Marcel R Hollenstein

List of Publications by Year
in descending order

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65 papers	2,479 citations	257450 24 h-index	197818 49 g-index
77 all docs	77 docs citations	77 times ranked	2049 citing authors

#	Article	IF	Citations
1	A Highly Selective DNAzyme Sensor for Mercuric Ions. Angewandte Chemie - International Edition, 2008, 47, 4346-4350.	13.8	301
2	Aptamer chemistry. Advanced Drug Delivery Reviews, 2018, 134, 3-21.	13.7	258
3	Recent progress in non-native nucleic acid modifications. Chemical Society Reviews, 2021, 50, 5126-5164.	38.1	155
4	Nucleoside Triphosphates â€" Building Blocks for the Modification of Nucleic Acids. Molecules, 2012, 17, 13569-13591.	3.8	143
5	DNA Catalysis: The Chemical Repertoire of DNAzymes. Molecules, 2015, 20, 20777-20804.	3.8	126
6	A self-cleaving DNA enzyme modified with amines, guanidines and imidazoles operates independently of divalent metal cations (M 2+). Nucleic Acids Research, 2009, 37, 1638-1649.	14.5	121
7	Generation of Aptamers with an Expanded Chemical Repertoire. Molecules, 2015, 20, 16643-16671.	3.8	93
8	A DNAzyme with Three Proteinâ€Like Functional Groups: Enhancing Catalytic Efficiency of M²⁺â€Independent RNA Cleavage. ChemBioChem, 2009, 10, 1988-1992.	2.6	85
9	Nucleic Acid Aptamers: Emerging Applications in Medical Imaging, Nanotechnology, Neurosciences, and Drug Delivery. International Journal of Molecular Sciences, 2017, 18, 2430.	4.1	71
10	Toward the Combinatorial Selection of Chemically Modified DNAzyme RNase A Mimics Active Against all-RNA Substrates. ACS Combinatorial Science, 2013, 15, 174-182.	3.8	64
11	Chemical methods for the modification of RNA. Methods, 2019, 161, 64-82.	3.8	63
12	Evolution of abiotic cubane chemistries in a nucleic acid aptamer allows selective recognition of a malaria biomarker. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16790-16798.	7.1	59
13	Terminal Deoxynucleotidyl Transferase in the Synthesis and Modification of Nucleic Acids. ChemBioChem, 2019, 20, 860-871.	2.6	56
14	Deoxynucleoside triphosphates bearing histamine, carboxylic acid, and hydroxyl residues â€" synthesis and biochemical characterization. Organic and Biomolecular Chemistry, 2013, 11, 5162.	2.8	46
15	Synthesis of Deoxynucleoside Triphosphates that Include Proline, Urea, or Sulfonamide Groups and Their Polymerase Incorporation into DNA. Chemistry - A European Journal, 2012, 18, 13320-13330.	3.3	44
16	Nucleic acid enzymes based on functionalized nucleosides. Current Opinion in Chemical Biology, 2019, 52, 93-101.	6.1	43
17	Ruthenium-initiated polymerization of lactide: a route to remarkable cellular uptake for photodynamic therapy of cancer. Chemical Science, 2020, 11, 2657-2663.	7.4	37
18	On the enzymatic incorporation of an imidazole nucleotide into DNA. Organic and Biomolecular Chemistry, 2017, 15, 4449-4455.	2.8	35

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19	Towards the enzymatic formation of artificial metal base pairs with a carboxy-imidazole-modified nucleotide. Journal of Inorganic Biochemistry, 2019, 191, 154-163.	3.5	31
20	Fluorinated Olefinic Peptide Nucleic Acid:Â Synthesis and Pairing Properties with Complementary DNA. Journal of Organic Chemistry, 2005, 70, 3205-3217.	3.2	29
21	Effect of a halogenide substituent on the stability and photophysical properties of lanthanide triple-stranded helicates with ditopic ligands derived from bis(benzimidazolyl)pyridineâ€Šâ€. Dalton Transactions RSC, 2000, , 2031-2043.	2.3	27
22	Synthesis and Incorporation into PNA of Fluorinated Olefinic PNA (F-OPA) Monomers. Organic Letters, 2003, 5, 1987-1990.	4.6	27
23	Stealth Fluorescence Labeling for Live Microscopy Imaging of mRNA Delivery. Journal of the American Chemical Society, 2021, 143, 5413-5424.	13.7	27
24	Protein-inspired modified DNAzymes: dramatic effects of shortening side-chain length of 8-imidazolyl modified deoxyadenosines in selecting RNaseA mimicking DNAzymes. Organic and Biomolecular Chemistry, 2011, 9, 2266.	2.8	26
25	Orthogonal Genetic Systems. ChemBioChem, 2020, 21, 1408-1411.	2.6	25
26	A divalent metal-dependent self-cleaving DNAzyme with a tyrosine side chain. Organic and Biomolecular Chemistry, 2011, 9, 6949.	2.8	23
27	Facile immobilization of DNA using an enzymatic his-tag mimic. Chemical Communications, 2017, 53, 13031-13034.	4.1	23
28	Diborane nitrogen/ammonia plasma chemistry investigated by infrared absorption spectroscopy. Thin Solid Films, 2000, 379, 37-44.	1.8	22
29	Polymerase incorporation of pyrene-nucleoside triphosphates. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 4428-4430.	2.2	21
30	Enzymatic Formation of an Artificial Base Pair Using a Modified Purine Nucleoside Triphosphate. ACS Chemical Biology, 2020, 15, 2872-2884.	3.4	21
31	Chemical Modifications for a Next Generation of Nucleic Acid Aptamers. ChemBioChem, 2022, 23, .	2.6	20
32	Applications of Ruthenium Complexes Covalently Linked to Nucleic Acid Derivatives. Molecules, 2018, 23, 1515.	3.8	19
33	The synthesis and application of a diazirine-modified uridine analogue for investigating RNAâ€“protein interactions. RSC Advances, 2014, 4, 48228-48235.	3.6	18
34	Probing the effect of minor groove interactions on the catalytic efficiency of DNAzymes 8â€“17 and 10â€“23. Molecular BioSystems, 2015, 11, 1454-1461.	2.9	17
35	A method for selecting modified DNAzymes without the use of modified DNA as a template in PCR. Chemical Communications, 2015, 51, 1360-1362.	4.1	17
36	Generation of long, fully modified, and serum-resistant oligonucleotides by rolling circle amplification. Organic and Biomolecular Chemistry, 2015, 13, 9820-9824.	2.8	15

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37	Enzymatic Synthesis of 7â€²,5â€²â€Bicycloâ€DNA Oligonucleotides. Chemistry - an Asian Journal, 2017, 12, 1347-1352.	3.5	15
38	On the Enzymatic Formation of Metal Base Pairs with Thiolated and pKaâ€Perturbed Nucleotides. ChemBioChem, 2019, 20, 3032-3040.	2.6	15
39	Towards the enzymatic synthesis of phosphorothioate containing LNA oligonucleotides. Bioorganic and Medicinal Chemistry Letters, 2021, 48, 128242.	2.2	15
40	Evaluation of 3â€²-phosphate as a transient protecting group for controlled enzymatic synthesis of DNA and XNA oligonucleotides. Communications Chemistry, 2022, 5, .	4.5	15
41	Self-Assembled Triple-Stranded Lanthanide Dimetallic Helicates with a Ditopic Ligand Derived from Bis(benzimidazole)pyridine and Featuring an (4-Isothiocyanatophenyl)ethynyl Substituent. Helvetica Chimica Acta, 2002, 85, 1915.	1.6	14
42	A rutheniumâ€“oligonucleotide bioconjugated photosensitizing aptamer for cancer cell specific photodynamic therapy. RSC Chemical Biology, 2022, 3, 85-95.	4.1	14
43	Synthesis and Biochemical Characterization of Tricyclothymidine Triphosphate (tcâ€TTP). ChemBioChem, 2014, 15, 1901-1904.	2.6	12
44	DNA Synthesis by Primer Exchange Reaction Cascades. ChemBioChem, 2018, 19, 422-424.	2.6	12
45	Shaping Rolling Circle Amplification Products into DNA Nanoparticles by Incorporation of Modified Nucleotides and Their Application to In Vitro and In Vivo Delivery of a Photosensitizer. Molecules, 2018, 23, 1833.	3.8	12
46	Compatibility of 5-ethynyl-2â€²F-ANA UTP with in vitro selection for the generation of base-modified, nuclease resistant aptamers. Organic and Biomolecular Chemistry, 2019, 17, 8083-8087.	2.8	12
47	Enzymatic construction of metal-mediated nucleic acid base pairs. Metallomics, 2021, 13, .	2.4	12
48	New synthetic route to ethynyl-dUTP: A means to avoid formation of acetyl and chloro vinyl base-modified triphosphates that could poison SELEX experiments. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 897-900.	2.2	11
49	Tetrahedral DNAzymes for enhanced intracellular gene-silencing activity. Chemical Communications, 2018, 54, 9410-9413.	4.1	10
50	Enzymatic Construction of Artificial Base Pairs: The Effect of Metal Shielding. ChemBioChem, 2020, 21, 3398-3409.	2.6	10
51	Expanding the Catalytic Repertoire of DNAzymes by Modified Nucleosides. Chimia, 2011, 65, 770-775.	0.6	7
52	Incorporation of a minimal nucleotide into DNA. Tetrahedron Letters, 2018, 59, 4241-4244.	1.4	7
53	Selfâ€Assembly of DNA and RNA Building Blocks Explored by Nitrogenâ€14 NMR Crystallography: Structure and Dynamics. ChemPhysChem, 2020, 21, 1044-1051.	2.1	7
54	Enzymatic synthesis of biphenyl-DNA oligonucleotides. Bioorganic and Medicinal Chemistry, 2020, 28, 115487.	3.0	5

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55	Towards polymerase-mediated synthesis of artificial RNAâ€“DNA metal base pairs. New Journal of Chemistry, 2022, 46, 4871-4876.	2.8	5
56	In vitro selection of a DNAzyme with three modified nucleotides. Nucleic Acids Symposium Series, 2008, 52, 73-74.	0.3	3
57	Rolling Circle Amplification with Chemically Modified Nucleoside Triphosphates. Current Protocols in Nucleic Acid Chemistry, 2016, 67, 7.26.1-7.26.15.	0.5	3
58	Enthalpy Probe Diagnostic Study of the Supersonic Induction Plasma Jet. Annals of the New York Academy of Sciences, 1999, 891, 377-381.	3.8	1
59	Fluorinated Peptide Nucleic Acid. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 1191-1194.	1.1	1
60	Cover Picture: A Highly Selective DNAzyme Sensor for Mercuric Ions (Angew. Chem. Int. Ed. 23/2008). Angewandte Chemie - International Edition, 2008, 47, 4239-4239.	13.8	1
61	Nucleoside Triphosphates - From Synthesis to Biochemical Characterization. Journal of Visualized Experiments, 2014, , .	0.3	1
62	Synthesis and Enzymatic Characterization of Sugar-Modified Nucleoside Triphosphate Analogs. Methods in Molecular Biology, 2019, 1973, 1-13.	0.9	0
63	Modified nucleoside triphosphates in rolling circle amplification. , 2014, , .		0
64	Synthesis and biochemical characterization of tricyclo-dTTP. , 2014, , .		0
65	The 7th Young Faculty Meeting â€“ A Motivated Generation of Group-Leaders in Switzerland Share their Results and their Experience. Chimia, 2014, 68, 573-574.	0.6	0