Frank Rosenau

List of Publications by Year
in descending order

61 papers	3,020 citations	186265 28 h-index	168389 53 g-index
64 all docs	64 docs citations	64 times ranked	3865 citing authors

#	Article	IF	Citations
1	Complete genome sequence of the myxobacterium Sorangium cellulosum. Nature Biotechnology, 2007, 25, 1281-1289.	17.5	354
2	Pseudomonas aeruginosa lectin LecB is located in the outer membrane and is involved in biofilm formation. Microbiology (United Kingdom), 2005, 151, 1313-1323.	1.8	303
3	Reduced virulence of a hfq mutant of Pseudomonas aeruginosa O1. Microbial Pathogenesis, 2003, 35, 217-228.	2.9	227
4	Inhibition and Dispersion of Pseudomonas aeruginosa Biofilms by Glycopeptide Dendrimers Targeting the Fucose-Specific Lectin LecB. Chemistry and Biology, 2008, 15, 1249-1257.	6.0	211
5	Bacterial lipases from Pseudomonas: Regulation of gene expression and mechanisms of secretion. Biochimie, 2000, 82, 1023-1032.	2.6	160
6	The Autotransporter Esterase EstA of <i>Pseudomonas aeruginosa</i> Is Required for Rhamnolipid Production, Cell Motility, and Biofilm Formation. Journal of Bacteriology, 2007, 189, 6695-6703.	2.2	151
7	Extracellular enzymes affect biofilm formation of mucoid Pseudomonas aeruginosa. Microbiology (United Kingdom), 2010, 156, 2239-2252.	1.8	102
8	Novel insights into biosynthesis and uptake of rhamnolipids and their precursors. Applied Microbiology and Biotechnology, 2017, 101, 2865-2878.	3.6	89
9	Singleâ€Cell Highâ€Throughput Screening To Identify Enantioselective Hydrolytic Enzymes. Angewandte Chemie - International Edition, 2008, 47, 5085-5088.	13.8	81
10	TREX: A Universal Tool for the Transfer and Expression of Biosynthetic Pathways in Bacteria. ACS Synthetic Biology, 2013, 2, 22-33.	3.8	76
11	Hexadecane and Tween 80 Stimulate Lipase Production in Burkholderia glumae by Different Mechanisms. Applied and Environmental Microbiology, 2007, 73, 3838-3844.	3.1	75
12	Interaction between extracellular lipase LipA and the polysaccharide alginate of Pseudomonas aeruginosa. BMC Microbiology, 2013, 13, 159.	3.3	75
13	Creating metabolic demand as an engineering strategy in Pseudomonas putida â€" Rhamnolipid synthesis as an example. Metabolic Engineering Communications, 2016, 3, 234-244.	3.6	73
14	Bacterial lipases for biotechnological applications. Journal of Molecular Catalysis B: Enzymatic, 1997, 3, 3-12.	1.8	70
15	Lipase-Specific Foldases. ChemBioChem, 2004, 5, 152-161.	2.6	68
16	Combinatorial variation of branching length and multivalency in a large (390â€‰625 member) glycopeptide dendrimer library: ligands for fucose-specific lectins. New Journal of Chemistry, 2007, 31, 1291.	2.8	51
17	Heterologous production of long-chain rhamnolipids from Burkholderia glumae in Pseudomonas putidaâ€"a step forward to tailor-made rhamnolipids. Applied Microbiology and Biotechnology, 2018, 102, 1229-1239.	3.6	51
18	Evaluation of methods for pore generation and their influence on physio-chemical properties of a protein based hydrogel. Biotechnology Reports (Amsterdam, Netherlands), 2016, 12, 6-12.	4.4	46

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19	Heterologous production of the lipopeptide biosurfactant serrawettin W1 in Escherichia coli. Journal of Biotechnology, 2014, 181, 27-30.	3.8	45
20	Novel broad host range shuttle vectors for expression in Escherichia coli, Bacillus subtilis and Pseudomonas putida. Journal of Biotechnology, 2012, 161, 71-79.	3.8	44
21	Specific Association of Lectin LecB with the Surface of Pseudomonas aeruginosa: Role of Outer Membrane Protein OprF. PLoS ONE, 2012, 7, e46857.	2.5	36
22	Ultrathin Polydopamine Films with Phospholipid Nanodiscs Containing a Glycophorin A Domain. Advanced Functional Materials, 2020, 30, 2000378.	14.9	36
23	Lipase LipC affects motility, biofilm formation and rhamnolipid production in Pseudomonas aeruginosa. FEMS Microbiology Letters, 2010, 309, no-no.	1.8	35
24	Growth of engineered <i>Pseudomonas putida</i> KT2440 on glucose, xylose, and arabinose: Hemicellulose hydrolysates and their major sugars as sustainable carbon sources. GCB Bioenergy, 2019, 11, 249-259.	5.6	35
25	Heterologous rhamnolipid biosynthesis by P. putida KT2440 on bio-oil derived small organic acids and fractions. AMB Express, 2019, 9, 80.	3.0	33
26	The subcellular localization of a C-terminal processing protease in Pseudomonas aeruginosa. FEMS Microbiology Letters, 2011, 316, 23-30.	1.8	31
27	Autotransporters with GDSL Passenger Domains: Molecular Physiology and Biotechnological Applications. ChemBioChem, 2011, 12, 1476-1485.	2.6	31
28	On the road towards tailor-made rhamnolipids: current state and perspectives. Applied Microbiology and Biotechnology, 2018, 102, 8175-8185.	3.6	31
29	Functional Cell-Surface Display of a Lipase-Specific Chaperone. ChemBioChem, 2007, 8, 55-60.	2.6	30
30	Design of a Helical-Stabilized, Cyclic, and Nontoxic Analogue of the Peptide Cm-p5 with Improved Antifungal Activity. ACS Omega, 2019, 4, 19081-19095.	3.5	26
31	Derivates of the Antifungal Peptide Cm-p5 Inhibit Development of Candida auris Biofilms In Vitro. Antibiotics, 2020, 9, 363.	3.7	22
32	Lectin-based affinity tag for one-step protein purification. BioTechniques, 2006, 41, 327-332.	1.8	20
33	Glycosylation Is Required for Outer Membrane Localization of the Lectin LecB in<i>Pseudomonas aeruginosa</i>. Journal of Bacteriology, 2011, 193, 1107-1113.	2.2	20
34	The Diversity of a Polyclonal FluCellâ€SELEX Library Outperforms Individual Aptamers as Emerging Diagnostic Tools for the Identification of Carbapenem Resistant <i>Pseudomonas aeruginosa</i>. Chemistry - A European Journal, 2020, 26, 14536-14545.	3.3	18
35	Lectin-Functionalized Composite Hydrogels for â€œCapture-and-Killingâ€•of Carbapenem-Resistant <i>Pseudomonas aeruginosa</i>. Biomacromolecules, 2018, 19, 2472-2482.	5.4	17
36	Potential of biotechnological conversion of lignocellulose hydrolyzates by Pseudomonas putida KT2440 as a model organism for a bioâ€based economy. GCB Bioenergy, 2019, 11, 1421-1434.	5.6	17

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37	Oneâ€step bioconversion of hemicellulose polymers to rhamnolipids with<i> Cellvibrio japonicus</i>: A proofâ€ofâ€concept for a potential host strain in future bioeconomy. GCB Bioenergy, 2019, 11, 260-268.	5.6	17
38	A Cerberusâ€Inspired Antiâ€Infective Multicomponent Gatekeeper Hydrogel against Infections with the Emerging â€œSuperbugâ€•Yeast <i>Candida auris</i>. Macromolecular Bioscience, 2020, 20, e2000005.	4.1	17
39	Lectin-mediated reversible immobilization of human cells into a glycosylated macroporous protein hydrogel as a cell culture matrix. Scientific Reports, 2017, 7, 6151.	3.3	16
40	New Antibacterial Peptides from the Freshwater Mollusk Pomacea poeyana (Pilsbry, 1927). Biomolecules, 2020, 10, 1473.	4.0	15
41	Heterologous Rhamnolipid Biosynthesis: Advantages, Challenges, and the Opportunity to Produce Tailor-Made Rhamnolipids. Frontiers in Bioengineering and Biotechnology, 2020, 8, 594010.	4.1	14
42	The BapF protein from Pseudomonas aeruginosa is a Î²-peptidyl aminopeptidase. World Journal of Microbiology and Biotechnology, 2011, 27, 713-718.	3.6	13
43	The Lipase LipA (PA2862) but Not LipC (PA4813) from Pseudomonas aeruginosa Influences Regulation of Pyoverdine Production and Expression of the Sigma Factor PvdS. Journal of Bacteriology, 2011, 193, 5858-5860.	2.2	13
44	Antimicrobial Peptides Pom-1 and Pom-2 from Pomacea poeyana Are Active against Candidaauris, C. parapsilosis and C. albicans Biofilms. Pathogens, 2021, 10, 496.	2.8	13
45	Subtilase SprP exerts pleiotropic effects in Pseudomonas aeruginosa. MicrobiologyOpen, 2014, 3, 89-103.	3.0	12
46	FluCell-SELEX Aptamers as Specific Binding Molecules for Diagnostics of the Health Relevant Gut Bacterium Akkermansia muciniphila. International Journal of Molecular Sciences, 2021, 22, 10425.	4.1	11
47	Mutations towards enantioselectivity adversely affect secretion of<i>Pseudomonas aeruginosa</i>lipase. FEMS Microbiology Letters, 2008, 282, 65-72.	1.8	10
48	Polyclonal aptamer libraries as binding entities on a graphene FET based biosensor for the discrimination of apo- and holo-retinol binding protein 4. Nanoscale Horizons, 2022, 7, 770-778.	8.0	10
49	A Novel Cheap and Easy to Handle Protein Hydrogel for 3D Cell Culture Applications: A High Stability Matrix with Tunable Elasticity and Cell Adhesion Properties. ChemistrySelect, 2016, 1, 1353-1360.	1.5	9
50	BSA Hydrogel Beads Functionalized with a Specific Aptamer Library for Capturing Pseudomonas aeruginosa in Serum and Blood. International Journal of Molecular Sciences, 2021, 22, 11118.	4.1	8
51	Beyond bread and beer: whole cell protein extracts from bakerâ€™s yeast as a bulk source for 3D cell culture matrices. Applied Microbiology and Biotechnology, 2017, 101, 1907-1917.	3.6	7
52	A Polyclonal Aptamer Library for the Specific Binding of the Gut Bacterium Roseburia intestinalis in Mixtures with Other Gut Microbiome Bacteria and Human Stool Samples. International Journal of Molecular Sciences, 2022, 23, 7744.	4.1	7
53	Antimicrobial Activity of Cyclic-Monomeric and Dimeric Derivatives of the Snail-Derived Peptide Cm-p5 against Viral and Multidrug-Resistant Bacterial Strains. Biomolecules, 2021, 11, 745.	4.0	6
54	Polyclonal Aptamers for Specific Fluorescence Labeling and Quantification of the Health Relevant Human Gut Bacterium Parabacteroides distasonis. Microorganisms, 2021, 9, 2284.	3.6	6

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55	Easy Manipulation of Architectures in Protein-based Hydrogels for Cell Culture Applications. Journal of Visualized Experiments, 2017, , .	0.3	5
56	Azulitoxâ€"A Pseudomonas aeruginosa P28-Derived Cancer-Cell-Specific Protein Photosensitizer. Biomacromolecules, 2020, 21, 5067-5076.	5.4	5
57	Increased Activities against Biofilms of the Pathogenic Yeast Candida albicans of Optimized Pom-1 Derivatives. Pharmaceutics, 2022, 14, 318.	4.5	5
58	Bioconversion of lignocellulosic â€˜wasteâ€™ to highâ€value food proteins: Recombinant production of bovine and human Î± S1 â€casein based on wheat straw lignocellulose. GCB Bioenergy, 2021, 13, 640-655.	5.6	3
59	Diffusion-controlled release of the theranostic protein-photosensitizer Azulitox from composite of Fmoc-Phenylalanine Fibrils encapsulated with BSA hydrogels. Journal of Biotechnology, 2021, 341, 51-62.	3.8	3
60	Albumin Microspheres as â€œTrans-Ferry-Beadsâ€•for Easy Cell Passaging in Cell Culture Technology. Gels, 2021, 7, 176.	4.5	3
61	Combination of Six Individual Derivatives of the Pom-1 Antibiofilm Peptide Doubles Their Efficacy against Invasive and Multi-Resistant Clinical Isolates of the Pathogenic Yeast CandidaÂalbicans. Pharmaceutics, 2022, 14, 1332.	4.5	2