Robert F Standaert

List of Publications by Year
in descending order

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Version: 2024-02-01

69 papers	7,568 citations	156536 32 h-index	124990 64 g-index

76 all docs	76 docs citations	76 times ranked	7869 citing authors

#	Article	IF	Citations
1	Machine learningâ€based prediction of enzyme substrate scope: Application to bacterial nitrilases. Proteins: Structure, Function and Bioinformatics, 2021, 89, 336-347.	1.5	30
2	How cholesterol stiffens unsaturated lipid membranes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21896-21905.	3.3	212
3	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.	4.6	9
4	Impact of Fatty-Acid Labeling of Bacillus subtilis Membranes on the Cellular Lipidome and Proteome. Frontiers in Microbiology, 2020, 11, 914.	1.5	8
5	Label-free time- and space-resolved exometabolite sampling of growing plant roots through nanoporous interfaces. Scientific Reports, 2019, 9, 10272.	1.6	12
6	Computationally Guided Discovery and Experimental Validation of Indole-3-acetic Acid Synthesis Pathways. ACS Chemical Biology, 2019, 14, 2867-2875.	1.6	8
7	Microfluidics-based separation of actinium-225 from radium-225 for medical applications. Separation Science and Technology, 2019, 54, 1994-2002.	1.3	0
8	Geometryâ€Dependent Nonequilibrium Steadyâ€State Diffusion and Adsorption of Lipid Vesicles in Micropillar Arrays. Advanced Materials Interfaces, 2019, 6, 1900054.	1.9	2
9	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.	1.8	28
10	Effect of HEH[EHP] impurities on the ALSEP solvent extraction process. Solvent Extraction and Ion Exchange, 2018, 36, 22-40.	0.8	9
11	Preparation of asymmetric phospholipid vesicles for use as cell membrane models. Nature Protocols, 2018, 13, 2086-2101.	5.5	128
12	Identification of parallel and divergent optimization solutions for homologous metabolic enzymes. Metabolic Engineering Communications, 2018, 6, 56-62.	1.9	7
13	Elucidating the potential of crude cell extracts for producing pyruvate from glucose. Synthetic Biology, 2018, 3, ysy006.	1.2	20
14	Flagellin peptide flg22 gains access to long-distance trafficking in Arabidopsis via its receptor, FLS2. Journal of Experimental Botany, 2017, 68, 1769-1783.	2.4	34
15	Neutron Scattering to Study Membrane Systems: From Model Membranes to Living Cells. Biophysical Journal, 2017, 112, 224a.	0.2	0
16	Probing Induced Structural Changes in Biomimetic Bacterial Cell Membrane Interactions with Divalent Cations. Biophysical Journal, 2017, 112, 79a.	0.2	0
17	Proteomics-Based Tools for Evaluation of Cell-Free Protein Synthesis. Analytical Chemistry, 2017, 89, 11443-11451.	3.2	21
18	Bacillus subtilis Lipid Extract, A Branched-Chain Fatty Acid Model Membrane. Journal of Physical Chemistry Letters, 2017, 8, 4214-4217.	2.1	42

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19	Neutron crystallographic studies of T4 lysozyme at cryogenic temperature. Protein Science, 2017, 26, 2098-2104.	3.1	19
20	The in vivo structure of biological membranes and evidence for lipid domains. PLoS Biology, 2017, 15, e2002214.	2.6	123
21	Translocase Activity and Asymmetric Model Membranes Probed by Neutron Scattering. Biophysical Journal, 2016, 110, 179a.	0.2	0
22	Subnanometer Structure of an Asymmetric Model Membrane: Interleaflet Coupling Influences Domain Properties. Langmuir, 2016, 32, 5195-5200.	1.6	105
23	Lipid bilayer thickness determines cholesterol's location in model membranes. Soft Matter, 2016, 12, 9417-9428.	1.2	61
24	Deoxygenation of Unhindered Alcohols via Reductive Dealkylation of Derived Phosphate Esters. Journal of Organic Chemistry, 2016, 81, 9957-9963.	1.7	8
25	Carbon Nanofiber Arrays: A Novel Tool for Microdelivery of Biomolecules to Plants. PLoS ONE, 2016, 11, e0153621.	1.1	7
26	Experiment and Simulation Reveal the Bending Properties of Nanoscopic Lipid Domains. Biophysical Journal, 2015, 108, 31a.	0.2	1
27	Hydrocarbon Thickness Dictates Cholesterol's Location, Orientation and Motion in a Phospholipid Bilayer. Biophysical Journal, 2015, 108, 86a.	0.2	1
28	Modular microfluidics for point-of-care protein purifications. Lab on A Chip, 2015, 15, 1799-1811.	3.1	58
29	InÂvivo electroretinographic studies of the role of GABAC receptors in retinal signal processing. Experimental Eye Research, 2015, 139, 48-63.	1.2	14
30	Mechanical Properties of Nanoscopic Lipid Domains. Journal of the American Chemical Society, 2015, 137, 15772-15780.	6.6	108
31	Chemical Factors that Control Lignin Polymerization. Journal of Physical Chemistry B, 2014, 118, 164-170.	1.2	46
32	Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. Biophysical Journal, 2014, 106, 289a.	0.2	63
33	Hybrid and Nonhybrid Lipids Exert Common Effects on Membrane Raft Size and Morphology. Biophysical Journal, 2014, 106, 501a.	0.2	0
34	Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. Journal of the American Chemical Society, 2013, 135, 6853-6859.	6.6	267
35	Hybrid and Nonhybrid Lipids Exert Common Effects on Membrane Raft Size and Morphology. Journal of the American Chemical Society, 2013, 135, 14932-14935.	6.6	73
36	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.	1.6	41

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37	Radical Coupling Reactions in Lignin Synthesis: A Density Functional Theory Study. Journal of Physical Chemistry B, 2012, 116, 4760-4768.	1.2	101
38	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
39	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.	1.2	66
40	LaPO₄ Nanoparticles Doped with Actinium-225 that Partially Sequester Daughter Radionuclides. Bioconjugate Chemistry, 2011, 22, 766-776.	1.8	96
41	2-Aminoethyl Methylphosphonate, a Potent and Rapidly Acting Antagonist of GABA_A-Ï1 Receptors. Molecular Pharmacology, 2011, 80, 965-978.	1.0	6
42	Pet food safety: a shared concern. British Journal of Nutrition, 2011, 106, S78-S84.	1.2	19
43	The importance of advancing technology to Americaâ€™s energy goals. Energy Policy, 2010, 38, 3886-3890.	4.2	15
44	An in vivo imaging-based assay for detecting protein interactions over a wide range of binding affinities. Analytical Biochemistry, 2009, 395, 166-177.	1.1	2
45	Phosphonic acid analogs of GABA through reductive dealkylation of phosphonic diesters with lithium trialkylborohydrides. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 3745-3748.	1.0	11
46	Abc Amino Acids:Â Design, Synthesis, and Properties of New Photoelastic Amino Acids. Journal of Organic Chemistry, 2006, 71, 7952-7966.	1.7	37
47	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.	1.1	2
48	Activation of membrane receptors by a neurotransmitter conjugate designed for surface attachment. Biomaterials, 2005, 26, 1895-1903.	5.7	44
49	Neurotransmitter analog tethered to a silicon platform for neuro-bioMEMS applications. Biotechnology and Bioengineering, 2004, 87, 669-674.	1.7	22
50	Asymmetric Synthesis and Translational Competence ofl-Î±-(1-Cyclobutenyl)glycine. Organic Letters, 2004, 6, 3659-3662.	2.4	23
51	Simple Mimetics of a Nuclear Localization Signal (NLS). Organic Letters, 2003, 5, 2437-2440.	2.4	6
52	A photoregulated ligand for the nuclear import receptor karyopherin Î±. Bioorganic and Medicinal Chemistry, 2001, 9, 3215-3223.	1.4	6
53	Chemically induced dimerization of dihydrofolate reductase by a homobifunctional dimer of methotrexate. Chemistry and Biology, 2000, 7, 313-321.	6.2	49
54	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.	1.0	4

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55	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.	1.0	3
56	A Short Total Synthesis of (+)-Furanomycin. Organic Letters, 2000, 2, 705-708.	2.4	72
57	Î±,Î±-Difluorophosphonomethyl azobenzene derivatives as photo-regulated phosphoamino acid analogs. 1. Design and synthesis. Tetrahedron Letters, 1999, 40, 6557-6560.	0.7	21
58	Inhibition of proteasome activities and subunit-specific amino-terminal threonine modification by lactacystin. Science, 1995, 268, 726-731.	6.0	1,594
59	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.	3.3	217
60	Atomic Structures of the Human Immunophilin FKBP-12 Complexes with FK506 and Rapamycin. Journal of Molecular Biology, 1993, 229, 105-124.	2.0	1,158
61	A rapamycin-selective 25-kDa immunophilin. Biochemistry, 1992, 31, 2427-2434.	1.2	135
62	Molecular Recognition of Immunophilins and Immunophilin-Ligand Complexes. Tetrahedron, 1992, 48, 2545-2558.	1.0	48
63	Total Synthesis of the FK506/FKBP Complex. Strategies and Tactics in Organic Synthesis, 1991, , 417-461.	0.1	7
64	Atomic structure of the rapamycin human immunophilin FKBP-12 complex. Journal of the American Chemical Society, 1991, 113, 7433-7434.	6.6	170
65	Rapamycin and FK506 binding proteins (immunophilins). Journal of the American Chemical Society, 1991, 113, 1409-1411.	6.6	145
66	Atomic structure of FKBP-FK506, an immunophilin-immunosuppressant complex. Science, 1991, 252, 839-842.	6.0	638
67	Molecular cloning and overexpression of the human FK506-binding protein FKBP. Nature, 1990, 346, 671-674.	13.7	330
68	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.	3.3	657
69	Inhibition of FKBP rotamase activity by immunosuppressant FK506: twisted amide surrogate. Science, 1990, 248, 863-866.	6.0	202