Daniel Choquet

List of Publications by Citations

181 papers	16,422 citations	70 h-index	126 g-index
218 ext. papers	18,655 ext. citations	11.6 avg, IF	6.73 L-index

#	Paper	IF	Citations
181	Extracellular matrix rigidity causes strengthening of integrin-cytoskeleton linkages. *Cell*, **1997**, 88, 39-48	56.2	1068
180	The interaction between Stargazin and PSD-95 regulates AMPA receptor surface trafficking. *Neuron*, **2007**, 53, 719-34	13.9	436
179	Regulation of AMPA receptor lateral movements. *Nature*, **2002**, 417, 649-53	50.4	430
178	Cytoplasmic domain heterogeneity and functions of IgG Fc receptors in B lymphocytes. *Science*, **1992**, 256, 1808-12	33.3	417
177	Brain extracellular matrix affects AMPA receptor lateral mobility and short-term synaptic plasticity. *Nature Neuroscience*, **2009**, 12, 897-904	25.5	393
176	Surface mobility of postsynaptic AMPARs tunes synaptic transmission. *Science*, **2008**, 320, 201-5	33.3	372
175	Super-resolution imaging reveals that AMPA receptors inside synapses are dynamically organized in nanodomains regulated by PSD95. *Journal of Neuroscience*, **2013**, 33, 13204-24	6.6	367
174	Calcium influx through nicotinic receptor in rat central neurons: its relevance to cellular regulation. *Neuron*, **1992**, 8, 135-43	13.9	355
173	Differential activity-dependent regulation of the lateral mobilities of AMPA and NMDA receptors. *Nature Neuroscience*, **2004**, 7, 695-6	25.5	329
172	The dynamic synapse. *Neuron*, **2013**, 80, 691-703	13.9	324
171	The role of receptor diffusion in the organization of the postsynaptic membrane. *Nature Reviews Neuroscience*, **2003**, 4, 251-65	13.5	323
170	Single metallic nanoparticle imaging for protein detection in cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 11350-5	11.5	303
169	Dynamic superresolution imaging of endogenous proteins on living cells at ultra-high density. *Biophysical Journal*, **2010**, 99, 1303-10	2.9	301
168	Direct imaging of lateral movements of AMPA receptors inside synapses. *EMBO Journal*, **2003**, 22, 4656-65	13	297
167	CaMKII triggers the diffusional trapping of surface AMPARs through phosphorylation of stargazin. *Neuron*, **2010**, 67, 239-52	13.9	286
166	Extracellular interactions between GluR2 and N-cadherin in spine regulation. *Neuron*, **2007**, 54, 461-77	13.9	283
165	Integrins β1 and β3 exhibit distinct dynamic nanoscale organizations inside focal adhesions. *Nature Cell Biology*, **2012**, 14, 1057-67	23.4	275

164	NMDA receptor surface mobility depends on NR2A-2B subunits. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18769-74	11.5	263
163	Diffusional trapping of GluR1 AMPA receptors by input-specific synaptic activity. *Neuron*, **2007**, 54, 447-60	13.9	251
162	Surface trafficking of receptors between synaptic and extrasynaptic membranes: and yet they do move!. *Trends in Neurosciences*, **2005**, 28, 133-9	13.3	237
161	Endocytic trafficking and recycling maintain a pool of mobile surface AMPA receptors required for synaptic potentiation. *Neuron*, **2009**, 63, 92-105	13.9	222
160	SR-Tesseler: a method to segment and quantify localization-based super-resolution microscopy data. *Nature Methods*, **2015**, 12, 1065-71	21.6	220
159	Fast and reversible trapping of surface glycine receptors by gephyrin. *Nature Neuroscience*, **2001**, 4, 253-60	15.5	219
158	The stress hormone corticosterone conditions AMPAR surface trafficking and synaptic potentiation. *Nature Neuroscience*, **2008**, 11, 868-70	25.5	212
157	New concepts in synaptic biology derived from single-molecule imaging. *Neuron*, **2008**, 59, 359-74	13.9	208
156	Ligand binding regulates the directed movement of beta1 integrins on fibroblasts. *Nature*, **1996**, 383, 438-40	50.4	208
155	Single nanoparticle photothermal tracking (SNaPT) of 5-nm gold beads in live cells. *Biophysical Journal*, **2006**, 91, 4598-604	2.9	202
154	The calcium current activated by T cell receptor and store depletion in human lymphocytes is absent in a primary immunodeficiency. *Journal of Biological Chemistry*, **1994**, 269, 32327-35	5.4	196
153	CYFIP1 coordinates mRNA translation and cytoskeleton remodeling to ensure proper dendritic spine formation. *Neuron*, **2013**, 79, 1169-82	13.9	181
152	Surface trafficking of neurotransmitter receptor: comparison between single-molecule/quantum dot strategies. *Journal of Neuroscience*, **2007**, 27, 12433-7	6.6	171
151	Hippocampal LTP and contextual learning require surface diffusion of AMPA receptors. *Nature*, **2017**, 549, 384-388	50.4	164
150	Learning, AMPA receptor mobility and synaptic plasticity depend on n-cofilin-mediated actin dynamics. *EMBO Journal*, **2010**, 29, 1889-902	13	164
149	NMDA receptor surface trafficking and synaptic subunit composition are developmentally regulated by the extracellular matrix protein Reelin. *Journal of Neuroscience*, **2007**, 27, 10165-75	6.6	162
148	Matrix metalloproteinase-9 controls NMDA receptor surface diffusion through integrin beta1 signaling. *Journal of Neuroscience*, **2009**, 29, 6007-12	6.6	154
147	Regulation of AMPA receptor surface diffusion by PSD-95 slots. *Current Opinion in Neurobiology*, **2012**, 22, 453-60	7.6	145

146	Receptor activation and homer differentially control the lateral mobility of metabotropic glutamate receptor 5 in the neuronal membrane. *Journal of Neuroscience*, **2002**, 22, 3910-20	6.6	141
145	AMPA and NMDA glutamate receptor trafficking: multiple roads for reaching and leaving the synapse. *Cell and Tissue Research*, **2006**, 326, 423-38	4.2	130
144	A three-step model for the synaptic recruitment of AMPA receptors. *Molecular and Cellular Neurosciences*, **2011**, 46, 1-8	4.8	129
143	A primary T-cell immunodeficiency associated with defective transmembrane calcium influx. *Blood*, **1995**, 85, 1053-1062	2.2	127
142	A molecular clutch between the actin flow and N-cadherin adhesions drives growth cone migration. *Journal of Neuroscience*, **2008**, 28, 5879-90	6.6	126
141	Control of the postsynaptic membrane viscosity. *Journal of Neuroscience*, **2009**, 29, 2926-37	6.6	122
140	Wavelet analysis for single molecule localization microscopy. *Optics Express*, **2012**, 20, 2081-95	3.3	121
139	Dynamics of ligand-induced, Rac1-dependent anchoring of cadherins to the actin cytoskeleton. *Journal of Cell Biology*, **2002**, 157, 469-79	7.3	111
138	Heterogeneity of AMPA receptor trafficking and molecular interactions revealed by superresolution analysis of live cell imaging. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 17052-7	11.5	109
137	Mechanism of 4-aminopyridine action on voltage-gated potassium channels in lymphocytes. *Journal of General Physiology*, **1992**, 99, 217-40	3.4	105
136	Mapping the dynamics and nanoscale organization of synaptic adhesion proteins using monomeric streptavidin. *Nature Communications*, **2016**, 7, 10773	17.4	102
135	Surface trafficking of N-methyl-D-aspartate receptors: physiological and pathological perspectives. *Neuroscience*, **2009**, 158, 4-18	3.9	102
134	Neurexin-neuroligin adhesions capture surface-diffusing AMPA receptors through PSD-95 scaffolds. *Journal of Neuroscience*, **2011**, 31, 13500-15	6.6	102
133	Activity-independent and subunit-specific recruitment of functional AMPA receptors at neurexin/neuroligin contacts. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 20947-52	11.5	102
132	Glutamate-induced AMPA receptor desensitization increases their mobility and modulates short-term plasticity through unbinding from Stargazin. *Neuron*, **2015**, 85, 787-803	13.9	100
131	Cross-linking of IgG receptors inhibits membrane immunoglobulin-stimulated calcium influx in B lymphocytes. *Journal of Cell Biology*, **1993**, 121, 355-63	7.3	100
130	PSD-95 expression controls L-DOPA dyskinesia through dopamine D1 receptor trafficking. *Journal of Clinical Investigation*, **2012**, 122, 3977-89	15.9	100
129	Biomimetic divalent ligands for the acute disruption of synaptic AMPAR stabilization. *Nature Chemical Biology*, **2011**, 7, 81-91	11.7	92

128	Control of autophagosome axonal retrograde flux by presynaptic activity unveiled using botulinum neurotoxin type a. *Journal of Neuroscience*, **2015**, 35, 6179-94	6.6	91
127	Nanoscale segregation of actin nucleation and elongation factors determines dendritic spine protrusion. *EMBO Journal*, **2014**, 33, 2745-64	13	89
126	Converting juvenile into adult plasticity: a role for the brain's extracellular matrix. *European Journal of Neuroscience*, **2010**, 31, 2156-65	3.5	89
125	The (YXXL/I)2 signalling motif found in the cytoplasmic segments of the bovine leukaemia virus envelope protein and Epstein-Barr virus latent membrane protein 2A can elicit early and late lymphocyte activation events.. *EMBO Journal*, **1993**, 12, 5105-5112	13	88
124	Recruitment of the kainate receptor subunit glutamate receptor 6 by cadherin/catenin complexes. *Journal of Neuroscience*, **2002**, 22, 6426-36	6.6	87
123	Cell migration as a five-step cycle. *Biochemical Society Symposia*, **1999**, 65, 233-43		87
122	Real-time analysis and visualization for single-molecule based super-resolution microscopy. *PLoS ONE*, **2013**, 8, e62918	3.7	86
121	Cyclic AMP-modulated potassium channels in murine B cells and their precursors. *Science*, **1987**, 235, 1211-4	33.3	85
120	Fast AMPAR trafficking for a high-frequency synaptic transmission. *European Journal of Neuroscience*, **2010**, 32, 250-60	3.5	83
119	Ion channel blockers inhibit B cell activation at a precise stage of the G1 phase of the cell cycle. Possible involvement of K+ channels. *Journal of Immunology*, **1990**, 144, 2038-45	5.3	78
118	Pre-post synaptic alignment through neuroligin-1 tunes synaptic transmission efficiency. *ELife*, **2018**, 7,	8.9	78
117	Unified quantitative model of AMPA receptor trafficking at synapses. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 3522-7	11.5	74
116	Dynamic and specific interaction between synaptic NR2-NMDA receptor and PDZ proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19561-6	11.5	73
115	Fc gamma RII expression in resting and activated B lymphocytes. *European Journal of Immunology*, **1989**, 19, 1379-85	6.1	73
114	Mobility of calcium channels in the presynaptic membrane. *Neuron*, **2015**, 86, 672-9	13.9	71
113	ATP P2X receptors downregulate AMPA receptor trafficking and postsynaptic efficacy in hippocampal neurons. *Neuron*, **2014**, 83, 417-430	13.9	70
112	Trimers of the fibronectin cell adhesion domain localize to actin filament bundles and undergo rearward translocation. *Journal of Cell Science*, **2002**, 115, 2581-2590	5.3	70
111	Ankyrin G restricts ion channel diffusion at the axonal initial segment before the establishment of the diffusion barrier. *Journal of Cell Biology*, **2010**, 191, 383-95	7.3	66

110	Regulation of N-cadherin dynamics at neuronal contacts by ligand binding and cytoskeletal coupling. *Molecular Biology of the Cell*, **2006**, 17, 862-75	3.5	64
109	Trimers of the fibronectin cell adhesion domain localize to actin filament bundles and undergo rearward translocation. *Journal of Cell Science*, **2002**, 115, 2581-90	5.3	64
108	A Septin-Dependent Diffusion Barrier at Dendritic Spine Necks. *PLoS ONE*, **2014**, 9, e113916	3.7	63
107	Role of associated gamma-chain in tyrosine kinase activation via murine Fc gamma RIII.. *EMBO Journal*, **1992**, 11, 2747-2757	13	63
106	Localization-based super-resolution imaging meets high-content screening. *Nature Methods*, **2017**, 14, 1184-1190	21.6	61
105	Altered surface trafficking of presynaptic cannabinoid type 1 receptor in and out synaptic terminals parallels receptor desensitization. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18596-601	11.5	61
104	Neddylation inhibition impairs spine development, destabilizes synapses and deteriorates cognition. *Nature Neuroscience*, **2015**, 18, 239-51	25.5	58
103	Neurexin-1β binding to neuroligin-1 triggers the preferential recruitment of PSD-95 versus gephyrin through tyrosine phosphorylation of neuroligin-1. *Cell Reports*, **2013**, 3, 1996-2007	10.6	58
102	Shisa6 traps AMPA receptors at postsynaptic sites and prevents their desensitization during synaptic activity. *Nature Communications*, **2016**, 7, 10682	17.4	58
101	Linking Nanoscale Dynamics of AMPA Receptor Organization to Plasticity of Excitatory Synapses and Learning. *Journal of Neuroscience*, **2018**, 38, 9318-9329	6.6	58
100	Synaptically released matrix metalloproteinase activity in control of structural plasticity and the cell surface distribution of GluA1-AMPA receptors. *PLoS ONE*, **2014**, 9, e98274	3.7	56
99	Lengthening of the Stargazin Cytoplasmic Tail Increases Synaptic Transmission by Promoting Interaction to Deeper Domains of PSD-95. *Neuron*, **2015**, 86, 475-89	13.9	54
98	Regulation of AMPA receptor surface trafficking and synaptic plasticity by a cognitive enhancer and antidepressant molecule. *Molecular Psychiatry*, **2013**, 18, 471-84	15.1	54
97	Probing the dynamics of protein-protein interactions at neuronal contacts by optical imaging. *Chemical Reviews*, **2008**, 108, 1565-87	68.1	54
96	Nucleation and growth of cadherin adhesions. *Experimental Cell Research*, **2007**, 313, 4025-40	4.2	54
95	NrCAM coupling to the cytoskeleton depends on multiple protein domains and partitioning into lipid rafts. *Molecular Biology of the Cell*, **2004**, 15, 4695-709	3.5	54
94	Self-propelling vesicles define glycolysis as the minimal energy machinery for neuronal transport. *Nature Communications*, **2016**, 7, 13233	17.4	53
93	Semisynthetic fluorescent pH sensors for imaging exocytosis and endocytosis. *Nature Communications*, **2017**, 8, 1412	17.4	53

92	Different patterns of calcium signaling triggered through two components of the B lymphocyte antigen receptor. *Journal of Biological Chemistry*, **1994**, 269, 6491-7	5.4	53
91	Linking glutamate receptor movements and synapse function. *Science*, **2020**, 368,	33.3	52
90	The next generation of approaches to investigate the link between synaptic plasticity and learning. *Nature Neuroscience*, **2019**, 22, 1536-1543	25.5	51
89	The (YXXL/I)2 signalling motif found in the cytoplasmic segments of the bovine leukaemia virus envelope protein and Epstein-Barr virus latent membrane protein 2A can elicit early and late lymphocyte activation events. *EMBO Journal*, **1993**, 12, 5105-12	13	46
88	Fast turnover of L1 adhesions in neuronal growth cones involving both surface diffusion and exo/endocytosis of L1 molecules. *Molecular Biology of the Cell*, **2007**, 18, 3131-43	3.5	45
87	Dual effects of serotonin on a voltage-gated conductance in lymphocytes. *Proceedings of the National Academy of Sciences of the United States of America*, **1988**, 85, 4557-61	11.5	44
86	Differential Nanoscale Topography and Functional Role of GluN2-NMDA Receptor Subtypes at Glutamatergic Synapses. *Neuron*, **2018**, 100, 106-119.e7	13.9	44
85	Synaptic structure and diffusion dynamics of synaptic receptors. *Biology of the Cell*, **2003**, 95, 465-76	3.5	43
84	Active surface transport of metabotropic glutamate receptors through binding to microtubules and actin flow. *Journal of Cell Science*, **2003**, 116, 5015-22	5.3	42
83	miR-92a regulates expression of synaptic GluA1-containing AMPA receptors during homeostatic scaling. *Nature Neuroscience*, **2014**, 17, 1040-2	25.5	41
82	CaMKII-dependent phosphorylation of GluK5 mediates plasticity of kainate receptors. *EMBO Journal*, **2013**, 32, 496-510	13	41
81	Differential regulation of voltage- and calcium-activated potassium channels in human B lymphocytes. *Journal of Immunology*, **1992**, 148, 3361-8	5.3	41
80	Super-resolved and dynamic imaging of membrane proteins in plant cells reveal contrasting kinetic profiles and multiple confinement mechanisms. *Molecular Plant*, **2015**, 8, 339-42	14.4	39
79	Nanoscale co-organization and coactivation of AMPAR, NMDAR, and mGluR at excitatory synapses. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 14503-14511	11.5	38
78	Does beta-alanine activate more than one chloride channel associated receptor?. *Neuroscience Letters*, **1988**, 84, 329-34	3.3	38
77	Receptor concentration and diffusivity control multivalent binding of Sv40 to membrane bilayers. *PLoS Computational Biology*, **2013**, 9, e1003310	5	36
76	Modulation of AMPA receptor surface diffusion restores hippocampal plasticity and memory in Huntington's disease models. *Nature Communications*, **2018**, 9, 4272	17.4	36
75	Quantum-yield-optimized fluorophores for site-specific labeling and super-resolution imaging. *Journal of the American Chemical Society*, **2011**, 133, 8090-3	16.4	33

74	The excitatory postsynaptic density is a size exclusion diffusion environment. *Neuropharmacology*, **2009**, 56, 30-6	5.5	33
73	Regulation of ITAM signaling by specific sequences in Ig-beta B cell antigen receptor subunit. *Journal of Biological Chemistry*, **1996**, 271, 23786-91	5.4	32
72	Spatial and Temporal Regulation of Receptor Endocytosis in Neuronal Dendrites Revealed by Imaging of Single Vesicle Formation. *Cell Reports*, **2017**, 18, 1840-1847	10.6	31
71	CaMKII Metaplasticity Drives A□Oligomer-Mediated Synaptotoxicity. *Cell Reports*, **2018**, 23, 3137-3145	10.6	31
70	Ion channels and B cell mitogenesis. *Molecular Immunology*, **1990**, 27, 1259-68	4.3	31
69	Pattern of potassium channel expression in proliferating B lymphocytes depends upon the mode of activation. *Journal of Immunology*, **1993**, 151, 2462-70	5.3	31
68	Synaptic adhesion molecule IgSF11 regulates synaptic transmission and plasticity. *Nature Neuroscience*, **2016**, 19, 84-93	25.5	30
67	Multiple routes for glutamate receptor trafficking: surface diffusion and membrane traffic cooperate to bring receptors to synapses. *Science Signaling*, **2006**, 2006, pe13	8.8	30
66	Recycling endosomes undergo rapid closure of a fusion pore on exocytosis in neuronal dendrites. *Journal of Neuroscience*, **2014**, 34, 11106-18	6.6	29
65	High-content super-resolution imaging of live cell by uPAINT. *Methods in Molecular Biology*, **2013**, 950, 95-110	1.4	29
64	Botulinum neurotoxin type-A enters a non-recycling pool of synaptic vesicles. *Scientific Reports*, **2016**, 6, 19654	4.9	29
63	Advanced imaging and labelling methods to decipher brain cell organization and function. *Nature Reviews Neuroscience*, **2021**, 22, 237-255	13.5	28
62	A super-resolution platform for correlative live single-molecule imaging and STED microscopy. *Nature Methods*, **2019**, 16, 1263-1268	21.6	27
61	Measurement and characteristics of neurotransmitter receptor surface trafficking (Review). *Molecular Membrane Biology*, **2008**, 25, 344-52	3.4	27
60	Weak effect of membrane diffusion on the rate of receptor accumulation at adhesive contacts. *Biophysical Journal*, **2005**, 89, L40-2	2.9	27
59	Neuronal Activity and Intracellular Calcium Levels Regulate Intracellular Transport of Newly Synthesized AMPAR. *Cell Reports*, **2018**, 24, 1001-1012.e3	10.6	25
58	Review on the role of AMPA receptor nano-organization and dynamic in the properties of synaptic transmission. *Neurophotonics*, **2016**, 3, 041811	3.9	24
57	Novel diode-pumped infrared tunable laser system for multi-photon microscopy. *Microscopy Research and Technique*, **2004**, 63, 23-6	2.8	23

56	SnapShot: receptor dynamics at plastic synapses. *Cell*, **2014**, 157, 1738-1738.e1	56.2	22
55	Caged mono- and divalent ligands for light-assisted disruption of PDZ domain-mediated interactions. *Journal of the American Chemical Society*, **2013**, 135, 4580-3	16.4	21
54	TNF- influences the lateral dynamics of TNF receptor I in living cells. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2012**, 1823, 1984-9	4.9	21
53	AMPA receptor nanoscale dynamic organization and synaptic plasticities. *Current Opinion in Neurobiology*, **2020**, 63, 137-145	7.6	20
52	Inhibition of PDZ domain-mediated interactions. *Drug Discovery Today: Technologies*, **2013**, 10, e531-40	7.1	20
51	Dopamine-dependent long-term depression at subthalamo-nigral synapses is lost in experimental parkinsonism. *Journal of Neuroscience*, **2013**, 33, 14331-41	6.6	20
50	Neurexin/neuroligin interaction kinetics characterized by counting single cell-surface attached quantum dots. *Biophysical Journal*, **2009**, 97, 480-9	2.9	20
49	Role of associated gamma-chain in tyrosine kinase activation via murine Fc gamma RIII. *EMBO Journal*, **1992**, 11, 2747-57	13	20
48	A two-state model for the diffusion of the A2A adenosine receptor in hippocampal neurons: agonist-induced switch to slow mobility is modified by synapse-associated protein 102 (SAP102). *Journal of Biological Chemistry*, **2014**, 289, 9263-74	5.4	19
47	Modulation of voltage-dependent potassium channels in B lymphocytes. *Biochemical Pharmacology*, **1988**, 37, 3797-802	6	19
46	The Munc18-1 domain 3a hinge-loop controls syntaxin-1A nanodomain assembly and engagement with the SNARE complex during secretory vesicle priming. *Journal of Cell Biology*, **2016**, 214, 847-58	7.3	17
45	Neuroscience. More AMPAR garnish. *Science*, **2009**, 323, 1295-6	33.3	17
44	NMDAR-dependent long-term depression is associated with increased short term plasticity through autophagy mediated loss of PSD-95. *Nature Communications*, **2021**, 12, 2849	17.4	17
43	P2X-mediated AMPA receptor internalization and synaptic depression is controlled by two CaMKII phosphorylation sites on GluA1 in hippocampal neurons. *Scientific Reports*, **2016**, 6, 31836	4.9	17
42	Engineering selective competitors for the discrimination of highly conserved protein-protein interaction modules. *Nature Communications*, **2019**, 10, 4521	17.4	15
41	Functional recruitment of dynamin requires multimeric interactions for efficient endocytosis. *Nature Communications*, **2019**, 10, 4462	17.4	14
40	Regulation of interleukin-2 production and phosphatidylserine synthesis in Jurkat T lymphocytes by K+ channel antagonists. *Immunopharmacology*, **1990**, 20, 97-103		14
39	Chemical synthesis, structural and functional characterisation of noxiustoxin, a powerful blocker of lymphocyte voltage-dependent K+ channels. *Biochemical and Biophysical Research Communications*, **1995**, 213, 901-7	3.4	13

38	Characterization of SynCAM surface trafficking using a SynCAM derived ligand with high homophilic binding affinity. *Biochemical and Biophysical Research Communications*, **2007**, 359, 655-9	3.4	12
37	Fluorescence microscopy of single autofluorescent proteins for cellular biology. *Comptes Rendus Physique*, **2002**, 3, 645-656	1.4	12
36	CaMKII activation persistently segregates postsynaptic proteins via liquid phase separation. *Nature Neuroscience*, **2021**, 24, 777-785	25.5	12
35	TSPAN5 Enriched Microdomains Provide a Platform for Dendritic Spine Maturation through Neuroligin-1 Clustering. *Cell Reports*, **2019**, 29, 1130-1146.e8	10.6	11
34	On the stiffness of the natural actin filament decorated with alexa fluor tropomyosin. *Biophysical Chemistry*, **2003**, 104, 469-76	3.5	11
33	The 2014 Nobel Prize in Chemistry: a large-scale prize for achievements on the nanoscale. *Neuron*, **2014**, 84, 1116-9	13.9	10
32	Effects of chemical modification, tropomyosin, and myosin subfragment 1 on the yield strength and critical concentration of F-actin. *Biochemistry*, **2002**, 41, 5907-12	3.2	9
31	Rhodamine phalloidin F-actin: critical concentration versus tensile strength. *FEBS Journal*, **1999**, 263, 270-5		9
30	Single-particle tracking uncovers dynamics of glutamate-induced retrograde transport of NF-B p65 in living neurons. *Neurophotonics*, **2016**, 3, 041804	3.9	8
29	Robust single-molecule approach for counting autofluorescent proteins. *Journal of Biomedical Optics*, **2008**, 13, 031216	3.5	8
28	Ligand-independent activity of the ghrelin receptor modulates AMPA receptor trafficking and supports memory formation. *Science Signaling*, **2021**, 14,	8.8	8
27	On the elastic properties of tetramethylrhodamine F-actin. *Biophysical Chemistry*, **2001**, 92, 201-7	3.5	6
26	Lattice light sheet microscopy and photo-stimulation in brain slices **2019**,		5
25	Bioorthogonal labeling of transmembrane proteins with non-canonical amino acids unveils masked epitopes in live neurons. *Nature Communications*, **2021**, 12, 6715	17.4	5
24	Tracking receptors using individual fluorescent and nonfluorescent nanolabels. *Cold Spring Harbor Protocols*, **2014**, 2014, 207-13	1.2	4
23	Optical Tweezers and Fluorescence Recovery After Photo-Bleaching to Measure Molecular Interactions at the Cell Surface. *Cellular and Molecular Bioengineering*, **2008**, 1, 301-311	3.9	4
22	T cell activation deficiencies. *Clinical Immunology and Immunopathology*, **1995**, 76, S163-4		4
21	Nanoscale synapse organization and dysfunction in neurodevelopmental disorders. *Neurobiology of Disease*, **2021**, 158, 105453	7.5	4

20	Dendritic autophagy degrades postsynaptic proteins and is required for long-term synaptic depression in mice.. *Nature Communications*, **2022**, 13, 680	17.4	3
19	Correlating STED and synchrotron XRF nano-imaging unveils cosegregation of metals and cytoskeleton proteins in dendrites. *ELife*, **2020**, 9,	8.9	3
18	Engineering paralog-specific PSD-95 synthetic binders as potent and minimally invasive imaging probes		3
17	Tracking receptors by imaging single molecules. *Cold Spring Harbor Protocols*, **2008**, 2008, pdb.top25	1.2	2
16	Simultaneous excitation of multiple fluororophores with a compact femtosecond laser **2006**, 6089, 135		2
15	Pharmacological modulation of AMPA receptor surface diffusion restores hippocampal synaptic plasticity and memory in Huntington disease		2
14	AMPAR-Dependent Synaptic Plasticity Initiates Cortical Remapping and Adaptive Behaviors during Sensory Experience. *Cell Reports*, **2020**, 32, 108097	10.6	2
13	Bioorthogonal labeling of transmembrane proteins with non-canonical amino acids allows access to masked epitopes in live neurons		2
12	Investigating AMPA Receptor Diffusion and Nanoscale Organization at Synapses with High-Density Single-Molecule Tracking Methods. *Neuromethods*, **2014**, 59-74	0.4	2
11	Lateral Dynamics of TNF Receptor I in Living Cells Studied with Single-Particle Tracking and Photoactivatable Fluorescent Probes. *Biophysical Journal*, **2012**, 102, 31a	2.9	1
10	Brain extracellular matrix affects AMPA receptor lateral mobility and short-term synaptic plasticity. *E-Neuroforum*, **2009**, 15, 94-95		1
9	Specific nanoscale synaptic reshuffling and control of short-term plasticity following NMDAR- and P2XR-dependent Long-Term Depression		1
8	MDGAs are fast-diffusing molecules that delay excitatory synapse development by altering neuroligin behavior		1
7	The vSNAREs VAMP2 and VAMP4 control recycling and intracellular sorting of post-synaptic receptors in neuronal dendrites. *Cell Reports*, **2021**, 36, 109678	10.6	1
6	Eyes Wide Open on AMPAR Trafficking during Motor Learning. *Neuron*, **2020**, 105, 764-766	13.9	
5	Exchange Dynamics of Dynamin Measured in Living Cells During Endocytic Vesicle Formation. *Microscopy and Microanalysis*, **2019**, 25, 1240-1241	0.5	
4	Lateral Diffusion of Excitatory Neurotransmitter Receptors During Synaptogenesis **2006**, 221-232		
3	Comparative analysis of infrared fluorescence generation in multiphoton spectroscopy **2004**, 5323, 314		

2	Modulation of the metabotropic glutamate receptor mGluR5a anchorage to the cytoskeleton characterised by videomicroscopy and tracking of single particles manipulated with optical tweezers. *Biology of the Cell*, **1999**, 91, 237-238	3.5
1	Surface Trafficking of Membrane Proteins at Excitatory and Inhibitory Synapses **2008**, 369-406	