Ekaterina L Grishchuk

List of Publications by Year
in descending order

41 papers	3,015 citations	257450 24 h-index	276875 41 g-index
51 all docs	51 docs citations	51 times ranked	2388 citing authors

#	Article	IF	Citations
1	Force production by disassembling microtubules. Nature, 2005, 438, 384-388.	27.8	252
2	The Human Kinetochore Ska1 Complex Facilitates Microtubule Depolymerization-Coupled Motility. Developmental Cell, 2009, 16, 374-385.	7.0	247
3	Chromosome-Microtubule Interactions During Mitosis. Annual Review of Cell and Developmental Biology, 2002, 18, 193-219.	9.4	223
4	Microtubule detyrosination guides chromosomes during mitosis. Science, 2015, 348, 799-803.	12.6	202
5	The Kinetochore-Bound Ska1 Complex Tracks Depolymerizing Microtubules and Binds to Curved Protofilaments. Developmental Cell, 2012, 23, 968-980.	7.0	194
6	Fibrils Connect Microtubule Tips with Kinetochores: A Mechanism to Couple Tubulin Dynamics to Chromosome Motion. Cell, 2008, 135, 322-333.	28.9	186
7	Mechanisms to Avoid and Correct Erroneous Kinetochore-Microtubule Attachments. Biology, 2017, 6, 1.	2.8	138
8	Kinetochore kinesin CENP-E is a processive bi-directional tracker of dynamic microtubule tips. Nature Cell Biology, 2013, 15, 1079-1088.	10.3	122
9	Microtubule depolymerization can drive poleward chromosome motion in fission yeast. EMBO Journal, 2006, 25, 4888-4896.	7.8	108
10	A Molecular-Mechanical Model of the Microtubule. Biophysical Journal, 2005, 88, 3167-3179.	0.5	104
11	Molecular and Mechanical Causes of Microtubule Catastrophe and Aging. Biophysical Journal, 2015, 109, 2574-2591.	0.5	103
12	Accurate phosphoregulation of kinetochoreâ€“microtubule affinity requires unconstrained molecular interactions. Journal of Cell Biology, 2014, 206, 45-59.	5.2	97
13	Multisite phosphorylation of the NDC80 complex gradually tunes its microtubule-binding affinity. Molecular Biology of the Cell, 2015, 26, 1829-1844.	2.1	97
14	The Dam1 ring binds microtubules strongly enough to be a processive as well as energy-efficient coupler for chromosome motion. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15423-15428.	7.1	87
15	Tubulin depolymerization may be an ancient biological motor. Journal of Cell Science, 2010, 123, 3425-3434.	2.0	83
16	Conserved and divergent features of kinetochores and spindle microtubule ends from five species. Journal of Cell Biology, 2013, 200, 459-474.	5.2	81
17	Tubulin Bond Energies and Microtubule Biomechanics Determined from Nanoindentation <i>in Silico</i>. Journal of the American Chemical Society, 2014, 136, 17036-17045.	13.7	78
18	Clot Contraction Drives the Translocation of Procoagulant Platelets to Thrombus Surface. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 37-47.	2.4	74

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19	In search of an optimal ring to couple microtubule depolymerization to processive chromosome motions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19017-19022.	7.1	71
20	Long tethers provide high-force coupling of the Dam1 ring to shortening microtubules. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7708-7713.	7.1	64
21	Bistability of a coupled Aurora B kinase-phosphatase system in cell division. ELife, 2016, 5, e10644.	6.0	48
22	The binding of Borealin to microtubules underlies a tension independent kinetochore-microtubule error correction pathway. Nature Communications, 2019, 10, 682.	12.8	43
23	Kinetochoreâ€“microtubule attachment throughout mitosis potentiated by the elongated stalk of the kinetochore kinesin CENP-E. Molecular Biology of the Cell, 2014, 25, 2272-2281.	2.1	40
24	Basic mechanism for biorientation of mitotic chromosomes is provided by the kinetochore geometry and indiscriminate turnover of kinetochore microtubules. Molecular Biology of the Cell, 2015, 26, 3985-3998.	2.1	37
25	Microtubule end conversion mediated by motors and diffusing proteins with no intrinsic microtubule end-binding activity. Nature Communications, 2019, 10, 1673.	12.8	33
26	Microtubule Tip Tracking by the Spindle and Kinetochore Protein Ska1 Requires Diverse Tubulin-Interacting Surfaces. Current Biology, 2017, 27, 3666-3675.e6.	3.9	28
27	Research Article: <i>In vivo</i> Evaluation of Indolyl Glyoxamides in the Phenotypic Sea Urchin Embryo Assay. Chemical Biology and Drug Design, 2007, 70, 485-490.	3.2	22
28	Preparation of Segmented Microtubules to Study Motions Driven by the Disassembling Microtubule Ends. Journal of Visualized Experiments, 2014, , .	0.3	22
29	Unique Role of Vimentin Networks in Compression Stiffening of Cells and Protection of Nuclei from Compressive Stress. Nano Letters, 2022, 22, 4725-4732.	9.1	21
30	Probing Mitotic CENP-E Kinesin with the Tethered Cargo Motion Assay and Laser Tweezers. Biophysical Journal, 2018, 114, 2640-2652.	0.5	19
31	Biophysics of Microtubule End Coupling at the Kinetochore. Progress in Molecular and Subcellular Biology, 2017, 56, 397-428.	1.6	18
32	Highly Transient Molecular Interactions Underlie the Stability of Kinetochoreâ€“Microtubule Attachment During Cell Division. Cellular and Molecular Bioengineering, 2013, 6, 393-405.	2.1	15
33	Chromosome segregation in fission yeast with mutations in the tubulin folding cofactor D. Current Genetics, 2006, 50, 281-294.	1.7	12
34	A Screen for Genes Involved in the Anaphase Proteolytic Pathway Identifies tsm1+, a Novel Schizosaccharomyces pombe Gene Important for Microtubule Integrity. Genetics, 1998, 149, 1251-1264.	2.9	12
35	In vitro reconstitution of lateral to end-on conversion of kinetochoreâ€“microtubule attachments. Methods in Cell Biology, 2018, 144, 307-327.	1.1	11
36	Tubulin heterodimers remain functional for one cell cycle after the inactivation of tubulinâ€folding cofactor D in fission yeast cells. Yeast, 2009, 26, 235-247.	1.7	7

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37	In Vitro Assays to Study the Tracking of Shortening Microtubule Ends and to Measure Associated Forces. Methods in Cell Biology, 2010, 95, 657-676.	1.1	7
38	Permitted and restricted steps of human kinetochore assembly in mitotic cell extracts. Molecular Biology of the Cell, 2021, 32, 1241-1255.	2.1	4
39	Toward a comprehensive and quantitative understanding of intracellular microtubule organization. Molecular Systems Biology, 2009, 5, 251.	7.2	1
40	A Slippery Walk to the Microtubule-End. Biophysical Journal, 2013, 104, 2324-2325.	0.5	1
41	Structural view of the yeast Dam1 complex, a ring-shaped molecular coupler for the dynamic microtubule end. Essays in Biochemistry, 2020, 64, 359-370.	4.7	0