Stephan Gruber

List of Publications by Year
in descending order

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44 papers	3,619 citations	279798 23 h-index	254184 43 g-index
61 all docs	61 docs citations	61 times ranked	2300 citing authors

#	Article	IF	Citations
1	DNA tension-modulated translocation and loop extrusion by SMC complexes revealed by molecular dynamics simulations. Nucleic Acids Research, 2022, 50, 4974-4987.	14.5	23
2	ParB proteins can bypass DNA-bound roadblocks via dimer-dimer recruitment. Science Advances, 2022, 8, .	10.3	25
3	A rod conformation of the Pyrococcus furiosus Rad50 coiled coil. Proteins: Structure, Function and Bioinformatics, 2021, 89, 251-255.	2.6	8
4	Gradual opening of Smc arms in prokaryotic condensin. Cell Reports, 2021, 35, 109051.	6.4	11
5	Nse5/6 inhibits the Smc5/6 ATPase and modulates DNA substrate binding. EMBO Journal, 2021, 40, e107807.	7.8	30
6	A low Smc flux avoids collisions and facilitates chromosome organization in Bacillus subtilis. ELife, 2021, 10, .	6.0	20
7	CcrZ is a pneumococcal spatiotemporal cell cycle regulator that interacts with FtsZ and controls DNA replication by modulating the activity of DnaA. Nature Microbiology, 2021, 6, 1175-1187.	13.3	24
8	Relief of ParB autoinhibition by parS DNA catalysis and recycling of ParB by CTP hydrolysis promote bacterial centromere assembly. Science Advances, 2021, 7, eabj2854.	10.3	35
9	Phospho-regulation of the Shugoshin - Condensin interaction at the centromere in budding yeast. PLoS Genetics, 2020, 16, e1008569.	3.5	9
10	Decision Making in Phagocytosis. Advances in Experimental Medicine and Biology, 2020, 1246, 71-81.	1.6	0
11	Evidence for binary Smc complexes lacking kite subunits in archaea. IUCrJ, 2020, 7, 193-206.	2.2	1
12	Self-organization of parS centromeres by the ParB CTP hydrolase. Science, 2019, 366, 1129-1133.	12.6	110
13	DNA-segment-capture model for loop extrusion by structural maintenance of chromosome (SMC) protein complexes. Nucleic Acids Research, 2019, 47, 6956-6972.	14.5	92
14	High-Throughput Allelic Replacement Screening in Bacillus subtilis. Methods in Molecular Biology, 2019, 2004, 49-61.	0.9	7
15	Transient DNA Occupancy of the SMC Interarm Space in Prokaryotic Condensin. Molecular Cell, 2019, 75, 209-223.e6.	9.7	55
16	SMC complexes sweeping through the chromosome: going with the flow and against the tide. Current Opinion in Microbiology, 2018, 42, 96-103.	5.1	26
17	Optimization of sample preparation and green color imaging using the mNeonGreen fluorescent protein in bacterial cells for photoactivated localization microscopy. Scientific Reports, 2018, 8, 10137.	3.3	13
18	The complete and fully assembled genome sequence of Aeromonas salmonicida subsp. pectinolytica and its comparative analysis with other Aeromonas species: investigation of the mobilome in environmental and pathogenic strains. BMC Genomics, 2018, 19, 20.	2.8	28

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19	Tuned SMC Arms Drive Chromosomal Loading of Prokaryotic Condensin. Molecular Cell, 2017, 65, 861-872.e9.	9.7	55
20	Shaping chromosomes by DNA capture and release: gating the SMC rings. Current Opinion in Cell Biology, 2017, 46, 87-93.	5.4	15
21	A Chromosome Co-Entrapment Assay to Study Topological Proteinâ€“DNA Interactions. Methods in Molecular Biology, 2017, 1624, 117-126.	0.9	6
22	Structure of Full-Length SMC and Rearrangements Required for Chromosome Organization. Molecular Cell, 2017, 67, 334-347.e5.	9.7	151
23	SnapShot: SMC Protein Complexes Part I. Cell, 2016, 164, 326-326.e1.	28.9	44
24	SnapShot: SMC Protein Complexes Part II. Cell, 2016, 164, 818-818.e1.	28.9	9
25	Control of Smc Coiled Coil Architecture by the ATPase Heads Facilitates Targeting to Chromosomal ParB/parS and Release onto Flanking DNA. Cell Reports, 2016, 14, 2003-2016.	6.4	80
26	Crystal structure of Hop2â€“Mnd1 and mechanistic insights into its role in meiotic recombination. Nucleic Acids Research, 2015, 43, 3841-3856.	14.5	42
27	Kite Proteins: a Superfamily of SMC/Kleisin Partners Conserved Across Bacteria, Archaea, and Eukaryotes. Structure, 2015, 23, 2183-2190.	3.3	112
28	Molecular Basis for SMC Rod Formation and Its Dissolution upon DNA Binding. Molecular Cell, 2015, 57, 290-303.	9.7	126
29	SMC condensin: promoting cohesion of replicon arms. Nature Structural and Molecular Biology, 2015, 22, 653-655.	8.2	23
30	The ParB- parS Chromosome Segregation System Modulates Competence Development in Streptococcus pneumoniae. MBio, 2015, 6, e00662.	4.1	31
31	SMC condensin entraps chromosomal DNA by an ATP hydrolysis dependent loading mechanism in Bacillus subtilis. ELife, 2015, 4, .	6.0	130
32	Multilayer chromosome organization through DNA bending, bridging and extrusion. Current Opinion in Microbiology, 2014, 22, 102-110.	5.1	57
33	Interlinked Sister Chromosomes Arise in the Absence of Condensin during Fast Replication in B.Âsubtilis. Current Biology, 2014, 24, 293-298.	3.9	80
34	Closing the cohesin ring: Structure and function of its Smc3-kleisin interface. Science, 2014, 346, 963-967.	12.6	255
35	An asymmetric SMCâ€“kleisin bridge in prokaryotic condensin. Nature Structural and Molecular Biology, 2013, 20, 371-379.	8.2	119
36	SMC is recruited to oriC by ParB and promotes chromosome segregation in Streptococcus pneumoniae. Molecular Microbiology, 2011, 81, 676-688.	2.5	136

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37	MukBEF on the march: taking over chromosome organization in bacteria?. Molecular Microbiology, 2011, 81, 855-859.	2.5	23
38	Recruitment of Condensin to Replication Origin Regions by ParB/SpoOJ Promotes Chromosome Segregation in B. subtilis. Cell, 2009, 137, 685-696.	28.9	290
39	Evidence that Loading of Cohesin Onto Chromosomes Involves Opening of Its SMC Hinge. Cell, 2006, 127, 523-537.	28.9	271
40	Cohesin's ATPase Activity Is Stimulated by the C-Terminal Winged-Helix Domain of Its Kleisin Subunit. Current Biology, 2006, 16, 1998-2008.	3.9	74
41	Is chromatin remodeling required to build sister-chromatid cohesion?. Trends in Biochemical Sciences, 2004, 29, 389-392.	7.5	18
42	ATP Hydrolysis Is Required for Cohesin's Association with Chromosomes. Current Biology, 2003, 13, 1941-1953.	3.9	254
43	Chromosomal Cohesin Forms a Ring. Cell, 2003, 112, 765-777.	28.9	540
44	Division of the Nucleolus and Its Release of CDC14 during Anaphase of Meiosis I Depends on Separase, SPO12, and SLK19. Developmental Cell, 2003, 4, 727-739.	7.0	115