

Jason M Crawford

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

4,196
citations

126858

33
h-index

123376

61
g-index

121
all docs

121
docs citations

121
times ranked

4637
citing authors

#	ARTICLE	IF	CITATIONS
1	Siderophores from Neighboring Organisms Promote the Growth of Uncultured Bacteria. <i>Chemistry and Biology</i> , 2010, 17, 254-264.	6.2	378
2	A Forward Chemical Genetic Screen Reveals Gut Microbiota Metabolites That Modulate Host Physiology. <i>Cell</i> , 2019, 177, 1217-1231.e18.	13.5	221
3	The colibactin warhead crosslinks DNA. <i>Nature Chemistry</i> , 2015, 7, 411-417.	6.6	210
4	Deconstruction of Iterative Multidomain Polyketide Synthase Function. <i>Science</i> , 2008, 320, 243-246.	6.0	202
5	New insights into the formation of fungal aromatic polyketides. <i>Nature Reviews Microbiology</i> , 2010, 8, 879-889.	13.6	201
6	Structural basis for biosynthetic programming of fungal aromatic polyketide cyclization. <i>Nature</i> , 2009, 461, 1139-1143.	13.7	176
7	Small molecule perimeter defense in entomopathogenic bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 10821-10826.	3.3	165
8	Identification of a starter unit acyl-carrier protein transacylase domain in an iterative type I polyketide synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 16728-16733.	3.3	164
9	Structure elucidation of colibactin and its DNA cross-links. <i>Science</i> , 2019, 365, .	6.0	158
10	Metabolite exchange between microbiome members produces compounds that influence <i>Drosophila</i> behavior. <i>ELife</i> , 2017, 6, .	2.8	152
11	Bacterial symbionts and natural products. <i>Chemical Communications</i> , 2011, 47, 7559.	2.2	119
12	A Single Promoter Inversion Switches <i>Photorhabdus</i> Between Pathogenic and Mutualistic States. <i>Science</i> , 2012, 337, 88-93.	6.0	114
13	Comparative Metabolomics and Structural Characterizations Illuminate Colibactin Pathway-Dependent Small Molecules. <i>Journal of the American Chemical Society</i> , 2014, 136, 9244-9247.	6.6	113
14	Structure and function of an iterative polyketide synthase thioesterase domain catalyzing Claisen cyclization in aflatoxin biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 6246-6251.	3.3	110
15	Regulating Alternative Lifestyles in Entomopathogenic Bacteria. <i>Current Biology</i> , 2010, 20, 69-74.	1.8	107
16	Characterization of Autoinducer-3 Structure and Biosynthesis in <i>E. coli</i> . <i>ACS Central Science</i> , 2020, 6, 197-206.	5.3	85
17	A community resource for paired genomic and metabolomic data mining. <i>Nature Chemical Biology</i> , 2021, 17, 363-368.	3.9	81
18	A Mechanistic Model for Colibactin-Induced Genotoxicity. <i>Journal of the American Chemical Society</i> , 2016, 138, 15563-15570.	6.6	66

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19	Gut Symbionts from Distinct Hosts Exhibit Genotoxic Activity via Divergent Colibactin Biosynthesis Pathways. <i>Applied and Environmental Microbiology</i> , 2015, 81, 1502-1512.	1.4	65
20	Merging chemical ecology with bacterial genome mining for secondary metabolite discovery. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2014, 41, 285-299.	1.4	64
21	NRPS Substrate Promiscuity Diversifies the Xenematides. <i>Organic Letters</i> , 2011, 13, 5144-5147.	2.4	60
22	Exploiting a Global Regulator for Small Molecule Discovery in <i>Photobacterium luminescens</i> . <i>ACS Chemical Biology</i> , 2010, 5, 659-665.	1.6	56
23	ClbS Is a Cyclopropane Hydrolase That Confers Colibactin Resistance. <i>Journal of the American Chemical Society</i> , 2017, 139, 17719-17722.	6.6	52
24	Production of Octaketide Polyenes by the Calicheamicin Polyketide Synthase CalE8: Implications for the Biosynthesis of Eneidyne Core Structures. <i>Journal of the American Chemical Society</i> , 2009, 131, 12564-12566.	6.6	49
25	Convergent and Modular Synthesis of Candidate Precolibactins. Structural Revision of Precolibactin A. <i>Journal of the American Chemical Society</i> , 2016, 138, 5426-5432.	6.6	49
26	Starter unit specificity directs genome mining of polyketide synthase pathways in fungi. <i>Bioorganic Chemistry</i> , 2008, 36, 16-22.	2.0	48
27	Domain-Targeted Metabolomics Delineates the Heterocycle Assembly Steps of Colibactin Biosynthesis. <i>Journal of the American Chemical Society</i> , 2017, 139, 4195-4201.	6.6	48
28	Introducing THOR, a Model Microbiome for Genetic Dissection of Community Behavior. <i>MBio</i> , 2019, 10, .	1.8	48
29	Activating and Attenuating the Amicoumacin Antibiotics. <i>Molecules</i> , 2016, 21, 824.	1.7	46
30	Structure and bioactivity of colibactin. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127280.	1.0	44
31	Synthetic Strategy of Nonreducing Iterative Polyketide Synthases and the Origin of the Classical "Starter" Unit Effect. <i>ChemBioChem</i> , 2008, 9, 1019-1023.	1.3	40
32	Characterization of Natural Colibactin "Nucleobase Adducts by Tandem Mass Spectrometry and Isotopic Labeling. Support for DNA Alkylation by Cyclopropane Ring Opening. <i>Biochemistry</i> , 2018, 57, 6391-6394.	1.2	39
33	Linking Biosynthetic Gene Clusters to their Metabolites via Pathway- Targeted Molecular Networking. <i>Current Topics in Medicinal Chemistry</i> , 2016, 16, 1705-1716.	1.0	35
34	Structure and Functional Analysis of ClbQ, an Unusual Intermediate-Releasing Thioesterase from the Colibactin Biosynthetic Pathway. <i>ACS Chemical Biology</i> , 2017, 12, 2598-2608.	1.6	32
35	Synthesis and reactivity of precolibactin 886. <i>Nature Chemistry</i> , 2019, 11, 890-898.	6.6	31
36	Phylogenetic and physiological signals in metazoan fossil biomolecules. <i>Science Advances</i> , 2020, 6, eaba6883.	4.7	31

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37	Fossil biomolecules reveal an avian metabolism in the ancestral dinosaur. <i>Nature</i> , 2022, 606, 522-526.	13.7	30
38	Lumiquinone A, an β -Aminomalonate-Derived Aminobenzoquinone from <i>Photorhabdus luminescens</i> . <i>Journal of Natural Products</i> , 2015, 78, 1437-1441.	1.5	28
39	Bright Green Biofluorescence in Sharks Derives from Bromo-Kynurenine Metabolism. <i>Science</i> , 2019, 19, 1291-1336.	1.9	27
40	Molecules from the Microbiome. <i>Annual Review of Biochemistry</i> , 2021, 90, 789-815.	5.0	26
41	Bacterial Analogs of Plant Tetrahydropyridine Alkaloids Mediate Microbial Interactions in a Rhizosphere Model System. <i>Applied and Environmental Microbiology</i> , 2019, 85, .	1.4	25
42	Model Colibactins Exhibit Human Cell Genotoxicity in the Absence of Host Bacteria. <i>ACS Chemical Biology</i> , 2018, 13, 3286-3293.	1.6	23
43	Acyl Carrier Protein-Phosphopantetheinyltransferase Partnerships in Fungal Fatty Acid Synthases. <i>ChemBioChem</i> , 2008, 9, 1559-1563.	1.3	22
44	Dihydrophenylalanine: A Prephenate-Derived <i>Photorhabdus luminescens</i> Antibiotic and Intermediate in Dihydrostilbene Biosynthesis. <i>Chemistry and Biology</i> , 2011, 18, 1102-1112.	6.2	20
45	Stilbene epoxidation and detoxification in a <i>Photorhabdus luminescens</i> -nematode symbiosis. <i>Journal of Biological Chemistry</i> , 2017, 292, 6680-6694.	1.6	20
46	Sulfamethoxazole drug stress upregulates antioxidant immunomodulatory metabolites in <i>Escherichia coli</i> . <i>Nature Microbiology</i> , 2020, 5, 1319-1329.	5.9	19
47	Genome mining unearths a hybrid nonribosomal peptide synthetase-like-pteridine synthase biosynthetic gene cluster. <i>ELife</i> , 2017, 6, .	2.8	18
48	β -Lactam Biotransformations Activate Innate Immunity. <i>Journal of Organic Chemistry</i> , 2018, 83, 7173-7179.	1.7	18
49	Disruption of <i>mosGILT</i> in <i>Anopheles gambiae</i> impairs ovarian development and <i>Plasmodium</i> infection. <i>Journal of Experimental Medicine</i> , 2020, 217, .	4.2	18
50	Pyrazinone protease inhibitor metabolites from <i>Photorhabdus luminescens</i> . <i>Journal of Antibiotics</i> , 2016, 69, 616-621.	1.0	17
51	Cross-kingdom expression of synthetic genetic elements promotes discovery of metabolites in the human microbiome. <i>Cell</i> , 2022, 185, 1487-1505.e14.	13.5	17
52	An Ugi-like Biosynthetic Pathway Encodes Bombesin Receptor Subtype-3 Agonists. <i>Journal of the American Chemical Society</i> , 2019, 141, 16271-16278.	6.6	16
53	Making and Breaking Leupeptin Protease Inhibitors in Pathogenic Gammaproteobacteria. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17872-17880.	7.2	15
54	Discovering antibiotics from the global microbiome. <i>Nature Microbiology</i> , 2018, 3, 392-393.	5.9	14

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55	Absence of the aflatoxin biosynthesis gene, <i>norA</i> , allows accumulation of deoxyaflatoxin B1 in <i>Aspergillus flavus</i> cultures. <i>FEMS Microbiology Letters</i> , 2010, 305, 65-70.	0.7	13
56	Acyl Histidines: New N-Acyl Amides from <i>Legionella pneumophila</i> . <i>ChemBioChem</i> , 2017, 18, 638-646.	1.3	12
57	Bacterial Autoimmune Drug Metabolism Transforms an Immunomodulator into Structurally and Functionally Divergent Antibiotics. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7871-7880.	7.2	12
58	<i>Escherichia coli</i> small molecule metabolism at the host-microorganism interface. <i>Nature Chemical Biology</i> , 2021, 17, 1016-1026.	3.9	11
59	Microbial genome mining answers longstanding biosynthetic questions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 7589-7590.	3.3	10
60	Biocatalytic Reversal of Advanced Glycation End Product Modification. <i>ChemBioChem</i> , 2019, 20, 2402-2410.	1.3	10
61	Cellular Stress Upregulates Indole Signaling Metabolites in <i>Escherichia coli</i> . <i>Cell Chemical Biology</i> , 2020, 27, 698-707.e7.	2.5	10
62	Functional Characterization of a Condensation Domain That Links Nonribosomal Peptide and Pteridine Biosynthetic Machineries in <i>Photobacterium luminescens</i> . <i>Biochemistry</i> , 2018, 57, 354-361.	1.2	9
63	Luciferin production and luciferase transcription in the bioluminescent copepod <i>Metridia lucens</i> . <i>PeerJ</i> , 2018, 6, e5506.	0.9	8
64	Microbiota-Regulated Outcomes of Human Cancer Immunotherapy via the PD-1/PD-L1 Axis. <i>Biochemistry</i> , 2018, 57, 901-903.	1.2	7
65	Dimeric Stilbene Antibiotics Target the Bacterial Cell Wall in Drug-Resistant Gram-Positive Pathogens. <i>Biochemistry</i> , 2020, 59, 1966-1971.	1.2	7
66	A Conserved Nonribosomal Peptide Synthetase in <i>Xenorhabdus bovienii</i> Produces Citrulline-Functionalized Lipopeptides. <i>Journal of Natural Products</i> , 2021, 84, 2692-2699.	1.5	7
67	Secondary Metabolic Pathway-Targeted Metabolomics. <i>Methods in Molecular Biology</i> , 2016, 1401, 175-195.	0.4	7
68	An Atypical Orphan Carbohydrate-NRPS Genomic Island Encodes a Novel Lytic Transglycosylase. <i>Chemistry and Biology</i> , 2014, 21, 1271-1277.	6.2	6
69	New Images Evoke Fascinating Questions. <i>Chemistry and Biology</i> , 2006, 13, 349-351.	6.2	4
70	<i>Escherichia coli</i> -Derived $\hat{1}^3$ -Lactams and Structurally Related Metabolites Are Produced at the Intersection of Colibactin and Fatty Acid Biosynthesis. <i>Organic Letters</i> , 2021, 23, 6895-6899.	2.4	4
71	Not just passing through. <i>Nature Chemistry</i> , 2010, 2, 805-807.	6.6	3
72	Characterization of a Hybrid Nonribosomal Peptide-Carbohydrate Biosynthetic Pathway in <i>Photobacterium luminescens</i> . <i>Biochemistry</i> , 2019, 58, 1131-1140.	1.2	3

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73	Dual Targeting of v-ATPase and mTORC1 Signaling Disarms Multidrug-Resistant Cancers. <i>Cell Chemical Biology</i> , 2020, 27, 1329-1331.	2.5	3
74	Bacterial Autoimmune Drug Metabolism Transforms an Immunomodulator into Structurally and Functionally Divergent Antibiotics. <i>Angewandte Chemie</i> , 2020, 132, 7945-7954.	1.6	3
75	Natural Products: An Era of Discovery in Organic Chemistry. <i>Journal of Organic Chemistry</i> , 2021, 86, 10943-10945.	1.7	3
76	A New Nucleoside Antibiotic Chokes Bacterial RNA Polymerase. <i>Biochemistry</i> , 2017, 56, 4923-4924.	1.2	2
77	A DNA Repair Inhibitor Isolated from an Ecuadorian Fungal Endophyte Exhibits Synthetic Lethality in PTEN-Deficient Glioblastoma. <i>Journal of Natural Products</i> , 2020, 83, 1899-1908.	1.5	2
78	The Gut Microbiome Says NO to microRNA-Mediated Gene Silencing. <i>Biochemistry</i> , 2019, 58, 2089-2090.	1.2	1
79	Chemistry and Enzymology Encoded by the Human Microbiome. , 2020, , 261-286.		0
80	Making and Breaking Leupeptin Protease Inhibitors in Pathogenic Gammaproteobacteria. <i>Angewandte Chemie</i> , 2020, 132, 18028-18036.	1.6	0