

Raja Ghosh

List of Publications by Year in descending order

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117
papers

2,856
citations

185998

28
h-index

223531

46
g-index

122
all docs

122
docs citations

122
times ranked

1972
citing authors

#	ARTICLE	IF	CITATIONS
1	Protein separation using membrane chromatography: opportunities and challenges. <i>Journal of Chromatography A</i> , 2002, 952, 13-27.	1.8	500
2	Effect of module design on the efficiency of membrane chromatographic separation processes. <i>Journal of Membrane Science</i> , 2006, 281, 532-540.	4.1	84
3	Lysozyme separation by hollow-fibre ultrafiltration. <i>Biochemical Engineering Journal</i> , 2000, 6, 19-24.	1.8	74
4	Separation of proteins using hydrophobic interaction membrane chromatography. <i>Journal of Chromatography A</i> , 2001, 923, 59-64.	1.8	67
5	Extraction, purification and applications of curcumin from plant materials-A comprehensive review. <i>Trends in Food Science and Technology</i> , 2021, 112, 419-430.	7.8	64
6	Thermo-Responsive Hydrogels for Stimuli-Responsive Membranes. <i>Processes</i> , 2013, 1, 238-262.	1.3	57
7	Fractionation of BSA and lysozyme using ultrafiltration: Effect of gas sparging. <i>AIChE Journal</i> , 1998, 44, 61-67.	1.8	54
8	High-resolution plasma protein fractionation using ultrafiltration. <i>Desalination</i> , 2002, 144, 301-306.	4.0	49
9	A laterally-fed membrane chromatography module. <i>Journal of Membrane Science</i> , 2015, 487, 173-179.	4.1	49
10	Study of membrane fouling by BSA using pulsed injection technique. <i>Journal of Membrane Science</i> , 2002, 195, 115-123.	4.1	47
11	Open-Source Low-Cost Wireless Potentiometric Instrument for pH Determination Experiments. <i>Journal of Chemical Education</i> , 2018, 95, 326-330.	1.1	45
12	Purification of humanized monoclonal antibody by hydrophobic interaction membrane chromatography. <i>Journal of Chromatography A</i> , 2006, 1107, 104-109.	1.8	44
13	Recovery and isolation of recombinant human monoclonal antibody from transgenic tobacco plants. <i>Biochemical Engineering Journal</i> , 2011, 54, 103-108.	1.8	43
14	Fractionation of biological macromolecules using carrier phase ultrafiltration. <i>Biotechnology and Bioengineering</i> , 2001, 74, 1-11.	1.7	40
15	Cascade ultrafiltration systems—Integrated processes for purification and concentration of lysozyme. <i>Journal of Membrane Science</i> , 2010, 347, 150-158.	4.1	40
16	On the workings of laterally-fed membrane chromatography. <i>Journal of Membrane Science</i> , 2016, 516, 26-32.	4.1	40
17	Enhancement of membrane permeability by gas-sparging in submerged hollow fibre ultrafiltration of macromolecular solutions: Role of module design. <i>Journal of Membrane Science</i> , 2006, 274, 73-82.	4.1	39
18	Characterization and theoretical analysis of protein fouling of cellulose acetate membrane during constant flux dead-end microfiltration. <i>Journal of Membrane Science</i> , 2008, 320, 372-380.	4.1	38

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19	Parameter scanning ultrafiltration: Rapid optimisation of protein separation. <i>Biotechnology and Bioengineering</i> , 2003, 81, 673-682.	1.7	37
20	Reversible and irreversible membrane fouling during in-line microfiltration of concentrated protein solutions. <i>Journal of Membrane Science</i> , 2008, 315, 1-10.	4.1	37
21	Novel tangential-flow countercurrent cascade ultrafiltration configuration for continuous purification of humanized monoclonal antibody. <i>Journal of Membrane Science</i> , 2008, 307, 117-125.	4.1	37
22	High-resolution protein separation using a laterally-fed membrane chromatography device. <i>Journal of Membrane Science</i> , 2016, 499, 126-133.	4.1	37
23	Analysis of protein transport and polarization through membranes using pulsed sample injection technique. <i>Journal of Membrane Science</i> , 2000, 175, 75-84.	4.1	36
24	Purification of a human immunoglobulin G1 monoclonal antibody from transgenic tobacco using membrane chromatographic processes. <i>Journal of Chromatography A</i> , 2008, 1187, 128-137.	1.8	34
25	Temperature-responsive membrane for hydrophobic interaction based chromatographic separation of proteins in bind-and-elute mode. <i>Journal of Membrane Science</i> , 2014, 471, 56-64.	4.1	33
26	Purification of lysozyme by microporous PVDF membrane-based chromatographic process. <i>Biochemical Engineering Journal</i> , 2003, 14, 109-116.	1.8	32
27	Non-Size-Based Membrane Chromatographic Separation and Analysis of Monoclonal Antibody Aggregates. <i>Analytical Chemistry</i> , 2006, 78, 6863-6867.	3.2	32
28	Purification of Plant-Derived Antibodies through Direct Immobilization of Affinity Ligands on Cellulose. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 3451-3459.	2.4	30
29	Purification of PEGylated Protein Using Membrane Chromatography. <i>Journal of Pharmaceutical Sciences</i> , 2010, 99, 3326-3333.	1.6	29
30	A constant flux based mathematical model for predicting permeate flux decline in constant pressure protein ultrafiltration. <i>Journal of Membrane Science</i> , 2007, 290, 207-215.	4.1	28
31	Fractionation of monoclonal antibody aggregates using membrane chromatography. <i>Journal of Membrane Science</i> , 2008, 318, 311-316.	4.1	28
32	Separation of monoclonal antibody alemtuzumab monomer and dimers using ultrafiltration. <i>Biotechnology and Bioengineering</i> , 2005, 90, 422-432.	1.7	27
33	Paper-Based, Hand-Drawn Free Chlorine Sensor with Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate). <i>Analytical Chemistry</i> , 2016, 88, 10384-10389.	3.2	25
34	High-resolution, preparative purification of PEGylated protein using a laterally-fed membrane chromatography device. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2016, 1035, 1-7.	1.2	25
35	Ultrafast Separation and Analysis of Monoclonal Antibody Aggregates Using Membrane Chromatography. <i>Analytical Chemistry</i> , 2017, 89, 4716-4720.	3.2	25
36	Paper-based membranes for hydrophobic interaction chromatography: Purification of monoclonal antibody. <i>Biotechnology and Bioengineering</i> , 2008, 99, 1434-1442.	1.7	24

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37	Chromatographic separation of proteins using hydrophobic membrane shielded with an environment-responsive hydrogel. <i>Journal of Membrane Science</i> , 2009, 345, 177-182.	4.1	24
38	Paper-based composite lyotropic salt-responsive membranes for chromatographic separation of proteins. <i>Journal of Membrane Science</i> , 2010, 360, 149-154.	4.1	24
39	Integrated Solid-Phase Synthesis and Purification of PEGylated Protein. <i>Biomacromolecules</i> , 2011, 12, 2772-2779.	2.6	23
40	Low-temperature solution processing of palladium/palladium oxide films and their pH sensing performance. <i>Talanta</i> , 2016, 146, 517-524.	2.9	23
41	Biocompatible poly(N-vinyl lactam)-based materials with environmentally-responsive permeability. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2008, 19, 275-290.	1.9	22
42	Method for Studying Immunoglobulin G Binding on Hydrophobic Surfaces. <i>Langmuir</i> , 2010, 26, 924-929.	1.6	22
43	Purification of monoclonal antibody from tobacco extract using membrane-based bioseparation techniques. <i>Journal of Membrane Science</i> , 2008, 323, 159-166.	4.1	21
44	Integrated development of enzymatic DNA digestion and membrane chromatography processes for the purification of therapeutic adenoviruses. <i>Separation and Purification Technology</i> , 2021, 254, 117503.	3.9	21
45	Fractionation of human plasma proteins by hydrophobic interaction membrane chromatography. <i>Journal of Membrane Science</i> , 2005, 260, 112-118.	4.1	20
46	Preparative separation of monoclonal antibody aggregates by cation-exchange laterally-fed membrane chromatography. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2017, 1055-1056, 158-164.	1.2	20
47	Continuous fractionation of plasma proteins HSA and HlgG using cascade ultrafiltration systems. <i>Separation and Purification Technology</i> , 2009, 70, 231-241.	3.9	19
48	Fractionation of different PEGylated forms of a protein by chromatography using environment-responsive membranes. <i>Journal of Chromatography A</i> , 2010, 1217, 5595-5601.	1.8	19
49	A flow distribution and collection feature for ensuring scalable uniform flow in a chromatography device. <i>Journal of Chromatography A</i> , 2020, 1618, 460892.	1.8	19
50	A z2 laterally-fed membrane chromatography device for fast high-resolution purification of biopharmaceuticals. <i>Journal of Chromatography A</i> , 2020, 1629, 461453.	1.8	19
51	Simultaneous removal of leached protein-A and aggregates from monoclonal antibody using hydrophobic interaction membrane chromatography. <i>Journal of Membrane Science</i> , 2012, 390-391, 263-269.	4.1	18
52	Purification of chimeric heavy chain monoclonal antibody EG2-hFc using hydrophobic interaction membrane chromatography: An alternative to protein A affinity chromatography. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1139-1149.	1.7	18
53	Using a box instead of a column for process chromatography. <i>Journal of Chromatography A</i> , 2016, 1468, 164-172.	1.8	18
54	Preparation of graphene oxide-cotton fiber composite adsorbent and its application for the purification of polyphenols from pomegranate peel extract. <i>Separation and Purification Technology</i> , 2017, 174, 561-569.	3.9	18

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55	Rapid preparative separation of monoclonal antibody charge variants using laterally-fed membrane chromatography. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2018, 1073, 27-33.	1.2	18
56	Computational fluid dynamic (CFD) simulation of laterally-fed membrane chromatography. <i>Chemical Engineering Research and Design</i> , 2018, 137, 412-420.	2.7	18
57	Integrated fragmentation of human IgG and purification of Fab using a reactant adsorptive membrane bioreactor separator system. <i>Biotechnology and Bioengineering</i> , 2009, 104, 152-161.	1.7	17
58	Poly(N-isopropylacrylamide)-grafted dual stimuli-responsive filter paper for protein separation. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2015, 33, 1048-1057.	2.0	17
59	Purification of humanized monoclonal antibodies by membrane-based hybrid bioseparation technique. <i>Journal of Immunological Methods</i> , 2006, 314, 1-8.	0.6	15
60	Purification of human IgG using membrane based hybrid bioseparation technique and its variants: A comparative study. <i>Separation and Purification Technology</i> , 2009, 66, 242-247.	3.9	15
61	Mathematical modelling and evaluation of performance of cuboid packed-bed devices for chromatographic separations. <i>Journal of Chromatography A</i> , 2017, 1515, 138-145.	1.8	15
62	Bioseparation using supported liquid membrane chromatography. <i>Journal of Membrane Science</i> , 2001, 192, 243-247.	4.1	14
63	Effects of protein-protein interaction in ultrafiltration based fractionation processes. <i>Biotechnology and Bioengineering</i> , 2005, 91, 678-687.	1.7	14
64	Isolation of ellagic acid from pomegranate peel extract by hydrophobic interaction chromatography using graphene oxide grafted cotton fiber adsorbent. <i>Journal of Separation Science</i> , 2018, 41, 747-755.	1.3	14
65	Fractionation of bovine serum albumin and monoclonal antibody alemtuzumab using carrier phase ultrafiltration. <i>Biotechnology and Bioengineering</i> , 2005, 90, 303-315.	1.7	13
66	Purification of equine IgG using membrane based enhanced hybrid bioseparation technique: A potential method for manufacturing hyperimmune antibody. <i>Biotechnology and Bioengineering</i> , 2008, 99, 625-633.	1.7	13
67	Purification of transgenic tobacco-derived recombinant human monoclonal antibody. <i>Biochemical Engineering Journal</i> , 2013, 72, 33-41.	1.8	13
68	Purification and analysis of mono-PEGylated HSA by hydrophobic interaction membrane chromatography. <i>Journal of Separation Science</i> , 2013, 36, 3673-3681.	1.3	13
69	Computational fluid dynamic (CFD) simulation of a cuboid packed-bed chromatography device. <i>Chemical Engineering Research and Design</i> , 2019, 152, 393-401.	2.7	13
70	Separation of human serum albumin and human immunoglobulins using carrier phase ultrafiltration. <i>Biotechnology Progress</i> , 2004, 20, 1103-1112.	1.3	11
71	Separation of human plasma proteins HSA and HlgG using high-capacity macroporous gel-filled membranes. <i>Biochemical Engineering Journal</i> , 2007, 35, 295-300.	1.8	11
72	Study of hydrophobic interaction based binding of immunoglobulin G on synthetic membranes. <i>Journal of Membrane Science</i> , 2009, 344, 165-171.	4.1	11

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73	Membrane reactor for continuous and selective protein mono-PEGylation. <i>Journal of Membrane Science</i> , 2014, 451, 177-184.	4.1	11
74	Feasibility study for high-resolution multi-component separation of protein mixture using a cation-exchange cuboid packed-bed device. <i>Journal of Chromatography A</i> , 2018, 1549, 25-30.	1.8	11
75	Fast, low-pressure chromatographic separation of proteins using hydroxyapatite nanoparticles. <i>Talanta</i> , 2019, 199, 472-477.	2.9	11
76	Production enhancement of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) in <i>Halogeometricum borinquense</i> , characterization of the bioplastic and desalination of the bioreactor effluent. <i>Process Biochemistry</i> , 2020, 94, 243-257.	1.8	11
77	Purification of monoclonal antibody using cation exchange z2 laterally-fed membrane chromatography – A potential alternative to protein A affinity chromatography. <i>Biochemical Engineering Journal</i> , 2022, 178, 108293.	1.8	11
78	Rapid antibody screening by membrane chromatographic immunoassay technique. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2006, 844, 163-167.	1.2	10
79	Cascade ultrafiltration bioreactor-separator system for continuous production of F(ab ²) ₂ fragment from immunoglobulin G. <i>Journal of Membrane Science</i> , 2010, 351, 96-103.	4.1	10
80	Transmission behavior of pNIPAM microgel particles through porous membranes. <i>Journal of Membrane Science</i> , 2015, 479, 141-147.	4.1	10
81	Purification of therapeutic adenoviruses using laterally-fed membrane chromatography. <i>Journal of Membrane Science</i> , 2019, 579, 351-358.	4.1	10
82	Dry-compression packing of hydroxyapatite nanoparticles within a flat cuboid chromatography device and its use for fast protein separation. <i>Journal of Chromatography A</i> , 2022, 1667, 462881.	1.8	10
83	Feasibility Study for the Fractionation of the Major Human Immunoglobulin G Subclasses Using Hydrophobic Interaction Membrane Chromatography. <i>Analytical Chemistry</i> , 2010, 82, 452-455.	3.2	9
84	An annular-flow, hollow-fiber membrane chromatography device for fast, high-resolution protein separation at low pressure. <i>Journal of Membrane Science</i> , 2019, 590, 117305.	4.1	9
85	Feasibility study of the fractionation of monoclonal antibody charge variants using a cuboid packed-bed device. <i>Biochemical Engineering Journal</i> , 2019, 147, 48-56.	1.8	9
86	Performance Comparison of a Laterally-Fed Membrane Chromatography (LFMC) Device with a Commercial Resin Packed Column. <i>Membranes</i> , 2019, 9, 138.	1.4	9
87	Membrane chromatographic immunoassay method for rapid quantitative analysis of specific serum antibodies. <i>Biotechnology and Bioengineering</i> , 2006, 93, 280-285.	1.7	8
88	Effects of process parameters on the efficiency of chromatographic separations using a cuboid packed-bed device. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2018, 1086, 23-28.	1.2	8
89	A novel approach for high-resolution protein-protein separation by ultrafiltration using a dual-facilitating agent. <i>Journal of Membrane Science</i> , 2004, 243, 223-228.	4.1	7
90	Modeling and Optimization of Protein PEGylation. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 11785-11794.	1.8	7

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91	Purification of Danshensu from <i>Salvia miltiorrhiza</i> Extract Using Graphene Oxide-Based Composite Adsorbent. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 8972-8980.	1.8	7
92	Enhancing the efficiency of disc membrane chromatography modules by using a flow directing layer. <i>Journal of Membrane Science</i> , 2019, 580, 154-160.	4.1	7
93	Comparison of membrane chromatography devices in laboratory-scale preparative flow-through separation of a recombinant protein. <i>Separation Science and Technology</i> , 2018, 53, 2990-2997.	1.3	6
94	Cuboid Packed-Beds as Chemical Reactors?. <i>Processes</i> , 2018, 6, 44.	1.3	6
95	A cuboid chromatography device having short bed-height gives better protein separation at a significantly lower pressure drop than a taller column having the same bed-volume. <i>Journal of Chromatography A</i> , 2021, 1647, 462167.	1.8	6
96	Ultrahigh speed, ultrahigh resolution preparative separation of protein biopharmaceuticals using membrane chromatography. <i>Journal of Separation Science</i> , 2022, , .	1.3	6
97	Membrane bioreactor separator system for integrated IgG fragmentation and Fab purification. <i>Journal of Immunological Methods</i> , 2010, 359, 37-41.	0.6	5
98	An osmolyte-based micro-volume ultrafiltration technique. <i>Lab on A Chip</i> , 2014, 14, 4559-4566.	3.1	5
99	Dewatering of microalgae suspension using air-sparged ultrafiltration. <i>Separation Science and Technology</i> , 2017, 52, 344-351.	1.3	5
100	Fast and high-resolution purification of a PEGylated protein using a 22 laterally-fed membrane chromatography device. <i>Journal of Chromatography A</i> , 2021, 1652, 462375.	1.8	5
101	A Thermal-Cycling Method for Disaggregating Monoclonal Antibody Oligomers. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 870-878.	1.6	4
102	Effect of the Length-to-Width Aspect Ratio of a Cuboid Packed-Bed Device on Efficiency of Chromatographic Separation. <i>Processes</i> , 2018, 6, 160.	1.3	4
103	Fast and high-resolution fractionation of positional isomers of a PEGylated protein using membrane chromatography. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2022, 1203, 123292.	1.2	4
104	Enzymatic fragmentation of cation exchange membrane bound immunoglobulin G. <i>Biotechnology Progress</i> , 2011, 27, 61-66.	1.3	3
105	Comparison of the performance of anion exchange membrane materials for adenovirus purification using laterally-fed membrane chromatography. <i>Biochemical Engineering Journal</i> , 2022, 182, 108417.	1.8	3
106	Surfaces Modified by Amphiphilic Copolymer: Preparation and Application. <i>Advanced Materials Research</i> , 0, 47-50, 1311-1314.	0.3	2
107	Efficient capture of monoclonal antibody from cell culture supernatant using protein A media contained in a cuboid packed-bed device. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2019, 1134-1135, 121853.	1.2	2
108	High-resolution purification of a therapeutic PEGylated protein using a cuboid packed-bed device. <i>Journal of Chromatography A</i> , 2020, 1630, 461524.	1.8	2

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109	Stimuli-Responsive Membranes for Separations. <i>Polymers and Polymeric Composites</i> , 2019, , 491-508.	0.6	2
110	Manufacturing T cells in hollow fiber membrane bioreactors changes their programming and enhances their potency. <i>Oncolmunology</i> , 2021, 10, 1995168.	2.1	2
111	A Pulsed Tangential-Flow Ultrafiltration Technique for Studying Protein-Drug Binding. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 2679-2688.	1.6	1
112	A technique for drying and storing a protein as a soluble composite thin film on the surface of an ultrafiltration membrane. <i>Journal of Membrane Science</i> , 2015, 490, 256-265.	4.1	1
113	Gas-Sparged Ultrafiltration: Recent Trends, Applications and Future Challenges. , 2011, , 669-697.		1
114	Recovery of functionally active protein from inclusion bodies using a thermal cycling method. <i>Biotechnology Progress</i> , 2017, 33, 133-139.	1.3	0
115	Enrichment and immobilization of macromolecular analytes on a porous membrane utilizing permeation drag. <i>Journal of Pharmaceutical Analysis</i> , 2018, 8, 187-193.	2.4	0
116	Stimuli-Responsive Membranes for Separations. <i>Polymers and Polymeric Composites</i> , 2019, , 1-18.	0.6	0
117	Simulation and experimental study of the transport of protein bands through cuboid packed-bed devices during chromatographic separations. <i>Journal of Chromatography A</i> , 2020, 1615, 460764.	1.8	0