Bernd Clement

List of Publications by Year
in descending order

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92 papers	2,754 citations	186265 28 h-index	197818 49 g-index
100 all docs	100 docs citations	100 times ranked	2349 citing authors

#	Article	IF	Citations
1	Lessons Learned from Marketed and Investigational Prodrugs. Journal of Medicinal Chemistry, 2004, 47, 2393-2404.	6.4	339
2	Identification of the Missing Component in the Mitochondrial Benzamidoxime Prodrug-converting System as a Novel Molybdenum Enzyme. Journal of Biological Chemistry, 2006, 281, 34796-34802.	3.4	152
3	REDUCTION OFN-HYDROXYLATED COMPOUNDS: AMIDOXIMES (N-HYDROXYAMIDINES) AS PRO-DRUGS OF AMIDINES. Drug Metabolism Reviews, 2002, 34, 565-579.	3.6	113
4	The Fourth Molybdenum Containing Enzyme mARC: Cloning and Involvement in the Activation of N-Hydroxylated Prodrugs. Journal of Medicinal Chemistry, 2008, 51, 8173-8177.	6.4	103
5	Biochemical and Spectroscopic Characterization of the Human Mitochondrial Amidoxime Reducing Components hmARC-1 and hmARC-2 Suggests the Existence of a New Molybdenum Enzyme Family in Eukaryotes. Journal of Biological Chemistry, 2010, 285, 37847-37859.	3.4	99
6	Synthesis and Biological Evaluation of 11-Substituted 6-Aminobenzo[c]phenanthridine Derivatives, a New Class of Antitumor Agents. Journal of Medicinal Chemistry, 2005, 48, 2772-2777.	6.4	97
7	The Pharmacokinetics of Fumaric Acid Esters Reveal Their In Vivo Effects. Trends in Pharmacological Sciences, 2018, 39, 1-12.	8.7	85
8	Characterization of in Vitro Biotransformation of New, Orally Active, Direct Thrombin Inhibitor Ximelagatran, an Amidoxime and Ester Prodrug. Drug Metabolism and Disposition, 2003, 31, 645-651.	3.3	82
9	Reduction of NÏ‰-hydroxy-L-arginine by the mitochondrial amidoxime reducing component (mARC). Biochemical Journal, 2011, 433, 383-391.	3.7	80
10	Development of Novel Potent Orally Bioavailable Oseltamivir Derivatives Active against Resistant Influenza A. Journal of Medicinal Chemistry, 2014, 57, 759-769.	6.4	77
11	Cytochrome P450 dependent N-hydroxylation of a guanidine (debrisoquine), microsomal catalysed reduction and further oxidation of the N-hydroxy-guanidine metabolite to the urea derivative. Biochemical Pharmacology, 1993, 46, 2249-2267.	4.4	66
12	The fourth mammalian molybdenum enzyme mARC: current state of research. Drug Metabolism Reviews, 2011, 43, 524-539.	3.6	64
13	The mammalian molybdenum enzymes of mARC. Journal of Biological Inorganic Chemistry, 2015, 20, 265-275.	2.6	63
14	A Two-Step Synthesis of Cytostatically Active Benzo[c]phenanthridine Derivatives. Angewandte Chemie - International Edition, 2005, 44, 635-638.	13.8	59
15	The Mitochondrial Amidoxime Reducing Component (mARC) Is Involved in Detoxification of N-Hydroxylated Base Analogues. Chemical Research in Toxicology, 2012, 25, 2443-2450.	3.3	52
16	Reduction ofN-Hydroxy-sulfonamides, IncludingN-Hydroxy-valdecoxib, by the Molybdenum-Containing Enzyme mARC. Drug Metabolism and Disposition, 2010, 38, 1917-1921.	3.3	47
17	Isolation and Characterization of the Protein Components of the Liver Microsomal O2-insensitive NADH-Benzamidoxime Reductase. Journal of Biological Chemistry, 1997, 272, 19615-19620.	3.4	46
18	The Involvement of Mitochondrial Amidoxime Reducing Components 1 and 2 and Mitochondrial Cytochrome b5 in N-Reductive Metabolism in Human Cells. Journal of Biological Chemistry, 2013, 288, 20228-20237.	3.4	44

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19	Microsomal Catalyzed N-Hydroxylation of Guanabenz and Reduction of the N-Hydroxylated Metabolite:â€‰ Characterization of the Two Reactions and Genotoxic Potential of Guanoxabenz1. Chemical Research in Toxicology, 1996, 9, 682-688.	3.3	43
20	Crystal structure of human mARC1 reveals its exceptional position among eukaryotic molybdenum enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11958-11963.	7.1	41
21	HEPATIC, EXTRAHEPATIC, MICROSOMAL, AND MITOCHONDRIAL ACTIVATION OF THE N-HYDROXYLATED PRODRUGS BENZAMIDOXIME, GUANOXABENZ, AND RO 48-3656 ([[1-[(2S)-2-[[4-[(HYDROXYAMINO)IMINOMETHYL]BENZOYL]AMINO]-1-OXOPROPYL]-4-PIPERIDINYL]OXY]-ACETIC)	3.3	40
22	Reduction of Amidoxime Derivatives to Pentamidinein vivo.. Archiv Der Pharmazie, 1992, 325, 61-62.	4.1	37
23	Hepatic microsomal N-hydroxylation of adenine to 6-N-hydroxylaminopurine. Biochemical Pharmacology, 1990, 39, 925-933.	4.4	35
24	Modulating the NO generating system from a medicinal chemistry perspective: Current trends and therapeutic options in cardiovascular disease. , 2010, 126, 279-300.		33
25	Activation of the anti-cancer agent upamostat by the mARC enzyme system. Xenobiotica, 2013, 43, 780-784.	1.1	32
26	Structureâ€“activity relationship of novel and known inhibitors of human dimethylarginine dimethylaminohydrolase-1: Alkenyl-amidines as new leads. Bioorganic and Medicinal Chemistry, 2008, 16, 10205-10209.	3.0	30
27	Reduction of Sulfamethoxazole Hydroxylamine (SMX-HA) by the Mitochondrial Amidoxime Reducing Component (mARC). Chemical Research in Toxicology, 2014, 27, 1687-1695.	3.3	29
28	Enzymatic Reduction of Benzamidoxime to Benzamidoxine. Archiv Der Pharmazie, 1988, 321, 955-956.	4.1	28
29	Highly Potent and Selective Substrate Analogue Factor Xa Inhibitors ContainingD-Homophenylalanine Analogues as P3 Residue: Part 2. ChemMedChem, 2007, 2, 1043-1053.	3.2	28
30	Diacetyldiamidoximeester of Pentamidine, a Prodrug for Treatment of Protozoal Diseases: Synthesis, inâ€…vitro and inâ€…vivo Biotransformation. ChemMedChem, 2006, 1, 1260-1267.	3.2	26
31	The Mitochondrial Amidoxime Reducing Component (mARC): Involvement in Metabolic Reduction of Nâ€Oxides, Oximes and Nâ€Hydroxyamidinohydrazones. ChemMedChem, 2014, 9, 2381-2387.	3.2	25
32	Detoxification of Trimethylamine N-Oxide by the Mitochondrial Amidoxime Reducing Component mARC. Chemical Research in Toxicology, 2018, 31, 447-453.	3.3	23
33	New Prodrugs of the Antiprotozoal Drug Pentamidine. ChemMedChem, 2011, 6, 2233-2242.	3.2	21
34	The N-Reductive System Composed of Mitochondrial Amidoxime Reducing Component (mARC), Cytochrome b5 (CYB5B) and Cytochrome b5 Reductase (CYB5R) Is Regulated by Fasting and High Fat Diet in Mice. PLoS ONE, 2014, 9, e105371.	2.5	21
35	The reduction of 6-N-hydroxylaminopurine to adenine by xanthine oxidase. Biochemical Pharmacology, 1992, 44, 1501-1509.	4.4	20
36	The Pivotal Role of the Mitochondrial Amidoxime Reducing Component 2 in Protecting Human Cells against Apoptotic Effects of the Base Analog N6-Hydroxylaminopurine. Journal of Biological Chemistry, 2015, 290, 10126-10135.	3.4	20

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37	Zanamivir Amidoxime- and N-Hydroxyguanidine-Based Prodrug Approaches to Tackle Poor Oral Bioavailability. Journal of Pharmaceutical Sciences, 2015, 104, 3208-3219.	3.3	19
38	Oxygen-insensitive enzymatic reduction of oximes to imines. Biochemical Pharmacology, 2006, 71, 354-365.	4.4	18
39	Incorporation of neutral C-terminal residues in 3-amidinophenylalanine-derived matriptase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 1960-1965.	2.2	18
40	Phase 2 Metabolites of N-Hydroxylated Amidines (Amidoximes):Â Synthesis, in Vitro Formation by Pig Hepatocytes, and Mutagenicity Testing. Chemical Research in Toxicology, 2001, 14, 319-326.	3.3	17
41	Analysis of highly potent amidine containing inhibitors of serine proteases and their N-hydroxylated prodrugs (amidoximes). Journal of Enzyme Inhibition and Medicinal Chemistry, 2011, 26, 115-122.	5.2	17
42	Synthesis and Characterization of paraâ€Substituted N,Nâ€²â€²Dihydroxybenzamidines and Their Derivatives as Model Compounds for a Class of Prodrugs. European Journal of Organic Chemistry, 2014, 2014, 1961-1975.	2.4	16
43	The Involvement of the Mitochondrial Amidoxime Reducing Component (mARC) in the Reductive Metabolism of Hydroxamic Acids. Drug Metabolism and Disposition, 2018, 46, 1396-1402.	3.3	16
44	Reduction of Amphetamine Hydroxylamine and Other Aliphatic Hydroxylamines by Benzamidoxime Reductase and Human Liver Microsomes. Chemical Research in Toxicology, 2000, 13, 1037-1045.	3.3	15
45	Prodrug design for the potent cardiovascular agent NÏ‰-hydroxy-l-arginine (NOHA): Synthetic approaches and physicochemical characterization. Organic and Biomolecular Chemistry, 2011, 9, 5249.	2.8	15
46	Mitochondrial amidoxime-reducing component 2 (MARC2) has a significant role in N-reductive activity and energy metabolism. Journal of Biological Chemistry, 2019, 294, 17593-17602.	3.4	15
47	Biotransformations of Benzamidine and Benzamidoximein vivo. Archiv Der Pharmazie, 1993, 326, 807-812.	4.1	14
48	N,Nâ€²-Dihydroxyamidines: A New Prodrug Principle To Improve the Oral Bioavailability of Amidines. Journal of Medicinal Chemistry, 2007, 50, 6730-6734.	6.4	14
49	Functional Characterization of Protein Variants Encoded by Nonsynonymous Single Nucleotide Polymorphisms inMARC1andMARC2in Healthy Caucasians. Drug Metabolism and Disposition, 2014, 42, 718-725.	3.3	14
50	Mechanism of the microsomal N-hydroxylation of para-substituted benzamidines. Biochemical Pharmacology, 1988, 37, 4747-4752.	4.4	13
51	Reduction of sulfamethoxazole and dapsone hydroxylamines by a microsomal enzyme system purified from pig liver and pig and human liver microsomes. Life Sciences, 2005, 77, 205-219.	4.3	13
52	NÎ´-Methylated l-arginine derivatives and their effects on the nitric oxide generating system. Bioorganic and Medicinal Chemistry, 2008, 16, 2305-2312.	3.0	13
53	Synthesis and evaluation of pyrido[1,2-a]pyrimidines as inhibitors of nitric oxide synthases. European Journal of Medicinal Chemistry, 2009, 44, 2877-2887.	5.5	13
54	Synthesis and biological evaluation of l-valine-amidoximeesters as double prodrugs of amidines. Bioorganic and Medicinal Chemistry, 2011, 19, 1907-1914.	3.0	13

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55	A Dual Topoisomerase Inhibitor of Intense Proâ€Apoptotic and Antileukemic Nature for Cancer Treatment. ChemMedChem, 2017, 12, 347-352.	3.2	13
56	The Peptidylglycine Î±â€Amidating Monooxygenase (PAM): A Novel Prodrug Strategy for Amidoximes and Nâ€Hydroxyguanidines?. ChemMedChem, 2009, 4, 1595-1599.	3.2	12
57	Electrochemical and mARCâ€Catalyzed Enzymatic Reduction of paraâ€Substituted Benzamidoximes: Consequences for the Prodrug Concept â€œAmidoximes instead of Amidinesâ€. ChemMedChem, 2015, 10, 360-367.	3.2	12
58	Human mitochondrial amidoxime reducing component (mARC): An electrochemical method for identifying new substrates and inhibitors. Electrochemistry Communications, 2017, 84, 90-93.	4.7	12
59	The Aza-Analogous Benzo[c]phenanthridine P8-D6 Acts as a Dual Topoisomerase I and II Poison, thus Exhibiting Potent Genotoxic Properties. Molecules, 2020, 25, 1524.	3.8	12
60	Drug Metabolism by the Mitochondrial Amidoxime Reducing Component (mARC): Rapid Assay and Identification of New Substrates. Journal of Medicinal Chemistry, 2020, 63, 6538-6546.	6.4	11
61	METABOLISM OF N-HYDROXYGUANIDINES (N-HYDROXYDEBRISOQUINE) IN HUMAN AND PORCINE HEPATOCYTES: REDUCTION AND FORMATION OF GLUCURONIDES. Drug Metabolism and Disposition, 2005, 33, 1532-1537.	3.3	10
62	Defining the Role of the NADH-Cytochrome-b5 Reductase 3 in the Mitochondrial Amidoxime Reducing Component Enzyme System. Drug Metabolism and Disposition, 2016, 44, 1617-1621.	3.3	10
63	Letter to the editor: The clinically relevant MTARC1 p.Ala165Thr variant impacts neither the fold nor active site architecture of the human mARC1 protein. Hepatology Communications, 2022, 6, 3277-3278.	4.3	10
64	Reduction of NÏ‰-hydroxy-l-arginine to l-arginine by pig liver microsomes, mitochondria, and human liver microsomes. Biochemical and Biophysical Research Communications, 2006, 349, 869-873.	2.1	9
65	Dimethylarginineâ€Dimethylaminohydrolaseâ€2 (DDAHâ€2) Does Not Metabolize Methylarginines. ChemBioChem, 2012, 13, 2599-2604.	2.6	9
66	Designing modulators of dimethylarginine dimethylaminohydrolase (DDAH): A focus on selectivity over arginase. Journal of Enzyme Inhibition and Medicinal Chemistry, 2012, 27, 24-28.	5.2	9
67	Platform for determining the inhibition profile of neuraminidase inhibitors in an influenza virus N1 background. Journal of Virological Methods, 2016, 237, 192-199.	2.1	7
68	Oneâ€Step Synthetic Access to Isosteric and Potent Anticancer Nitrogen Heterocycles with the Benzo[c]phenanthridine Scaffold. Chemistry - A European Journal, 2016, 22, 8301-8308.	3.3	7
69	Synthesis and physicochemical characterization of novel 6-aminopyrido[3,4-c][1,9]phenanthrolines as aza-analogs of benzo[c]phenanthridines. Tetrahedron, 2012, 68, 9105-9112.	1.9	6
70	11â€Substituted Benzo[c]phenanthridines: New Structures and Insight into Their Mode of Antiproliferative Action. ChemMedChem, 2016, 11, 2155-2170.	3.2	6
71	Design, Synthesis, and Bioactivation of O-Glycosylated Prodrugs of the Natural Nitric Oxide Precursor N^{Ï‰}-Hydroxy-<scp>l</scp>-arginine. Journal of Medicinal Chemistry, 2016, 59, 8030-8041.	6.4	6
72	High Antitumor Activity of the Dual Topoisomerase Inhibitor P8-D6 in Breast Cancer. Cancers, 2022, 14, 2.	3.7	6

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73	Inhibitory Effects on Cytochrome P450 Enzymes of Pentamidine and Its Amidoxime Proâ€Drug. Basic and Clinical Pharmacology and Toxicology, 2008, 103, 61-65.	2.5	5
74	Efficient Synthesis of Optically Pure NÏ‰-Alkylated l-Arginines. Synthesis, 2008, 2008, 2391-2397.	2.3	5
75	Triggering the Directional Selectivity of a Ringâ€Closure Reaction Leads to Pyridoazacarbazoles with Anticancer Properties. Chemistry - A European Journal, 2015, 21, 6668-6672.	3.3	5
76	Enzyme Electrode Biosensors for N-Hydroxylated Prodrugs Incorporating the Mitochondrial Amidoxime Reducing Component. Analytical Chemistry, 2022, 94, 9208-9215.	6.5	5
77	T4 lysozyme-facilitated crystallization of the human molybdenum cofactor-dependent enzyme mARC. Acta Crystallographica Section F, Structural Biology Communications, 2018, 74, 337-344.	0.8	4
78	A Novel Prodrug of a nNOS Inhibitor with Improved Pharmacokinetic Potential. ChemMedChem, 2020, 15, 2157-2163.	3.2	4
79	¹H, ¹³C and ¹⁵N NMR spectral analysis of substituted 1,2,3,4â€tetrahydroâ€pyrido[1,2â€a]pyrimidines. Magnetic Resonance in Chemistry, 2013, 51, 714-721.	1.9	3
80	Synthesis, Characterization and NO Synthase Inhibition Testing of 2â€Arylâ€5â€aroylâ€3,4,5,6â€tetrahydropyrimidinium Chlorides. Journal of Heterocyclic Chemistry, 2015, 52, 24-39.	2.6	3
81	Discovery of N-(4-Aminobutyl)-Nâ€²-(2-methoxyethyl)guanidine as the First Selective, Nonamino Acid, Catalytic Site Inhibitor of Human Dimethylarginine Dimethylaminohydrolase-1 (hDDAH-1). Journal of Medicinal Chemistry, 2020, 63, 425-432.	6.4	3
82	Newly developed dual topoisomerase inhibitor P8-D6 is highly active in ovarian cancer. Therapeutic Advances in Medical Oncology, 2021, 13, 175883592110598.	3.2	3
83	Inhibitory Effects of Cytostatically Active 6-Aminobenzo[c]phenanthridines on Cytochrome P450 Enzymes in Human Hepatic Microsomes. Basic and Clinical Pharmacology and Toxicology, 2006, 99, 37-43.	2.5	2
84	Synthesis of p-amino-N,Nâ€²-dihydroxybenzamidine using a TBDMS protecting group protocol. Tetrahedron Letters, 2014, 55, 3322-3324.	1.4	2
85	In vivo SPECT imaging of [123I]-labeled pentamidine pro-drugs for the treatment of human African trypanosomiasis, pharmacokinetics, and bioavailability studies in rats. International Journal of Pharmaceutics, 2014, 477, 167-175.	5.2	2
86	Biotransformation Reactions and their Enzymes. , 2015, , 561-584.		2
87	Arylazoamidoximes and Related Compounds as NOâ€modulators. Archiv Der Pharmazie, 2010, 343, 9-16.	4.1	1
88	Synthesis of Pyrido[3,4-c][1,9]phenanthroline - A Five-Step Procedure to a Novel N-Containing Ring Skeleton. Synthesis, 2013, 45, 893-895.	2.3	1
89	An Efficient Synthesis of Optically Pure N Î´-Monomethylated l-Arginine and l-Ornithine. Synthesis, 2016, 48, 723-729.	2.3	1
90	The Novel Dual Topoisomerase Inhibitor P8-D6 Shows Anti-myeloma Activity In Vitro and In Vivo. Molecular Cancer Therapeutics, 2022, 21, 70-78.	4.1	1

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91	A Two-Step Synthesis of Cytostatically Active Benzo[c]phenanthridine Derivatives.. ChemInform, 2005, 36, no.	0.0	0
92	Frontispiece: Triggering the Directional Selectivity of a Ring-Closure Reaction Leads to Pyridoazacarbazoles with Anticancer Properties. Chemistry - A European Journal, 2015, 21, n/a-n/a.	3.3	0