Erin E Carlson

List of Publications by Year
in descending order

69 papers	5,387 citations	201674 27 h-index	91884 69 g-index
87 all docs	87 docs citations	87 times ranked	8368 citing authors

#	Article	IF	Citations
1	Sharing and community curation of mass spectrometry data with Global Natural Products Social Molecular Networking. Nature Biotechnology, 2016, 34, 828-837.	17.5	2,802
2	Natural Products as Chemical Probes. ACS Chemical Biology, 2010, 5, 639-653.	3.4	189
3	Profiling of Î²-Lactam Selectivity for Penicillin-Binding Proteins in Escherichia coli Strain DC2. Antimicrobial Agents and Chemotherapy, 2015, 59, 2785-2790.	3.2	144
4	A unique catalytic mechanism for UDP-galactopyranose mutase. Nature Structural and Molecular Biology, 2004, 11, 539-543.	8.2	125
5	Biological Responses to Engineered Nanomaterials: Needs for the Next Decade. ACS Central Science, 2015, 1, 117-123.	11.3	121
6	Novel Heterocyclic Trans Olefin Analogues of N-{4-[4-(2,3-Dichlorophenyl)piperazin-1-yl]butyl}arylcarboxamides as Selective Probes with High Affinity for the Dopamine D3 Receptor. Journal of Medicinal Chemistry, 2005, 48, 839-848.	6.4	119
7	Chemical Probes of UDP-Galactopyranose Mutase. Chemistry and Biology, 2006, 13, 825-837.	6.0	119
8	Requirement of essential <scp>P</scp>bp2x and <scp>GpsB</scp> for septal ring closure in <i><scp>S</scp>treptococcus pneumoniae</i>â€…<scp>D</scp>39. Molecular Microbiology, 2013, 90, 939-955.	2.5	103
9	Identification of Inhibitors for UDP-Galactopyranose Mutase. Journal of the American Chemical Society, 2004, 126, 10532-10533.	13.7	93
10	Progress and prospects for small-molecule probes of bacterial imaging. Nature Chemical Biology, 2016, 12, 472-478.	8.0	89
11	Chemoselective probes for metabolite enrichment and profiling. Nature Methods, 2007, 4, 429-435.	19.0	88
12	<scp>Pbp2x</scp> localizes separately from <scp>Pbp2b</scp> and other peptidoglycan synthesis proteins during later stages of cell division of <scp><i>S</i></scp><i>treptococcus pneumoniae</i>â€…<scp>D</scp>39. Molecular Microbiology, 2014, 94, 21-40.	2.5	88
13	Profiling of Î²-Lactam Selectivity for Penicillin-Binding Proteins in Streptococcus pneumoniae D39. Antimicrobial Agents and Chemotherapy, 2015, 59, 3548-3555.	3.2	87
14	Collision-Induced Dissociation Mass Spectrometry: A Powerful Tool for Natural Product Structure Elucidation. Analytical Chemistry, 2015, 87, 10668-10678.	6.5	83
15	Selective Penicillin-Binding Protein Imaging Probes Reveal Substructure in Bacterial Cell Division. ACS Chemical Biology, 2012, 7, 1746-1753.	3.4	82
16	Integrated Metabolomics Approach Facilitates Discovery of an Unpredicted Natural Product Suite from <i>Streptomyces coelicolor</i> M145. ACS Chemical Biology, 2013, 8, 2009-2016.	3.4	62
17	A general glycomimetic strategy yields non-carbohydrate inhibitors of DC-SIGN. Chemical Communications, 2010, 46, 6747.	4.1	58
18	Enrichment Tags for Enhanced-Resolution Profiling of the Polar Metabolome. Journal of the American Chemical Society, 2007, 129, 15780-15782.	13.7	53

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19	Inactivation of Multiple Bacterial Histidine Kinases by Targeting the ATP-Binding Domain. ACS Chemical Biology, 2015, 10, 328-335.	3.4	53
20	Silencing cryptic specialized metabolism in Streptomyces by the nucleoid-associated protein Lsr2. ELife, 2019, 8, .	6.0	48
21	Activity-Based Probe for Histidine Kinase Signaling. Journal of the American Chemical Society, 2012, 134, 9150-9153.	13.7	47
22	<i>Streptomyces</i> Volatile Compounds Influence Exploration and Microbial Community Dynamics by Altering Iron Availability. MBio, 2019, 10, .	4.1	47
23	Chemoselective hydroxyl group transformation: an elusive target. Molecular BioSystems, 2012, 8, 2484.	2.9	40
24	Chemoselective enrichment for natural products discovery. Chemical Science, 2011, 2, 760.	7.4	36
25	Novel Electrophilic Scaffold for Imaging of Essential Penicillin-Binding Proteins in <i>Streptococcus pneumoniae</i>. ACS Chemical Biology, 2017, 12, 2849-2857.	3.4	32
26	Disarming the virulence arsenal of <i>Pseudomonas aeruginosa</i> by blocking two-component system signaling. Chemical Science, 2018, 9, 7332-7337.	7.4	31
27	Preferential Binding of Cytochrome <i>c</i> to Anionic Ligand-Coated Gold Nanoparticles: A Complementary Computational and Experimental Approach. ACS Nano, 2019, 13, 6856-6866.	14.6	31
28	Harnessing Î²-Lactam Antibiotics for Illumination of the Activity of Penicillin-Binding Proteins in <i>Bacillus subtilis</i>. ACS Chemical Biology, 2020, 15, 1242-1251.	3.4	29
29	Penicillinâ€Binding Protein Imaging Probes. Current Protocols in Chemical Biology, 2013, 5, 239-250.	1.7	28
30	Siloxyl Ether Functionalized Resins for Chemoselective Enrichment of Carboxylic Acids. Organic Letters, 2011, 13, 5652-5655.	4.6	24
31	Thiol-ene Enabled Detection of Thiophosphorylated Kinase Substrates. ACS Chemical Biology, 2013, 8, 1671-1676.	3.4	22
32	Chronic exposure to complex metal oxide nanoparticles elicits rapid resistance in <i>Shewanella oneidensis</i> MR-1. Chemical Science, 2019, 10, 9768-9781.	7.4	22
33	Organization of peptidoglycan synthesis in nodes and separate rings at different stages of cell division of <i>Streptococcus pneumoniae</i>. Molecular Microbiology, 2021, 115, 1152-1169.	2.5	22
34	Mass spectrometry-based assay for the rapid detection of thiol-containing natural products. Chemical Communications, 2016, 52, 13229-13232.	4.1	21
35	Enzyme-targeted fluorescent small-molecule probes for bacterial imaging. Current Opinion in Chemical Biology, 2020, 57, 155-165.	6.1	21
36	Plant Pigment Identification: A Classroom and Outreach Activity. Journal of Chemical Education, 2013, 90, 755-759.	2.3	19

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37	High-level carbapenem tolerance requires antibiotic-induced outer membrane modifications. PLoS Pathogens, 2022, 18, e1010307.	4.7	18
38	Rational Design of Selective Adenine-Based Scaffolds for Inactivation of Bacterial Histidine Kinases. Journal of Medicinal Chemistry, 2017, 60, 8170-8182.	6.4	17
39	Targeting a highly conserved domain in bacterial histidine kinases to generate inhibitors with broad spectrum activity. Current Opinion in Microbiology, 2021, 61, 107-114.	5.1	17
40	All Signals Lost. Science Translational Medicine, 2013, 5, 203ps12.	12.4	16
41	Improved Chemical Syntheses of 1- and 5-Deazariboflavin. Journal of Organic Chemistry, 2004, 69, 2614-2617.	3.2	15
42	Taming of a Superbase for Selective Phenol Desilylation and Natural Product Isolation. Journal of Organic Chemistry, 2013, 78, 7349-7355.	3.2	15
43	Tiny Things with Enormous Impact: Nanotechnology in the Fight Against Infectious Disease. ACS Infectious Diseases, 2018, 4, 1432-1435.	3.8	15
44	Mechanistic insight into inhibition of two-component system signaling. MedChemComm, 2013, 4, 269-277.	3.4	14
45	Chemical tools for selective activity profiling of bacterial penicillin-binding proteins. Methods in Enzymology, 2020, 638, 27-55.	1.0	14
46	Activity-Based Protein Profiling Methods to Study Bacteria: The Power of Small-Molecule Electrophiles. Current Topics in Microbiology and Immunology, 2018, 420, 23-48.	1.1	13
47	Exploration of the Effects of Î³-Phosphate-Modified ATP Analogues on Histidine Kinase Autophosphorylation. Biochemistry, 2018, 57, 4368-4373.	2.5	13
48	Real-Time Visualization of <i>in Vitro</i> Transcription of a Fluorescent RNA Aptamer: An Experiment for the Upper-Division Undergraduate or First-Year Graduate Laboratory. Journal of Chemical Education, 2018, 95, 1867-1871.	2.3	13
49	Modified nucleoside triphosphates in bacterial research for <i>in vitro</i> and live-cell applications. RSC Chemical Biology, 2020, 1, 333-351.	4.1	13
50	Screening serine/threonine and tyrosine kinase inhibitors for histidine kinase inhibition. Bioorganic and Medicinal Chemistry, 2018, 26, 5322-5326.	3.0	12
51	Mechanistic Studies of Bioorthogonal ATP Analogues for Assessment of Histidine Kinase Autophosphorylation. ACS Chemical Biology, 2020, 15, 1252-1260.	3.4	11
52	Comparison of Bioorthogonal Î²â€Lactone Activityâ€Based Probes for Selective Labeling of Penicillinâ€Binding Proteins. ChemBioChem, 2021, 22, 193-202.	2.6	11
53	A reinvigorated era of bacterial secondary metabolite discovery. Current Opinion in Chemical Biology, 2015, 24, 104-111.	6.1	10
54	Biological impact of nanoscale lithium intercalating complex metal oxides to model bacteriumB. subtilis. Environmental Science: Nano, 2019, 6, 305-314.	4.3	9

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55	Accurate Mass MS/MS/MS Analysis of Siderophores Ferrioxamine B and E1 by Collision-Induced Dissociation Electrospray Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2015, 26, 1899-1902.	2.8	8
56	Negatively-charged helices in the gas phase. Chemical Communications, 2014, 50, 8849.	4.1	6
57	Chemoselective enrichment as a tool to increase access to bioactive natural products: Case study borrelidin. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 4767-4769.	2.2	6
58	2â€Aminobenzothiazoles Inhibit Virulence Gene Expression and Block Polymyxin Resistance in <i>Salmonella enterica</i>. ChemBioChem, 2020, 21, 3500-3503.	2.6	6
59	Expanded profiling of <i>Î²</i>-lactam selectivity for penicillin-binding proteins in <i>Streptococcus pneumoniae</i> D39. Biological Chemistry, 2022, 403, 433-443.	2.5	5
60	Live-Cell Profiling of Penicillin-Binding Protein Inhibitors in <i>Escherichia coli</i> MG1655. ACS Infectious Diseases, 2022, 8, 1241-1252.	3.8	5
61	Toward the development of solid-supported reagents for separation of alcohol-containing compounds by steric environment. Tetrahedron, 2014, 70, 4191-4196.	1.9	4
62	Structure Elucidation of Macrolide Antibiotics Using MSⁿ Analysis and Deuterium Labelling. Journal of the American Society for Mass Spectrometry, 2019, 30, 1464-1480.	2.8	4
63	Ion Mobility Mass Spectrometry as an Efficient Tool for Identification of Streptorubin B in Streptomyces coelicolor M145. Journal of Natural Products, 2020, 83, 159-163.	3.0	4
64	Activity-based ATP analog probes for bacterial histidine kinases. Methods in Enzymology, 2022, 664, 59-84.	1.0	3
65	Activityâ€Based Probes for Penicillinâ€Binding Protein Imaging. FASEB Journal, 2012, 26, 1000.1.	0.5	2
66	Advancing Chemical Microbiology. ACS Chemical Biology, 2020, 15, 1115-1118.	3.4	1
67	Looks can be deceiving: Bacterial enzymes work through unanticipated mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2114568118.	7.1	1
68	Thiol-ene-Enabled Detection of Thiophosphorylation as a Labeling Strategy for Phosphoproteins. Methods in Molecular Biology, 2016, 1355, 3-15.	0.9	1
69	PROFILE: Early Excellence in <i>Physical Organic Chemistry</i>. Journal of Physical Organic Chemistry, 2013, 26, 1-1.	1.9	0