Motoyuki Hattori

List of Publications by Year
in descending order

39	1,834	430874	414414
papers	citations	18 h-index	32 g-index

43	43	43	2348
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular mechanism of ATP binding and ion channel activation in P2X receptors. Nature, 2012, 485, 207-212.	27.8	460
2	A Fluorescence-Detection Size-Exclusion Chromatography-Based Thermostability Assay for Membrane Protein Precrystallization Screening. Structure, 2012, 20, 1293-1299.	3.3	222
3	Crystal structure of the MgtE Mg2+ transporter. Nature, 2007, 448, 1072-1075.	27.8	166
4	TMC1 and TMC2 Proteins Are Pore-Forming Subunits of Mechanosensitive Ion Channels. Neuron, 2020, 105, 310-321.e3.	8.1	109
5	Cryo-EM structures of the human volume-regulated anion channel LRRC8. Nature Structural and Molecular Biology, 2018, 25, 797-804.	8.2	104
6	Mg2+-dependent gating of bacterial MgtE channel underlies Mg2+ homeostasis. EMBO Journal, 2009, 28, 3602-3612.	7.8	94
7	Structural insights into the competitive inhibition of the ATP-gated P2X receptor channel. Nature Communications, 2017, 8, 876.	12.8	75
8	Druggable negative allosteric site of P2X3 receptors. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4939-4944.	7.1	73
9	Structural Insights into Divalent Cation Modulations of ATP-Gated P2X Receptor Channels. Cell Reports, 2016, 14, 932-944.	6.4	59
10	Mg ²⁺ -sensing mechanism of Mg ²⁺ transporter MgtE probed by molecular dynamics study. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15393-15398.	7.1	56
11	ATP-dependent modulation of MgtE in Mg2+ homeostasis. Nature Communications, 2017, 8, 148.	12.8	54
12	Structural basis for ion selectivity revealed by high-resolution crystal structure of Mg2+ channel MgtE. Nature Communications, 2014, 5, 5374.	12.8	41
13	Structural insights into the nucleotide base specificity of P2X receptors. Scientific Reports, 2017, 7, 45208.	3.3	41
14	Structural basis for the Mg ²⁺ recognition and regulation of the CorC Mg ²⁺ transporter. Science Advances, 2021, 7, .	10.3	41
15	Structural Basis of Novel Interactions Between the Small-GTPase and GDI-like Domains in Prokaryotic FeoB Iron Transporter. Structure, 2009, 17, 1345-1355.	3.3	32
16	Molecular mechanisms of human P2X3 receptor channel activation and modulation by divalent cation bound ATP. ELife, 2019, 8, .	6.0	30
17	Structure-based engineering of anti-GFP nanobody tandems as ultra-high-affinity reagents for purification. Scientific Reports, 2020, 10, 6239.	3.3	25
18	Conductance of P2X ₄ purinergic receptor is determined by conformational equilibrium in the transmembrane region. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4741-4746.	7.1	23

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19	Crystal structures of the TRIC trimeric intracellular cation channel orthologues. Cell Research, 2016, 26, 1288-1301.	12.0	21
20	Recent progress in the structural biology of <scp>P2X</scp> receptors. Proteins: Structure, Function and Bioinformatics, 2022, 90, 1779-1785.	2.6	18
21	Recent Advances in the Structural Biology of Mg2+ Channels and Transporters. Journal of Molecular Biology, 2022, 434, 167729.	4.2	12
22	Functional roles of Mg2+ binding sites in ion-dependent gating of a Mg2+ channel, MgtE, revealed by solution NMR. ELife, 2018, 7, .	6.0	10
23	Fluorescence-detection size-exclusion chromatography utilizing nanobody technology for expression screening of membrane proteins. Communications Biology, 2021, 4, 366.	4.4	10
24	Crystallization and preliminary X-ray diffraction analysis of the full-length Mg²⁺transporter MgtE. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 682-684.	0.7	9
25	P2X3-selective mechanism of Gefapixant, a drug candidate for the treatment of refractory chronic cough. Computational and Structural Biotechnology Journal, 2022, 20, 1642-1653.	4.1	9
26	The structure of MgtE in the absence of magnesium provides new insights into channel gating. PLoS Biology, 2021, 19, e3001231.	5.6	8
27	Crystallization and preliminary X-ray diffraction analysis of the cytosolic domain of a cation diffusion facilitator family protein. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 771-773.	0.7	6
28	Spatial distribution of cytoplasmic domains of the Mg2+-transporter MgtE, in a solution lacking Mg2+, revealed by paramagnetic relaxation enhancement. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1129-1135.	2.3	5
29	A FRET-based screening method to detect potential inhibitors of the binding of CNNM3 to PRL2. Scientific Reports, 2020, 10, 12879.	3.3	5
30	Identification and mechanistic analysis of an inhibitor of the CorC Mg2+ transporter. IScience, 2021, 24, 102370.	4.1	5
31	Functional Analysis of the GPI Transamidase Complex by Screening for Amino Acid Mutations in Each Subunit. Molecules, 2021, 26, 5462.	3.8	5
32	The long Î²2,3-sheets encoded by redundant sequences play an integral role in the channel function of P2X7 receptors. Journal of Biological Chemistry, 2022, 298, 102002.	3.4	3
33	Mutagenesis Analysis of GMN Motif in Arabidopsis thaliana Mg2+ Transporter MRS2-1. Bioscience, Biotechnology and Biochemistry, 2022, , .	1.3	1
34	2P151 Crystallization and preliminary X-ray analysis of the bacterial membrane transporters(34.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1 2006, 46, S333.	0.1	0
35	1P115 Crystal structure of the MgtE Mg^<2+> transporter(Membrane proteins,Oral) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.1	0
36	3S2-1 Structure and Mechanism of the MgtE Mg^<2+> transporter(3S2 Structural basis for) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0

#	Article	IF	Citations
37	1P-042 Structure and Mechanism of the MgtE Mg^<2+> transporter(The 46th Annual Meeting of the) Tj ETQq1 1 0.784314 rgBT /Ov	0.1	0
38	1P-033 Crystal structures of the cytosolic domain of the Mg^<2+> transporter MgtE(The 46th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.1	0
39	Starting a Lab in China. Seibutsu Butsuri, 2017, 57, 323-324.	0.1	0