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	Cross-kingdom expression of synthetic genetic elements promotes discovery of metabolites in the human microbiome. Cell, 2022, 185, 1487-1505.e14.	13.5	17
2	Fossil biomolecules reveal an avian metabolism in theÂancestral dinosaur. Nature, 2022, 606, 522-526.	13.7	30
3	A community resource for paired genomic and metabolomic data mining. Nature Chemical Biology, 2021, 17, 363-368.	3.9	81
4	Molecules from the Microbiome. Annual Review of Biochemistry, 2021, 90, 789-815.	5.0	26
5	Escherichia coli-Derived Î³-Lactams and Structurally Related Metabolites Are Produced at the Intersection of Colibactin and Fatty Acid Biosynthesis. Organic Letters, 2021, 23, 6895-6899.	2.4	4
6	Natural Products: An Era of Discovery in Organic Chemistry. Journal of Organic Chemistry, 2021, 86, 10943-10945.	1.7	3
7	Escherichia coli small molecule metabolism at the hostâ€“microorganism interface. Nature Chemical Biology, 2021, 17, 1016-1026.	3.9	11
8	A Conserved Nonribosomal Peptide Synthetase in Xenorhabdus bovienii Produces Citrulline-Functionalized Lipopeptides. Journal of Natural Products, 2021, 84, 2692-2699.	1.5	7
9	Disruption of mosGILT in Anopheles gambiae impairs ovarian development and Plasmodium infection. Journal of Experimental Medicine, 2020, 217, .	4.2	18
10	Chemistry and Enzymology Encoded by the Human Microbiome. , 2020, , 261-286.		0
11	Phylogenetic and physiological signals in metazoan fossil biomolecules. Science Advances, 2020, 6, eaba6883.	4.7	31
12	Dual Targeting of v-ATPase and mTORC1 Signaling Disarms Multidrug-Resistant Cancers. Cell Chemical Biology, 2020, 27, 1329-1331.	2.5	3
13	Sulfamethoxazole drug stress upregulates antioxidant immunomodulatory metabolites in Escherichia coli. Nature Microbiology, 2020, 5, 1319-1329.	5.9	19
14	A DNA Repair Inhibitor Isolated from an Ecuadorian Fungal Endophyte Exhibits Synthetic Lethality in PTEN-Deficient Glioblastoma. Journal of Natural Products, 2020, 83, 1899-1908.	1.5	2
15	Dimeric Stilbene Antibiotics Target the Bacterial Cell Wall in Drug-Resistant Gram-Positive Pathogens. Biochemistry, 2020, 59, 1966-1971.	1.2	7
16	Structure and bioactivity of colibactin. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127280.	1.0	44
17	Making and Breaking Leupeptin Protease Inhibitors in Pathogenic Gammaproteobacteria. Angewandte Chemie - International Edition, 2020, 59, 17872-17880.	7.2	15
18	Making and Breaking Leupeptin Protease Inhibitors in Pathogenic Gammaproteobacteria. Angewandte Chemie, 2020, 132, 18028-18036.	1.6	0

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19	Bacterial Autoimmune Drug Metabolism Transforms an Immunomodulator into Structurally and Functionally Divergent Antibiotics. Angewandte Chemie, 2020, 132, 7945-7954.	1.6	3
20	Bacterial Autoimmune Drug Metabolism Transforms an Immunomodulator into Structurally and Functionally Divergent Antibiotics. Angewandte Chemie - International Edition, 2020, 59, 7871-7880.	7.2	12
21	Characterization of Autoinducer-3 Structure and Biosynthesis in E. coli. ACS Central Science, 2020, 6, 197-206.	5.3	85
22	Cellular Stress Upregulates Indole Signaling Metabolites in Escherichia coli. Cell Chemical Biology, 2020, 27, 698-707.e7.	2.5	10
23	Bright Green Biofluorescence in Sharks Derives from Bromo-Kynurenine Metabolism. IScience, 2019, 19, 1291-1336.	1.9	27
24	Structure elucidation of colibactin and its DNA cross-links. Science, 2019, 365, .	6.0	158
25	An Ugi-like Biosynthetic Pathway Encodes Bombesin Receptor Subtype-3 Agonists. Journal of the American Chemical Society, 2019, 141, 16271-16278.	6.6	16
26	Synthesis and reactivity of precolibactin 886. Nature Chemistry, 2019, 11, 890-898.	6.6	31
27	Characterization of a Hybrid Nonribosomal Peptideâ€“Carbohydrate Biosynthetic Pathway in Photorhabdus luminescens. Biochemistry, 2019, 58, 1131-1140.	1.2	3
28	Biocatalytic Reversal of Advanced Glycation End Product Modification. ChemBioChem, 2019, 20, 2402-2410.	1.3	10
29	A Forward Chemical Genetic Screen Reveals Gut Microbiota Metabolites That Modulate Host Physiology. Cell, 2019, 177, 1217-1231.e18.	13.5	221
30	Bacterial Analogs of Plant Tetrahydropyridine Alkaloids Mediate Microbial Interactions in a Rhizosphere Model System. Applied and Environmental Microbiology, 2019, 85, .	1.4	25
31	Introducing THOR, a Model Microbiome for Genetic Dissection of Community Behavior. MBio, 2019, 10, .	1.8	48
32	The Gut Microbiome Says NO to microRNA-Mediated Gene Silencing. Biochemistry, 2019, 58, 2089-2090.	1.2	1
33	Î²-Lactam Biotransformations Activate Innate Immunity. Journal of Organic Chemistry, 2018, 83, 7173-7179.	1.7	18
34	Microbiota-Regulated Outcomes of Human Cancer Immunotherapy via the PD-1/PD-L1 Axis. Biochemistry, 2018, 57, 901-903.	1.2	7
35	Discovering antibiotics from the global microbiome. Nature Microbiology, 2018, 3, 392-393.	5.9	14
36	Functional Characterization of a Condensation Domain That Links Nonribosomal Peptide and Pteridine Biosynthetic Machineries in Photorhabdus luminescens. Biochemistry, 2018, 57, 354-361.	1.2	9

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37	Model Colibactins Exhibit Human Cell Genotoxicity in the Absence of Host Bacteria. ACS Chemical Biology, 2018, 13, 3286-3293.	1.6	23
38	Characterization of Natural Colibactinâ€“Nucleobase Adducts by Tandem Mass Spectrometry and Isotopic Labeling. Support for DNA Alkylation by Cyclopropane Ring Opening. Biochemistry, 2018, 57, 6391-6394.	1.2	39
39	Luciferin production and luciferase transcription in the bioluminescent copepod Metridia lucens. PeerJ, 2018, 6, e5506.	0.9	8
40	Acyl Histidines: New Nâ€Acyl Amides from Legionella pneumophila. ChemBioChem, 2017, 18, 638-646.	1.3	12
41	Domain-Targeted Metabolomics Delineates the Heterocycle Assembly Steps of Colibactin Biosynthesis. Journal of the American Chemical Society, 2017, 139, 4195-4201.	6.6	48
42	Stilbene epoxidation and detoxification in a Photorhabdus luminescens-nematode symbiosis. Journal of Biological Chemistry, 2017, 292, 6680-6694.	1.6	20
43	Structure and Functional Analysis of ClbQ, an Unusual Intermediate-Releasing Thioesterase from the Colibactin Biosynthetic Pathway. ACS Chemical Biology, 2017, 12, 2598-2608.	1.6	32
44	A New Nucleoside Antibiotic Chokes Bacterial RNA Polymerase. Biochemistry, 2017, 56, 4923-4924.	1.2	2
45	ClbS Is a Cyclopropane Hydrolase That Confers Colibactin Resistance. Journal of the American Chemical Society, 2017, 139, 17719-17722.	6.6	52
46	Genome mining unearths a hybrid nonribosomal peptide synthetase-like-pteridine synthase biosynthetic gene cluster. ELife, 2017, 6, .	2.8	18
47	Metabolite exchange between microbiome members produces compounds that influence Drosophila behavior. ELife, 2017, 6, .	2.8	152
48	Linking Biosynthetic Gene Clusters to their Metabolites via Pathway- Targeted Molecular Networking. Current Topics in Medicinal Chemistry, 2016, 16, 1705-1716.	1.0	35
49	Activating and Attenuating the Amicoumacin Antibiotics. Molecules, 2016, 21, 824.	1.7	46
50	Convergent and Modular Synthesis of Candidate Precolibactins. Structural Revision of Precolibactin A. Journal of the American Chemical Society, 2016, 138, 5426-5432.	6.6	49
51	A Mechanistic Model for Colibactin-Induced Genotoxicity. Journal of the American Chemical Society, 2016, 138, 15563-15570.	6.6	66
52	Pyrazinone protease inhibitor metabolites from Photorhabdus luminescens. Journal of Antibiotics, 2016, 69, 616-621.	1.0	17
53	Secondary Metabolic Pathway-Targeted Metabolomics. Methods in Molecular Biology, 2016, 1401, 175-195.	0.4	7
54	Lumiquinone A, an Î±-Aminomalonate-Derived Aminobenzoquinone from Photorhabdus luminescens. Journal of Natural Products, 2015, 78, 1437-1441.	1.5	28

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55	The colibactin warhead crosslinks DNA. Nature Chemistry, 2015, 7, 411-417.	6.6	210
56	Gut Symbionts from Distinct Hosts Exhibit Genotoxic Activity via Divergent Colibactin Biosynthesis Pathways. Applied and Environmental Microbiology, 2015, 81, 1502-1512.	1.4	65
57	Merging chemical ecology with bacterial genome mining for secondary metabolite discovery. Journal of Industrial Microbiology and Biotechnology, 2014, 41, 285-299.	1.4	64
58	An Atypical Orphan Carbohydrate-NRPS Genomic Island Encodes a Novel Lytic Transglycosylase. Chemistry and Biology, 2014, 21, 1271-1277.	6.2	6
59	Comparative Metabolomics and Structural Characterizations Illuminate Colibactin Pathway-Dependent Small Molecules. Journal of the American Chemical Society, 2014, 136, 9244-9247.	6.6	113
60	Small molecule perimeter defense in entomopathogenic bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10821-10826.	3.3	165
61	A Single Promoter Inversion Switches Photorhabdus Between Pathogenic and Mutualistic States. Science, 2012, 337, 88-93.	6.0	114
62	Microbial genome mining answers longstanding biosynthetic questions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7589-7590.	3.3	10
63	NRPS Substrate Promiscuity Diversifies the Xenematides. Organic Letters, 2011, 13, 5144-5147.	2.4	60
64	Bacterial symbionts and natural products. Chemical Communications, 2011, 47, 7559.	2.2	119
65	Dihydrophenylalanine: A Prephenate-Derived Photorhabdus luminescens Antibiotic and Intermediate in Dihydrostilbene Biosynthesis. Chemistry and Biology, 2011, 18, 1102-1112.	6.2	20
66	Regulating Alternative Lifestyles in Entomopathogenic Bacteria. Current Biology, 2010, 20, 69-74.	1.8	107
67	Siderophores from Neighboring Organisms Promote the Growth of Uncultured Bacteria. Chemistry and Biology, 2010, 17, 254-264.	6.2	378
68	Absence of the aflatoxin biosynthesis gene, norA, allows accumulation of deoxyaflatoxin B1 in Aspergillus flavus cultures. FEMS Microbiology Letters, 2010, 305, 65-70.	0.7	13
69	Not just passing through. Nature Chemistry, 2010, 2, 805-807.	6.6	3
70	New insights into the formation of fungal aromatic polyketides. Nature Reviews Microbiology, 2010, 8, 879-889.	13.6	201
71	Structure and function of an iterative polyketide synthase thioesterase domain catalyzing Claisen cyclization in aflatoxin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6246-6251.	3.3	110
72	Exploiting a Global Regulator for Small Molecule Discovery in Photorhabdus luminescens. ACS Chemical Biology, 2010, 5, 659-665.	1.6	56

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73	Structural basis for biosynthetic programming of fungal aromatic polyketide cyclization. Nature, 2009, 461, 1139-1143.	13.7	176
74	Production of Octaketide Polyenes by the Calicheamicin Polyketide Synthase CalE8: Implications for the Biosynthesis of Enediyne Core Structures. Journal of the American Chemical Society, 2009, 131, 12564-12566.	6.6	49
75	Acylâ€Carrier Proteinâ€“Phosphopantetheinyltransferase Partnerships in Fungal Fatty Acid Synthases. ChemBioChem, 2008, 9, 1559-1563.	1.3	22
76	Synthetic Strategy of Nonreducing Iterative Polyketide Synthases and the Origin of the Classical â€œStarterâ€Unit Effectâ€• ChemBioChem, 2008, 9, 1019-1023.	1.3	40
77	Starter unit specificity directs genome mining of polyketide synthase pathways in fungi. Bioorganic Chemistry, 2008, 36, 16-22.	2.0	48
78	Deconstruction of Iterative Multidomain Polyketide Synthase Function. Science, 2008, 320, 243-246.	6.0	202
79	New Images Evoke FAScinating Questions. Chemistry and Biology, 2006, 13, 349-351.	6.2	4
80	Identification of a starter unit acyl-carrier protein transacylase domain in an iterative type I polyketide synthase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16728-16733.	3.3	164