

Erdinc Sezgin

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

6,257
citations

109321

35
h-index

82547

72
g-index

127
all docs

127
docs citations

127
times ranked

7460
citing authors

#	ARTICLE	IF	CITATIONS
1	The mystery of membrane organization: composition, regulation and roles of lipid rafts. <i>Nature Reviews Molecular Cell Biology</i> , 2017, 18, 361-374.	37.0	1,471
2	Elucidating membrane structure and protein behavior using giant plasma membrane vesicles. <i>Nature Protocols</i> , 2012, 7, 1042-1051.	12.0	461
3	Plasma membranes are asymmetric in lipid unsaturation, packing and protein shape. <i>Nature Chemical Biology</i> , 2020, 16, 644-652.	8.0	414
4	Partitioning, diffusion, and ligand binding of raft lipid analogs in model and cellular plasma membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2012, 1818, 1777-1784.	2.6	301
5	Scanning STED-FCS reveals spatiotemporal heterogeneity of lipid interaction in the plasma membrane of living cells. <i>Nature Communications</i> , 2014, 5, 5412.	12.8	257
6	Functional convergence of hopanoids and sterols in membrane ordering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14236-14240.	7.1	154
7	Laurdan and Di-4-ANEPPDHQ probe different properties of the membrane. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 134004.	2.8	119
8	Diffusion of lipids and GPI-anchored proteins in actin-free plasma membrane vesicles measured by STED-FCS. <i>Molecular Biology of the Cell</i> , 2017, 28, 1507-1518.	2.1	110
9	Infection with a Brazilian isolate of Zika virus generates RIG-I stimulatory RNA and the viral NS5 protein blocks type I IFN induction and signaling. <i>European Journal of Immunology</i> , 2018, 48, 1120-1136.	2.9	106
10	Mechanical properties of plasma membrane vesicles correlate with lipid order, viscosity and cell density. <i>Communications Biology</i> , 2019, 2, 337.	4.4	105
11	Regulation of lipid saturation without sensing membrane fluidity. <i>Nature Communications</i> , 2020, 11, 756.	12.8	105
12	Lypd6 Enhances Wnt/ β -Catenin Signaling by Promoting Lrp6 Phosphorylation in Raft Plasma Membrane Domains. <i>Developmental Cell</i> , 2013, 26, 331-345.	7.0	101
13	Self-organizing actin patterns shape membrane architecture but not cell mechanics. <i>Nature Communications</i> , 2017, 8, 14347.	12.8	99
14	Spectral Imaging to Measure Heterogeneity in Membrane Lipid Packing. <i>ChemPhysChem</i> , 2015, 16, 1387-1394.	2.1	98
15	Bile Acids Modulate Signaling by Functional Perturbation of Plasma Membrane Domains. <i>Journal of Biological Chemistry</i> , 2013, 288, 35660-35670.	3.4	96
16	Adaptive Lipid Packing and Bioactivity in Membrane Domains. <i>PLoS ONE</i> , 2015, 10, e0123930.	2.5	96
17	Fluorescence Techniques to Study Lipid Dynamics. <i>Cold Spring Harbor Perspectives in Biology</i> , 2011, 3, a009803-a009803.	5.5	87
18	Measuring Lipid Packing of Model and Cellular Membranes with Environment Sensitive Probes. <i>Langmuir</i> , 2014, 30, 8160-8166.	3.5	86

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19	Model membrane platforms to study protein-membrane interactions. <i>Molecular Membrane Biology</i> , 2012, 29, 144-154.	2.0	83
20	A comparative study on fluorescent cholesterol analogs as versatile cellular reporters. <i>Journal of Lipid Research</i> , 2016, 57, 299-309.	4.2	78
21	Measuring nanoscale diffusion dynamics in cellular membranes with super-resolution STED-FCS. <i>Nature Protocols</i> , 2019, 14, 1054-1083.	12.0	76
22	Super-resolution optical microscopy for studying membrane structure and dynamics. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 273001.	1.8	75
23	STED-FLCS: An Advanced Tool to Reveal Spatiotemporal Heterogeneity of Molecular Membrane Dynamics. <i>Nano Letters</i> , 2015, 15, 5912-5918.	9.1	71
24	A dynamic and adaptive network of cytosolic interactions governs protein export by the T3SS injectisome. <i>Nature Communications</i> , 2017, 8, 15940.	12.8	68
25	Interaction of gold nanoparticles with mitochondria. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 71, 315-318.	5.0	65
26	Polarity-Sensitive Probes for Superresolution Stimulated Emission Depletion Microscopy. <i>Biophysical Journal</i> , 2017, 113, 1321-1330.	0.5	63
27	Penetration of Amphiphilic Quantum Dots through Model and Cellular Plasma Membranes. <i>ACS Nano</i> , 2012, 6, 2150-2156.	14.6	59
28	FoCuS-point: software for STED fluorescence correlation and time-gated single photon counting. <i>Bioinformatics</i> , 2016, 32, 958-960.	4.1	57
29	Electroformation of Giant Unilamellar Vesicles on Stainless Steel Electrodes. <i>ACS Omega</i> , 2017, 2, 994-1002.	3.5	53
30	Spiroanthoxazine switchable dyes for biological imaging. <i>Chemical Science</i> , 2018, 9, 3029-3040.	7.4	53
31	A straightforward approach for gated STED-FCS to investigate lipid membrane dynamics. <i>Methods</i> , 2015, 88, 67-75.	3.8	50
32	A bispecific monomeric nanobody induces spike trimer dimers and neutralizes SARS-CoV-2 in vivo. <i>Nature Communications</i> , 2022, 13, 155.	12.8	49
33	Binding of canonical Wnt ligands to their receptor complexes occurs in ordered plasma membrane environments. <i>FEBS Journal</i> , 2017, 284, 2513-2526.	4.7	45
34	Redesigning Solvatochromic Probe Laurdan for Imaging Lipid Order Selectively in Cell Plasma Membranes. <i>Analytical Chemistry</i> , 2020, 92, 14798-14805.	6.5	45
35	Modulation of the molecular arrangement in artificial and biological membranes by phospholipid-shelled microbubbles. <i>Biomaterials</i> , 2017, 113, 105-117.	11.4	44
36	Nanoscale dynamics of cholesterol in the cell membrane. <i>Journal of Biological Chemistry</i> , 2019, 294, 12599-12609.	3.4	44

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37	Influenza A viruses use multivalent sialic acid clusters for cell binding and receptor activation. <i>PLoS Pathogens</i> , 2020, 16, e1008656.	4.7	43
38	Photoswitchable Spiropyran Dyads for Biological Imaging. <i>Organic Letters</i> , 2016, 18, 3666-3669.	4.6	40
39	Regulatory T cell differentiation is controlled by β -KG-induced alterations in mitochondrial metabolism and lipid homeostasis. <i>Cell Reports</i> , 2021, 37, 109911.	6.4	39
40	Nanoclusters of the resting T cell antigen receptor (TCR) localize to non-raft domains. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 802-809.	4.1	36
41	Phase Partitioning of GM1 and Its Bodipy-Labeled Analog Determine Their Different Binding to Cholera Toxin. <i>Frontiers in Physiology</i> , 2017, 8, 252.	2.8	34
42	How Does Liquid-Liquid Phase Separation in Model Membranes Reflect Cell Membrane Heterogeneity?. <i>Membranes</i> , 2021, 11, 323.	3.0	32
43	CD45 exclusion and cross-linking based receptor signaling together broaden Fc γ RI reactivity. <i>Science Signaling</i> , 2018, 11, .	3.6	31
44	How to minimize dye-induced perturbations while studying biomembrane structure and dynamics: PEG linkers as a rational alternative. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018, 1860, 2436-2445.	2.6	31
45	Lipid-Protein Interactions in Plasma Membrane Organization and Function. <i>Annual Review of Biophysics</i> , 2022, 51, 135-156.	10.0	30
46	HDL particles incorporate into lipid bilayers a combined AFM and single molecule fluorescence microscopy study. <i>Scientific Reports</i> , 2017, 7, 15886.	3.3	29
47	Use of BODIPY-Cholesterol (TF-Chol) for Visualizing Lysosomal Cholesterol Accumulation. <i>Traffic</i> , 2016, 17, 1054-1057.	2.7	28
48	Nanoscale Spatiotemporal Diffusion Modes Measured by Simultaneous Confocal and Stimulated Emission Depletion Nanoscopy Imaging. <i>Nano Letters</i> , 2018, 18, 4233-4240.	9.1	28
49	Statistical Analysis of Scanning Fluorescence Correlation Spectroscopy Data Differentiates Free from Hindered Diffusion. <i>ACS Nano</i> , 2018, 12, 8540-8546.	14.6	27
50	Reconstitution of immune cell interactions in free-standing membranes. <i>Journal of Cell Science</i> , 2018, 132, .	2.0	25
51	Model membrane systems to reconstitute immune cell signaling. <i>FEBS Journal</i> , 2021, 288, 1070-1090.	4.7	25
52	Aggregation and mobility of membrane proteins interplay with local lipid order in the plasma membrane of T cells. <i>FEBS Letters</i> , 2021, 595, 2127-2146.	2.8	25
53	Maturation of Monocyte-Derived DCs Leads to Increased Cellular Stiffness, Higher Membrane Fluidity, and Changed Lipid Composition. <i>Frontiers in Immunology</i> , 2020, 11, 590121.	4.8	24
54	Reorganization of Lipid Diffusion by Myelin Basic Protein as Revealed by STED Nanoscopy. <i>Biophysical Journal</i> , 2016, 110, 2441-2450.	0.5	23

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55	Spectral imaging toolbox: segmentation, hyperstack reconstruction, and batch processing of spectral images for the determination of cell and model membrane lipid order. <i>BMC Bioinformatics</i> , 2017, 18, 254.	2.6	23
56	Complementary studies of lipid membrane dynamics using iSCAT and super-resolved fluorescence correlation spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 235401.	2.8	23
57	Receptor-Independent Transfer of Low Density Lipoprotein Cargo to Biomembranes. <i>Nano Letters</i> , 2019, 19, 2562-2567.	9.1	23
58	Impact of Nanoscale Hindrances on the Relationship between Lipid Packing and Diffusion in Model Membranes. <i>Journal of Physical Chemistry B</i> , 2020, 124, 1487-1494.	2.6	23
59	z-STED Imaging and Spectroscopy to Investigate Nanoscale Membrane Structure and Dynamics. <i>Biophysical Journal</i> , 2020, 118, 2448-2457.	0.5	22
60	Long-term STED imaging of membrane packing and dynamics by exchangeable polarity-sensitive dyes. <i>Biophysical Reports</i> , 2021, 1, 100023.	1.2	19
61	Super-resolution RESOLFT microscopy of lipid bilayers using a fluorophore-switch dyad. <i>Chemical Science</i> , 2020, 11, 8955-8960.	7.4	18
62	Lipoprotein Particles Interact with Membranes and Transfer Their Cargo without Receptors. <i>Biochemistry</i> , 2020, 59, 4421-4428.	2.5	18
63	T-cell trans-synaptic vesicles are distinct and carry greater effector content than constitutive extracellular vesicles. <i>Nature Communications</i> , 2022, 13, .	12.8	18
64	Photoconversion of Bodipy-Labelled Lipid Analogues. <i>ChemBioChem</i> , 2013, 14, 695-698.	2.6	16
65	High photon count rates improve the quality of super-resolution fluorescence fluctuation spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 164003.	2.8	15
66	Giant plasma membrane vesicles to study plasma membrane structure and dynamics. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2022, 1864, 183857.	2.6	12
67	Membrane Nanoclustersâ€™Tails of the Unexpected. <i>Cell</i> , 2015, 161, 433-434.	28.9	10
68	More Favorable Palmitic Acid Over Palmitoleic Acid Modification of Wnt3 Ensures Its Localization and Activity in Plasma Membrane Domains. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 281.	3.7	10
69	Fluidity and Lipid Composition of Membranes of Peroxisomes, Mitochondria and the ER From Oleic Acid-Induced <i>Saccharomyces cerevisiae</i> . <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 574363.	3.7	10
70	FOXN1 forms higher-order nuclear condensates displaced by mutations causing immunodeficiency. <i>Science Advances</i> , 2021, 7, eabj9247.	10.3	10
71	Impact of social contacts on SARS-CoV-2 exposure among healthcare workers. <i>Occupational Medicine</i> , 2022, 72, 10-16.	1.4	9
72	Influence of nanobody binding on fluorescence emission, mobility, and organization of GFP-tagged proteins. <i>IScience</i> , 2021, 24, 101891.	4.1	7

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73	Creating Supported Plasma Membrane Bilayers Using Acoustic Pressure. <i>Membranes</i> , 2020, 10, 30.	3.0	6
74	Single-Molecule, Super-Resolution, and Functional Analysis of G Protein-Coupled Receptor Behavior Within the T Cell Immunological Synapse. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 608484.	3.7	6
75	The chaperonin CCT8 controls proteostasis essential for T cell maturation, selection, and function. <i>Communications Biology</i> , 2021, 4, 681.	4.4	6
76	Nradd Acts as a Negative Feedback Regulator of Wnt/ β 2-Catenin Signaling and Promotes Apoptosis. <i>Biomolecules</i> , 2021, 11, 100.	4.0	4
77	Understanding immune signaling using advanced imaging techniques. <i>Biochemical Society Transactions</i> , 2022, 50, 853-866.	3.4	4
78	Diffusion and interaction dynamics of the cytosolic peroxisomal import receptor PEX5. <i>Biophysical Reports</i> , 2022, 2, 100055.	1.2	4
79	STED-FCS Reveals Diffusional Heterogeneity of Lipids and GPI-Anchored Proteins in the Plasma Membrane and Actin Cytoskeleton Free Plasma Membrane Vesicles. <i>Biophysical Journal</i> , 2018, 114, 99a.	0.5	2
80	Editorial: The Role of Biomembranes and Biophysics in Immune Cell Signaling. <i>Frontiers in Immunology</i> , 2021, 12, 740373.	4.8	1
81	Partitioning, Diffusion, and Ligand Binding of Raft Lipid Analogs in Model and Cellular Plasma Membranes. <i>Biophysical Journal</i> , 2012, 102, 296a-297a.	0.5	0
82	HDL-Lipid Uptake is Regulated by Elastic Properties of the Plasma Membrane. <i>Biophysical Journal</i> , 2014, 106, 392a.	0.5	0
83	Membrane Nanoclustersâ€™Tails of the Unexpected. <i>Cell</i> , 2015, 161, 1472.	28.9	0
84	Receptor-Mediated HDL-Lipid Uptake is Regulated by Elastic Properties of the Plasma Membrane. <i>Biophysical Journal</i> , 2016, 110, 521a.	0.5	0
85	Membrane Heterogeneity and its Role in Immune Signaling Elucidated by Spectral Imaging. <i>Biophysical Journal</i> , 2016, 110, 190a.	0.5	0
86	Spectral STED Imaging of Cell Membranes. <i>Biophysical Journal</i> , 2018, 114, 16a.	0.5	0
87	Direct Visualization of Lipoprotein Mediated Cholesterol Transport at the Phospholipid Bilayer Interface. <i>Biophysical Journal</i> , 2018, 114, 347a-348a.	0.5	0
88	Cell-Like Mechanical Response in Passive Plasma Membrane Vesicles. <i>Biophysical Journal</i> , 2018, 114, 273a.	0.5	0
89	Triggering of the High-Affinity IgE Receptor in an Aggregation-Independent Manner. <i>Biophysical Journal</i> , 2018, 114, 108a-109a.	0.5	0
90	Advanced STED Microscopy of the Membrane Organization in Activating T-Cells. <i>Biophysical Journal</i> , 2018, 114, 99a.	0.5	0

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91	Rituximab capping triggers intracellular reorganization of B cells. <i>Matters</i> , 0, , .	1.0	0
92	Interferometric scattering (iSCAT) microscopy: studies of biological membrane dynamics. , 2018, , .		0
93	Uniting diversity to create a more inclusive academic environment. <i>Journal of Cell Science</i> , 2022, 135, .	2.0	0