Ruud Hovius

List of Publications by Year
in descending order

59 papers	3,316 citations	159585 30 h-index	149698 56 g-index
68 all docs	68 docs citations	68 times ranked	4417 citing authors

#	Article	IF	Citations
1	X-ray structure of the mouse serotonin 5-HT3 receptor. Nature, 2014, 512, 276-281.	27.8	358
2	Improved methods to isolate and subfractionate rat liver mitochondria. Lipid composition of the inner and outer membrane. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1021, 217-226.	2.6	327
3	Reversible site-selective labeling of membrane proteins in live cells. Nature Biotechnology, 2004, 22, 440-444.	17.5	284
4	FRET imaging reveals that functional neurokinin-1 receptors are monomeric and reside in membrane microdomains of live cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2138-2143.	7.1	218
5	Structural mechanism of cGAS inhibition by theÂnucleosome. Nature, 2020, 587, 668-672.	27.8	157
6	Investigating Cellular Signaling Reactions in Single Attoliter Vesicles. Journal of the American Chemical Society, 2005, 127, 2908-2912.	13.7	129
7	International Union of Basic and Clinical Pharmacology. CX. Classification of Receptors for 5-hydroxytryptamine; Pharmacology and Function. Pharmacological Reviews, 2021, 73, 310-520.	16.0	127
8	Reduction of Neuropathic and Inflammatory Pain through Inhibition of the Tetrahydrobiopterin Pathway. Neuron, 2015, 86, 1393-1406.	8.1	101
9	Fluorescence techniques: shedding light on ligandâ€“receptor interactions. Trends in Pharmacological Sciences, 2000, 21, 266-273.	8.7	96
10	Phospholipid asymmetry of the outer membrane of rat liver mitochondria. FEBS Letters, 1993, 330, 71-76.	2.8	88
11	Highly Fluorescent Streptavidin-Coated CdSe Nanoparticles:Â Preparation in Water, Characterization, and Micropatterning. Langmuir, 2004, 20, 3828-3831.	3.5	87
12	A Fluorogenic Probe for SNAP-Tagged Plasma Membrane Proteins Based on the Solvatochromic Molecule Nile Red. ACS Chemical Biology, 2014, 9, 606-612.	3.4	85
13	Insertion of Nanoparticle Clusters into Vesicle Bilayers. ACS Nano, 2014, 8, 3451-3460.	14.6	82
14	Dithiol amino acids can structurally shape and enhance the ligand-binding properties of polypeptides. Nature Chemistry, 2014, 6, 1009-1016.	13.6	73
15	Screening Ligands for Membrane Protein Receptors by Total Internal Reflection Fluorescence:Â The 5-HT3Serotonin Receptor. Analytical Chemistry, 1998, 70, 1331-1338.	6.5	67
16	Ligand Binding to the Serotonin 5HT3Receptor Studied with a Novel Fluorescent Ligandâ€. Biochemistry, 1998, 37, 15850-15864.	2.5	66
17	Lipid-Coated Nanocrystals as Multifunctionalized Luminescent Scaffolds for Supramolecular Biological Assemblies. Angewandte Chemie - International Edition, 2005, 44, 1388-1392.	13.8	58
18	Factors influencing fluorescence correlation spectroscopy measurements on membranes: simulations and experiments. Chemical Physics, 2003, 288, 171-186.	1.9	57

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19	Interaction of mitochondrial creatine kinase with model membranes A monolayer study. FEBS Letters, 1991, 281, 123-129.	2.8	53
20	Monitoring Expression and Clustering of the Ionotropic 5HT3Receptor in Plasma Membranes of Live Biological Cellsâ€. Biochemistry, 2003, 42, 877-884.	2.5	53
21	Natural compounds boldine and menthol are antagonists of human 5â€<scp>HT</scp>₃ receptors: implications for treating gastrointestinal disorders. Neurogastroenterology and Motility, 2014, 26, 810-820.	3.0	48
22	Characterization of a Mouse Serotonin 5â€HT₃ Receptor Purified from Mammalian Cells. Journal of Neurochemistry, 1998, 70, 824-834.	3.9	46
23	Tetrahydrobiopterin Biosynthesis as a Potential Target of the Kynurenine Pathway Metabolite Xanthurenic Acid. Journal of Biological Chemistry, 2016, 291, 652-657.	3.4	45
24	Serotonin receptor diversity in the human colon: Expression of serotonin type 3 receptor subunits 5â€HT3C, 5â€HT3D, and 5â€HT3E. Journal of Comparative Neurology, 2011, 519, 420-432.	1.6	43
25	Ligand Binding to G Protein-Coupled Receptors in Tethered Cell Membranes. Langmuir, 2003, 19, 10925-10929.	3.5	41
26	Repetitive Reversible Labeling of Proteins at Polyhistidine Sequences for Single-Molecule Imaging in Live Cells. ChemPhysChem, 2007, 8, 1221-1227.	2.1	41
27	The role of contact sites between inner and outer mitochondrial membrane in energy transfer. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1018, 229-233.	1.0	38
28	Expression of Ligand-Gated Ion Channels with the Semliki Forest Virus Expression System. Journal of Receptor and Signal Transduction Research, 1997, 17, 115-126.	2.5	35
29	Functional immobilisation of the nicotinic acetylcholine receptor in tethered lipid membranes. Biophysical Chemistry, 2000, 85, 141-152.	2.8	35
30	Characterization of the Ligand-binding Site of the Serotonin 5-HT3 Receptor. Journal of Biological Chemistry, 2003, 278, 22709-22716.	3.4	35
31	A Chemogenetic Approach for the Optical Monitoring of Voltage in Neurons. Angewandte Chemie - International Edition, 2019, 58, 2341-2344.	13.8	34
32	Covalent labeling of cell-surface proteins for in-vivo FRET studies. FEBS Letters, 2006, 580, 1654-1658.	2.8	29
33	Fluorescent Epibatidine Agonists for Neuronal and Muscle-Type Nicotinic Acetylcholine Receptors. Angewandte Chemie - International Edition, 2007, 46, 3505-3508.	13.8	29
34	Correlated Optical and Electrical Singleâ€Molecule Measurements Reveal Conformational Diffusion from Ligand Binding to Channel Gating in the Nicotinic Acetylcholine Receptor. ChemBioChem, 2011, 12, 2431-2434.	2.6	23
35	Evaluating Cellular Drug Uptake with Fluorescent Sensor Proteins. ACS Sensors, 2017, 2, 1191-1197.	7.8	20
36	Fluorescence Techniques for Fundamental and Applied Studies of Membrane Protein Receptors: The 5-HT, Serotonin Receptor. Journal of Receptor and Signal Transduction Research, 1999, 19, 533-545.	2.5	17

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37	Torsin ATPases influence chromatin interaction of the Torsin regulator LAP1. ELife, 2020, 9, .	6.0	17
38	The phosphatidylcholine-transfer protein catalyzed import of phosphatidylcholine into isolated rat liver mitochondria. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1025, 49-59.	2.6	16
39	Genetic Algorithm Based Design and Experimental Characterization of a Highly Thermostable Metalloprotein. Journal of the American Chemical Society, 2018, 140, 4517-4521.	13.7	16
40	Mapping the Antagonist Binding Site of the Serotonin Type 3 Receptor by Fluorescence Resonance Energy Transferâ€. Biochemistry, 2001, 40, 12237-12242.	2.5	15
41	Reversible Sequential-Binding Probe Receptor-Ligand Interactions in Single Cells. ChemBioChem, 2005, 6, 2187-2194.	2.6	14
42	Functional asymmetry of transmembrane segments in nicotinic acetylcholine receptors. European Biophysics Journal, 2006, 35, 685-693.	2.2	12
43	Downscaling the Analysis of Complex Transmembrane Signaling Cascades to Closed Attoliter Volumes. PLoS ONE, 2013, 8, e70929.	2.5	12
44	Acetylcholine Receptor Organization in Membrane Domains in Muscle Cells. Journal of Biological Chemistry, 2011, 286, 363-369.	3.4	11
45	Downscaling Fourier Transform Infrared Spectroscopy to the Micrometer and Nanogram Scale:â€‰ Secondary Structure of Serotonin and Acetylcholine Receptors. Biochemistry, 2003, 42, 14017-14022.	2.5	9
46	Microfluidic Singleâ€Cell Analysis with Affinity Beads. Small, 2015, 11, 2607-2613.	10.0	9
47	In Vitro and In Vivo Ligand Binding to the 5HT3 Serotonin Receptor Characterised by Time-Resolved Fluorescence Spectroscopy. ChemBioChem, 2001, 2, 205-211.	2.6	7
48	Synthesis of Nanoscopic Optical Fibers Using Lipid Membranes as Templates. Angewandte Chemie - International Edition, 2005, 44, 4957-4960.	13.8	6
49	Activation of G-Protein-Coupled Receptors in Cell-Derived Plasma Membranes Supported on Porous Beads. Journal of the American Chemical Society, 2011, 133, 16868-16874.	13.7	6
50	A Chemogenetic Approach for the Optical Monitoring of Voltage in Neurons. Angewandte Chemie, 2019, 131, 2363-2366.	2.0	6
51	Expression, Biochemistry, and Stabilization with Camel Antibodies of Membrane Proteins: Case Study of the Mouse 5-HT3 Receptor. Methods in Molecular Biology, 2017, 1635, 139-168.	0.9	5
52	Transient-expression technologies, their application and scale-up: 5-HT3 serotonin receptor case study. Biochemical Society Transactions, 1999, 27, 956-960.	3.4	4
53	Modulation of proton-induced current fluctuations in the human nicotinic acetylcholine receptor channel. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 76-89.	2.6	4
54	Characterization and Validation of Fluorescent Receptor Ligands: A Case Study of the Ionotropic Serotonin Receptor. Methods in Molecular Biology, 2013, 995, 161-178.	0.9	2

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55	Fluorescent Labelling of Membrane Proteins in Living Cells. , 2006, , 199-210.		2
56	Cover Picture: Synthesis of Nanoscopic Optical Fibers Using Lipid Membranes as Templates (Angew.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	13.8	0
57	Cell-Derived Vesicles as a Minimal Cell Prototype. Biophysical Journal, 2012, 102, 515a.	0.5	0
58	Microfluidics: Microfluidic Single-Cell Analysis with Affinity Beads (Small 22/2015). Small, 2015, 11, 2606-2606.	10.0	0
59	Waveguide Fluorosensor for the Detection of Ligand-Receptor Interactions. , 2000, , 135-145.		0