Elmar Weinhold

List of Publications by Year
in descending order

66 papers	3,105 citations	126907 33 h-index	161849 54 g-index
75 all docs	75 docs citations	75 times ranked	2643 citing authors

#	Article	IF	Citations
1	Structure of the N6-adenine DNA methyltransferase M.TaqI in complex with DNA and a cofactor analog. Nature Structural Biology, 2001, 8, 121-125.	9.7	212
2	Direct transfer of extended groups from synthetic cofactors by DNA methyltransferases. Nature Chemical Biology, 2006, 2, 31-32.	8.0	209
3	The lncRNA HOTAIR impacts on mesenchymal stem cells<i>via</i>triple helix formation. Nucleic Acids Research, 2016, 44, 10631-10643.	14.5	141
4	Enzymatic Siteâ€Specific Functionalization of Protein Methyltransferase Substrates with Alkynes for Click Labeling. Angewandte Chemie - International Edition, 2010, 49, 5170-5173.	13.8	120
5	Expanding the chemical scope of RNA:methyltransferases to site-specific alkynylation of RNA for click labeling. Nucleic Acids Research, 2011, 39, 1943-1952.	14.5	114
6	Differential binding of S -adenosylmethionine S -adenosylhomocysteine and Sinefungin to the adenine-specific DNA methyltransferase M. Taq I 1 1Edited by T. Richmond. Journal of Molecular Biology, 1997, 265, 56-67.	4.2	113
7	The Mechanism of DNA Cytosine-5 Methylation. Journal of Biological Chemistry, 2001, 276, 20924-20934.	3.4	110
8	Targeted Labeling of DNA by Methyltransferase-Directed Transfer of Activated Groups (mTAG). Journal of the American Chemical Society, 2007, 129, 2758-2759.	13.7	110
9	A new tool for biotechnology: AdoMet-dependent methyltransferases. Trends in Biotechnology, 2007, 25, 99-104.	9.3	106
10	Programmable sequence-specific click-labeling of RNA using archaeal box C/D RNP methyltransferases. Nucleic Acids Research, 2012, 40, 6765-6773.	14.5	90
11	Lightâ€Enhancing Plasmonicâ€Nanopore Biosensor for Superior Singleâ€Molecule Detection. Advanced Materials, 2017, 29, 1605442.	21.0	90
12	A Seleniumâ€Based Click AdoMet Analogue for Versatile Substrate Labeling with Wildâ€Type Protein Methyltransferases. ChemBioChem, 2012, 13, 1167-1173.	2.6	89
13	Synthesis of S-adenosyl-L-methionine analogs and their use for sequence-specific transalkylation of DNA by methyltransferases. Nature Protocols, 2006, 1, 1879-1886.	12.0	86
14	Single-Molecule DNA Methylation Quantification Using Electro-optical Sensing in Solid-State Nanopores. ACS Nano, 2016, 10, 8861-8870.	14.6	72
15	A vitamin-C-derived DNA modification catalysed by an algal TET homologue. Nature, 2019, 569, 581-585.	27.8	72
16	Polycyclic Aromatic DNA-Base Surrogates: High-Affinity Binding to an Adenine-Specific Base-Flipping DNA Methyltransferase. Angewandte Chemie - International Edition, 2003, 42, 3958-3960.	13.8	69
17	Sequence-specific Methyltransferase-Induced Labeling of DNA (SMILing DNA). ChemBioChem, 2004, 5, 265-269.	2.6	68
18	Functional Roles of the Conserved Threonine 250 in the Target Recognition Domain of HhaI DNA Methyltransferase. Journal of Biological Chemistry, 2000, 275, 38722-38730.	3.4	66

#	Article	IF	Citations
19	Design of a New Fluorescent Cofactor for DNA Methyltransferases and Sequence-Specific Labeling of DNA. Journal of the American Chemical Society, 2003, 125, 3486-3492.	13.7	66
20	Synthesis of <i>S</i>â€Adenosylâ€<scp>L</scp>â€homocysteine Capture Compounds for Selective Photoinduced Isolation of Methyltransferases. ChemBioChem, 2010, 11, 256-265.	2.6	66
21	Bacteriophage strain typing by rapid single molecule analysis. Nucleic Acids Research, 2015, 43, e117-e117.	14.5	61
22	Ionic Current-Based Mapping of Short Sequence Motifs in Single DNA Molecules Using Solid-State Nanopores. Nano Letters, 2017, 17, 5199-5205.	9.1	56
23	Functional Roles of the Conserved Aromatic Amino Acid Residues at Position 108 (Motif IV) and Position 196 (Motif VIII) in Base Flipping and Catalysis by the N6-Adenine DNA Methyltransferase from Thermus aquaticus. Biochemistry, 1999, 38, 1426-1434.	2.5	53
24	2-Aminopurine Flipped into the Active Site of the Adenine-Specific DNA Methyltransferase M.TaqI:Â Crystal Structures and Time-Resolved Fluorescence. Journal of the American Chemical Society, 2007, 129, 6240-6248.	13.7	49
25	Super-Resolution Genome Mapping in Silicon Nanochannels. ACS Nano, 2016, 10, 9823-9830.	14.6	49
26	Long-read single-molecule maps of the functional methylome. Genome Research, 2019, 29, 646-656.	5.5	48
27	Coupling of a Nucleoside with DNA by a Methyltransferase. Angewandte Chemie - International Edition, 1998, 37, 2888-2891.	13.8	44
28	The stability of pseudopeptides bearing sulfoximines as chiral backbone modifying element towards proteinase K. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 3207-3211.	2.2	43
29	Toward Single-Molecule Optical Mapping of the Epigenome. ACS Nano, 2014, 8, 14-26.	14.6	42
30	Enzymatically Incorporated Genomic Tags for Optical Mapping of DNAâ€Binding Proteins. Angewandte Chemie - International Edition, 2012, 51, 3578-3581.	13.8	40
31	Selective recognition of pyrimidineâ€"pyrimidine DNA mismatches by distance-constrained macrocyclic bis-intercalators. Nucleic Acids Research, 2008, 36, 5000-5012.	14.5	38
32	Efficient Synthesis ofS-Adenosyl-L-Homocysteine Natural Product Analogues and Their Use to Elucidate the Structural Determinant for Cofactor Binding of the DNA Methyltransferase MÂ·HhaI. European Journal of Organic Chemistry, 2000, 2000, 549-555.	2.4	37
33	Serum insensitive, intranuclear protein delivery by the multipurpose cationic lipid Saint-2. Journal of Controlled Release, 2007, 123, 228-238.	9.9	35
34	DNA Mismatch-Specific Base Flipping by a Bisacridine Macrocycle. ChemBioChem, 2003, 4, 1326-1331.	2.6	32
35	Identification of the Binding Site for the Extrahelical Target Base in N 6-Adenine DNA Methyltransferases by Photo-cross-linking with Duplex Oligodeoxyribonucleotides Containing 5-Iodouracil at the Target Position. Journal of Biological Chemistry, 1999, 274, 15066-15072.	3.4	27
36	Sequence-specific Methyltransferase-Induced Labelling (SMILing) of plasmid DNA for studying cell transfection. Bioorganic and Medicinal Chemistry, 2008, 16, 40-48.	3.0	27

#	Article	IF	Citations
37	Quantitative Labeling of Long Plasmid DNA with Nanometer Precision. ChemBioChem, 2007, 8, 1516-1519.	2.6	26
38	Sequence-specific covalent labelling of DNA. Biochemical Society Transactions, 2011, 39, 623-628.	3.4	23
39	Electrical DNA Sequence Mapping Using Oligodeoxynucleotide Labels and Nanopores. ACS Nano, 2021, 15, 2679-2685.	14.6	22
40	Enzyme-Directed Positioning of Nanoparticles on Large DNA Templates. Bioconjugate Chemistry, 2008, 19, 476-479.	3.6	21
41	Persistent downregulation of the pancarcinomaâ€associated epithelial cell adhesion molecule <i>via</i> active intranuclear methylation. International Journal of Cancer, 2008, 123, 484-489.	5.1	19
42	Sequence-specific Labeling of Nucleic Acids and Proteins with Methyltransferases and Cofactor Analogues. Journal of Visualized Experiments, 2014, , e52014.	0.3	17
43	Chemoenzymatic labeling of DNA methylation patterns for single-molecule epigenetic mapping. Nucleic Acids Research, 2022, 50, e92-e92.	14.5	16
44	Molecular Scale Architecture: Engineered Three- And Four-Way Junctions. Bioconjugate Chemistry, 2008, 19, 470-475.	3.6	14
45	The N6-Position of Adenine Is a Blind Spot for TAL-Effectors That Enables Effective Binding of Methylated and Fluorophore-Labeled DNA. ACS Chemical Biology, 2017, 12, 1719-1725.	3.4	14
46	A 7-Deazaadenosylaziridine Cofactor for Sequence-Specific Labeling of DNA by the DNA Cytosine-C5 Methyltransferase M.HhaI. Molecules, 2015, 20, 20805-20822.	3.8	13
47	Profiling of Methyltransferases and Other S-adenosyl-_L-homocysteine-binding Proteins by Capture Compound Mass Spectrometry (CCMS). Journal of Visualized Experiments, 2010, , .	0.3	11
48	Sequence-Specific DNA Labeling Using Methyltransferases. , 2004, 283, 145-162.		10
49	Evaluation of a Pretargeting Strategy for Molecular Imaging of the Prostate Stem Cell Antigen with a Single Chain Antibody. Scientific Reports, 2018, 8, 3755.	3.3	9
50	Lysine Ethylation by Histone Lysine Methyltransferases. ChemBioChem, 2020, 21, 392-400.	2.6	9
51	Label as you fold: methyltransferase-assisted functionalization of DNA nanostructures. Nanoscale, 2020, 12, 20287-20291.	5.6	9
52	6â€Thioguanine in DNA as CDâ€spectroscopic probe to study local structural changes upon protein binding. Chirality, 2008, 20, 978-984.	2.6	8
53	Functional Reassembly of Split Enzymes Onâ€Site: A Novel Approach for Highly Sequenceâ€Specific Targeted DNA Methylation. ChemBioChem, 2008, 9, 351-353.	2.6	7
54	Quantitative Formation of Monomeric Gâ€Quadruplex DNA from Multimeric Structures of câ€Myc Promoter Sequence. ChemBioChem, 2020, 21, 2445-2448.	2.6	7

#	Article	IF	Citations
55	Profiling of Methyltransferases and Other S-Adenosyl-l-Homocysteine-Binding Proteins by Capture Compound Mass Spectrometry. Methods in Molecular Biology, 2012, 803, 97-125.	0.9	7
56	DNA modification and visualization on an origami-based enzyme nano-factory. Nanoscale, 2021, 13, 2465-2471.	5.6	6
57	S-Adenosyl-L-Methionine and Related Compounds. , 0, , 223-247.		4
58	Reversibly locked thionucleobase pairs in DNA to study base flipping enzymes. Beilstein Journal of Organic Chemistry, 2014, 10, 2293-2306.	2.2	4
59	Higher Binding Affinity of Duplex Oligodeoxynucleotides Containing 1,2-Dideoxy-D-Ribose to The N6-Adenine DNA Methyltransferase MÂ·TAQI Supports a Base Flipping Mechanism. Nucleosides & Nucleotides, 1999, 18, 1355-1358.	0.5	3
60	Organische Chemie 2002. Nachrichten Aus Der Chemie, 2003, 51, 286-315.	0.0	3
61	Fine Tuning Antibody Conjugation Methods using SNAP-tag Technology. Anti-Cancer Agents in Medicinal Chemistry, 2017, 17, 1434-1440.	1.7	3
62	Convenient Synthesis of Oligodeoxynucleotides Containing 2â€²-Deoxy-6-thioinosine. Nucleosides, Nucleotides and Nucleic Acids, 2003, 22, 635-639.	1.1	2
63	Organische Chemie 2003. Nachrichten Aus Der Chemie, 2004, 52, 267-291.	0.0	0
64	Organische Chemie 2005. Nachrichten Aus Der Chemie, 2006, 54, 241-264.	0.0	0
65	RÃ¼cktitelbild: Enzymatically Incorporated Genomic Tags for Optical Mapping of DNA-Binding Proteins (Angew. Chem. 15/2012). Angewandte Chemie, 2012, 124, 3786-3786.	2.0	0
66	Back Cover: Enzymatically Incorporated Genomic Tags for Optical Mapping of DNA-Binding Proteins (Angew. Chem. Int. Ed. 15/2012). Angewandte Chemie - International Edition, 2012, 51, 3724-3724.	13.8	0