R Luise Krauth-Siegel

List of Publications by Year
in descending order

44 papers	2,142 citations	201674 27 h-index	243625 44 g-index
48 all docs	48 docs citations	48 times ranked	2091 citing authors

#	Article	IF	Citations
1	Redox control in trypanosomatids, parasitic protozoa with trypanothione-based thiol metabolism. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1236-1248.	2.4	346
2	Novel Antitrypanosomal Agents Based on Palladium Nitrofurylthiosemicarbazone Complexes:Â DNA and Redox Metabolism as Potential Therapeutic Targetsâ€. Journal of Medicinal Chemistry, 2006, 49, 3322-3331.	6.4	157
3	Trypanothione-dependent Synthesis of Deoxyribonucleotides by Trypanosoma brucei Ribonucleotide Reductase. Journal of Biological Chemistry, 2001, 276, 10602-10606.	3.4	113
4	Thiol redox biology of trypanosomatids and potential targets for chemotherapy. Molecular and Biochemical Parasitology, 2016, 206, 67-74.	1.1	104
5	Low-Molecular-Mass Antioxidants in Parasites. Antioxidants and Redox Signaling, 2012, 17, 583-607.	5.4	97
6	Substrate Specificity, Localization, and Essential Role of the Glutathione Peroxidase-type Tryparedoxin Peroxidases in Trypanosoma brucei. Journal of Biological Chemistry, 2005, 280, 14385-14394.	3.4	85
7	The Dithiol Glutaredoxins of African Trypanosomes Have Distinct Roles and Are Closely Linked to the Unique Trypanothione Metabolism. Journal of Biological Chemistry, 2010, 285, 35224-35237.	3.4	78
8	A Second Class of Peroxidases Linked to the Trypanothione Metabolism. Journal of Biological Chemistry, 2003, 278, 6809-6815.	3.4	77
9	Depletion of the thioredoxin homologue tryparedoxin impairs antioxidative defence in African trypanosomes. Biochemical Journal, 2007, 402, 43-49.	3.7	77
10	Tryparedoxin peroxidase-deficiency commits trypanosomes to ferroptosis-type cell death. ELife, 2018, 7, .	6.0	63
11	Inhibitors ofTrypanosoma cruziTrypanothione Reductase Revealed by Virtual Screening and Parallel Synthesis. Journal of Medicinal Chemistry, 2005, 48, 4793-4802.	6.4	61
12	Monothiol Glutaredoxin-1 Is an Essential Iron-Sulfur Protein in the Mitochondrion of African Trypanosomes. Journal of Biological Chemistry, 2008, 283, 27785-27798.	3.4	60
13	Glutathione Reductase Turned into Trypanothione Reductase:Â Structural Analysis of an Engineered Change in Substrate Specificityâ€,â€¡. Biochemistry, 1997, 36, 6437-6447.	2.5	57
14	Trypanothione Reductase: A Target Protein for a Combined In Vitro and In Silico Screening Approach. PLoS Neglected Tropical Diseases, 2015, 9, e0003773.	3.0	51
15	Development of Novel Peptide-Based Michael Acceptors Targeting Rhodesain and Falcipain-2 for the Treatment of Neglected Tropical Diseases (NTDs). Journal of Medicinal Chemistry, 2017, 60, 6911-6923.	6.4	46
16	Functional and Physicochemical Characterization of the Thioredoxin System in Trypanosoma brucei. Journal of Biological Chemistry, 2003, 278, 46329-46336.	3.4	45
17	Dipeptidyl Nitroalkenes as Potent Reversible Inhibitors of Cysteine Proteases Rhodesain and Cruzain. ACS Medicinal Chemistry Letters, 2016, 7, 1073-1076.	2.8	42
18	Binding to Large Enzyme Pockets: Smallâ€Molecule Inhibitors of Trypanothione Reductase. ChemMedChem, 2014, 9, 1880-1891.	3.2	40

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19	Mono- and Dithiol Glutaredoxins in the Trypanothione-Based Redox Metabolism of Pathogenic Trypanosomes. Antioxidants and Redox Signaling, 2013, 19, 708-722.	5.4	38
20	Ironâ€“Sulfur Cluster Binding by Mitochondrial Monothiol Glutaredoxin-1 ofTrypanosoma brucei: Molecular Basis of Ironâ€“Sulfur Cluster Coordination and Relevance for Parasite Infectivity. Antioxidants and Redox Signaling, 2013, 19, 665-682.	5.4	37
21	Preparative enzymatic synthesis of trypanothione and trypanothione analogues. International Journal for Parasitology, 2009, 39, 1059-1062.	3.1	34
22	Lipoamide dehydrogenase is essential for both bloodstream and procyclic Trypanosoma brucei. Molecular Microbiology, 2011, 81, 623-639.	2.5	34
23	High Throughput Screening against the Peroxidase Cascade of African Trypanosomes Identifies Antiparasitic Compounds That Inactivate Tryparedoxin. Journal of Biological Chemistry, 2012, 287, 8792-8802.	3.4	32
24	Structural Basis for a Distinct Catalytic Mechanism in Trypanosoma brucei Tryparedoxin Peroxidase. Journal of Biological Chemistry, 2008, 283, 30401-30411.	3.4	29
25	A tryparedoxin-dependent peroxidase protects African trypanosomes from membrane damage. Free Radical Biology and Medicine, 2011, 51, 856-868.	2.9	29
26	Trypanocidal Activity of Quinoxaline 1,4 Di-N-oxide Derivatives as Trypanothione Reductase Inhibitors. Molecules, 2017, 22, 220.	3.8	29
27	Silencing of the thioredoxin gene in Trypanosoma brucei brucei. Molecular and Biochemical Parasitology, 2002, 125, 207-210.	1.1	28
28	A glutaredoxin in the mitochondrial intermembrane space has stage-specific functions in the thermo-tolerance and proliferation of African trypanosomes. Redox Biology, 2018, 15, 532-547.	9.0	23
29	Dissecting the Catalytic Mechanism of Trypanosoma brucei Trypanothione Synthetase by Kinetic Analysis and Computational Modeling. Journal of Biological Chemistry, 2013, 288, 23751-23764.	3.4	22
30	Glutaredoxin-deficiency confers bloodstream Trypanosoma brucei with improved thermotolerance. Molecular and Biochemical Parasitology, 2015, 204, 93-105.	1.1	21
31	Inhibitorâ€Induced Dimerization of an Essential Oxidoreductase from African Trypanosomes. Angewandte Chemie - International Edition, 2019, 58, 3640-3644.	13.8	21
32	Cytosolic Peroxidases Protect the Lysosome of Bloodstream African Trypanosomes from Iron-Mediated Membrane Damage. PLoS Pathogens, 2014, 10, e1004075.	4.7	20
33	Antitrypanosomal Isothiocyanate and Thiocarbamate Glycosides from Moringa peregrina. Planta Medica, 2014, 80, 86-89.	1.3	18
34	A tryparedoxin-coupled biosensor reveals a mitochondrial trypanothione metabolism in trypanosomes. ELife, 2020, 9, .	6.0	18
35	Targeting a Large Active Site: Structureâ€Based Design of Nanomolar Inhibitors of Trypanosoma brucei Trypanothione Reductase. Chemistry - A European Journal, 2019, 25, 11416-11421.	3.3	16
36	Stress-Induced ProteinS-Glutathionylation andS-Trypanothionylation in African Trypanosomesâ€”A Quantitative Redox Proteome and Thiol Analysis. Antioxidants and Redox Signaling, 2017, 27, 517-533.	5.4	15

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37	Natural Sesquiterpene Lactones of the 4,15-iso-Atriplicolide Type are Inhibitors of Trypanothione Reductase. Molecules, 2019, 24, 3737.	3.8	15
38	The cytosolic or the mitochondrial glutathione peroxidaseâ€type tryparedoxin peroxidase is sufficient to protect procyclic <scp>T</scp>rypanosoma brucei from ironâ€mediated mitochondrial damage and lysis. Molecular Microbiology, 2016, 99, 172-187.	2.5	14
39	Biological Evaluation and Xâ€ray Coâ€crystal Structures of Cyclohexylpyrrolidine Ligands for Trypanothione Reductase, an Enzyme from the Redox Metabolism of Trypanosoma. ChemMedChem, 2018, 13, 957-967.	3.2	13
40	An essential thioredoxin-type protein of Trypanosoma brucei acts as redox-regulated mitochondrial chaperone. PLoS Pathogens, 2019, 15, e1008065.	4.7	13
41	The mitochondrial peroxiredoxin displays distinct roles in different developmental stages of African trypanosomes. Redox Biology, 2020, 34, 101547.	9.0	6
42	The conserved Cys76 plays a crucial role for the conformation of reduced glutathione peroxidaseâ€type tryparedoxin peroxidase. FEBS Letters, 2010, 584, 1027-1032.	2.8	5
43	Bistacrines as potential antitrypanosomal agents. Bioorganic and Medicinal Chemistry, 2017, 25, 4526-4531.	3.0	5
44	Catalytic properties, localization, and in vivo role of Px IV, a novel tryparedoxin peroxidase of Trypanosoma brucei. Molecular and Biochemical Parasitology, 2016, 207, 84-88.	1.1	4