Marvin H Caruthers

List of Publications by Year
in descending order

51	2,445	279778	197805
papers	citations	23 h-index	49 g-index

57	57	57	1866
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metal ion catalysis in the Tetrahymena ribozyme reaction. Nature, 1993, 361, 85-88.	27.8	403
2	Chemical synthesis of DNA and DNA analogs. Accounts of Chemical Research, 1991, 24, 278-284.	15.6	271
3	Synthesis of high-quality libraries of long (150mer) oligonucleotides by a novel depurination controlled process. Nucleic Acids Research, 2010, 38, 2522-2540.	14.5	248
4	Novel RNA Synthesis Method Using 5â€˜-O-Silyl-2â€˜-O-orthoester Protecting Groups. Journal of the American Chemical Society, 1998, 120, 11820-11821.	13.7	226
5	Nucleotide chemistry. 16. Amidine protecting groups for oligonucleotide synthesis. Journal of the American Chemical Society, 1986, 108, 2040-2048.	13.7	201
6	The Chemical Synthesis of DNA/RNA: Our Gift to Science. Journal of Biological Chemistry, 2013, 288, 1420-1427.	3.4	70
7	Solid-Phase Chemical Synthesis of Phosphonoacetate and Thiophosphonoacetate Oligodeoxynucleotides. Journal of the American Chemical Society, 2003, 125, 940-950.	13.7	66
8	Streamlined Process for the Chemical Synthesis of RNA Using 2â€²-O-Thionocarbamate-Protected Nucleoside Phosphoramidites in the Solid Phase. Journal of the American Chemical Society, 2011, 133, 11540-11556.	13.7	61
9	A brief review of DNA and RNA chemical synthesis. Biochemical Society Transactions, 2011, 39, 575-580.	3.4	60
10	Synthesis of an oligothymidylate containing boranophosphate linkages. Tetrahedron Letters, 1998, 39, 3899-3902.	1.4	58
11	Biochemical and Physicochemical Properties of Phosphorodithioate DNA. Biochemistry, 1996, 35, 8734-8741.	2.5	50
12	Oligonucleotide syntheses utilizing .beta.-benzoylpropionyl, a blocking group with a trigger for selective cleavage. Journal of the American Chemical Society, 1967, 89, 7146-7147.	13.7	48
13	Reactions of Nucleosides on Polymer Supports. Synthesis of Thymidylylthymidylylthymidine*. Biochemistry, 1967, 6, 1379-1388.	2.5	44
14	Role of the Cro repressor carboxy terminal domain and flexible dimer linkage in operator and nonspecific DNA binding. Biochemistry, 1990, 29, 9241-9249.	2.5	43
15	Alkynyl Phosphonate DNA: A Versatile â€œClickâ€able Backbone for DNA-Based Biological Applications. Journal of the American Chemical Society, 2012, 134, 11618-11631.	13.7	43
16	Biochemical properties of phosphonoacetate and thiophosphonoacetate oligodeoxyribonucleotides. Nucleic Acids Research, 2003, 31, 4109-4118.	14.5	41
17	Silver Nanoassemblies Constructed from Boranephosphonate DNA. Journal of the American Chemical Society, 2013, 135, 6234-6241.	13.7	34
18	Synthesis of Mixed Sequence Borane Phosphonate DNA. Journal of the American Chemical Society, 2006, 128, 8138-8139.	13.7	32

#	Article	IF	Citations
19	Synthesis and Characterization of Thiophosphoramidate Morpholino Oligonucleotides and Chimeras. Journal of the American Chemical Society, 2020, 142, 16240-16253.	13.7	30
20	Synthesis and biological activity of phosphonoacetate- and thiophosphonoacetate-modified 2â€²-O-methyl oligoribonucleotides. Organic and Biomolecular Chemistry, 2012, 10, 746-754.	2.8	27
21	Oxidative Substitution of Boranephosphonate Diesters as a Route to Post-synthetically Modified DNA. Journal of the American Chemical Society, 2015, 137, 3253-3264.	13.7	27
22	Hammerhead Cleavage of the Phosphorodithioate Linkage. Biochemistry, 2000, 39, 4947-4954.	2.5	25
23	Nuclear compartmentalization of TERT mRNA and TUG1 lncRNA is driven by intron retention. Nature Communications, 2021, 12, 3308.	12.8	25
24	Synthesis of 5â€²-deoxy-5â€²-methylphosphonate linked thymidine oligonucleotides.. Tetrahedron Letters, 1993, 34, 2723-2726.	1.4	24
25	Optimal strategies for the chemical and enzymic synthesis of bihelical deoxyribonucleic acids. Journal of the American Chemical Society, 1975, 97, 875-884.	13.7	22
26	Chemical and Biochemical Studies with Dithioate DNA. Nucleosides & Nucleotides, 1991, 10, 47-59.	0.5	22
27	Solid-Phase Synthesis, Thermal Denaturation Studies, Nuclease Resistance, and Cellular Uptake of (Oligodeoxyribonucleoside)methylborane Phosphineâ€“DNA Chimeras. Journal of the American Chemical Society, 2011, 133, 9844-9854.	13.7	19
28	Synthesis of Phosphorodiamidate Morpholino Oligonucleotides and Their Chimeras Using Phosphoramidite Chemistry. Journal of the American Chemical Society, 2016, 138, 15663-15672.	13.7	19
29	Interactions between single-stranded DNA binding protein and oligonucleotide analogs with different backbone chemistries. , 1997, 10, 101-107.		18
30	Synthesis and Biochemical Evaluation of Phosphonoformate Oligodeoxyribonucleotides. Journal of the American Chemical Society, 2006, 128, 5251-5261.	13.7	18
31	Reduction of metal ions by boranephosphonate DNA. Organic and Biomolecular Chemistry, 2012, 10, 9130.	2.8	17
32	DNA Analogues Modified at the Nonlinking Positions of Phosphorus. Accounts of Chemical Research, 2020, 53, 2152-2166.	15.6	17
33	Chemical synthesis of an oligodeoxythymidylate containing boranephosphate and phosphate linkages. Tetrahedron Letters, 2002, 43, 749-751.	1.4	16
34	Synthesis and Biological Activity of Phosphonocarboxylate DNA. Nucleosides, Nucleotides and Nucleic Acids, 2007, 26, 539-546.	1.1	14
35	Synthesis and Biochemical Activity of New Oligonucleotide Analogs. Phosphorus, Sulfur and Silicon and the Related Elements, 2008, 183, 349-363.	1.6	12
36	Formation of Silver Nanostructures by Rolling Circle Amplification Using Boranephosphonate-Modified Nucleotides. Analytical Chemistry, 2015, 87, 6660-6666.	6.5	12

#	Article	IF	Citations
37	Boranephosphonate DNA-Mediated Metallization of Single-Walled Carbon Nanotubes. Chemistry of Materials, 2017, 29, 2239-2245.	6.7	12
38	Synthesis And Biological Activity of Borane Phosphonate DNA. Phosphorus, Sulfur and Silicon and the Related Elements, 2011, 186, 921-932.	1.6	11
39	Peptide-substituted oligonucleotide synthesis and non-toxic, passive cell delivery. Signal Transduction and Targeted Therapy, 2016, 1, 16019.	17.1	9
40	Pyridinium Boranephosphonate Modified DNA Oligonucleotides. Journal of Organic Chemistry, 2017, 82, 1420-1427.	3.2	8
41	Synthesis of Small-Molecule/DNA Hybrids through On-Bead Amide-Coupling Approach. Journal of Organic Chemistry, 2017, 82, 10803-10811.	3.2	8
42	Exploring siteâ€specific activation of bisâ€N,Nâ€™â€dialkylaminophosphordiamidites and the synthesis of morpholinophosphoramidate oligonucleotides. FEBS Letters, 2019, 593, 1459-1467.	2.8	6
43	Solid-Phase Synthesis, Hybridizing Ability, Uptake, and Nuclease Resistant Profiles of Position-Selective Cationic and Hydrophobic Phosphotriester Oligonucleotides. Journal of Organic Chemistry, 2015, 80, 9147-9158.	3.2	5
44	Gene synthesis with H G Khorana. Resonance, 2012, 17, 1143-1156.	0.3	4
45	Effect of 2â€²-O-methyl/thiophosphonoacetate-modified antisense oligonucleotides on huntingtin expression in patient-derived cells. Artificial DNA, PNA & XNA, 2014, 5, e1146391.	1.4	4
46	Robert Letsinger: The father of synthetic DNA chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18098-18099.	7.1	4
47	Oligodeoxynucleotides containing 2â€²-amino-LNA nucleotides as constrained morpholino phosphoramidate and phosphorodiamidate monomers. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 3173-3176.	2.2	3
48	Phosphoramidites as Synthons for Polynucleotide Synthesis. Phosphorous and Sulfur and the Related Elements, 1987, 30, 549-553.	0.2	2
49	Har Gobind Khorana (1922â€“2011). Science, 2011, 334, 1511-1511.	12.6	2
50	Oligodeoxyribonucleotide Analogs Functionalized with Phosphonoacetate and Thiophosphonoacetate Diesters. Current Protocols in Nucleic Acid Chemistry, 2004, 18, Unit 4.24.	0.5	1
51	Synthesis and Biochemical Studies of Dithioate DNA. Novartis Foundation Symposium, 1991, 158, 158-168.	1.1	1