Brian T Chait

List of Publications by Year in descending order

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136 20,031 62 135 papers citations h-index g-index

155 155 22775
all docs docs citations times ranked citing authors

#	Article	IF	CITATIONS
1	X-ray structure of a CIC chloride channel at 3.0 à reveals the molecular basis of anion selectivity. Nature, 2002, 415, 287-294.	27.8	1,529
2	The Yeast Nuclear Pore Complex. Journal of Cell Biology, 2000, 148, 635-652.	5.2	1,329
3	Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry of Biopolymers. Analytical Chemistry, 1991, 63, 1193A-1203A.	6.5	1,326
4	The molecular architecture of the nuclear pore complex. Nature, 2007, 450, 695-701.	27.8	947
5	Distinct regulation of autophagic activity by Atg14L and Rubicon associated with Beclin 1–phosphatidylinositol-3-kinase complex. Nature Cell Biology, 2009, 11, 468-476.	10.3	845
6	Probing conformational changes in proteins by mass spectrometry. Journal of the American Chemical Society, 1990, 112, 9012-9013.	13.7	607
7	Influence of Matrix Solution Conditions on the MALDI-MS Analysis of Peptides and Proteins. Analytical Chemistry, 1996, 68, 31-37.	6.5	520
8	Determining the architectures of macromolecular assemblies. Nature, 2007, 450, 683-694.	27.8	499
9	Observation of the heme-globin complex in native myoglobin by electrospray-ionization mass spectrometry. Journal of the American Chemical Society, 1991, 113, 8534-8535.	13.7	451
10	Integrative structure and functional anatomy of a nuclear pore complex. Nature, 2018, 555, 475-482.	27.8	435
11	Structural Conservation in Prokaryotic and Eukaryotic Potassium Channels. Science, 1998, 280, 106-109.	12.6	404
12	A robust pipeline for rapid production of versatile nanobody repertoires. Nature Methods, 2014, 11, 1253-1260.	19.0	391
13	POT1-interacting protein PIP1: a telomere length regulator that recruits POT1 to the TIN2/TRF1 complex. Genes and Development, 2004, 18, 1649-1654.	5.9	383
14	Structural Basis for Helicase-Polymerase Coupling in the SARS-CoV-2 Replication-Transcription Complex. Cell, 2020, 182, 1560-1573.e13.	28.9	360
15	Components of Coated Vesicles and Nuclear Pore Complexes Share a Common Molecular Architecture. PLoS Biology, 2004, 2, e380.	5.6	357
16	Rif1 Prevents Resection of DNA Breaks and Promotes Immunoglobulin Class Switching. Science, 2013, 339, 711-715.	12.6	356
17	Mass Spectrometry: Bottom-Up or Top-Down?. Science, 2006, 314, 65-66.	12.6	354
18	Nuclear ARP2/3 drives DNA break clustering for homology-directed repair. Nature, 2018, 559, 61-66.	27.8	304

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19	Yng1 PHD Finger Binding to H3 Trimethylated at K4 Promotes NuA3 HAT Activity at K14 of H3 and Transcription at a Subset of Targeted ORFs. Molecular Cell, 2006, 24, 785-796.	9.7	283
20	TIN2 Binds TRF1 and TRF2 Simultaneously and Stabilizes the TRF2 Complex on Telomeres. Journal of Biological Chemistry, 2004, 279, 47264-47271.	3.4	275
21	Comprehensive analysis of diverse ribonucleoprotein complexes. Nature Methods, 2007, 4, 951-956.	19.0	253
22	Structural similarity between TAFs and the heterotetrameric core of the histone octamer. Nature, 1996, 380, 316-322.	27.8	251
23	Simple fold composition and modular architecture of the nuclear pore complex. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2172-2177.	7.1	243
24	Fluorescent Proteins as Proteomic Probes. Molecular and Cellular Proteomics, 2005, 4, 1933-1941.	3.8	225
25	Evidence for a Shared Nuclear Pore Complex Architecture That Is Conserved from the Last Common Eukaryotic Ancestor. Molecular and Cellular Proteomics, 2009, 8, 2119-2130.	3.8	200
26	Affinity Proteomics Reveals Human Host Factors Implicated in Discrete Stages of LINE-1 Retrotransposition. Cell, 2013, 155, 1034-1048.	28.9	190
27	A Modular Cross-Linking Approach for Exploring Protein Interactions. Journal of the American Chemical Society, 2003, 125, 2416-2425.	13.7	189
28	Identification and Characterization of Posttranslational Modifications of Proteins by MALDI Ion Trap Mass Spectrometry. Analytical Chemistry, 1997, 69, 4002-4009.	6.5	175
29	Human Cytomegalovirus Protein UL38 Inhibits Host Cell Stress Responses by Antagonizing the Tuberous Sclerosis Protein Complex. Cell Host and Microbe, 2008, 3, 253-262.	11.0	175
30	A Robust, Detergent-Friendly Method for Mass Spectrometric Analysis of Integral Membrane Proteins. Analytical Chemistry, 2000, 72, 5655-5658.	6.5	164
31	The architecture of a eukaryotic replisome. Nature Structural and Molecular Biology, 2015, 22, 976-982.	8.2	161
32	Structural Characterization by Cross-linking Reveals the Detailed Architecture of a Coatomer-related Heptameric Module from the Nuclear Pore Complex. Molecular and Cellular Proteomics, 2014, 13, 2927-2943.	3.8	152
33	Probing the solution structure of the DNAâ€binding protein Max by a combination of proteolysis and mass spectrometry. Protein Science, 1995, 4, 1088-1099.	7.6	149
34	Nup2p Dynamically Associates with the Distal Regions of the Yeast Nuclear Pore Complex. Journal of Cell Biology, 2001, 153, 1465-1478.	5.2	149
35	Structure and Function of the Nuclear Pore Complex Cytoplasmic mRNA Export Platform. Cell, 2016, 167, 1215-1228.e25.	28.9	148
36	Automatic Identification of Proteins with a MALDI-Quadrupole Ion Trap Mass Spectrometer. Analytical Chemistry, 2001, 73, 5066-5077.	6.5	144

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37	I-DIRT, A General Method for Distinguishing between Specific and Nonspecific Protein Interactions. Journal of Proteome Research, 2005, 4, 1752-1756.	3.7	134
38	Genome-wide gene expression tuning reveals diverse vulnerabilities of M.Âtuberculosis. Cell, 2021, 184, 4579-4592.e24.	28.9	131
39	Modular assembly of the nucleolar pre-60S ribosomal subunit. Nature, 2018, 556, 126-129.	27.8	127
40	Structural basis of transcription arrest by coliphage HK022 Nun in an Escherichia coli RNA polymerase elongation complex. ELife, 2017, 6 , .	6.0	120
41	Rapidly switchable matrix-assisted laser desorption/ionization and electrospray quadrupole-time-of-flight mass spectrometry for protein identification. Journal of the American Society for Mass Spectrometry, 2000, 11, 493-504.	2.8	119
42	The complete structure of the small-subunit processome. Nature Structural and Molecular Biology, 2017, 24, 944-953.	8.2	114
43	A strategy for dissecting the architectures of native macromolecular assemblies. Nature Methods, 2015, 12, 1135-1138.	19.0	113
44	Activation of DSB Processing Requires Phosphorylation of CtIP by ATR. Molecular Cell, 2013, 49, 657-667.	9.7	112
45	Asymmetric Molecular Architecture of the Human γ-Tubulin Ring Complex. Cell, 2020, 180, 165-175.e16.	28.9	111
46	Targeted Proteomic Study of the Cyclin-Cdk Module. Molecular Cell, 2004, 14, 699-711.	9.7	110
47	Structure–function mapping of a heptameric module in the nuclear pore complex. Journal of Cell Biology, 2012, 196, 419-434.	5.2	110
48	Reconstitution of active human core Mediator complex reveals a critical role of the MED14 subunit. Nature Structural and Molecular Biology, 2014, 21, 1028-1034.	8.2	109
49	Detection of secreted peptides by using hypothesis-driven multistage mass spectrometry. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2795-2800.	7.1	108
50	Host Factors Associated with the Sindbis Virus RNA-Dependent RNA Polymerase: Role for G3BP1 and G3BP2 in Virus Replication. Journal of Virology, 2010, 84, 6720-6732.	3 . 4	101
51	The nuclear basket proteins Mlp1p and Mlp2p are part of a dynamic interactome including Esc1p and the proteasome. Molecular Biology of the Cell, 2013, 24, 3920-3938.	2.1	100
52	Immunoglobulin motif DNA recognition and heterodimerization of the PEBP2/CBF Runt domain. Nature Structural Biology, 1999, 6, 615-619.	9.7	97
53	Chemical proteomics reveals a \hat{I}^3 H2AX-53BP1 interaction in the DNA damage response. Nature Chemical Biology, 2015, 11, 807-814.	8.0	96
54	<i>Escherichia coli</i> condensin MukB stimulates topoisomerase IV activity by a direct physical interaction. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18832-18837.	7.1	93

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55	Palaeoproteomics resolves sloth relationships. Nature Ecology and Evolution, 2019, 3, 1121-1130.	7.8	91
56	Human leptin characterization. Nature, 1996, 382, 589-589.	27.8	88
57	Stepwise Promoter Melting by Bacterial RNA Polymerase. Molecular Cell, 2020, 78, 275-288.e6.	9.7	88
58	Comprehensive structure and functional adaptations of the yeast nuclear pore complex. Cell, 2022, 185, 361-378.e25.	28.9	87
59	Rrp17p Is a Eukaryotic Exonuclease Required for 5′ End Processing of Pre-60S Ribosomal RNA. Molecular Cell, 2009, 36, 768-781.	9.7	83
60	The nuclear pore complex–associated protein, Mlp2p, binds to the yeast spindle pole body and promotes its efficient assembly. Journal of Cell Biology, 2005, 170, 225-235.	5.2	81
61	Structural basis for backtracking by the SARS-CoV-2 replication–transcription complex. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	76
62	Analysis of Protein Phosphorylation by Hypothesis-Driven Multiple-Stage Mass Spectrometry. Analytical Chemistry, 2004, 76, 4472-4483.	6.5	72
63	Transcriptional Regulation by Pol II(G) Involving Mediator and Competitive Interactions of Gdown1 and TFIIF with Pol II. Molecular Cell, 2012, 45, 51-63.	9.7	68
64	Rapid, optimized interactomic screening. Nature Methods, 2015, 12, 553-560.	19.0	68
65	Integrative Structure–Function Mapping of the Nucleoporin Nup133 Suggests a Conserved Mechanism for Membrane Anchoring of the Nuclear Pore Complex. Molecular and Cellular Proteomics, 2014, 13, 2911-2926.	3.8	67
66	Global Analysis of Cdc14 Phosphatase Reveals Diverse Roles in Mitotic Processes. Journal of Biological Chemistry, 2011, 286, 5434-5445.	3.4	64
67	Molecular Architecture and Function of the SEA Complex, a Modulator of the TORC1 Pathway. Molecular and Cellular Proteomics, 2014, 13, 2855-2870.	3.8	64
68	UtpA and UtpB chaperone nascent pre-ribosomal RNA and U3 snoRNA to initiate eukaryotic ribosome assembly. Nature Communications, 2016, 7, 12090.	12.8	63
69	Proteomics of HCV virions reveals an essential role for the nucleoporin Nup98 in virus morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2484-2489.	7.1	63
70	Dissection of affinity captured LINE-1 macromolecular complexes. ELife, 2018, 7, .	6.0	63
71	Mass Spectrometry as a Tool for Protein Crystallography. Annual Review of Biophysics and Biomolecular Structure, 2001, 30, 67-85.	18.3	62
72	A Chemical Proteomics Approach to Reveal Direct Protein-Protein Interactions in Living Cells. Cell Chemical Biology, 2018, 25, 110-120.e3.	5.2	62

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73	Nrbf2 Protein Suppresses Autophagy by Modulating Atg14L Protein-containing Beclin 1-Vps34 Complex Architecture and Reducing Intracellular Phosphatidylinositol-3 Phosphate Levels. Journal of Biological Chemistry, 2014, 289, 26021-26037.	3.4	60
74	Proteomic Studies of a Single CNS Synapse Type: The Parallel Fiber/Purkinje Cell Synapse. PLoS Biology, 2009, 7, e1000083.	5. 6	59
75	Mass Spectrometry in the Postgenomic Era. Annual Review of Biochemistry, 2011, 80, 239-246.	11.1	59
76	Dynamic regulation of TFH selection during the germinal centre reaction. Nature, 2021, 591, 458-463.	27.8	58
77	Twoâ€step selective formation of three disulfide bridges in the synthesis of the Câ€terminal epidermal growth factorâ€like domain in human blood coagulation factor IX. Protein Science, 1994, 3, 1267-1275.	7.6	57
78	Matrixâ€assisted laser desorption mass spectrometric peptide mapping of proteins separated by twoâ€dimensional gel electrophoresis: Determination of phosphorylation in synapsin I. Protein Science, 1994, 3, 677-686.	7.6	53
79	Revealing Higher Order Protein Structure Using Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2016, 27, 952-965.	2.8	51
80	Protein Arginine Methyltransferase Prmt5-Mep50 Methylates Histones H2A and H4 and the Histone Chaperone Nucleoplasmin in Xenopus laevis Eggs. Journal of Biological Chemistry, 2011, 286, 42221-42231.	3.4	49
81	Affinity proteomics to study endogenous protein complexes: Pointers, pitfalls, preferences and perspectives. BioTechniques, 2015, 58, 103-119.	1.8	49
82	HIV–host interactome revealed directly from infected cells. Nature Microbiology, 2016, 1, 16068.	13.3	49
83	Improved methodology for the affinity isolation of human protein complexes expressed at near endogenous levels. BioTechniques, 2012, 0, 1-6.	1.8	48
84	Beclin 1-Vps34 complex architecture: Understanding the nuts and bolts of therapeutic targets. Frontiers in Biology, 2015, 10, 398-426.	0.7	48
85	Conjugation of Magnetic Beads for Immunopurification of Protein Complexes. Cold Spring Harbor Protocols, 2011, 2011, pdb.prot5610.	0.3	45
86	A Pipeline for Determining Protein–Protein Interactions and Proximities in the Cellular Milieu. Molecular and Cellular Proteomics, 2014, 13, 2824-2835.	3.8	45
87	Architecture of a Host–Parasite Interface: Complex Targeting Mechanisms Revealed Through Proteomics. Molecular and Cellular Proteomics, 2015, 14, 1911-1926.	3.8	45
88	Developing genetic tools to exploit Chaetomium thermophilum for biochemical analyses of eukaryotic macromolecular assemblies. Scientific Reports, 2016, 6, 20937.	3.3	43
89	Modulation of GT-1 DNA-binding activity by calcium-dependent phosphorylation. Plant Molecular Biology, 1999, 40, 373-386.	3.9	42
90	Structural basis for transcription complex disruption by the Mfd translocase. ELife, 2021, 10, .	6.0	36

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91	Highly synergistic combinations of nanobodies that target SARS-CoV-2 and are resistant to escape. ELife, 2021, 10, .	6.0	36
92	Mcm10 has potent strand-annealing activity and limits translocase-mediated fork regression. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 798-803.	7.1	35
93	Malaria parasites use a soluble RhopH complex for erythrocyte invasion and an integral form for nutrient uptake. ELife, 2021, 10, .	6.0	35
94	The Chromatin Reader ZMYND8 Regulates Igh Enhancers to Promote Immunoglobulin Class Switch Recombination. Molecular Cell, 2018, 72, 636-649.e8.	9.7	34
95	Examining postâ€translational modificationâ€mediated protein–protein interactions using a chemical proteomics approach. Protein Science, 2013, 22, 287-295.	7.6	33
96	High-Efficiency Isolation of Nuclear Envelope Protein Complexes from Trypanosomes. Methods in Molecular Biology, 2016, 1411, 67-80.	0.9	31
97	Architecture of Pol II(G) and molecular mechanism of transcription regulation by Gdown1. Nature Structural and Molecular Biology, 2018, 25, 859-867.	8.2	31
98	Dissecting the Structural Dynamics of the Nuclear Pore Complex. Molecular Cell, 2021, 81, 153-165.e7.	9.7	31
99	Mass spectrometry — a useful tool for the protein X-ray crystallographer and NMR spectroscopist. Structure, 1994, 2, 465-467.	3.3	29
100	Integrative structure and function of the yeast exocyst complex. Protein Science, 2020, 29, 1486-1501.	7.6	29
101	Method for identifying phosphorylated substrates of specific cyclin/cyclin-dependent kinase complexes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11323-11328.	7.1	28
102	A Polycomb repressive complex is required for RNAi-mediated heterochromatin formation and dynamic distribution of nuclear bodies. Nucleic Acids Research, 2021, 49, 5407-5425.	14.5	27
103	The Trypanosome Exocyst: A Conserved Structure Revealing a New Role in Endocytosis. PLoS Pathogens, 2017, 13, e1006063.	4.7	27
104	Assembly and Molecular Architecture of the Phosphoinositide 3-Kinase p85 \hat{i} ± Homodimer. Journal of Biological Chemistry, 2015, 290, 30390-30405.	3.4	25
105	Functional Plasticity of the AgrC Receptor Histidine Kinase Required for Staphylococcal Virulence. Cell Chemical Biology, 2017, 24, 76-86.	5.2	25
106	Structural basis of substrate recognition by a polypeptide processing and secretion transporter. ELife, 2020, 9, .	6.0	25
107	Analysis of the mechanosensor channel functionality of TACAN. ELife, 2021, 10, .	6.0	24
108	Biochemical reconstitutions reveal principles of human \hat{I}^3 -TuRC assembly and function. Journal of Cell Biology, 2021, 220, .	5.2	23

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109	Native Mass Spectrometry Analysis of Affinity-Captured Endogenous Yeast RNA Exosome Complexes. Methods in Molecular Biology, 2020, 2062, 357-382.	0.9	23
110	A Robust Workflow for Native Mass Spectrometric Analysis of Affinity-Isolated Endogenous Protein Assemblies. Analytical Chemistry, 2016, 88, 2799-2807.	6.5	21
111	The replication initiator of the cholera pathogen's second chromosome shows structural similarity to plasmid initiators. Nucleic Acids Research, 2017, 45, gkw1288.	14.5	20
112	Crippling life support for SARS-CoV-2 and other viruses through synthetic lethality. Journal of Cell Biology, 2020, 219, .	5.2	20
113	Native Mass Spectrometry-Based Screening for Optimal Sample Preparation in Single-Particle Cryo-EM. Structure, 2021, 29, 186-195.e6.	3.3	19
114	Affinity proteomic dissection of the human nuclear cap-binding complex interactome. Nucleic Acids Research, 2020, 48, 10456-10469.	14.5	18
115	Affinity Isolation and I-DIRT Mass Spectrometric Analysis of the <i>Escherichia coli</i> RNA Polymerase Complex. Journal of Bacteriology, 2008, 190, 1284-1289.	2.2	17
116	Optimizing selection of large animals for antibody production by screening immune response to standard vaccines. Journal of Immunological Methods, 2016, 430, 56-60.	1.4	17
117	A Method for the Rapid and Efficient Elution of Native Affinity-Purified Protein A Tagged Complexes. Journal of Proteome Research, 2005, 4, 2250-2256.	3.7	16
118	Lineage-specific proteins essential for endocytosis in trypanosomes. Journal of Cell Science, 2017, 130, 1379-1392.	2.0	16
119	Mechanisms of opening and closing of the bacterial replicative helicase. ELife, 2018, 7, .	6.0	16
120	Efficient Identification of Phosphorylation by Mass Spectrometric Phosphopeptide Fingerprinting. Analytical Chemistry, 2008, 80, 2419-2425.	6.5	15
121	Rapid Isolation and Identification of Bacteriophage T4-Encoded Modifications of <i>Escherichia coli</i> RNA Polymerase: A Generic Method to Study Bacteriophage/Host Interactions. Journal of Proteome Research, 2008, 7, 1244-1250.	3.7	14
122	Proteomics on the rims: insights into the biology of the nuclear envelope and flagellar pocket of trypanosomes. Parasitology, 2012, 139, 1158-1167.	1.5	11
123	Protection of nascent DNA at stalled replication forks is mediated by phosphorylation of RIF1 intrinsically disordered region. ELife, 2022, 11 , .	6.0	11
124	Proteomic elucidation of the targets and primary functions of the picornavirus 2A protease. Journal of Biological Chemistry, 2022, 298, 101882.	3.4	10
125	Interactions of nuclear transport factors and surface-conjugated FG nucleoporins: Insights and limitations. PLoS ONE, 2019, 14, e0217897.	2.5	9
126	National Cancer Institute Think-Tank Meeting Report on Proteomic Cartography and Biomarkers at the Single-Cell Level: Interrogation of Premalignant Lesions. Journal of Proteome Research, 2020, 19, 1900-1912.	3.7	8

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127	Embryonic and Fetal Human Hemoglobins: Structures, Oxygen Binding, and Physiological Roles. Sub-Cellular Biochemistry, 2020, 94, 275-296.	2.4	7
128	A novel high-capacity ion trap-quadrupole tandem mass spectrometer. International Journal of Mass Spectrometry, 2007, 268, 93-105.	1.5	6
129	Gel filtration of dilute human embryonic hemoglobins reveals basis for their increased oxygen binding. Analytical Biochemistry, 2017, 519, 38-41.	2.4	6
130	Long-range intramolecular allostery and regulation in the dynein-like AAA protein Mdn1. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18459-18469.	7.1	6
131	High-capacity ion trap coupled to a time-of-flight mass spectrometer for comprehensive linked scans with no scanning losses. International Journal of Mass Spectrometry, 2011, 301, 211-219.	1.5	5
132	NPC Mimics. Methods in Cell Biology, 2014, 122, 379-393.	1.1	4
133	Phosphorylation-Dependent Targeting of <i>Tetrahymena</i> HP1 to Condensed Chromatin. MSphere, 2016, 1, .	2.9	4
134	Measuring in vivo protein turnover and exchange in yeast macromolecular assemblies. STAR Protocols, 2021, 2, 100800.	1.2	3
135	\hat{l}^2 -Lactoglobulin detected in human milk forms noncovalent complexes with maltooligosaccharides as revealed by chip-nanoelectrospray high-resolution tandem mass spectrometry. Amino Acids, 2015, 47, 2399-2407.	2.7	1
136	Highâ€Throughput, Singleâ€Step Purification of Affinityâ€Tagged Protein Complexes. FASEB Journal, 2012, 26,	0.5	0