Blaine A Pfeifer

List of Publications by Year
in descending order

99 papers	4,831 citations	159585 30 h-index	98798 67 g-index
100 all docs	100 docs citations	100 times ranked	5754 citing authors

#	Article	IF	Citations
1	Isoprenoid Pathway Optimization for Taxol Precursor Overproduction in Escherichia coli. Science, 2010, 330, 70-74.	12.6	1,426
2	Overcoming Nonviral Gene Delivery Barriers: Perspective and Future. Molecular Pharmaceutics, 2013, 10, 4082-4098.	4.6	327
3	Porphyrinâ€“phospholipid liposomes permeabilized by near-infrared light. Nature Communications, 2014, 5, 3546.	12.8	282
4	Biosynthesis of Polyketides in Heterologous Hosts. Microbiology and Molecular Biology Reviews, 2001, 65, 106-118.	6.6	225
5	Methods and options for the heterologous production of complex natural products. Natural Product Reports, 2011, 28, 125-151.	10.3	138
6	Overcoming Gene-Delivery Hurdles: Physiological Considerations for Nonviral Vectors. Trends in Biotechnology, 2016, 34, 91-105.	9.3	132
7	Complete Biosynthesis of Erythromycin A and Designed Analogs Using E. coli as a Heterologous Host. Chemistry and Biology, 2010, 17, 1232-1240.	6.0	123
8	Biosynthesis of Yersiniabactin, a Complex Polyketide-Nonribosomal Peptide, Using Escherichia coli as a Heterologous Host. Applied and Environmental Microbiology, 2003, 69, 6698-6702.	3.1	111
9	Metabolic flux analysis and pharmaceutical production. Metabolic Engineering, 2010, 12, 81-95.	7.0	101
10	Process and Metabolic Strategies for Improved Production of Escherichia coli -Derived 6-Deoxyerythronolide B. Applied and Environmental Microbiology, 2002, 68, 3287-3292.	3.1	87
11	Bacterial Hosts for Natural Product Production. Molecular Pharmaceutics, 2008, 5, 212-225.	4.6	85
12	Poly(ethylene glycol)-block-cationic polylactide nanocomplexes ofÂdiffering charge density for gene delivery. Biomaterials, 2013, 34, 9688-9699.	11.4	69
13	Formulation and surface modification of poly(ester-anhydride) micro- and nanospheres. Biomaterials, 2005, 26, 117-124.	11.4	63
14	Investigating the role of native propionylâ€CoA and methylmalonylâ€CoA metabolism on heterologous polyketide production in Escherichia coli. Biotechnology and Bioengineering, 2010, 105, 567-573.	3.3	56
15	Analysis of heterologous taxadiene production in K- and B-derived Escherichia coli. Applied Microbiology and Biotechnology, 2012, 93, 1651-1661.	3.6	56
16	Computational identification of gene over-expression targets for metabolic engineering of taxadiene production. Applied Microbiology and Biotechnology, 2012, 93, 2063-2073.	3.6	56
17	Synthesis of Cationic Polylactides with Tunable Charge Densities as Nanocarriers for Effective Gene Delivery. Molecular Pharmaceutics, 2013, 10, 1138-1145.	4.6	56
18	Phenotypic Variation during Biofilm Formation: Implications for Anti-Biofilm Therapeutic Design. Materials, 2018, 11, 1086.	2.9	49

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19	Enhancing the Atom Economy of Polyketide Biosynthetic Processes through Metabolic Engineering. Biotechnology Progress, 2001, 17, 612-617.	2.6	48
20	Downstream reactions and engineering in the microbially reconstituted pathway for Taxol. Applied Microbiology and Biotechnology, 2012, 94, 841-849.	3.6	44
21	Mannosylated poly(beta-amino esters) for targeted antigen presenting cell immune modulation. Biomaterials, 2015, 37, 333-344.	11.4	43
22	A specific role of the Saccharopolyspora erythraea thioesterase II gene in the function of modular polyketide synthases. Microbiology (United Kingdom), 2003, 149, 2213-2225.	1.8	42
23	Directed vaccination against pneumococcal disease. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6898-6903.	7.1	39
24	Heterologous production of plant-derived isoprenoid products in microbes and the application of metabolic engineering and synthetic biology. Current Opinion in Plant Biology, 2014, 19, 8-13.	7.1	38
25	Poly(ester-anhydride):poly(Î²-amino ester) micro- and nanospheres: DNA encapsulation and cellular transfection. International Journal of Pharmaceutics, 2005, 304, 210-219.	5.2	36
26	Reconstitution of Kinamycin Biosynthesis within the Heterologous Host Streptomyces albus J1074. Journal of Natural Products, 2018, 81, 72-77.	3.0	35
27	Improving heterologous polyketide production in Escherichia coli by overexpression of an S-adenosylmethionine synthetase gene. Applied Microbiology and Biotechnology, 2007, 77, 367-373.	3.6	34
28	6-Deoxyerythronolide B production through chromosomal localization of the deoxyerythronolide B synthase genes in E. coli. Metabolic Engineering, 2008, 10, 33-38.	7.0	34
29	E. coli metabolic engineering for gram scale production of a plant-based anti-inflammatory agent. Metabolic Engineering, 2016, 38, 382-388.	7.0	34
30	Tailoring pathway modularity in the biosynthesis of erythromycin analogs heterologously engineered in E. coli. Science Advances, 2015, 1, e1500077.	10.3	32
31	Heterologous Biosynthesis of Type II Polyketide Products Using E. coli. ACS Chemical Biology, 2020, 15, 1177-1183.	3.4	31
32	Toward Biosynthetic Design and Implementation of Escherichia coli-Derived Paclitaxel and Other Heterologous Polyisoprene Compounds. Applied and Environmental Microbiology, 2012, 78, 2497-2504.	3.1	30
33	Metabolic and pathway engineering to influence native and altered erythromycin production through E. coli. Metabolic Engineering, 2013, 19, 42-49.	7.0	29
34	Total Biosynthesis and Diverse Applications of the Nonribosomal Peptide-Polyketide Siderophore Yersiniabactin. Applied and Environmental Microbiology, 2015, 81, 5290-5298.	3.1	28
35	Comprehensive vaccine design for commensal disease progression. Science Advances, 2017, 3, e1701797.	10.3	28
36	PEGylated Cationic Polylactides for Hybrid Biosynthetic Gene Delivery. Molecular Pharmaceutics, 2015, 12, 846-856.	4.6	27

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37	Production of the polyketide 6-deoxyerythronolide B in the heterologous host Bacillus subtilis. Applied Microbiology and Biotechnology, 2016, 100, 1209-1220.	3.6	27
38	Multiâ€factorial engineering of heterologous polyketide production in Escherichia coli reveals complex pathway interactions. Biotechnology and Bioengineering, 2011, 108, 1360-1371.	3.3	26
39	Heterologous erythromycin production across strain and plasmid construction. Biotechnology Progress, 2018, 34, 271-276.	2.6	26
40	Precursor-Directed polyketide biosynthesis in Escherichia coli. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 3701-3704.	2.2	25
41	Hybrid biosynthetic gene therapy vector development and dual engineering capacity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12360-12365.	7.1	25
42	Structureâ€“Function Assessment of Mannosylated Poly(Î²-amino esters) upon Targeted Antigen Presenting Cell Gene Delivery. Biomacromolecules, 2015, 16, 1534-1541.	5.4	24
43	Grafting Activated Graphene Oxide Nanosheets onto Ultrafiltration Membranes Using Polydopamine to Enhance Antifouling Properties. ACS Applied Materials & Interfaces, 2020, 12, 48179-48187.	8.0	24
44	Polyketide analysis using mass spectrometry, evaporative light scattering, and charged aerosol detector systems. Analytical and Bioanalytical Chemistry, 2008, 390, 1189-1193.	3.7	23
45	Recent progress in therapeutic natural product biosynthesis using Escherichia coli. Current Opinion in Biotechnology, 2016, 42, 7-12.	6.6	23
46	Continuous removal of copper, magnesium, and nickel from industrial wastewater utilizing the natural product yersiniabactin immobilized within a packed-bed column. Chemical Engineering Journal, 2018, 343, 173-179.	12.7	23
47	Siderophore natural products as pharmaceutical agents. Current Opinion in Biotechnology, 2021, 69, 242-251.	6.6	23
48	Deoxysugar pathway interchange for erythromycin analogues heterologously produced through Escherichia coli. Metabolic Engineering, 2013, 20, 92-100.	7.0	21
49	Improved E. coli erythromycin a production through the application of metabolic and bioprocess engineering. Biotechnology Progress, 2012, 28, 292-296.	2.6	20
50	Improved heterologous erythromycin A production through expression plasmid reâ€design. Biotechnology Progress, 2013, 29, 862-869.	2.6	20
51	Heterologous biosynthesis as a platform for producing new generation natural products. Current Opinion in Biotechnology, 2020, 66, 123-130.	6.6	19
52	A Comparison Between Polymeric Microsphere and Bacterial Vectors for Macrophage P388D1 Gene Delivery. Pharmaceutical Research, 2008, 25, 1202-1208.	3.5	18
53	In situ pneumococcal vaccine production and delivery through a hybrid biological-biomaterial vector. Science Advances, 2016, 2, e1600264.	10.3	18
54	Engineering a Next-Generation Glycoconjugate-LikeStreptococcus pneumoniaeVaccine. ACS Infectious Diseases, 2018, 4, 1553-1563.	3.8	18

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55	Monacycliones Gâ€“K and ent-Gephyromycin A, Angucycline Derivatives from the Marine-Derived Streptomyces sp. HDN15129. Journal of Natural Products, 2020, 83, 2749-2755.	3.0	18
56	Engineering E. coli for triglyceride accumulation through native and heterologous metabolic reactions. Applied Microbiology and Biotechnology, 2013, 97, 2753-2759.	3.6	17
57	Improved heterologous production of the nonribosomal peptideâ€polyketide siderophore yersiniabactin through metabolic engineering and induction optimization. Biotechnology Progress, 2016, 32, 1412-1417.	2.6	17
58	Loading and releasing ciprofloxacin in photoactivatable liposomes. Biochemical Engineering Journal, 2019, 141, 43-48.	3.6	17
59	Computational analysis of phenotypic space in heterologous polyketide biosynthesisâ€”Applications to Escherichia coli, Bacillus subtilis, and Saccharomyces cerevisiae. Journal of Theoretical Biology, 2010, 262, 197-207.	1.7	16
60	Engineering Bacterial Vectors for Delivery of Genes and Proteins to Antigen-Presenting Cells. Molecular Pharmaceutics, 2007, 4, 4-17.	4.6	13
61	Simultaneous production and partitioning of heterologous polyketide and isoprenoid natural products in an Escherichia coli two-phase bioprocess. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 1809-1820.	3.0	13
62	The Continuing Development of E. coli as a Heterologous Host for Complex Natural Product Biosynthesis. Methods in Molecular Biology, 2016, 1401, 121-134.	0.9	13
63	Efficient experimental design and microâ€scale medium enhancement of 6â€deoxyerythronolide B production through Escherichia coli. Biotechnology Progress, 2009, 25, 1364-1371.	2.6	12
64	A high-throughput comparison of recombinant gene expression parameters for E. coli-mediated gene transfer to P388D1 macrophage cells. Journal of Biotechnology, 2008, 137, 59-64.	3.8	11
65	Polymyxin B Treatment Improves Bactofection Efficacy and Reduces Cytotoxicity. Molecular Pharmaceutics, 2013, 10, 4301-4308.	4.6	11
66	Influence of molecular weight upon mannosylated bio-synthetic hybrids for targeted antigen presenting cell gene delivery. Biomaterials, 2015, 58, 103-111.	11.4	11
67	A copper removal process for water based upon biosynthesis of yersiniabactin, a metal-binding natural product. Chemical Engineering Journal, 2016, 306, 772-776.	12.7	11
68	Flux Balance Analysis for Media Optimization and Genetic Targets to Improve Heterologous Siderophore Production. IScience, 2020, 23, 101016.	4.1	11
69	Vaccine Delivery and Immune Response Basics. Methods in Molecular Biology, 2021, 2183, 1-8.	0.9	11
70	Contemporary approaches for nonviral gene therapy. Discovery Medicine, 2015, 19, 447-54.	0.5	11
71	Improved Escherichia coli Bactofection and Cytotoxicity by Heterologous Expression of Bacteriophage Î¦X174 Lysis Gene E. Molecular Pharmaceutics, 2015, 12, 1691-1700.	4.6	10
72	Yersiniabactin metal binding characterization and removal of nickel from industrial wastewater. Biotechnology Progress, 2017, 33, 1548-1554.	2.6	10

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73	Antibacterial p-Terphenyl with a Rare 2,2â€²-Bithiazole Substructure and Related Compounds Isolated from the Marine-Derived Actinomycete Nocardiopsis sp. HDN154086. Journal of Natural Products, 2021, 84, 1226-1231.	3.0	10
74	Complex natural product production methods and options. Synthetic and Systems Biotechnology, 2021, 6, 1-11.	3.7	10
75	Mass spectrometry-based metabolomics of value-added biochemicals from Ettlia oleoabundans. Algal Research, 2016, 19, 146-154.	4.6	9
76	Molecular variation of the nonribosomal peptideâ€polyketide siderophore yersiniabactin through biosynthetic and metabolic engineering. Biotechnology and Bioengineering, 2016, 113, 1067-1074.	3.3	8
77	Enhancing vaccine effectiveness with delivery technology. Current Opinion in Biotechnology, 2016, 42, 24-29.	6.6	8
78	Broadened glycosylation patterning of heterologously produced erythromycin. Biotechnology and Bioengineering, 2018, 115, 2771-2777.	3.3	8
79	PEGylated Amine-Functionalized Poly(Îµ-caprolactone) for the Delivery of Plasmid DNA. Materials, 2020, 13, 898.	2.9	8
80	Bimodal Targeting Using Sulfonated, Mannosylated <scp>PEI</scp> for Combined Gene Delivery and Photodynamic Therapy. Photochemistry and Photobiology, 2017, 93, 600-608.	2.5	7
81	Engineering Heterologous Production of Salicylate Glucoside and Glycosylated Variants. Frontiers in Microbiology, 2018, 9, 2241.	3.5	7
82	Increased production of yersiniabactin and an anthranilate analog through media optimization. Biotechnology Progress, 2017, 33, 1193-1200.	2.6	6
83	Intranasal Vaccine Delivery Technology for Respiratory Tract Disease Application with a Special Emphasis on Pneumococcal Disease. Vaccines, 2021, 9, 589.	4.4	6
84	Liposomal Encapsulation of Polysaccharides (LEPS) as an Effective Vaccine Strategy to Protect Aged Hosts Against S. pneumoniae Infection. Frontiers in Aging, 2021, 2, .	2.6	6
85	An efficient marker recycling system for sequential gene deletion in a deep sea-derived fungus Acremonium sp. HDN16-126. Synthetic and Systems Biotechnology, 2021, 6, 127-133.	3.7	4
86	Liposomal Dual Delivery of Both Polysaccharide and Protein Antigens. Methods in Molecular Biology, 2021, 2183, 477-487.	0.9	4
87	Pressing diseases that represent promising targets for gene therapy. Discovery Medicine, 2017, 24, 313-322.	0.5	4
88	Design Variation of a Dual-Antigen Liposomal Vaccine Carrier System. Materials, 2019, 12, 2809.	2.9	3
89	Consolidated plasmid Design for Stabilized Heterologous Production of the complex natural product Siderophore Yersiniabactin. Biotechnology Progress, 2021, 37, e3103.	2.6	3
90	Natural Products and Production Systems: Opening Comments. Molecular Pharmaceutics, 2008, 5, 165-166.	4.6	2

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91	Antigen delivery format variation and formulation stability through use of a hybrid vector. Vaccine: X, 2019, 1, 100012.	2.1	2
92	Extended Polysaccharide Analysis within the Liposomal Encapsulation of Polysaccharides System. Materials, 2020, 13, 3320.	2.9	2
93	Constraintâ€based metabolic targets for the improved production of heterologous compounds across molecular classification. AIChE Journal, 2018, 64, 4208-4217.	3.6	1
94	Salicylate Glucoside as a Nontoxic Plant Protectant Alternative to Salicylic Acid. ACS Agricultural Science and Technology, 2021, 1, 515-521.	2.3	1
95	A Hybrid Biologicalâ€“Biomaterial Vector for Antigen Delivery. Methods in Molecular Biology, 2021, 2183, 461-475.	0.9	1
96	Editorial overview: Pharmaceutical biotechnology: New approaches for dynamic disease targets. Current Opinion in Biotechnology, 2016, 42, vi-vii.	6.6	0
97	A Transition to Targeted or â€˜Smartâ€™ Vaccines: How Understanding Commensal Colonization Can Lead to Selective Vaccination. Pharmaceutical Medicine, 2018, 32, 95-102.	1.9	0
98	Engineering Escherichia coli for Bacterial Natural Product Production. , 2020, , 136-148.		0
99	Dihydrochalcomycin Production and Glycosyltransferase from Streptomyces SP. KCTC 0041BP. Electronic Journal of the International Federation of Clinical Chemistry and Laboratory Medicine, 2010, 20, 171-5.	0.7	0