Shuichi Yamamoto

List of Publications by Year
in descending order

125 papers	2,522 citations	186265 28 h-index	254184 43 g-index
128 all docs	128 docs citations	128 times ranked	1310 citing authors

#	Article	IF	Citations
1	Ion exchange chromatography of proteins?prediction of elution curves and operating conditions. I. Theoretical considerations. Biotechnology and Bioengineering, 1983, 25, 1465-1483.	3.3	116
2	Ion exchange chromatography of proteins?predictions of elution curves and operating conditions. II. Experimental verification. Biotechnology and Bioengineering, 1983, 25, 1373-1391.	3.3	89
3	Ion-exchange chromatography of proteins near the isoelectric points. Journal of Chromatography A, 1999, 852, 31-36.	3.7	82
4	Microcalorimetric studies of the interaction mechanisms between proteins and Q-Sepharose at pH near the isoelectric point (pI). Journal of Chromatography A, 2001, 912, 281-289.	3.7	80
5	Fast separation of large biomolecules using short monolithic columns. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2013, 927, 80-89.	2.3	76
6	Plate height determination for gradient elution chromatography of proteins. Biotechnology and Bioengineering, 1995, 48, 444-451.	3.3	75
7	Solid-Phase PEGylation of Recombinant Interferon Î±-2a for Site-Specific Modification: Process Performance, Characterization, and<i>in Vitro</i>Bioactivity. Bioconjugate Chemistry, 2007, 18, 1728-1734.	3.6	69
8	Optimization of monoclonal antibody purification by ion-exchange chromatography. Journal of Chromatography A, 2005, 1069, 99-106.	3.7	68
9	Prediction of the preparative chromatography performance with a very small column. Journal of Chromatography A, 1997, 760, 41-53.	3.7	58
10	Adsorption chromatography of proteins: Determination of optimum conditions. AICHE Journal, 1987, 33, 1426-1434.	3.6	57
11	Drying of enzymes: enzyme retention during drying of a single droplet. Chemical Engineering Science, 1992, 47, 177-183.	3.8	52
12	Rational methods for predicting human monoclonal antibodies retention in protein A affinity chromatography and cation exchange chromatography. Journal of Chromatography A, 2005, 1093, 126-138.	3.7	52
13	The hydrophobic interactions of the ion-exchanger resin ligands with proteins at high salt concentrations by adsorption isotherms and isothermal titration calorimetry. Separation and Purification Technology, 2007, 54, 212-219.	7.9	51
14	Resolution of proteins in linear gradient elution ion-exchange and hydrophobic interaction chromatography. Journal of Chromatography A, 1987, 409, 101-110.	3.7	50
15	Retention studies of DNA on anion-exchange monolith chromatography. Journal of Chromatography A, 2007, 1144, 155-160.	3.7	49
16	Application of a chromatography model with linear gradient elution experimental data to the rapid scale-up in ion-exchange process chromatography of proteins. Journal of Chromatography A, 2007, 1162, 34-40.	3.7	49
17	Short-cut method for predicting the productivity of affinity chromatography. Journal of Chromatography A, 1992, 597, 173-179.	3.7	46
18	Acetic Acid Separation from Anaerobically Treated Palm Oil Mill Effluent by Ion Exchange Resins for the Production of Polyhydroxyalkanoate by<i>Alcaligenes eutrophus</i>. Bioscience, Biotechnology and Biochemistry, 1997, 61, 1465-1468.	1.3	43

#	Article	IF	Citations
19	Electrostatic Interaction Chromatography Process for Protein Separations: Impact of Engineering Analysis of Biorecognition Mechanism on Process Optimization. Chemical Engineering and Technology, 2005, 28, 1387-1393.	1.5	43
20	Mutual Diffusion Coefficient of Aqueous Sugar Solutions.. Journal of Chemical Engineering of Japan, 1993, 26, 633-636.	0.6	42
21	Retention behavior of very large biomolecules in ion-exchange chromatography. Journal of Chromatography A, 1999, 852, 25-30.	3.7	41
22	Effects of protein conformational changes on separation performance in electrostatic interaction chromatography: Unfolded proteins and PEGylated proteins. Journal of Biotechnology, 2007, 132, 196-201.	3.8	40
23	Diseases of protein aggregation and the hunt for potential pharmacological agents. Biotechnology Journal, 2008, 3, 165-192.	3.5	40
24	Interaction mechanism of monoâ€PEGylated proteins in electrostatic interaction chromatography. Biotechnology Journal, 2010, 5, 477-483.	3.5	39
25	Scaling up of medium-performance gel filtration chromatography of proteins.. Journal of Chemical Engineering of Japan, 1986, 19, 227-231.	0.6	38
26	Studies of the interaction mechanism between single strand and double-strand DNA with hydroxyapatite by microcalorimetry and isotherm measurements. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 295, 274-283.	4.7	32
27	Resolution and Retention of Proteins near Isoelectric Points in Ion-Exchange Chromatography. Molecular Recognition in Electrostatic Interaction Chromatography. Separation Science and Technology, 2000, 35, 1707-1717.	2.5	31
28	Factors affecting the relationship between the plate height and the linear mobile phase velocity in gel filtration chromatography of proteins. Journal of Chromatography A, 1987, 394, 363-367.	3.7	29
29	Theoretical background of short chromatographic layers. Journal of Chromatography A, 2005, 1065, 45-50.	3.7	26
30	Optimization of elution salt concentration in stepwise elution of protein chromatography using linear gradient elution data. Journal of Chromatography A, 2006, 1114, 97-101.	3.7	25
31	PREPARATIVE SEPARATION OF PROTEINS BY GRADIENT- AND STEPWISE-ELUTION CHROMATOGRAPHY: ZONE-SHARPENING EFFECT. Chemical Engineering Communications, 1993, 119, 221-230.	2.6	24
32	Analysis of dispersion mechanism in gel chromatography.. Agricultural and Biological Chemistry, 1977, 41, 1465-1473.	0.3	23
33	A SHORT-CUT METHOD FOR DETERMINING CONCENTRATION DEPENDENT DIFFUSIVITY IN LIQUID FOODS AND POLYMER SOLUTIONS FROM REGULAR REGIME DRYING CURVES. Drying Technology, 2001, 19, 1479-1490.	3.1	23
34	Characterization of unstable ion-exchange chromatographic separation of proteins. Journal of Chromatography A, 1999, 852, 37-41.	3.7	22
35	Binding site and elution behavior of DNA and other large biomolecules in monolithic anion-exchange chromatography. Journal of Chromatography A, 2009, 1216, 2616-2620.	3.7	21
36	Analysis of Dispersion Mechanism in Gel Chromatography. Agricultural and Biological Chemistry, 1977, 41, 1465-1473.	0.3	20

#	Article	IF	Citations
37	Predicting the performance of gel-filtration chromatography of proteins. Journal of Chromatography A, 1990, 512, 77-87.	3.7	20
38	Preparative chromatography of proteins. Journal of Chromatography A, 1990, 512, 89-100.	3.7	19
39	PEGylated protein separations: Challenges and opportunities. Biotechnology Journal, 2012, 7, 592-593.	3.5	19
40	PEG chain length impacts yield of solidâ€phase protein PEGylation and efficiency of PEGylated protein separation by ionâ€exchange chromatography: Insights of mechanistic models. Biotechnology Journal, 2013, 8, 801-810.	3.5	19
41	Retention Mechanism of Proteins in Hydroxyapatite Chromatography â€" Multimodal Interaction Based Protein Separations: A Model Study. Current Protein and Peptide Science, 2018, 20, 75-81.	1.4	19
42	Calculation of concentration-dependent mutual diffusion coefficient in desorption of film.. Journal of Chemical Engineering of Japan, 1990, 23, 331-338.	0.6	18
43	DRYING OF CARBOHYDRATE AND PROTEIN SOLUTIONS. Drying Technology, 1994, 12, 1069-1080.	3.1	18
44	Effects of adsorbent properties on zone spreading in expanded bed chromatography. Bioseparation, 2001, 10, 1-6.	0.7	18
45	Drying of Yeastsâ€"Factors Affecting Inactivation During Drying. Drying Technology, 2011, 29, 1981-1985.	3.1	18
46	Salt tolerant chromatography provides salt tolerance and a better selectivity for protein monomer separations. Biotechnology Journal, 2015, 10, 1929-1934.	3.5	18
47	Highâ€throughput process development methods for chromatography and precipitation of proteins: Advantages and precautions. Engineering in Life Sciences, 2013, 13, 446-455.	3.6	17
48	Thermodynamic analysis of polyphenols retention in polymer resin chromatography by vanâ€™t Hoff plot and isothermal titration calorimetry. Journal of Chromatography A, 2019, 1608, 460405.	3.7	17
49	EFFECTS OF GLYCEROL ON THE DRYING OF GELATIN AND SUGAR SOLUTIONS. Drying Technology, 1999, 17, 1681-1695.	3.1	16
50	Theoretical background of monolithic short layer ion-exchange chromatography for separation of charged large biomolecules or bioparticles. Journal of Chromatography A, 2009, 1216, 2612-2615.	3.7	16
51	Surface Oil Content of Microcapsules Containing Various Oil Fractions and Oil-Droplet Sizes. Japan Journal of Food Engineering, 2013, 14, 169-175.	0.3	16
52	Analysis of dispersion mechanism in gel chromatography. IV. Operational conditions for gel chromatography - Prediction of elution curves.. Agricultural and Biological Chemistry, 1979, 43, 2499-2506.	0.3	15
53	Enzymatic Synthesis of Galactosylkojic Acid with ImmobilizedÎ²-Galactosidase fromBacillus circulans. Bioscience, Biotechnology and Biochemistry, 1995, 59, 543-545.	1.3	15
54	Choosing the right protein A affinity chromatography media can remove aggregates efficiently. Biotechnology Journal, 2017, 12, 1600427.	3.5	14

#	Article	IF	Citations
55	A simple method for calculating the productivity of polyphenol separations by polymer-based chromatography. Bioscience, Biotechnology and Biochemistry, 2017, 81, 812-816.	1.3	13
56	Effect of particle size distribution on column efficiency in gel chromatography.. Agricultural and Biological Chemistry, 1978, 42, 1943-1945.	0.3	13
57	Stepwise elution chromatography as a method for both purification and concentration of proteins. Chemical Engineering Science, 1992, 47, 185-188.	3.8	12
58	Peak spreading in linear gradient elution chromatography with a thin monolithic disk. Journal of Chromatography A, 2011, 1218, 2460-2466.	3.7	12
59	Factors affecting dispersion in expanded bed chromatography. Bioseparation, 1999, 8, 33-41.	0.7	11
60	Rational method for designing efficient separations by chromatography on polystyreneâ€“divinylbenzene resins eluted with aqueous ethanol. Journal of Chromatography A, 2007, 1162, 50-55.	3.7	11
61	Purification of Î²-galactosidase by large-scale gradient elution ion-exchange chromatography. Journal of Chromatography A, 1987, 396, 355-362.	3.7	10
62	Calculation of peak profiles in preparative chromatography of biomolecules. Journal of Chromatography A, 1994, 658, 399-406.	3.7	10
63	Effects of Surface Concentration on Drying Behavior of Carbohydrate Solutions. Drying Technology, 2005, 23, 1319-1330.	3.1	10
64	Diffusion Coefficients as Mass Transfer Properties and Water Ad/Desorption (Drying). Japan Journal of Food Engineering, 2010, 11, 73-83.	0.3	10
65	Effect of pore size on performance of monolithic tube chromatography of large biomolecules. Electrophoresis, 2017, 38, 2892-2899.	2.4	10
66	Drying of Carbohydrate and Protein Solutions. Drying Technology, 1995, 13, 29-41.	3.1	9
67	Rational Method for Designing Efficient Chromatography Processes based on the Isoâ€Resolution Curve. Chemical Engineering and Technology, 2012, 35, 198-203.	1.5	9
68	Effect of Reducing Oil Droplet Size on Lipid Oxidation in an Oil-in-water Emulsion. Japan Journal of Food Engineering, 2014, 15, 43-47.	0.3	9
69	Monolith disk chromatography separates PEGylated protein positional isoforms within minutes at low pressure. Biotechnology Journal, 2016, 11, 100-106.	3.5	9
70	Linear flowâ€velocity gradient chromatographyâ€"An efficient method for increasing the process efficiency of batch and continuous capture chromatography of proteins. Biotechnology and Bioengineering, 2021, 118, 1262-1272.	3.3	9
71	Microcalorimetric Analysis of the Adsorption of Lysozyme and Cytochrome c onto Cation-Exchange Chromatography Resins: Influence of Temperature on Retention. Langmuir, 2020, 36, 3336-3345.	3.5	8
72	A regressive approach to the design of continuous capture process with multi-column chromatography for monoclonal antibodies. Journal of Chromatography A, 2021, 1658, 462604.	3.7	8

#	Article	IF	Citations
73	A Simple Method for Predicting the Adsorption Performance of Capture Chromatography of Proteins. Japan Journal of Food Engineering, 2016, 17, 95-98.	0.3	7
74	Prediction of the Performance of Capture Chromatography Processes of Proteins and Its Application to the Repeated Cyclic Operation Optimization. Journal of Chemical Engineering of Japan, 2020, 53, 689-697.	0.6	7
75	Accelerated Method for Designing Flow-Through Chromatography of Proteins. Journal of Chemical Engineering of Japan, 2020, 53, 206-213.	0.6	7
76	Drying Rates and Desorption Isotherms of Lemon Juice. Japan Journal of Food Engineering, 2014, 15, 105-108.	0.3	6
77	Enzyme Inactivation During Drying of a Single Droplet. , 1985, , 330-337.		6
78	Determination of Concentration Dependent Diffusion Coefficient from Drying Rates. , 1985, , 490-497.		6
79	Optimization of Flow-Through Chromatography of Proteins. Journal of Chemical Engineering of Japan, 2020, 53, 214-221.	0.6	6
80	Analysis of dispersion mechanism in gel chromatography. V. Operational conditions for desalting by gel chromatography.. Agricultural and Biological Chemistry, 1979, 43, 2507-2513.	0.3	5
81	Mutual Diffusion CoeMcient of PAN-DMF System. Kagaku Kogaku Ronbunshu, 1983, 9, 1-7.	0.3	5
82	Column Qualification in Process Ion-Exchange Chromatography. Progress in Biotechnology, 2000, 16, 201-206.	0.2	5
83	Effects of Pre-treatments on Rehydration Properties and Microscopic Structure Changes of Dried Vegetables. Japan Journal of Food Engineering, 2004, 5, 267-272.	0.3	5
84	Calculation Method of Mutual Diffusion Coefficient in the Regular Regime of Desorption Process in Polymer Film Based on Approximation of the Power Function for Concentration Dependence of the Diffusion Coefficient.. Kagaku Kogaku Ronbunshu, 1991, 17, 997-1005.	0.3	4
85	Chromatographic separation of galactosylkojic acid. Journal of Bioscience and Bioengineering, 1997, 84, 82-85.	0.9	4
86	Measurement and Correlation of Mutual Diffusion Coefficients for Acrylic Adhesive-Solvent Systems.. Kagaku Kogaku Ronbunshu, 1998, 24, 123-130.	0.3	4
87	Enzyme Retention During Drying of Amorphous Sugar and Carbohydrate Solutions: Diffusion Model Revisited. Drying Technology, 2013, 31, 1525-1531.	3.1	4
88	Effects of Pre-Treatments on Browning of Lemon Peels during Drying. Japan Journal of Food Engineering, 2014, 15, 181-187.	0.3	4
89	Rapid Purification of Immunoglobulin G Using a Protein A-immobilized Monolithic Spin Column with Hydrophilic Polymers. Analytical Sciences, 2021, 37, 985-990.	1.6	4
90	Surface-oil Contents of Microcapsules with Different Oil Droplet-to-Microcapsule Size Ratios. Japan Journal of Food Engineering, 2014, 15, 191-193.	0.3	4

#	Article	IF	Citations
91	Micro-Plate Based Monolithic Ion-Exchange Chromatography for High Throughput Protein Purification Process Design. Journal of Chemical Engineering of Japan, 2008, 41, 200-205.	0.6	4
92	Calculation of concentration dependent mutual diffusion coefficients for the penetration period of sorption process in polymer film.. Journal of Chemical Engineering of Japan, 1995, 28, 193-197.	0.6	3
93	Integral Form of Diffusion Equation and its Application to the Calculation of Concentration Dependent Diffusion Coefficient for Desorption (Isothermal Drying).. Kagaku Kogaku Ronbunshu, 1997, 23, 37-46.	0.3	3
94	Editorial: Asia Pacific Biochemical engineering. Biotechnology Journal, 2010, 5, 436-437.	3.5	3
95	Correlation between protein desorption behavior and its adsorption enthalpy change in polymer grafted anion exchange chromatography. Colloids and Surfaces B: Biointerfaces, 2021, 205, 111853.	5.0	3
96	Effects of the Oil-droplet Size and Entire Oil Fraction in Microcapsules on the Interior Oil Fraction. Japan Journal of Food Engineering, 2015, 16, 303-305.	0.3	3
97	Drying of a drop of polymer solution of PAN (polyacrylonitrile)-DMF (dimethylformamide) system.. Journal of Chemical Engineering of Japan, 1984, 17, 114-119.	0.6	2
98	Separation behavior of proteins near the isoelectric points in electrostatic interaction (ion) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td	0.2	2
99	Dynamic binding performance of large biomolecules such as Î³-globulin, viruses and virus-like particles on various chromatographic supports. Progress in Biotechnology, 2000, , 81-86.	0.2	2
100	A Statistical Model for Estimating the Effects of Oil Droplet Size and Oil Fraction in Microcapsules on Oxidation of Oil. European Journal of Lipid Science and Technology, 2017, 119, 1700225.	1.5	2
101	Reactionâ€Mediated Desorption of Macromolecules: Novel Phenomenon Enabling Simultaneous Reaction and Separation. Biotechnology Journal, 2018, 13, e1700738.	3.5	2
102	Retention and diffusion characteristics of oligonucleotides in a solid phase with polymer grafted anion-exchanger. Journal of Chromatography A, 2020, 1629, 461495.	3.7	2
103	A Simplified Method for Predicting the Effect of Temperature on the Separation Performance by Chromatography. Japan Journal of Food Engineering, 2021, 22, 53-57.	0.3	2
104	Recovery of Lysozyme and Avidin from Egg White by Ion-Exchange Chromatography. , 1994, , 639-640.		2
105	Analysis of Water Diffusion and Enzyme Inactivation Mechanisms During Drying of Liquid Foods. Japan Journal of Food Engineering, 2006, 7, 215-224.	0.3	2
106	ç”Ÿç‰©åˆ†é›¢å·¥å¦ ã€€ã€€ãƒ’ãƒ‰ãƒãƒ‚ã‚·ã‚¢ãƒ‘ã‚¿ã‚¤ãƒˆã‚¯ãƒãƒžãƒˆã‚°ãƒ©ãƒ•ã‚£ãƒ¼ã«ã‚ˆã‚‹ã‚¿ãƒ³ãƒ‘ã‚¯è³ªã®åˆ†	0.3	2
107	Effect of Particle Size Distribution on Column Efficiency in Gel Chromatography. Agricultural and Biological Chemistry, 1978, 42, 1943-1945.	0.3	1
108	Sorption Process of System with Power Relation between Diffusivity and Concentration.. Kagaku Kogaku Ronbunshu, 1998, 24, 306-312.	0.3	1

#	Article	IF	Citations
109	Water Diffusion and Desorption Behavior during Low-Temperature Drying of Foods. Journal of Chemical Engineering of Japan, 2007, 40, 168-172.	0.6	1
110	A Method for Calculating the Productivity of Simulated Moving Bed Chromatography Based on the Optimized Repeated Cyclic Operation Chromatography. Japan Journal of Food Engineering, 2018, 19, 35-41.	0.3	1
111	A method for designing flow-through chromatography processes. MATEC Web of Conferences, 2019, 268, 01004.	0.2	1
112	Simplified Mechanistic Models for Food Processes-Drying and Chromatography. Japan Journal of Food Engineering, 2019, 20, 81-97.	0.3	1
113	Expanded Bed Chromatography for Food Separation. Japan Journal of Food Engineering, 2000, 1, 51-57.	0.3	1
114	Methods for Thermodynamic Analysis of Temperature Dependence of Distribution Coefficients in Chromatography Separations. Japan Journal of Food Engineering, 2019, 20, 99-105.	0.3	1
115	Measurement of High Protein Concentrations by Optical Rotation: A Case Study for Monitoring of Monoclonal Antibody Drug Downstream Processes. Current Protein and Peptide Science, 2021, 22, 898-904.	1.4	1
116	Operational Conditions for Desalting by Gel Chromatography. Agricultural and Biological Chemistry, 1979, 43, 2507-2513.	0.3	0
117	Engineering Aspects of Ion-Exchange Chromatography. , 2002, , .		0
118	Elution Profiles of Antibody-Drug Conjugates in Preparative Chromatography. MATEC Web of Conferences, 2021, 333, 14001.	0.2	0
119	Statistical Evaluation of Cleaning Processes in Food Manufacturing Facilities. Japan Journal of Food Engineering, 2021, 22, 47-51.	0.3	0
120	Bioseparation Engineering. Selective Purification of HTLV-II p20EII and HTLV-II Virion with Specific Monoclonal Antibody.. Kagaku Kogaku Ronbunshu, 2001, 27, 205-207.	0.3	0
121	Predicting the Performance of Production-Scale Chromatography. , 1992, , 548-550.		0
122	Drying of Enzymes: Relationships between Thermal Stability of Enzymes and Water Concentration. , 1994, , 451-452.		0
123	Supercritical Fluid Chromatographic Separation.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1996, 5, 78-83.	0.0	0
124	Predicting the Separation Performance in Ion-Exchange Chromatography of Proteins. Kluwer International Series in Engineering and Computer Science, 1996, , 1027-1034.	0.2	0
125	Methods for Measuring Molecular Diffusion Coefficients of Large Proteins and Bio-nanopartilces. Japan Journal of Food Engineering, 2017, 18, 187-191.	0.3	0