List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Collision Cross Sections of Proteins and Their Complexes: A Calibration Framework and Database for Gas-Phase Structural Biology. Analytical Chemistry, 2010, 82, 9557-9565.	3.2	694
2	Membrane proteins bind lipids selectively to modulate their structure and function. Nature, 2014, 510, 172-175.	13.7	665
3	Bayesian Deconvolution of Mass and Ion Mobility Spectra: From Binary Interactions to Polydisperse Ensembles. Analytical Chemistry, 2015, 87, 4370-4376.	3.2	663
4	Determining the stoichiometry and interactions of macromolecular assemblies from mass spectrometry. Nature Protocols, 2007, 2, 715-726.	5.5	597
5	Evidence for Macromolecular Protein Rings in the Absence of Bulk Water. Science, 2005, 310, 1658-1661.	6.0	551
6	A Tandem Mass Spectrometer for Improved Transmission and Analysis of Large Macromolecular Assemblies. Analytical Chemistry, 2002, 74, 1402-1407.	3.2	481
7	Protein Complexes in the Gas Phase:  Technology for Structural Genomics and Proteomics. Chemical Reviews, 2007, 107, 3544-3567.	23.0	376
8	Mass spectrometry of intact membrane protein complexes. Nature Protocols, 2013, 8, 639-651.	5.5	354
9	The role of interfacial lipids in stabilizing membrane protein oligomers. Nature, 2017, 541, 421-424.	13.7	344
10	The Role of Mass Spectrometry in Structure Elucidation of Dynamic Protein Complexes. Annual Review of Biochemistry, 2007, 76, 167-193.	5.0	337
11	Micelles Protect Membrane Complexes from Solution to Vacuum. Science, 2008, 321, 243-246.	6.0	333
12	Probing the Nature of Noncovalent Interactions by Mass Spectrometry. A Study of Proteinâ^'CoA Ligand Binding and Assembly. Journal of the American Chemical Society, 1996, 118, 8646-8653.	6.6	304
13	Characterization of the Oligomeric States of Insulin in Self-Assembly and Amyloid Fibril Formation by Mass Spectrometry. Biophysical Journal, 2000, 79, 1053-1065.	0.2	258
14	PtdIns(4,5)P2 stabilizes active states of GPCRs and enhances selectivity of G-protein coupling. Nature, 2018, 559, 423-427.	13.7	236
15	Polydispersity of a mammalian chaperone: Mass spectrometry reveals the population of oligomers in ÂB-crystallin. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10611-10616.	3.3	235
16	Quaternary dynamics and plasticity underlie small heat shock protein chaperone function. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2007-2012.	3.3	231
17	Collision Cross Sections for Structural Proteomics. Structure, 2015, 23, 791-799.	1.6	231
18	Biomimetic spinning of artificial spider silk from a chimeric minispidroin. Nature Chemical Biology, 2017, 13, 262-264.	3.9	231

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19	Charge-State Dependent Compaction and Dissociation of Protein Complexes: Insights from Ion Mobility and Molecular Dynamics. Journal of the American Chemical Society, 2012, 134, 3429-3438.	6.6	223
20	High-resolution mass spectrometry of small molecules bound to membrane proteins. Nature Methods, 2016, 13, 333-336.	9.0	205
21	Mass spectrometry of macromolecular assemblies: preservation and dissociation. Current Opinion in Structural Biology, 2006, 16, 245-251.	2.6	199
22	The role of lipids in mechanosensation. Nature Structural and Molecular Biology, 2015, 22, 991-998.	3.6	160
23	Mass spectrometry reveals synergistic effects of nucleotides, lipids, and drugs binding to a multidrug resistance efflux pump. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9704-9709.	3.3	156
24	Protein assemblies ejected directly from native membranes yield complexes for mass spectrometry. Science, 2018, 362, 829-834.	6.0	155
25	Carbonic Anhydrase Generates CO2 and H+ That Drive Spider Silk Formation Via Opposite Effects on the Terminal Domains. PLoS Biology, 2014, 12, e1001921.	2.6	154
26	Detergent-free mass spectrometry of membrane protein complexes. Nature Methods, 2013, 10, 1206-1208.	9.0	152
27	Do Charge State Signatures Guarantee Protein Conformations?. Journal of the American Society for Mass Spectrometry, 2012, 23, 1161-1168.	1.2	149
28	A mass spectrometry–based hybrid method for structural modeling of protein complexes. Nature Methods, 2014, 11, 403-406.	9.0	149
29	Alternate Dissociation Pathways Identified in Charge-Reduced Protein Complex Ions. Analytical Chemistry, 2010, 82, 5363-5372.	3.2	145
30	Twenty Years of Gas Phase Structural Biology. Structure, 2013, 21, 1541-1550.	1.6	143
31	Quantifying the stabilizing effects of protein–ligand interactions in the gas phase. Nature Communications, 2015, 6, 8551.	5.8	136
32	The role of lipids in defining membrane protein interactions: insights from mass spectrometry. Trends in Cell Biology, 2013, 23, 1-8.	3.6	134
33	Sequential pH-driven dimerization and stabilization of the N-terminal domain enables rapid spider silk formation. Nature Communications, 2014, 5, 3254.	5.8	134
34	Optimal Synthetic Glycosylation of a Therapeutic Antibody. Angewandte Chemie - International Edition, 2016, 55, 2361-2367.	7.2	122
35	Membrane Protein–Lipid Interactions Probed Using Mass Spectrometry. Annual Review of Biochemistry, 2019, 88, 85-111.	5.0	121
36	Integrating Ion Mobility Mass Spectrometry with Molecular Modelling to Determine the Architecture of Multiprotein Complexes. PLoS ONE, 2010, 5, e12080.	1.1	119

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37	The Role of the Detergent Micelle in Preserving the Structure of Membrane Proteins in the Gas Phase. Angewandte Chemie - International Edition, 2015, 54, 4577-4581.	7.2	117
38	A subset of annular lipids is linked to the flippase activity of an ABC transporter. Nature Chemistry, 2015, 7, 255-262.	6.6	112
39	Combining native and â€~omics' mass spectrometry to identify endogenous ligands bound to membrane proteins. Nature Methods, 2020, 17, 505-508.	9.0	111
40	High-resolution structure of a BRICHOS domain and its implications for anti-amyloid chaperone activity on lung surfactant protein C. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2325-2329.	3.3	108
41	Efficient protein production inspired by how spiders make silk. Nature Communications, 2017, 8, 15504.	5.8	102
42	Small Heat Shock Protein Activity Is Regulated by Variable Oligomeric Substructure. Journal of Biological Chemistry, 2008, 283, 28513-28517.	1.6	99
43	Subunit Architecture of Multiprotein Assemblies Determined Using Restraints from Gas-Phase Measurements. Structure, 2009, 17, 1235-1243.	1.6	99
44	Mass spectrometry guided structural biology. Current Opinion in Structural Biology, 2016, 40, 136-144.	2.6	98
45	Probing the Lipid Annular Belt by Gasâ€Phase Dissociation of Membrane Proteins in Nanodiscs. Angewandte Chemie - International Edition, 2016, 55, 550-554.	7.2	95
46	Hsp70 Forms Antiparallel Dimers Stabilized by Post-translational Modifications to Position Clients for Transfer to Hsp90. Cell Reports, 2015, 11, 759-769.	2.9	93
47	Intrinsically Disordered p53 and Its Complexes Populate Compact Conformations in the Gas Phase. Angewandte Chemie - International Edition, 2013, 52, 361-365.	7.2	85
48	A PBX1 transcriptional network controls dopaminergic neuron development and is impaired in Parkinson's disease. EMBO Journal, 2016, 35, 1963-1978.	3.5	85
49	pHâ€Đependent Dimerization of Spider Silk N-Terminal Domain Requires Relocation of a Wedged Tryptophan Side Chain. Journal of Molecular Biology, 2012, 422, 477-487.	2.0	73
50	The Effect of Detergent, Temperature, and Lipid on the Oligomeric State of MscL Constructs: Insights from Mass Spectrometry. Chemistry and Biology, 2015, 22, 593-603.	6.2	72
51	Modular detergents tailor the purification and structural analysis of membrane proteins including G-protein coupled receptors. Nature Communications, 2020, 11, 564.	5.8	72
52	Interfacing Membrane Mimetics with Mass Spectrometry. Accounts of Chemical Research, 2016, 49, 2459-2467.	7.6	70
53	Integrating mass spectrometry with MD simulations reveals the role of lipids in Na+/H+ antiporters. Nature Communications, 2017, 8, 13993.	5.8	68
54	Charge Reduction Stabilizes Intact Membrane Protein Complexes for Mass Spectrometry. Journal of the American Chemical Society, 2014, 136, 17010-17012.	6.6	67

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55	Bri2 BRICHOS client specificity and chaperone activity are governed by assembly state. Nature Communications, 2017, 8, 2081.	5.8	67
56	Direct observation of the influence of cardiolipin and antibiotics on lipid II binding to MurJ. Nature Chemistry, 2018, 10, 363-371.	6.6	65
57	Different Modes of Lipid Binding to Membrane Proteins Probed by Mass Spectrometry. Journal of the American Chemical Society, 2015, 137, 5240-5247.	6.6	63
58	A pH-Dependent Dimer Lock in Spider Silk Protein. Journal of Molecular Biology, 2010, 404, 328-336.	2.0	62
59	An engineered thermal-shift screen reveals specific lipid preferences of eukaryotic and prokaryotic membrane proteins. Nature Communications, 2018, 9, 4253.	5.8	60
60	Mass Spectrometry Defines the C-Terminal Dimerization Domain and Enables Modeling of the Structure of Full-Length OmpA. Structure, 2014, 22, 781-790.	1.6	58
61	A sliding selectivity scale for lipid binding to membrane proteins. Current Opinion in Structural Biology, 2016, 39, 54-60.	2.6	54
62	Structures of CD6 and Its Ligand CD166 Give Insight into Their Interaction. Structure, 2015, 23, 1426-1436.	1.6	53
63	A combined computational and structural model of the full-length human prolactin receptor. Nature Communications, 2016, 7, 11578.	5.8	52
64	Ligand binding to a G protein–coupled receptor captured in a mass spectrometer. Science Advances, 2017, 3, e1701016.	4.7	52
65	Mass spectrometry: From plasma proteins to mitochondrial membranes. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2814-2820.	3.3	49
66	Probing <i>N</i> -glycoprotein microheterogeneity by lectin affinity purification-mass spectrometry analysis. Chemical Science, 2019, 10, 5146-5155.	3.7	49
67	High-yield Production of Amyloid-β Peptide Enabled by a Customized Spider Silk Domain. Scientific Reports, 2020, 10, 235.	1.6	45
68	Site-Specific Incorporation of Two ncAAs for Two-Color Bioorthogonal Labeling and Crosslinking of Proteins on Live Mammalian Cells. Cell Reports, 2020, 31, 107811.	2.9	43
69	Augmentation of Bri2 molecular chaperone activity against amyloid-β reduces neurotoxicity in mouse hippocampus in vitro. Communications Biology, 2020, 3, 32.	2.0	42
70	Dynamics of an LPS translocon induced by substrate and an antimicrobial peptide. Nature Chemical Biology, 2021, 17, 187-195.	3.9	41
71	Capturing a rhodopsin receptor signalling cascade across a native membrane. Nature, 2022, 604, 384-390.	13.7	41
72	Phospholipid Complexation and Association with Apolipoprotein C-II: Insights from Mass Spectrometry. Biophysical Journal, 2003, 85, 3802-3812.	0.2	40

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73	Unraveling the Composition and Behavior of Heterogeneous Lipid Nanodiscs by Mass Spectrometry. Analytical Chemistry, 2016, 88, 6199-6204.	3.2	40
74	Lipid binding attenuates channel closure of the outer membrane protein OmpF. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6691-6696.	3.3	39
75	Diversified Structural Basis of a Conserved Molecular Mechanism for pHâ€Dependent Dimerization in Spider Silk Nâ€Terminal Domains. ChemBioChem, 2015, 16, 1720-1724.	1.3	38
76	Topological Models of Heteromeric Protein Assemblies from Mass Spectrometry: Application to the Yeast elF3:elF5 Complex. Chemistry and Biology, 2015, 22, 117-128.	6.2	38
77	The â€~sticky business' of cleaning gas-phase membrane proteins: a detergent oriented perspective. Physical Chemistry Chemical Physics, 2012, 14, 14439.	1.3	37
78	The Effects of Sodium Ions on Ligand Binding and Conformational States of G Protein-Coupled Receptors—Insights from Mass Spectrometry. Journal of the American Chemical Society, 2021, 143, 4085-4089.	6.6	35
79	A Massâ€Spectrometryâ€Based Approach to Distinguish Annular and Specific Lipid Binding to Membrane Proteins. Angewandte Chemie - International Edition, 2020, 59, 3523-3528.	7.2	33
80	Specific Chaperones and Regulatory Domains in Control of Amyloid Formation. Journal of Biological Chemistry, 2015, 290, 26430-26436.	1.6	32
81	A new window into the molecular physiology of membrane proteins. Journal of Physiology, 2015, 593, 355-362.	1.3	32
82	Structure and elevator mechanism of the mammalian sodium/proton exchanger NHE9. EMBO Journal, 2020, 39, 4541-4559.	3.5	31
83	Low Charge and Reduced Mobility of Membrane Protein Complexes Has Implications for Calibration of Collision Cross Section Measurements. Analytical Chemistry, 2016, 88, 5879-5884.	3.2	30
84	The use of sonicated lipid vesicles for mass spectrometry of membrane protein complexes. Nature Protocols, 2020, 15, 1690-1706.	5.5	30
85	Mass Spectrometry—From Peripheral Proteins to Membrane Motors. Journal of Molecular Biology, 2012, 423, 1-13.	2.0	28
86	Structure, mechanism and lipid-mediated remodeling of the mammalian Na+/H+ exchanger NHA2. Nature Structural and Molecular Biology, 2022, 29, 108-120.	3.6	27
87	Effects of Detergent Micelles on Lipid Binding to Proteins in Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2017, 89, 7425-7430.	3.2	26
88	Lipids Shape the Electron Acceptor-Binding Site of the Peripheral Membrane Protein Dihydroorotate Dehydrogenase. Cell Chemical Biology, 2018, 25, 309-317.e4.	2.5	25
89	The importance of the membrane for biophysical measurements. Nature Chemical Biology, 2020, 16, 1285-1292.	3.9	25
90	Order and disorder—An integrative structure of the full-length human growth hormone receptor. Science Advances, 2021, 7, .	4.7	25

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91	Proinsulin C-peptide interferes with insulin fibril formation. Biochemical and Biophysical Research Communications, 2012, 418, 489-493.	1.0	23
92	New developments in protein structure–function analysis by MS and use of hydrogen–deuterium exchange microfluidics. FEBS Journal, 2011, 278, 3815-3821.	2.2	22
93	Dodecyl Maltoside Protects Membrane Proteins In Vacuo. Biophysical Journal, 2013, 105, 648-656.	0.2	22
94	Mass spectrometry captures structural intermediates in protein fiber self-assembly. Chemical Communications, 2017, 53, 3319-3322.	2.2	22
95	Negative Ions Enhance Survival of Membrane Protein Complexes. Journal of the American Society for Mass Spectrometry, 2016, 27, 1099-1104.	1.2	21
96	Mass Spectrometry Reveals the Direct Action of a Chemical Chaperone. Journal of Physical Chemistry Letters, 2018, 9, 4082-4086.	2.1	21
97	A new azobenzene-based design strategy for detergents in membrane protein research. Chemical Science, 2020, 11, 3538-3546.	3.7	21
98	Probing membrane protein–lipid interactions. Current Opinion in Structural Biology, 2021, 69, 78-85.	2.6	21
99	Separate Molecular Determinants in Amyloidogenic and Antimicrobial Peptides. Journal of Molecular Biology, 2014, 426, 2159-2166.	2.0	20
100	Scratching the surface: native mass spectrometry of peripheral membrane protein complexes. Biochemical Society Transactions, 2020, 48, 547-558.	1.6	20
101	Peptidoglycan biosynthesis is driven by lipid transfer along enzyme-substrate affinity gradients. Nature Communications, 2022, 13, 2278.	5.8	20
102	Alcohol dehydrogenase, SDR and MDR structural stages, present update and altered era. Chemico-Biological Interactions, 2015, 234, 75-79.	1.7	19
103	Predicting the Shapes of Protein Complexes through Collision Cross Section Measurements and Database Searches. Analytical Chemistry, 2020, 92, 12297-12303.	3.2	19
104	Controlling release, unfolding and dissociation of membrane protein complexes in the gas phase through collisional cooling. Chemical Communications, 2015, 51, 15582-15584.	2.2	18
105	Studies on citrullinated LL-37: detection in human airways, antibacterial effects and biophysical properties. Scientific Reports, 2020, 10, 2376.	1.6	18
106	Smallest Secondary Nucleation Competent Al ² Aggregates Probed by an ATP-Independent Molecular Chaperone Domain. Biochemistry, 2021, 60, 678-688.	1.2	17
107	Insulin solubility transitions by <scp>pH</scp> â€dependent interactions with proinsulin Câ€peptide. FEBS Journal, 2012, 279, 4589-4597.	2.2	15
108	The structure, molecular interactions and bioactivities of proinsulin C-peptide correlate with a tripartite molecule. Biomolecular Concepts, 2014, 5, 109-118.	1.0	15

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109	Protective Effects of Dimethyl Sulfoxide on Labile Protein Interactions during Electrospray Ionization. Analytical Chemistry, 2014, 86, 4135-4139.	3.2	14
110	Gas-Phase Collisions with Trimethylamine- <i>N</i> -Oxide Enable Activation-Controlled Protein Ion Charge Reduction. Journal of the American Society for Mass Spectrometry, 2019, 30, 1385-1388.	1.2	14
111	High intracellular stability of the spidroin Nâ€terminal domain in spite of abundant amyloidogenic segments revealed by inâ€cell hydrogen/deuterium exchange mass spectrometry. FEBS Journal, 2020, 287, 2823-2833.	2.2	14
112	Control of amyloid assembly by autoregulation. Biochemical Journal, 2012, 447, 185-192.	1.7	13
113	Probing the limits of Q-tag bioconjugation of antibodies. Chemical Communications, 2019, 55, 11342-11345.	2.2	13
114	A strategy for the identification of protein architectures directly from ion mobility mass spectrometry data reveals stabilizing subunit interactions in light harvesting complexes. Protein Science, 2019, 28, 1024-1030.	3.1	13
115	Complementing machine learningâ€based structure predictions with native mass spectrometry. Protein Science, 2022, 31, .	3.1	13
116	Spatial variation and structural characteristics of phycobiliproteins from the red algae Furcellaria lumbricalis and Coccotylus truncatus. Algal Research, 2020, 52, 102058.	2.4	12
117	Dendritic Oligoglycerol Regioisomer Mixtures and Their Utility for Membrane Protein Research. Chemistry - A European Journal, 2021, 27, 2537-2542.	1.7	12
118	Mass spectrometry informs the structure and dynamics of membrane proteins involved in lipid and drug transport. Current Opinion in Structural Biology, 2021, 70, 53-60.	2.6	12
119	Charge Engineering Reveals the Roles of Ionizable Side Chains in Electrospray Ionization Mass Spectrometry. Jacs Au, 2021, 1, 2385-2393.	3.6	12
120	Anionic Dendritic Polyglycerol for Protein Purification and Delipidation. ACS Applied Polymer Materials, 2021, 3, 5903-5911.	2.0	11
121	Understanding glycoprotein structural heterogeneity and interactions: Insights from native mass spectrometry. Current Opinion in Structural Biology, 2022, 74, 102351.	2.6	11
122	Imidazolium-based catenane host for bromide recognition in aqueous media. Chemical Communications, 2021, 57, 101-104.	2.2	10
123	The dimerization mechanism of the N-terminal domain of spider silk proteins is conserved despite extensive sequence divergence. Journal of Biological Chemistry, 2022, 298, 101913.	1.6	10
124	A Membrane Cell for On-line Hydrogen/Deuterium Exchange to Study Protein Folding and Protein-Protein Interactions by Mass Spectrometry. Molecular and Cellular Proteomics, 2011, 10, M110.006510.	2.5	9
125	Non-ionic hybrid detergents for protein delipidation. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183958.	1.4	9
126	Insulin, islet amyloid polypeptide and C-peptide interactions evaluated by mass spectrometric analysis. Rapid Communications in Mass Spectrometry, 2014, 28, 178-184.	0.7	8

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127	Response to Comment on "Protein assemblies ejected directly from native membranes yield complexes for mass spectrometry― Science, 2019, 366, .	6.0	8
128	N-Thio-β-lactams targeting L,D-transpeptidase-2, with activity against drug-resistant strains of Mycobacterium tuberculosis. Cell Chemical Biology, 2021, 28, 1321-1332.e5.	2.5	8
129	Ion mobility-mass spectrometry shows stepwise protein unfolding under alkaline conditions. Chemical Communications, 2021, 57, 1450-1453.	2.2	8
130	Ion Mobility in Structural Biology. Comprehensive Analytical Chemistry, 2019, 83, 161-195.	0.7	7
131	A subdivided molecular architecture with separate features and stepwise emergence among proinsulin C-peptides. Biochemical and Biophysical Research Communications, 2014, 450, 1433-1438.	1.0	6
132	Structural and biophysical insights into the mode of covalent binding of rationally designed potent BMX inhibitors. RSC Chemical Biology, 2020, 1, 251-262.	2.0	6
133	Connecting â€~multi-omics' approaches to endogenous protein complexes. Trends in Chemistry, 2021, 3, 445-455.	4.4	6
134	Structural Basis for Dityrosine-Mediated Inhibition of α-Synuclein Fibrillization. Journal of the American Chemical Society, 2022, 144, 11949-11954.	6.6	6
135	<scp>ATP</scp> â€independent molecular chaperone activity generated under reducing conditions. Protein Science, 2022, 31, .	3.1	6
136	Biological activity versus physiological function of proinsulin C-peptide. Cellular and Molecular Life Sciences, 2021, 78, 1131-1138.	2.4	5
137	A "spindle and thread―mechanism unblocks p53 translation by modulating N-terminal disorder. Structure, 2022, 30, 733-742.e7.	1.6	5
138	Câ€peptide evolution: Generation from few structural restrictions of bioactivities not necessarily functional. FEBS Letters, 2015, 589, 415-418.	1.3	4
139	A Genetically Encoded Picolyl Azide for Improved Live Cell Copper Click Labeling. Frontiers in Chemistry, 2021, 9, 768535.	1.8	4
140	Electrospray ionization of native membrane proteins proceeds <i>via</i> a charge equilibration step. RSC Advances, 2022, 12, 9671-9680.	1.7	4
141	Treatment of Respiratory Distress Syndrome with Single Recombinant Polypeptides that Combine Features of SP-B and SP-C. ACS Chemical Biology, 2021, 16, 2864-2873.	1.6	4
142	Efficient delipidation of a recombinant lung surfactant lipopeptide analogue by liquid-gel chromatography. PLoS ONE, 2019, 14, e0226072.	1.1	2
143	A Massâ€5pectrometryâ€Based Approach to Distinguish Annular and Specific Lipid Binding to Membrane Proteins. Angewandte Chemie, 2020, 132, 3551-3556.	1.6	2
144	Peptide Interactions of Proinsulin C-Peptide. , 2012, , 7-16.		1

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145	The synthesis and characterization of Bri2 BRICHOS coated magnetic particles and their application to protein fishing: Identification of novel binding proteins. Journal of Pharmaceutical and Biomedical Analysis, 2021, 198, 113996.	1.4	1