry and Biology</i> , 1998, 5, 505-517.	6.0	903
72	The modus operandi of a DNA enzyme: enhancement of substrate basicity. <i>Chemistry and Biology</i> , 1998, 5, 1-12.	6.0	44

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73	DNA enzymes. <i>Current Opinion in Chemical Biology</i> , 1998, 2, 680-687.	6.1	115
74	Lanthanide probes for a phosphodiester-cleaving, lead-dependent, DNAzyme. <i>Journal of Molecular Biology</i> , 1998, 275, 483-489.	4.2	42
75	Cation-regulated self-association of "synapsable" DNA duplexes. <i>Journal of Molecular Biology</i> , 1998, 280, 237-244.	4.2	37
76	Toward an Efficient DNAzyme. <i>Biochemistry</i> , 1997, 36, 5589-5599.	2.5	175
77	Evidence for the metal-cofactor independence of an RNA phosphodiester-cleaving DNA enzyme. <i>Chemistry and Biology</i> , 1997, 4, 579-593.	6.0	157
78	Recognition of Anionic Porphyrins by DNA Aptamers. <i>Biochemistry</i> , 1996, 35, 6911-6922.	2.5	265
79	Synapsable DNA. <i>Journal of Molecular Biology</i> , 1996, 257, 219-224.	4.2	56
80	A catalytic DNA for porphyrin metallation. <i>Nature Structural and Molecular Biology</i> , 1996, 3, 743-747.	8.2	315
81	Parallel and antiparallel G-DNA structures from a complex telomeric sequence. <i>Biochemistry</i> , 1993, 32, 6220-6228.	2.5	142
82	Novel DNA superstructures formed by telomere-like oligomers. <i>Biochemistry</i> , 1992, 31, 65-70.	2.5	185
83	A sodium-potassium switch in the formation of four-stranded G4-DNA. <i>Nature</i> , 1990, 344, 410-414.	27.8	790
84	Formation of parallel four-stranded complexes by guanine-rich motifs in DNA and its implications for meiosis. <i>Nature</i> , 1988, 334, 364-366.	27.8	1,677