Begona Heras

List of Publications by Year in descending order

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Version: 2024-02-01

75 papers	2,836 citations	186209 28 h-index	189801 50 g-index
82 all docs	82 docs citations	82 times ranked	3131 citing authors

#	Article	IF	Citations
1	Protein disulfide isomerase: the structure of oxidative folding. Trends in Biochemical Sciences, 2006, 31, 455-464.	3.7	293
2	DSB proteins and bacterial pathogenicity. Nature Reviews Microbiology, 2009, 7, 215-225.	13.6	260
3	Post-crystallization treatments for improving diffraction quality of protein crystals. Acta Crystallographica Section D: Biological Crystallography, 2005, 61, 1173-1180.	2.5	180
4	Targeting virulence not viability in the search for future antibacterials. British Journal of Clinical Pharmacology, 2015, 79, 208-215.	1.1	144
5	The antigen 43 structure reveals a molecular Velcro-like mechanism of autotransporter-mediated bacterial clumping. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 457-462.	3.3	116
6	Structure and Function of DsbA, a Key Bacterial Oxidative Folding Catalyst. Antioxidants and Redox Signaling, 2011, 14, 1729-1760.	2.5	96
7	Crystal structures of the DsbG disulfide isomerase reveal an unstable disulfide. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8876-8881.	3.3	95
8	Properties of the Thioredoxin Fold Superfamily Are Modulated by a Single Amino Acid Residue. Journal of Biological Chemistry, 2009, 284, 10150-10159.	1.6	93
9	Dehydration Converts DsbG Crystal Diffraction from Low to High Resolution. Structure, 2003, 11, 139-145.	1.6	77
10	A Molecular Chameleon for Mapping Subcellular Polarity in an Unfolded Proteome Environment. Angewandte Chemie - International Edition, 2020, 59, 10129-10135.	7.2	75
11	New 1-Aryl-3-(4-arylpiperazin-1-yl)propane Derivatives, with Dual Action at 5-HT1ASerotonin Receptors and Serotonin Transporter, as a New Class of Antidepressants. Journal of Medicinal Chemistry, 2001, 44, 418-428.	2.9	73
12	Characterization of Two Homologous Disulfide Bond Systems Involved in Virulence Factor Biogenesis in Uropathogenic Escherichia coli CFT073. Journal of Bacteriology, 2009, 191, 3901-3908.	1.0	71
13	Staphylococcus aureus DsbA Does Not Have a Destabilizing Disulfide. Journal of Biological Chemistry, 2008, 283, 4261-4271.	1.6	56
14	The name's bondâ€¦â€¦disulfide bond. Current Opinion in Structural Biology, 2007, 17, 691-698.	2.6	53
15	Targeting Bacterial Dsb Proteins for the Development of Anti-Virulence Agents. Molecules, 2016, 21, 811.	1.7	52
16	Structural and Functional Characterization of Three DsbA Paralogues from Salmonella enterica Serovar Typhimurium. Journal of Biological Chemistry, 2010, 285, 18423-18432.	1.6	47
17	Application of Fragmentâ€Based Screening to the Design of Inhibitors of Escherichia coli DsbA. Angewandte Chemie - International Edition, 2015, 54, 2179-2184.	7.2	46
18	New 3-[4-(aryl)piperazin-1-yl]-1-(benzo[b]thiophen-3-yl)propane derivatives with dual action at 5-HT1A serotonin receptors and serotonin transporter as a new class of antidepressants. European Journal of Medicinal Chemistry, 2001, 36, 55-61.	2.6	43

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19	PARFâ€1: an Arabidopsis thaliana FYVEâ€domain protein displaying a novel eukaryotic domain structure and phosphoinositide affinity. Journal of Experimental Botany, 2002, 53, 565-567.	2.4	40
20	Structural and Functional Characterization of the Oxidoreductase Î±-DsbA1 fromWolbachia pipientis. Antioxidants and Redox Signaling, 2009, 11, 1485-1500.	2.5	39
21	In vivooxidative protein folding can be facilitated by oxidationÃ¢Â€Â“reduction cycling. Molecular Microbiology, 2010, 75, 13-28.	1.2	38
22	Structural Insights into the Role of the Cyclic Backbone in a Squash Trypsin Inhibitor. Journal of Biological Chemistry, 2013, 288, 36141-36148.	1.6	38
23	Design, synthesis and biological evaluation of new 3-[(4-aryl)piperazin-1-yl]-1-arylpropane derivatives as potential antidepressants with a dual mode of action: serotonin reuptake inhibition and 5-HT1A receptor antagonism. Il Farmaco, 2000, 55, 345-353.	0.9	37
24	Structure and Function of the Oxidoreductase DsbA1 from Neisseria meningitidis. Journal of Molecular Biology, 2009, 394, 931-943.	2.0	36
25	Inhibition of Diverse DsbA Enzymes in Multi-DsbA Encoding Pathogens. Antioxidants and Redox Signaling, 2018, 29, 653-666.	2.5	35
26	Laboratory evolution of one disulfide isomerase to resemble another. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11670-11675.	3.3	31
27	Nuclear phosphoinositides could bring FYVE alive. Trends in Plant Science, 2002, 7, 132-138.	4.3	29
28	Rv2969c, essential for optimal growth inMycobacterium tuberculosis, is a DsbA-like enzyme that interacts with VKOR-derived peptides and has atypical features of DsbA-like disulfide oxidases. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1981-1994.	2.5	29
29	Characterization of the DsbA Oxidative Folding Catalyst fromPseudomonas aeruginosaReveals a Highly Oxidizing Protein that Binds Small Molecules. Antioxidants and Redox Signaling, 2010, 12, 921-931.	2.5	28
30	Autotransporter Adhesins in Escherichia coli Pathogenesis. Proteomics, 2017, 17, 1600431.	1.3	28
31	A Periplasmic Thioredoxin-Like Protein Plays a Role in Defense against Oxidative Stress in Neisseria gonorrhoeae. Infection and Immunity, 2009, 77, 4934-4939.	1.0	27
32	Structural and Functional Characterization of ScsC, a Periplasmic Thioredoxin-Like Protein fromSalmonella entericaSerovar Typhimurium. Antioxidants and Redox Signaling, 2013, 19, 1494-1506.	2.5	26
33	Detection of Bacterial Membrane Vesicles by NOD-Like Receptors. International Journal of Molecular Sciences, 2021, 22, 1005.	1.8	25
34	Comparative Sequence, Structure and Redox Analyses of Klebsiella pneumoniae DsbA Show That Anti-Virulence Target DsbA Enzymes Fall into Distinct Classes. PLoS ONE, 2013, 8, e80210.	1.1	24
35	Unique structural features of a bacterial autotransporter adhesin suggest mechanisms for interaction with host macromolecules. Nature Communications, 2019, 10, 1967.	5.8	22
36	The Fragment-Based Development of a Benzofuran Hit as a New Class of Escherichia coli DsbA Inhibitors. Molecules, 2019, 24, 3756.	1.7	22

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37	Unraveling the Redox Properties of the Global Regulator FurA fromAnabaenasp. PCC 7120: Disulfide Reductase Activity Based on Its CXXC Motifs. Antioxidants and Redox Signaling, 2014, 20, 1396-1406.	2.5	21
38	Bioinformatics Tools and Resources for Analyzing Protein Structures. Methods in Molecular Biology, 2017, 1549, 209-220.	0.4	21
39	A shape-shifting redox foldase contributes to Proteus mirabilis copper resistance. Nature Communications, 2017, 8, 16065.	5.8	21
40	The Scs disulfide reductase system cooperates with the metallochaperone CueP in Salmonella copper resistance. Journal of Biological Chemistry, 2019, 294, 15876-15888.	1.6	21
41	The 1.2â€…Ã… resolution crystal structure of TcpG, theVibrio choleraeDsbA disulfide-forming protein required for pilus and cholera-toxin production. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1290-1302.	2.5	20
42	The Acidic Nature of the CcmG Redox-Active Center Is Important for Cytochrome c Maturation in Escherichia coli. Journal of Bacteriology, 2004, 186, 4030-4033.	1.0	19
43	Characterisation of a cell wall-anchored protein of Staphylococcus saprophyticus associated with linoleic acid resistance. BMC Microbiology, 2012, 12, 8.	1.3	19
44	Construction of a Highly Sensitive Thiolâ€Reactive AlEgenâ€Peptide Conjugate for Monitoring Protein Unfolding and Aggregation in Cells. Advanced Healthcare Materials, 2021, 10, e2101300.	3.9	19
45	Phylogenetic Classification and Functional Review of Autotransporters. Frontiers in Immunology, 0, 13, .	2.2	18
46	Cloning and functional characterization of a homoglutathione synthetase from pea nodules. Physiologia Plantarum, 2002, 115, 69-73.	2.6	17
47	Molecular and Structural Characterization of a Novel Escherichia coli Interleukin Receptor Mimic Protein. MBio, 2016, 7, e02046.	1.8	17
48	Structure of the Acinetobacter baumannii Dithiol Oxidase DsbA Bound to Elongation Factor EF-Tu Reveals a Novel Protein Interaction Site. Journal of Biological Chemistry, 2014, 289, 19869-19880.	1.6	16
49	Differential homotypic and heterotypic interactions of antigen 43 (Ag43) variants in autotransporter-mediated bacterial autoaggregation. Scientific Reports, 2019, 9, 11100.	1.6	16
50	Molecular and structural insights into anÂasymmetric proteolytic complexÂ(ClpP1P2)ÂfromÂMycobacterium smegmatis. Scientific Reports, 2019, 9, 18019.	1.6	16
51	Rapid Elaboration of Fragments into Leads by X-ray Crystallographic Screening of Parallel Chemical Libraries (REFiL_X). Journal of Medicinal Chemistry, 2020, 63, 6863-6875.	2.9	16
52	CrmA orthologs from diverse poxviruses potently inhibit caspases-1 and -8, yet cleavage site mutagenesis frequently produces caspase-1-specific variants. Biochemical Journal, 2019, 476, 1335-1357.	1.7	13
53	Structural and Biochemical Characterization of Chlamydia trachomatis DsbA Reveals a Cysteine-Rich and Weakly Oxidising Oxidoreductase. PLoS ONE, 2016, 11, e0168485.	1.1	10
54	Structural and biochemical insights into the disulfide reductase mechanism of DsbD, an essential enzyme for neisserial pathogens. Journal of Biological Chemistry, 2018, 293, 16559-16571.	1.6	10

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55	A Molecular Chameleon for Mapping Subcellular Polarity in an Unfolded Proteome Environment. Angewandte Chemie, 2020, 132, 10215-10221.	1.6	10
56	Cloning, expression, purification and characterization of a DsbA-like protein from Wolbachia pipientis. Protein Expression and Purification, 2008, 59, 266-273.	0.6	9
57	Expression and crystallization of SeDsbA, SeDsbL and SeSrgA fromSalmonella entericaserovar Typhimurium. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 601-604.	0.7	8
58	Salmonella enterica BcfH Is a Trimeric Thioredoxin-Like Bifunctional Enzyme with Both Thiol Oxidase and Disulfide Isomerase Activities. Antioxidants and Redox Signaling, 2021, 35, 21-39.	2.5	7
59	Elaboration of a benzofuran scaffold and evaluation of binding affinity and inhibition of Escherichia coli DsbA: A fragment-based drug design approach to novel antivirulence compounds. Bioorganic and Medicinal Chemistry, 2021, 45, 116315.	1.4	7
60	A high-throughput cell-based assay pipeline for the preclinical development of bacterial DsbA inhibitors as antivirulence therapeutics. Scientific Reports, 2021, 11, 1569.	1.6	7
61	Structural bioinformatic analysis of DsbA proteins and their pathogenicity associated substrates. Computational and Structural Biotechnology Journal, 2021, 19, 4725-4737.	1.9	6
62	Sent packing: protein engineering generates a new crystal form ofPseudomonas aeruginosaDsbA1 with increased catalytic surface accessibility. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2386-2395.	2.5	5
63	Variation of Antigen 43 self-association modulates bacterial compacting within aggregates and biofilms. Npj Biofilms and Microbiomes, 2022, 8, 20.	2.9	5
64	The atypical thiolâ€“disulfide exchange protein Î±-DsbA2 fromWolbachia pipientisis a homotrimeric disulfide isomerase. Acta Crystallographica Section D: Structural Biology, 2019, 75, 283-295.	1.1	4
65	Expression and crystallization of DsbA fromStaphylococcus aureus. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 953-956.	0.7	3
66	Antivirulence DsbA inhibitors attenuate Salmonella enterica serovar Typhimurium fitness without detectable resistance. FASEB BioAdvances, 2021, 3, 231-242.	1.3	3
67	Selective Binding of Small Molecules to Vibrio cholerae DsbA Offers a Starting Point for the Design of Novel Antibacterials. ChemMedChem, 2022, 17, .	1.6	3
68	Methyl probes in proteins for determining ligand binding mode in weak proteinâ€“ligand complexes. Scientific Reports, 2022, 12, .	1.6	3
69	Crystallization and preliminary diffraction analysis of a DsbA homologue fromWolbachia pipientis. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 94-97.	0.7	2
70	Control of Protein Function through Regulated Protein Degradation: Biotechnological and Biomedical Applications. Journal of Molecular Microbiology and Biotechnology, 2013, 23, 335-344.	1.0	2
71	Interaction between Plate Make and Protein in Protein Crystallisation Screening. PLoS ONE, 2009, 4, e7851.	1.1	2
72	HN, N, CÎ± and CÎ² assignments of the two periplasmic domains of Neisseria meningitidis DsbD. Biomolecular NMR Assignments, 2017, 11, 181-186.	0.4	1

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73	Front Cover: Autotransporter Adhesins in Escherichia coli Pathogenesis. Proteomics, 2017, 17, 17700181.	1.3	1
74	Production, biophysical characterization and initial crystallization studies of the N- and C-terminal domains of DsbD, an essential enzyme inNeisseria meningitidis. Acta Crystallographica Section F, Structural Biology Communications, 2018, 74, 31-38.	0.4	1
75	NEW STRUCTURAL FEATURES REVEAL HOW BACTERIA STICK TO HOST SURFACES. FASEB Journal, 2018, 32, 652.20.	0.2	0