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	The mitochondrial peroxiredoxin displays distinct roles in different developmental stages of African trypanosomes. Redox Biology, 2020, 34, 101547.	9.0	6
2	A tryparedoxin-coupled biosensor reveals a mitochondrial trypanothione metabolism in trypanosomes. ELife, 2020, 9, .	6.0	18
3	Targeting a Large Active Site: Structureâ€Based Design of Nanomolar Inhibitors of <i>Trypanosoma brucei</i> Trypanothione Reductase. Chemistry - A European Journal, 2019, 25, 11416-11421.	3.3	16
4	Natural Sesquiterpene Lactones of the 4,15-iso-Atriplicolide Type are Inhibitors of Trypanothione Reductase. Molecules, 2019, 24, 3737.	3.8	15
5	An essential thioredoxin-type protein of Trypanosoma brucei acts as redox-regulated mitochondrial chaperone. PLoS Pathogens, 2019, 15, e1008065.	4.7	13
6	Inhibitorâ€Induced Dimerization of an Essential Oxidoreductase from African Trypanosomes. Angewandte Chemie - International Edition, 2019, 58, 3640-3644.	13.8	21
7	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
8	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
9	Tryparedoxin peroxidase-deficiency commits trypanosomes to ferroptosis-type cell death. ELife, 2018, 7, .	6.0	63
10	Stress-Induced Protein<i>S</i>-Glutathionylation and<i>S</i>-Trypanothionylation in African Trypanosomesâ€"A Quantitative Redox Proteome and Thiol Analysis. Antioxidants and Redox Signaling, 2017, 27, 517-533.	5.4	15
11	Bistacrines as potential antitrypanosomal agents. Bioorganic and Medicinal Chemistry, 2017, 25, 4526-4531.	3.0	5
12	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
13	Trypanocidal Activity of Quinoxaline 1,4 Di-N-oxide Derivatives as Trypanothione Reductase Inhibitors. Molecules, 2017, 22, 220.	3.8	29
14	The cytosolic or the mitochondrial glutathione peroxidaseâ€type tryparedoxin peroxidase is sufficient to protect procyclic <scp><i>T</i></scp><i>rypanosoma brucei</i> from ironâ€mediated mitochondrial damage and lysis. Molecular Microbiology, 2016, 99, 172-187.	2.5	14
15	Dipeptidyl Nitroalkenes as Potent Reversible Inhibitors of Cysteine Proteases Rhodesain and Cruzain. ACS Medicinal Chemistry Letters, 2016, 7, 1073-1076.	2.8	42
16	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
17	Thiol redox biology of trypanosomatids and potential targets for chemotherapy. Molecular and Biochemical Parasitology, 2016, 206, 67-74.	1.1	104
18	Glutaredoxin-deficiency confers bloodstream Trypanosoma brucei with improved thermotolerance. Molecular and Biochemical Parasitology, 2015, 204, 93-105.	1.1	21

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19	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
20	Antitrypanosomal Isothiocyanate and Thiocarbamate Glycosides from Moringa peregrina. Planta Medica, 2014, 80, 86-89.	1.3	18
21	Cytosolic Peroxidases Protect the Lysosome of Bloodstream African Trypanosomes from Iron-Mediated Membrane Damage. PLoS Pathogens, 2014, 10, e1004075.	4.7	20
22	Binding to Large Enzyme Pockets: Smallâ€Molecule Inhibitors of Trypanothione Reductase. ChemMedChem, 2014, 9, 1880-1891.	3.2	40
23	Ironâ€“Sulfur Cluster Binding by Mitochondrial Monothiol Glutaredoxin-1 of<i>Trypanosoma brucei</i>: Molecular Basis of Ironâ€“Sulfur Cluster Coordination and Relevance for Parasite Infectivity. Antioxidants and Redox Signaling, 2013, 19, 665-682.	5.4	37
24	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
25	Mono- and Dithiol Glutaredoxins in the Trypanothione-Based Redox Metabolism of Pathogenic Trypanosomes. Antioxidants and Redox Signaling, 2013, 19, 708-722.	5.4	38
26	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
27	Low-Molecular-Mass Antioxidants in Parasites. Antioxidants and Redox Signaling, 2012, 17, 583-607.	5.4	97
28	Lipoamide dehydrogenase is essential for both bloodstream and procyclic <i>Trypanosoma brucei</i>. Molecular Microbiology, 2011, 81, 623-639.	2.5	34
29	A tryparedoxin-dependent peroxidase protects African trypanosomes from membrane damage. Free Radical Biology and Medicine, 2011, 51, 856-868.	2.9	29
30	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
31	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
32	Preparative enzymatic synthesis of trypanothione and trypanothione analogues. International Journal for Parasitology, 2009, 39, 1059-1062.	3.1	34
33	Redox control in trypanosomatids, parasitic protozoa with trypanothione-based thiol metabolism. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1236-1248.	2.4	346
34	Structural Basis for a Distinct Catalytic Mechanism in Trypanosoma brucei Tryparedoxin Peroxidase. Journal of Biological Chemistry, 2008, 283, 30401-30411.	3.4	29
35	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
36	Depletion of the thioredoxin homologue tryparedoxin impairs antioxidative defence in African trypanosomes. Biochemical Journal, 2007, 402, 43-49.	3.7	77

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37	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
38	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
39	Inhibitors ofTrypanosoma cruziTrypanothione Reductase Revealed by Virtual Screening and Parallel Synthesis. Journal of Medicinal Chemistry, 2005, 48, 4793-4802.	6.4	61
40	Functional and Physicochemical Characterization of the Thioredoxin System in Trypanosoma brucei. Journal of Biological Chemistry, 2003, 278, 46329-46336.	3.4	45
41	A Second Class of Peroxidases Linked to the Trypanothione Metabolism. Journal of Biological Chemistry, 2003, 278, 6809-6815.	3.4	77
42	Silencing of the thioredoxin gene in Trypanosoma brucei brucei. Molecular and Biochemical Parasitology, 2002, 125, 207-210.	1.1	28
43	Trypanothione-dependent Synthesis of Deoxyribonucleotides by Trypanosoma brucei Ribonucleotide Reductase. Journal of Biological Chemistry, 2001, 276, 10602-10606.	3.4	113
44	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