Daisuke Umeno

List of Publications by Year
in descending order

80	1,639	516710 16	330143 37
papers	citations	h-index	g-index

80	80	80	1645
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular breeding of carotenoid biosynthetic pathways. Nature Biotechnology, 2000, 18, 750-753.	17.5	327
2	Diversifying Carotenoid Biosynthetic Pathways by Directed Evolution. Microbiology and Molecular Biology Reviews, 2005, 69, 51-78.	6.6	191
3	Generating Mutant Libraries Using Error-Prone PCR. , 2003, 231, 3-10.		154
4	Bacterial Production of Pinene by a Laboratory-Evolved Pinene-Synthase. ACS Synthetic Biology, 2016, 5, 1011-1020.	3.8	79
5	Evolution of the C 30 Carotenoid Synthase CrtM for Function in a C 40 Pathway. Journal of Bacteriology, 2002, 184, 6690-6699.	2.2	72
6	Evolution of a Pathway to Novel Long-Chain Carotenoids. Journal of Bacteriology, 2004, 186, 1531-1536.	2.2	64
7	Removal of Boron Using Nylon-Based Chelating Fibers. Industrial & Engineering Chemistry Research, 2011, 50, 5727-5732.	3.7	62
8	A highly selective biosynthetic pathway to non-natural C50 carotenoids assembled from moderately selective enzymes. Nature Communications, 2015, 6, 7534.	12.8	61
9	Production of squalene by squalene synthases and their truncated mutants in Escherichia coli. Journal of Bioscience and Bioengineering, 2015, 119, 165-171.	2.2	59
10	Removal of Cesium Using Cobalt-Ferrocyanide-Impregnated Polymer-Chain-Grafted Fibers. Journal of Nuclear Science and Technology, 2011, 48, 1281-1284.	1.3	54
11	A High-Throughput Colorimetric Screening Assay for Terpene Synthase Activity Based on Substrate Consumption. PLoS ONE, 2014, 9, e93317.	2.5	49
12	A C 35 Carotenoid Biosynthetic Pathway. Applied and Environmental Microbiology, 2003, 69, 3573-3579.	3.1	47
13	A nucleoside kinase as a dual selector for genetic switches and circuits. Nucleic Acids Research, 2011, 39, e12-e12.	14.5	39
14	Construction of carotenoid biosynthetic pathways using squalene synthase. FEBS Letters, 2014, 588, 436-442.	2.8	31
15	Rapid Diversification of BetI-Based Transcriptional Switches for the Control of Biosynthetic Pathways and Genetic Circuits. ACS Synthetic Biology, 2016, 5, 1201-1210.	3.8	24
16	Pathway engineering for efficient biosynthesis of violaxanthin in Escherichia coli. Applied Microbiology and Biotechnology, 2019, 103, 9393-9399.	3.6	22
17	Impregnation structure of cobalt ferrocyanide microparticles by the polymer chain grafted onto nylon fiber. Journal of Nuclear Science and Technology, 2016, 53, 1251-1255.	1.3	20
18	Directed evolution of the autoinducer selectivity of <i>Vibrio fischeri</i> LuxR. Journal of General and Applied Microbiology, 2016, 62, 240-247.	0.7	19

#	Article	IF	Citations
19	Evolutionary Design of Choline-Inducible and -Repressible T7-Based Induction Systems. ACS Synthetic Biology, 2015, 4, 1352-1360.	3.8	18
20	Directed Evolution of the Stringency of the LuxR Vibrio fischeri Quorum Sensor without OFF-State Selection. ACS Synthetic Biology, 2020, 9, 567-575.	3.8	14
21	Robust and flexible platform for directed evolution of yeast genetic switches. Nature Communications, 2021, 12, 1846.	12.8	13
22	Evolutionary analysis of the functional plasticity of Staphylococcus aureus C30 carotenoid synthase. Journal of Bioscience and Bioengineering, 2014, 117, 431-436.	2.2	12
23	Directed evolution of Vibrio fischeri LuxR signal sensitivity. Journal of Bioscience and Bioengineering, 2016, 122, 533-538.	2.2	12
24	Method to protect a targeted amino acid residue during random mutagenesis. Nucleic Acids Research, 2003, 31, 91e-91.	14.5	11
25	Determination of Mole Percentages of Brush and Root of Polymer Chain Grafted onto Porous Sheet. Journal of Chemical Engineering of Japan, 2013, 46, 414-419.	0.6	11
26	Astaxanthin production in a model cyanobacterium <i>Synechocystis</i> sp. PCC 6803. Journal of General and Applied Microbiology, 2020, 66, 116-120.	0.7	10
27	Dependence of Lanthanide-Ion Binding Performance on HDEHP Concentration in HDEHP Impregnation to Porous Sheet. Solvent Extraction and Ion Exchange, 2012, 30, 171-180.	2.0	9
28	Construction of a Nonnatural C₆₀ Carotenoid Biosynthetic Pathway. ACS Synthetic Biology, 2019, 8, 511-520.	3.8	9
29	Removal of Urea from Water Using Urease-Immobilized Fibers. Journal of Chemical Engineering of Japan, 2013, 46, 509-513.	0.6	8
30	Directed evolution of squalene synthase for dehydrosqualene biosynthesis. FEBS Letters, 2014, 588, 3375-3381.	2.8	8
31	Liquid-Based Iterative Recombineering Method Tolerant to Counter-Selection Escapes. PLoS ONE, 2015, 10, e0119818.	2.5	8
32	Rapid and Liquid-Based Selection of Genetic Switches Using Nucleoside Kinase Fused with Aminoglycoside Phosphotransferase. PLoS ONE, 2015, 10, e0120243.	2.5	8
33	Directed evolution and expression tuning of geraniol synthase for efficient geraniol production in <i>Escherichia coli</i>. Journal of General and Applied Microbiology, 2017, 63, 287-295.	0.7	7
34	Genetically engineered biosynthetic pathways for nonnatural C60 carotenoids using C5-elongases and C50-cyclases in Escherichia coli. Scientific Reports, 2019, 9, 2982.	3.3	7
35	Effect of Salt Concentration of Cesium Solution on Cesium-Binding Capacity of Potassium Cobalt-Hexacyanoferrate-Impregnated Fiber. Kagaku Kogaku Ronbunshu, 2013, 39, 28-32.	0.3	7
36	Preparation of Extractant-impregnated Porous Sheets for High-speed Separation of Radionuclides. Journal of Ion Exchange, 2007, 18, 480-485.	0.3	7

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37	Preparation of Cation-Exchange Particle Designed for High-Speed Collection of Proteins by Radiation-Induced Graft Polymerization. Journal of Ion Exchange, 2010, 21, 29-34.	0.3	6
38	Protein Resolution in Elution Chromatography Using Novel Cation-Exchange Polymer-Brush-Immobilized Particles. Journal of Chemical Engineering of Japan, 2012, 45, 896-902.	0.6	5
39	Protein-Binding Characteristics of Anion-Exchange Particles Prepared by Radiation-Induced Graft Polymerization at Low Temperatures. Journal of Chemical Engineering of Japan, 2013, 46, 588-592.	0.6	5
40	Improvement of protein binding capacity of acrylic-acid-grafted fibers by polymer root-to-brush shift. Radiation Physics and Chemistry, 2019, 158, 131-136.	2.8	5
41	Similarity of Rare Earth Extraction by Acidic Extractant Bis(2-ethylhexyl) Phosphate (HDEHP) Supported on a Dodecylamino-Group-Containing Graft Chain and by HDEHP Dissolved in Dodecane. Kagaku Kogaku Ronbunshu, 2014, 40, 404-409.	0.3	5
42	Preparation of Sizeâ€“Exclusion Polymer Chain Grafted onto the Pore Surface of a Porous Hollowâ€“Fiber Membrane. Membrane, 2009, 34, 220-226.	0.0	5
43	Crosslinked-Chelating Porous Sheet with High Dynamic Binding Capacity of Metal Ions. Solvent Extraction and Ion Exchange, 2013, 31, 210-220.	2.0	4
44	Simple Method for High-Density Impregnation of Aliquat 336 onto Porous Sheet and Binding Performance of Resulting Sheet for Palladium Ions. Separation Science and Technology, 2014, 49, 154-159.	2.5	4
45	High-resolution separation of neodymium and dysprosium ions utilizing extractant-impregnated graft-type particles. Journal of Chromatography A, 2018, 1533, 10-16.	3.7	4
46	Transcription Factors as Evolvable Biosensors. Analytical Sciences, 2021, 37, 699-705.	1.6	4
47	Nd/Dy Resolution by SPE-Based Elution Chromatography with Bis(2-ethylhexyl) Phosphate (HDEHP)-Impregnated Fiber-Packed Bed. Kagaku Kogaku Ronbunshu, 2015, 41, 220-227.	0.3	4
48	Impregnation Process of Insoluble Cobalt Ferrocyanide onto Anion-Exchange Fiber Prepared by Radiation-Induced Graft Polymerization. Radioisotopes, 2015, 64, 219-228.	0.2	4
49	Tweezing the cofactor preference of gymnosperm pinene synthase. Bioscience, Biotechnology and Biochemistry, 2018, 82, 1058-1061.	1.3	3
50	Probing the mutation spectrum in E. coli. Nucleic Acids Symposium Series, 2007, 51, 289-290.	0.3	2
51	Purification of Hisâ€“Tagged Protein Using an Immobilized NickelAffinity Porous Hollowâ€“Fiber Membrane. Membrane, 2009, 34, 233-238.	0.0	2
52	Carboxybetaineâ€“Group Immobilized onto Pore Surface Reduced Protein Adsorption to Porous Membrane. Membrane, 2010, 35, 86-92.	0.0	2
53	Preparation of Cation-Exchange Fibers with High Protein-Binding Capacities by Pre-Irradiation Induced Emulsion Graft Polymerization. Kagaku Kogaku Ronbunshu, 2017, 43, 88-94.	0.3	2
54	Construction of a pathway to C50-Îµ-carotene. PLoS ONE, 2019, 14, e0216729.	2.5	2

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55	Laborless, Automated Microfluidic Tandem Cell Processor for Visualizing Intracellular Molecules of Mammalian Cells. Analytical Chemistry, 2020, 92, 2580-2588.	6.5	2
56	Protein Purification Using Immobilized Metal Affinity Porous Sheet. Journal of Ion Exchange, 2008, 19, 101-106.	0.3	2
57	OFF-switching property of quorum sensor LuxR via As(III)-induced insoluble form. Journal of Bioscience and Bioengineering, 2022, 133, 335-339.	2.2	2
58	Binding of Phosphotyrosine to Gallium-Ion-Immobilized Porous Hollow-Fiber Membrane. Membrane, 2010, 35, 242-247.	0.0	1
59	Preparation of Heat- and Alkali-resistant Anion-exchange Membranes by Electron-beam-induced Graft Polymerization of Bromo-butyl Styrene onto Polyethylene Film. Membrane, 2010, 35, 305-310.	0.0	1
60	Nonnatural biosynthetic pathway for 2-hydroxylated xanthophylls with C50-carotenoid backbone. Journal of Bioscience and Bioengineering, 2019, 128, 438-444.	2.2	1
61	Improvement of the dP-nucleoside-mediated herpes simplex virus thymidine kinase negative-selection system by manipulating dP metabolism genes. Journal of Bioscience and Bioengineering, 2020, 130, 121-127.	2.2	1
62	Adsorption of Catechin in Green-Tea Extracts onto NVP-Grafted Fiber and Its Elution with NaOH. Kagaku Kogaku Ronbunshu, 2018, 44, 99-102.	0.3	1
63	Preparation of Catalase-immobilized and Palladium-impregnated Fibers for Rapid Decomposition of Hydroperoxide in Water. Radioisotopes, 2015, 64, 501-507.	0.2	1
64	Preparation of Anion-exchange Fibers with Radiation-induced Emulsion Graft Polymerization for Rapid Protein Purification. Radioisotopes, 2017, 66, 243-249.	0.2	1
65	Protein Binding Characteristics of Amphoteric Polymer Brushes Grafted onto Porous Hollow-Fiber Membrane. Journal of Ion Exchange, 2007, 18, 492-497.	0.3	1
66	Nucleotide Kinase-Based Selection System for Genetic Switches. Methods in Molecular Biology, 2014, 1111, 141-152.	0.9	1
67	Directed evolution of transcriptional switches using dual-selector systems. Methods in Enzymology, 2020, 644, 191-207.	1.0	1
68	A novel carotenoid biosynthetic route via oxidosqualene. Biochemical and Biophysical Research Communications, 2022, 599, 75-80.	2.1	1
69	Use of directed enzyme evolution to create novel biosynthetic pathways for production of rare or non-natural carotenoids. Methods in Enzymology, 2022, , .	1.0	1
70	ã€Original Contributionã€‘ Fluxes and Protein Binding Capacities of Diamineâ€“Immobilized Porous Hollowâ€“Fiber Membraness. Membrane, 2015, 40, 216-222.	0.0	0
71	Preparation of Hydrous Cerium Oxide-impregnated Fibers for the Recovery of Antimony from Aqueous Media. Bunseki Kagaku, 2017, 66, 853-856.	0.2	0
72	Acrylic Acid-grafted Fibers Enable High-capacity Binding of Lysozyme Dissolved in High-concentration Phosphate Buffer. Radioisotopes, 2018, 67, 321-328.	0.2	0

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73	Adsorption of Catechin in Green-Tea Extracts Using <i>N</i>-Vinylacetamide-Grafted Fiber. Radioisotopes, 2018, 67, 551-557.	0.2	0
74	Preparation of Palladium-impregnated Fiber and Its Characteristics of Dechlorination of 2-chlorophenol. Radioisotopes, 2019, 68, 443-449.	0.2	0
75	â€Original Contributionâ€‘ Proposal of Dual-Affinity Adsorption of Protein to Dual Ligands Immobilized onto Porous Hollow-Fiber Membrane. Membrane, 2012, 37, 95-101.	0.0	0
76	ICONE23-1873 Radioactive Strontium Removal from Seawater and Groundwater with Adsorptive Fibers Prepared by Radiation-Induced Graft Polymerization. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2015, 2015.23, _ICONE23-1-_ICONE23-1.	0.0	0
77	Preparation of Extractant-Impregnated Fiber for Recovery of Palladium from Hydrochloric Acid Solution. Kagaku Kogaku Ronbunshu, 2016, 42, 113-118.	0.3	0
78	Improvement in Impregnation Percentage of Sodium Titanate of Adsorptive Fiber for Strontium through Repetitive Immobilization of Peroxotitanium Complex Anions to Anion-Exchange Fiber. Radioisotopes, 2018, 67, 213-219.	0.2	0
79	Adsorption of Caffeine onto Tannic Acid-Immobilized Fiber and its Elution with Hot Water. Kagaku Kogaku Ronbunshu, 2018, 44, 298-302.	0.3	0
80	Effect of Dose on Amount of Protein Adsorbed on Anion-Exchange Fibers Prepared by Radiation-Induced Emulsion Graft Polymerization. Radioisotopes, 2019, 68, 451-457.	0.2	0