Robert F Standaert

List of Publications by Year
in descending order

69 papers	7,568 citations	136950 32 h-index	110387 64 g-index
76 all docs	76 docs citations	76 times ranked	6988 citing authors

#	Article	IF	Citations
1	Inhibition of Proteasome Activities and Subunit-Specific Amino-Terminal Threonine Modification by Lactacystin. Science, 1995, 268, 726-731.	12.6	1,594
2	Atomic Structures of the Human Immunophilin FKBP-12 Complexes with FK506 and Rapamycin. Journal of Molecular Biology, 1993, 229, 105-124.	4.2	1,158
3	Two distinct signal transmission pathways in T lymphocytes are inhibited by complexes formed between an immunophilin and either FK506 or rapamycin.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 9231-9235.	7.1	657
4	Atomic structure of FKBP-FK506, an immunophilin-immunosuppressant complex. Science, 1991, 252, 839-842.	12.6	638
5	Molecular cloning and overexpression of the human FK506-binding protein FKBP. Nature, 1990, 346, 671-674.	27.8	330
6	Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. Journal of the American Chemical Society, 2013, 135, 6853-6859.	13.7	267
7	A beta-lactone related to lactacystin induces neurite outgrowth in a neuroblastoma cell line and inhibits cell cycle progression in an osteosarcoma cell line.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 3358-3362.	7.1	217
8	How cholesterol stiffens unsaturated lipid membranes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21896-21905.	7.1	212
9	Inhibition of FKBP rotamase activity by immunosuppressant FK506: twisted amide surrogate. Science, 1990, 248, 863-866.	12.6	202
10	Atomic structure of the rapamycin human immunophilin FKBP-12 complex. Journal of the American Chemical Society, 1991, 113, 7433-7434.	13.7	170
11	Rapamycin and FK506 binding proteins (immunophilins). Journal of the American Chemical Society, 1991, 113, 1409-1411.	13.7	145
12	A rapamycin-selective 25-kDa immunophilin. Biochemistry, 1992, 31, 2427-2434.	2.5	135
13	Preparation of asymmetric phospholipid vesicles for use as cell membrane models. Nature Protocols, 2018, 13, 2086-2101.	12.0	128
14	The in vivo structure of biological membranes and evidence for lipid domains. PLoS Biology, 2017, 15, e2002214.	5.6	123
15	Mechanical Properties of Nanoscopic Lipid Domains. Journal of the American Chemical Society, 2015, 137, 15772-15780.	13.7	108
16	Subnanometer Structure of an Asymmetric Model Membrane: Interleaflet Coupling Influences Domain Properties. Langmuir, 2016, 32, 5195-5200.	3.5	105
17	Radical Coupling Reactions in Lignin Synthesis: A Density Functional Theory Study. Journal of Physical Chemistry B, 2012, 116, 4760-4768.	2.6	101
18	LaPO₄ Nanoparticles Doped with Actinium-225 that Partially Sequester Daughter Radionuclides. Bioconjugate Chemistry, 2011, 22, 766-776.	3.6	96

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19	Down-regulation of the caffeic acid O-methyltransferase gene in switchgrass reveals a novel monolignol analog. Biotechnology for Biofuels, 2012, 5, 71.	6.2	96
20	Hybrid and Nonhybrid Lipids Exert Common Effects on Membrane Raft Size and Morphology. Journal of the American Chemical Society, 2013, 135, 14932-14935.	13.7	73
21	A Short Total Synthesis of (+)-Furanomycin. Organic Letters, 2000, 2, 705-708.	4.6	72
22	Model-based approaches for the determination of lipid bilayer structure from small-angle neutron and X-ray scattering data. European Biophysics Journal, 2012, 41, 875-890.	2.2	66
23	Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. Biophysical Journal, 2014, 106, 289a.	0.5	63
24	Lipid bilayer thickness determines cholesterol's location in model membranes. Soft Matter, 2016, 12, 9417-9428.	2.7	61
25	Modular microfluidics for point-of-care protein purifications. Lab on A Chip, 2015, 15, 1799-1811.	6.0	58
26	Chemically induced dimerization of dihydrofolate reductase by a homobifunctional dimer of methotrexate. Chemistry and Biology, 2000, 7, 313-321.	6.0	49
27	Molecular Recognition of Immunophilins and Immunophilin-Ligand Complexes. Tetrahedron, 1992, 48, 2545-2558.	1.9	48
28	Chemical Factors that Control Lignin Polymerization. Journal of Physical Chemistry B, 2014, 118, 164-170.	2.6	46
29	Activation of membrane receptors by a neurotransmitter conjugate designed for surface attachment. Biomaterials, 2005, 26, 1895-1903.	11.4	44
30	Bacillus subtilis Lipid Extract, A Branched-Chain Fatty Acid Model Membrane. Journal of Physical Chemistry Letters, 2017, 8, 4214-4217.	4.6	42
31	Neutron and X-ray Crystal Structures of a Perdeuterated Enzyme Inhibitor Complex Reveal the Catalytic Proton Network of the Toho-1 Î²-Lactamase for the Acylation Reaction. Journal of Biological Chemistry, 2013, 288, 4715-4722.	3.4	41
32	Abc Amino Acids:Â Design, Synthesis, and Properties of New Photoelastic Amino Acids. Journal of Organic Chemistry, 2006, 71, 7952-7966.	3.2	37
33	Flagellin peptide flg22 gains access to long-distance trafficking in Arabidopsis via its receptor, FLS2. Journal of Experimental Botany, 2017, 68, 1769-1783.	4.8	34
34	Machine learningâ€based prediction of enzyme substrate scope: Application to bacterial nitrilases. Proteins: Structure, Function and Bioinformatics, 2021, 89, 336-347.	2.6	30
35	Characterization of Indole-3-acetic Acid Biosynthesis and the Effects of This Phytohormone on the Proteome of the Plant-Associated Microbe Pantoea sp. YR343. Journal of Proteome Research, 2018, 17, 1361-1374.	3.7	28
36	Asymmetric Synthesis and Translational Competence ofÎ±-(1-Cyclobutenyl)glycine. Organic Letters, 2004, 6, 3659-3662.	4.6	23

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37	Neurotransmitter analog tethered to a silicon platform for neuro-bioMEMS applications. Biotechnology and Bioengineering, 2004, 87, 669-674.	3.3	22
38	Î±,Î±-Difluorophosphonomethyl azobenzene derivatives as photo-regulated phosphoamino acid analogs. 1. Design and synthesis. Tetrahedron Letters, 1999, 40, 6557-6560.	1.4	21
39	Proteomics-Based Tools for Evaluation of Cell-Free Protein Synthesis. Analytical Chemistry, 2017, 89, 11443-11451.	6.5	21
40	Elucidating the potential of crude cell extracts for producing pyruvate from glucose. Synthetic Biology, 2018, 3, ysy006.	2.2	20
41	Pet food safety: a shared concern. British Journal of Nutrition, 2011, 106, S78-S84.	2.3	19
42	Neutron crystallographic studies of T4 lysozyme at cryogenic temperature. Protein Science, 2017, 26, 2098-2104.	7.6	19
43	The importance of advancing technology to Americaâ€™s energy goals. Energy Policy, 2010, 38, 3886-3890.	8.8	15
44	InÂvivo electroretinographic studies of the role of GABAC receptors in retinal signal processing. Experimental Eye Research, 2015, 139, 48-63.	2.6	14
45	Label-free time- and space-resolved exometabolite sampling of growing plant roots through nanoporous interfaces. Scientific Reports, 2019, 9, 10272.	3.3	12
46	Phosphonic acid analogs of GABA through reductive dealkylation of phosphonic diesters with lithium trialkylborohydrides. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 3745-3748.	2.2	11
47	Effect of HEH[EHP] impurities on the ALSEP solvent extraction process. Solvent Extraction and Ion Exchange, 2018, 36, 22-40.	2.0	9
48	Solvent-induced membrane stress in biofuel production: molecular insights from small-angle scattering and all-atom molecular dynamics simulations. Green Chemistry, 2020, 22, 8278-8288.	9.0	9
49	Deoxygenation of Unhindered Alcohols via Reductive Dealkylation of Derived Phosphate Esters. Journal of Organic Chemistry, 2016, 81, 9957-9963.	3.2	8
50	Computationally Guided Discovery and Experimental Validation of Indole-3-acetic Acid Synthesis Pathways. ACS Chemical Biology, 2019, 14, 2867-2875.	3.4	8
51	Impact of Fatty-Acid Labeling of Bacillus subtilis Membranes on the Cellular Lipidome and Proteome. Frontiers in Microbiology, 2020, 11, 914.	3.5	8
52	Total Synthesis of the FK506/FKBP Complex. Strategies and Tactics in Organic Synthesis, 1991, , 417-461.	0.1	7
53	Identification of parallel and divergent optimization solutions for homologous metabolic enzymes. Metabolic Engineering Communications, 2018, 6, 56-62.	3.6	7
54	Carbon Nanofiber Arrays: A Novel Tool for Microdelivery of Biomolecules to Plants. PLoS ONE, 2016, 11, e0153621.	2.5	7

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55	A photoregulated ligand for the nuclear import receptor karyopherin Î±. Bioorganic and Medicinal Chemistry, 2001, 9, 3215-3223.	3.0	6
56	Simple Mimetics of a Nuclear Localization Signal (NLS). Organic Letters, 2003, 5, 2437-2440.	4.6	6
57	2-Aminoethyl Methylphosphonate, a Potent and Rapidly Acting Antagonist of GABA_A-Ï Receptors. Molecular Pharmacology, 2011, 80, 965-978.	2.3	6
58	A simple, solid-phase binding assay for the nuclear import receptor karyopherin Î±. Part 1: direct binding. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 951-954.	2.2	4
59	A simple, solid-phase binding assay for the nuclear import receptor karyopherin Î±. Part 2: competitive binding. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 955-956.	2.2	3
60	Crystallization and preliminary X-ray diffraction analysis of importin-Î± complexed with NLS peptidomimetics. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2005, 1750, 9-13.	2.3	2
61	An in vivo imaging-based assay for detecting protein interactions over a wide range of binding affinities. Analytical Biochemistry, 2009, 395, 166-177.	2.4	2
62	Geometryâ€Dependent Nonequilibrium Steadyâ€State Diffusion and Adsorption of Lipid Vesicles in Micropillar Arrays. Advanced Materials Interfaces, 2019, 6, 1900054.	3.7	2
63	Experiment and Simulation Reveal the Bending Properties of Nanoscopic Lipid Domains. Biophysical Journal, 2015, 108, 31a.	0.5	1
64	Hydrocarbon Thickness Dictates Cholesterol's Location, Orientation and Motion in a Phospholipid Bilayer. Biophysical Journal, 2015, 108, 86a.	0.5	1
65	Hybrid and Nonhybrid Lipids Exert Common Effects on Membrane Raft Size and Morphology. Biophysical Journal, 2014, 106, 501a.	0.5	0
66	Translocase Activity and Asymmetric Model Membranes Probed by Neutron Scattering. Biophysical Journal, 2016, 110, 179a.	0.5	0
67	Neutron Scattering to Study Membrane Systems: From Model Membranes to Living Cells. Biophysical Journal, 2017, 112, 224a.	0.5	0
68	Probing Induced Structural Changes in Biomimetic Bacterial Cell Membrane Interactions with Divalent Cations. Biophysical Journal, 2017, 112, 79a.	0.5	0
69	Microfluidics-based separation of actinium-225 from radium-225 for medical applications. Separation Science and Technology, 2019, 54, 1994-2002.	2.5	0