Martin Welch

List of Publications by Year
in descending order

66 papers	2,831 citations	186265 28 h-index	189892 50 g-index
74 all docs	74 docs citations	74 times ranked	3763 citing authors

#	Article	IF	Citations
1	Quorum Sensing in Gram-Negative Bacteria: Small-Molecule Modulation of AHL and AI-2 Quorum Sensing Pathways. Chemical Reviews, 2011, 111, 28-67.	47.7	549
2	N-acyl homoserine lactone binding to the CarR receptor determines quorum-sensing specificity in Erwinia. EMBO Journal, 2000, 19, 631-641.	7.8	168
3	Interrelationships between Colonies, Biofilms, and Planktonic Cells of Pseudomonas aeruginosa. Journal of Bacteriology, 2007, 189, 2411-2416.	2.2	114
4	Matrix exopolysaccharides; the sticky side of biofilm formation. FEMS Microbiology Letters, 2017, 364, .	1.8	113
5	The Glyoxylate Shunt, 60 Years On. Annual Review of Microbiology, 2018, 72, 309-330.	7.3	111
6	The regulation of virulence in phytopathogenic Erwinia species: quorum sensing, antibiotics and ecological considerations. Antonie Van Leeuwenhoek, 2002, 81, 223-231.	1.7	110
7	Quorum Sensing Is Accompanied by Global Metabolic Changes in the Opportunistic Human Pathogen Pseudomonas aeruginosa. Journal of Bacteriology, 2015, 197, 2072-2082.	2.2	91
8	Mutation of nfxB Causes Global Changes in the Physiology and Metabolism of Pseudomonas aeruginosa. Journal of Proteome Research, 2010, 9, 2957-2967.	3.7	83
9	Genomic Variation among Contemporary Pseudomonas aeruginosa Isolates from Chronically Infected Cystic Fibrosis Patients. Journal of Bacteriology, 2012, 194, 4857-4866.	2.2	79
10	Variations on a Theme: Diverse N-Acyl Homoserine Lactone-Mediated Quorum Sensing Mechanisms in Gram-Negative Bacteria. Science Progress, 2006, 89, 167-211.	1.9	74
11	Design, synthesis and biological evaluation of non-natural modulators of quorum sensing in Pseudomonas aeruginosa. Organic and Biomolecular Chemistry, 2012, 10, 6032.	2.8	68
12	Strategies for managing rival bacterial communities: Lessons from burying beetles. Journal of Animal Ecology, 2018, 87, 414-427.	2.8	57
13	Contextual Flexibility in Pseudomonas aeruginosa Central Carbon Metabolism during Growth in Single Carbon Sources. MBio, 2020, 11, .	4.1	57
14	The Pseudomonas aeruginosa generalized transducing phage Ï†PA3 is a new member of the Ï†KZ-like group of â€˜jumboâ€™ phages, and infects model laboratory strains and clinical isolates from cystic fibrosis patients. Microbiology (United Kingdom), 2011, 157, 859-867.	1.8	56
15	Multifunctional supramolecular polymer networks as next-generation consolidants for archaeological wood conservation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17743-17748.	7.1	50
16	Microwave and flow syntheses of Pseudomonasquinolone signal (PQS) and analogues. Organic and Biomolecular Chemistry, 2011, 9, 57-61.	2.8	48
17	Cellâ€“cell communication in Gram-negative bacteria. Molecular BioSystems, 2005, 1, 196-202.	2.9	47
18	Structure-Activity Analysis of the Pseudomonas Quinolone Signal Molecule. Journal of Bacteriology, 2010, 192, 3833-3837.	2.2	47

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19	Virulence in <scp>P</scp>ectobacterium atrosepticum is regulated by a coincidence circuit involving quorum sensing and the stress alarmone, (p)pp<scp>G</scp>pp. Molecular Microbiology, 2013, 90, 457-471.	2.5	44
20	Biofilms and type III secretion are not mutually exclusive in Pseudomonas aeruginosa. Microbiology (United Kingdom), 2009, 155, 687-698.	1.8	43
21	Gluconeogenic precursor availability regulates flux through the glyoxylate shunt in Pseudomonas aeruginosa. Journal of Biological Chemistry, 2018, 293, 14260-14269.	3.4	43
22	Loving the poison: the methylcitrate cycle and bacterial pathogenesis. Microbiology (United Kingdom), 2018, 164, 251-259.	1.8	39
23	A new Pseudomonas quinolone signal (PQS) binding partner: MexG. Chemical Science, 2016, 7, 2553-2562.	7.4	38
24	Structureâ€“activity relationships of Erwinia carotovora quorum sensing signaling molecules. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 4235-4238.	2.2	37
25	Impact of Azithromycin on the Quorum Sensing-Controlled Proteome of Pseudomonas aeruginosa. PLoS ONE, 2016, 11, e0147698.	2.5	37
26	Mep72, a Metzincin Protease That Is Preferentially Secreted by Biofilms of Pseudomonas aeruginosa. Journal of Bacteriology, 2015, 197, 762-773.	2.2	32
27	Silencing the majority. Nature Biotechnology, 2001, 19, 735-736.	17.5	27
28	Purification and characterisation of a quorum quenching AHL-lactonase from the endophytic bacterium Enterobacter sp. CS66. FEMS Microbiology Letters, 2018, 365, .	1.8	26
29	Type III secretion system expression in oxygen-limited Pseudomonas aeruginosa cultures is stimulated by isocitrate lyase activity. Open Biology, 2013, 3, 120131.	3.6	25
30	The Synthesis of Quinolone Natural Products from Pseudonocardia sp.. European Journal of Organic Chemistry, 2016, 2016, 434-437.	2.4	25
31	Surface swarming motility by Pectobacterium atrosepticum is a latent phenotype that requires O antigen and is regulated by quorum sensing. Microbiology (United Kingdom), 2013, 159, 2375-2385.	1.8	24
32	Identification of new quorum sensing autoinducer binding partners in Pseudomonas aeruginosa using photoaffinity probes. Chemical Science, 2017, 8, 7403-7411.	7.4	24
33	Decreased efficacy of antimicrobial agents in a polymicrobial environment. ISME Journal, 2022, 16, 1694-1704.	9.8	23
34	The whole-genome sequence analysis of Enterobacter cloacae strain Ghats1: insights into endophytic lifestyle-associated genomic adaptations. Archives of Microbiology, 2020, 202, 1571-1579.	2.2	21
35	Microwave-assisted preparation of the quorum-sensing molecule 2-heptyl-3-hydroxy-4(1H)-quinolone and structurally related analogs. Nature Protocols, 2012, 7, 1184-1192.	12.0	20
36	Discovery of an inhibitor of the production of the Pseudomonas aeruginosa virulence factor pyocyanin in wild-type cells. Beilstein Journal of Organic Chemistry, 2016, 12, 1428-1433.	2.2	19

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37	Recapitulation of polymicrobial communities associated with cystic fibrosis airway infections: a perspective. Future Microbiology, 2019, 14, 1437-1450.	2.0	19
38	The Pseudomonas Quinolone Signal (PQS). Israel Journal of Chemistry, 2016, 56, 282-294.	2.3	18
39	Protein modification via alkyne hydrosilylation using a substoichiometric amount of ruthenium(<scp>ii</scp>) catalyst. Chemical Science, 2017, 8, 3871-3878.	7.4	18
40	Community-led comparative genomic and phenotypic analysis of the aquaculture pathogen Pseudomonas baetica a390T sequenced by Ion semiconductor and Nanopore technologies. FEMS Microbiology Letters, 2018, 365, .	1.8	17
41	Global reprogramming of virulence and antibiotic resistance in Pseudomonas aeruginosa by a single nucleotide polymorphism in elongation factor, fusA1. Journal of Biological Chemistry, 2020, 295, 16411-16426.	3.4	17
42	Evolutionary plasticity in the allosteric regulator-binding site of pyruvate kinase isoform PykA from Pseudomonas aeruginosa. Journal of Biological Chemistry, 2019, 294, 15505-15516.	3.4	14
43	A Plasmid-Transposon Hybrid Mutagenesis System Effective in a Broad Range of Enterobacteria. Frontiers in Microbiology, 2015, 6, 1442.	3.5	13
44	Structure-Based Discovery of Lipoteichoic Acid Synthase Inhibitors. Journal of Chemical Information and Modeling, 2022, 62, 2586-2599.	5.4	13
45	Structural and Functional Characterization of Malate Synthase G from Opportunistic Pathogen Pseudomonas aeruginosa. Biochemistry, 2017, 56, 5539-5549.	2.5	12
46	Ligand Binding Kinetics of the Quorum Sensing Regulator PqsR. Biochemistry, 2013, 52, 4433-4438.	2.5	11
47	A Continuous-Flow Model for in vitro Cultivation of Mixed Microbial Populations Associated With Cystic Fibrosis Airway Infections. Frontiers in Microbiology, 2019, 10, 2713.	3.5	11
48	Ciprofloxacin binding to GyrA causes global changes in the proteome of Pseudomonas aeruginosa. FEMS Microbiology Letters, 2018, 365, .	1.8	10
49	Transcriptional regulation of central carbon metabolism in Pseudomonas aeruginosa. Microbial Biotechnology, 2020, 13, 285-289.	4.2	10
50	Kinetic Model for Signal Binding to the Quorum Sensing Regulator LasR. International Journal of Molecular Sciences, 2013, 14, 13360-13376.	4.1	8
51	Arming the troops: Post-translational modification of extracellular bacterial proteins. Science Progress, 2020, 103, 003685042096431.	1.9	8
52	Microbial Biofilm as a Smart Material. Sensors, 2015, 15, 4229-4241.	3.8	7
53	Synthesis and biological evaluation of 1,2-disubstituted 4-quinolone analogues of Pseudonocardia sp. natural products. Beilstein Journal of Organic Chemistry, 2018, 14, 2680-2688.	2.2	7
54	The Pseudomonas aeruginosa whole genome sequence: A 20th anniversary celebration. Advances in Microbial Physiology, 2021, 79, 25-88.	2.4	7

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55	Short-chain reactive probes as tools to unravel the Pseudomonas aeruginosa quorum sensing regulon. Chemical Science, 2021, 12, 4570-4581.	7.4	6
56	An in vitro model for the cultivation of polymicrobial biofilms under continuous-flow conditions. F1000Research, 2021, 10, 801.	1.6	6
57	Why is Pseudomonas aeruginosa a common cause of infection in individuals with cystic fibrosis?. Future Microbiology, 2013, 8, 697-699.	2.0	5
58	2-Aminopyridine Analogs Inhibit Both Enzymes of the Glyoxylate Shunt in Pseudomonas aeruginosa. International Journal of Molecular Sciences, 2020, 21, 2490.	4.1	5
59	Virulence and antimicrobial resistance genes are enriched in the plasmidome of clinical Escherichia coli isolates compared with wastewater isolates from western Kenya. Infection, Genetics and Evolution, 2021, 91, 104784.	2.3	5
60	No evidence of a cleaning mutualism between burying beetles and their phoretic mites. Scientific Reports, 2017, 7, 13838.	3.3	4
61	Divergent Synthesis of Novel Cylindrocyclophanes that Inhibit Methicillinâ€Resistant Staphylococcus aureus (MRSA). ChemMedChem, 2020, 15, 1289-1293.	3.2	4
62	The methylation-independent mismatch repair machinery in Pseudomonas aeruginosa. Microbiology (United Kingdom), 2021, 167, .	1.8	4
63	Structure, Function and Regulation of a Second Pyruvate Kinase Isozyme in Pseudomonas aeruginosa. Frontiers in Microbiology, 2021, 12, 790742.	3.5	3
64	Universal soldier: Pseudomonas aeruginosa â€" an opportunistic generalist. Frontiers in Biology, 2013, 8, 387-394.	0.7	2
65	Origin of cooperativity in the activation of dimeric transcription factors. Physical Review Research, 2020, 2, .	3.6	2
66	Controlling the hypermutation: Exploitation of the MutS protein in Pseudomonas aeruginosa. Access Microbiology, 2020, 2, .	0.5	0