C Mark Smales

List of Publications by Year
in descending order

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105	3,193	185998	182168
papers	citations	28 h-index	51 g-index

109	109	109	3356
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Strategies to control therapeutic antibody glycosylation during bioprocessing: Synthesis and separation. Biotechnology and Bioengineering, 2022, 119, 1343-1358.	1.7	11
2	eEF2K activity is required for the phenotypes of the Rpl24 mouse. Journal of Investigative Dermatology, 2022, , .	0.3	0
3	Constitutively active Rheb mutants [T23M] and [E40K] drive increased production and secretion of recombinant protein in Chinese hamster ovary cells. Biotechnology and Bioengineering, 2021, 118, 2422-2434.	1.7	1
4	Engineering of Chinese Hamster Ovary Cells With NDPK-A to Enhance DNA Nuclear Delivery Combined With EBNA1 Plasmid Maintenance Gives Improved Exogenous Transient Reporter, mAb and SARS-CoV-2 Spike Protein Expression. Frontiers in Bioengineering and Biotechnology, 2021, 9, 679448.	2.0	5
5	Selection of CHO host and recombinant cell pools by inhibition of the proteasome results in enhanced product yields and cell specific productivity. Journal of Biotechnology, 2021, 337, 35-45.	1.9	5
6	A comparative analysis of recombinant Fab and fullâ€length antibody production in Chinese hamster ovary cells. Biotechnology and Bioengineering, 2021, 118, 4815-4828.	1.7	6
7	Analytics of host cell proteins (HCPs): lessons from biopharmaceutical mAb analysis for Gene therapy products. Current Opinion in Biotechnology, 2021, 71, 98-104.	3.3	11
8	A proline metabolism selection system and its application to the engineering of lipid biosynthesis in Chinese hamster ovary cells. Metabolic Engineering Communications, 2021, 13, e00179.	1.9	8
9	Rpl24Bst mutation suppresses colorectal cancer by promoting eEF2 phosphorylation via eEF2K. ELife, 2021, 10, .	2.8	15
10	Engineering of Chinese hamster ovary cell lipid metabolism results in an expanded ER and enhanced recombinant biotherapeutic protein production. Metabolic Engineering, 2020, 57, 203-216.	3.6	29
11	Data for engineering lipid metabolism of Chinese hamster ovary (CHO) cells for enhanced recombinant protein production. Data in Brief, 2020, 29, 105217.	0.5	4
12	Glycosylation of Trypanosoma cruzi TcI antigen reveals recognition by chagasic sera. Scientific Reports, 2020, 10, 16395.	1.6	9
13	Engineered transient and stable overexpression of translation factors eIF3i and eIF3c in CHOK1 and HEK293Âcells gives enhanced cell growth associated with increased c-Myc expression and increased recombinant protein synthesis. Metabolic Engineering, 2020, 59, 98-105.	3.6	17
14	Defining lncRNAs Correlated with CHO Cell Growth and IgG Productivity by RNA-Seq. IScience, 2020, 23, 100785.	1.9	10
15	Control of translation elongation in health and disease. DMM Disease Models and Mechanisms, 2020, 13, .	1.2	62
16	Intact-Cell MALDI-ToF Mass Spectrometry for the Authentication of Drug-Adapted Cancer Cell Lines. Cells, 2019, 8, 1194.	1.8	3
17	Application of ER Stress Biomarkers to Predict Formulated Monoclonal Antibody Stability. Biotechnology Journal, 2019, 14, e1900024.	1.8	5
18	Application of Imaging Flow Cytometry for the Characterization of Intracellular Attributes in Chinese Hamster Ovary Cell Lines at the Singleâ€Cell Level. Biotechnology Journal, 2019, 14, e1800675.	1.8	11

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19	The effect of formulation variables on protein stability and integrity of a model IgG4 monoclonal antibody and translation to formulation of a model ScFv. Biotechnology Letters, 2018, 40, 33-46.	1.1	1
20	Engineering of the cellular translational machinery and non-coding RNAs to enhance CHO cell growth, recombinant product yields and quality. Current Opinion in Chemical Engineering, 2018, 22, 199-208.	3.8	4
21	The Long Nonâ€Coding RNA Transcriptome Landscape in CHO Cells Under Batch and Fedâ€Batch Conditions. Biotechnology Journal, 2018, 13, e1800122.	1.8	15
22	Application of microRNA Targeted 3â€²UTRs to Repress DHFR Selection Marker Expression for Development of Recombinant Antibody Expressing CHO Cell Pools. Biotechnology Journal, 2018, 13, e1800129.	1.8	8
23	Metaâ€Analysis of Publicly Available Chinese Hamster Ovary (CHO) Cell Transcriptomic Datasets for Identifying Engineering Targets to Enhance Recombinant Protein Yields. Biotechnology Journal, 2018, 13, e1800066.	1.8	10
24	RTN3 Is a Novel Cold-Induced Protein and Mediates Neuroprotective Effects of RBM3. Current Biology, 2017, 27, 638-650.	1.8	64
25	Effects of lysosomal biotherapeutic recombinant protein expression on cell stress and protease and general host cell protein release inChinese hamster ovary cells. Biotechnology Progress, 2017, 33, 666-676.	1.3	7
26	Polysome profiling of mAb producing CHO cell lines links translational control of cell proliferation and recombinant mRNA loading onto ribosomes with global and recombinant protein synthesis. Biotechnology Journal, 2017, 12, 1700177.	1.8	12
27	Characterization of Host Cell Proteins (HCPs) in CHO Cell Bioprocesses. Methods in Molecular Biology, 2017, 1603, 243-250.	0.4	0
28	Investigations into, and development of, a lyophilized and formulated recombinant human factor IX produced from CHO cells. Biotechnology Letters, 2017, 39, 1109-1120.	1.1	2
29	Methionine sulfoximine supplementation enhances productivity in GSâ€“CHOK1SV cell lines through glutathione biosynthesis. Biotechnology Progress, 2017, 33, 17-25.	1.3	16
30	Acquired resistance to oxaliplatin is not directly associated with increased resistance to DNA damage in SK-N-ASrOXALI4000, a newly established oxaliplatin-resistant sub-line of the neuroblastoma cell line SK-N-AS. PLoS ONE, 2017, 12, e0172140.	1.1	6
31	mTORC1 signalling and eIF4E/4E-BP1 translation initiation factor stoichiometry influence recombinant protein productivity from GS-CHOK1 cells. Biochemical Journal, 2016, 473, 4651-4664.	1.7	49
32	Cooling-induced SUMOylation of EXOSC10 down-regulates ribosome biogenesis. Rna, 2016, 22, 623-635.	1.6	27
33	Residual on column host cell protein analysis during lifetime studies of protein A chromatography. Journal of Chromatography A, 2016, 1461, 70-77.	1.8	25
34	Quantitative definition and monitoring of the host cell protein proteome using iTRAQ â€“ a study of an industrial mAb producing CHOâ€S cell line. Biotechnology Journal, 2016, 11, 1014-1024.	1.8	29
35	Biotherapeutic protein formulation variables influence protein integrity and can promote post-translational modifications as shown using chicken egg white lysozyme as a model system. Biotechnology Letters, 2016, 38, 589-596.	1.1	4
36	An ultra scaleâ€down approach identifies host cell protein differences across a panel of mAb producing CHO cell line variants. Biotechnology Journal, 2016, 11, 415-424.	1.8	12

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37	Developments in the production of mucosal antibodies in plants. Biotechnology Advances, 2016, 34, 77-87.	6.0	25
38	Expression of Trypanosoma brucei gambiense Antigens in Leishmania tarentolae. Potential for Use in Rapid Serodiagnostic Tests (RDTs). PLoS Neglected Tropical Diseases, 2015, 9, e0004271.	1.3	15
39	Biological insights into the expression of translation initiation factors from recombinant CHOK1SV cell lines and their relationship to enhanced productivity. Biochemical Journal, 2015, 472, 261-273.	1.7	16
40	The future of host cell protein (HCP) identification during process development and manufacturing linked to a riskâ€based management for their control. Biotechnology and Bioengineering, 2015, 112, 1727-1737.	1.7	137
41	Eukaryotic elongation factor 2 kinase regulates the cold stress response by slowing translation elongation. Biochemical Journal, 2015, 465, 227-238.	1.7	39
42	p58IPK is an inhibitor of the eIF2Î± kinase GCN2 and its localization and expression underpin protein synthesis and ER processing capacity. Biochemical Journal, 2015, 465, 213-225.	1.7	42
43	<scp>UV</scp> resonance Raman spectroscopy: a process analytical tool for host cell <scp>DNA</scp> and <scp>RNA</scp> dynamics in mammalian cell lines. Journal of Chemical Technology and Biotechnology, 2015, 90, 237-243.	1.6	16
44	The chaperonin CCT interacts with and mediates the correct folding and activity of three subunits of translation initiation factor eIF3: b, i and h. Biochemical Journal, 2014, 458, 213-224.	1.7	16
45	Control and regulation of mRNA translation. Biochemical Society Transactions, 2014, 42, 151-154.	1.6	4
46	Measurement and control of host cell proteins (HCPs) in CHO cell bioprocesses. Current Opinion in Biotechnology, 2014, 30, 153-160.	3.3	83
47	Rapid high-throughput characterisation, classification and selection of recombinant mammalian cell line phenotypes using intact cell MALDI-ToF mass spectrometry fingerprinting and PLS-DA modelling. Journal of Biotechnology, 2014, 184, 84-93.	1.9	46
48	The impact of process temperature on mammalian cell lines and the implications for the production of recombinant proteins in CHO cells. Pharmaceutical Bioprocessing, 2014, 2, 49-61.	0.8	23
49	The challenges of product- and process-related impurities to an evolving biopharmaceutical industry. Bioanalysis, 2013, 5, 123-126.	0.6	12
50	Alternative Promoters Regulate Cold Inducible RNA-Binding (CIRP) Gene Expression and Enhance Transgene Expression in Mammalian Cells. Molecular Biotechnology, 2013, 54, 238-249.	1.3	23
51	MALDI-ToF mass spectrometry coupled with multivariate pattern recognition analysis for the rapid biomarker profiling of Escherichia coli in different growth phases. Analytical and Bioanalytical Chemistry, 2013, 405, 8251-8265.	1.9	10
52	The dynamics of the CHO host cell protein profile during clarification and protein A capture in a platform antibody purification process. Biotechnology and Bioengineering, 2013, 110, 240-251.	1.7	91
53	Host cell protein dynamics in recombinant CHO cells. Bioengineered, 2013, 4, 288-291.	1.4	40
54	1H NMR Spectroscopy Profiling of Metabolic Reprogramming of Chinese Hamster Ovary Cells upon a Temperature Shift during Culture. PLoS ONE, 2013, 8, e77195.	1.1	19

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55	Engineering an Improved IgG4 Molecule with Reduced Disulfide Bond Heterogeneity and Increased Fab Domain Thermal Stability. Journal of Biological Chemistry, 2012, 287, 24525-24533.	1.6	28
56	Experimental and In Silico Modelling Analyses of the Gene Expression Pathway for Recombinant Antibody and By-Product Production in NS0 Cell Lines. PLoS ONE, 2012, 7, e47422.	1.1	13
57	Host cell protein adsorption characteristics during protein a chromatography. Biotechnology Progress, 2012, 28, 1037-1044.	1.3	84
58	Host cell protein dynamics in the supernatant of a mAb producing CHO cell line. Biotechnology and Bioengineering, 2012, 109, 971-982.	1.7	108
59	Engineering the Chaperone Network of CHO Cells for Optimal Recombinant Protein Production and Authenticity. Methods in Molecular Biology, 2012, 824, 595-608.	0.4	9
60	ATR (ataxia telangiectasia mutated- and Rad3-related kinase) is activated by mild hypothermia in mammalian cells and subsequently activates p53. Biochemical Journal, 2011, 435, 499-508.	1.7	34
61	Modulation of Phosducin-Like Protein 3 (PhLP3) Levels Promotes Cytoskeletal Remodelling in a MAPK and RhoA-Dependent Manner. PLoS ONE, 2011, 6, e28271.	1.1	10
62	Protein disulfide isomerase does not control recombinant IgG4 productivity in mammalian cell lines. Biotechnology and Bioengineering, 2010, 105, 770-779.	1.7	25
63	Postâ€translational events of a model reporter protein proceed with higher fidelity and accuracy upon mild hypothermic culturing of Chinese hamster ovary cells. Biotechnology and Bioengineering, 2010, 105, 215-220.	1.7	27
64	Transient expression of human TorsinA enhances secretion of two functionally distinct proteins in cultured Chinese hamster ovary (CHO) cells. Biotechnology and Bioengineering, 2010, 105, 556-566.	1.7	25
65	Rapid whole monoclonal antibody analysis by mass spectrometry: An Ultra scaleâ€down study of the effect of harvesting by centrifugation on the postâ€translational modification profile. Biotechnology and Bioengineering, 2010, 107, 85-95.	1.7	55
66	Cold-inducible RNA binding protein (CIRP) expression is modulated by alternative mRNAs. Rna, 2009, 15, 1164-1176.	1.6	68
67	Identification of the limitations on recombinant gene expression in CHO cell lines with varying luciferase production rates. Biotechnology and Bioengineering, 2009, 102, 1593-1602.	1.7	29
68	Investigating variables and mechanisms that influence protein integrity in low water content amorphous carbohydrate matrices. Biotechnology Progress, 2009, 25, 1217-1227.	1.3	13
69	Biochemical insights into the mechanisms central to the response of mammalian cells to cold stress and subsequent rewarming. FEBS Journal, 2009, 276, 286-302.	2.2	91
70	Metabolic Rates, Growth Phase, and mRNA Levels Influence Cell-Specific Antibody Production Levels from In Vitro-Cultured Mammalian Cells at Sub-Physiological Temperatures. Molecular Biotechnology, 2008, 39, 69-77.	1.3	48
71	Biochemical and Structural Insights into Bacterial Organelle Form and Biogenesis. Journal of Biological Chemistry, 2008, 283, 14366-14375.	1.6	133
72	The effect of peptide glycation on local secondary structure. Journal of Structural Biology, 2008, 161, 151-161.	1.3	21

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73	Proteomic Profiling Of Two-Dimensional Gel Electrophoresis Protein Expression Data. AIP Conference Proceedings, 2008, , .	0.3	0
74	The Molecular Response(s) During Cellular Adaptation to, and Recovery from, Sub-Physiological Temperatures. Cell Engineering, 2007, , 185-212.	0.4	1
75	Comparison of the effects of 2,2,2-trifluoroethanol on peptide and protein structure and function. Journal of Structural Biology, 2007, 157, 329-338.	1.3	92
76	Transient Gene Expression Levels from Multigene Expression Vectors. Biotechnology Progress, 2007, 23, 435-443.	1.3	27
77	The cold-shock response in mammalian cells: investigating the HeLa cell cold-shock proteome. Cytotechnology, 2007, 53, 47-53.	0.7	28
78	Control and regulation of the cellular responses to cold shock: the responses in yeast and mammalian systems. Biochemical Journal, 2006, 397, 247-259.	1.7	249
79	Monitoring changes in nisin susceptibility of Listeria monocytogenes Scott A as an indicator of growth phase using FACS. Journal of Microbiological Methods, 2006, 66, 43-55.	0.7	11
80	On the statistical analysis of the GS-NS0 cell proteome: Imputation, clustering and variability testing. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 1179-1187.	1.1	10
81	On the Effect of Transient Expression of Mutated eIF2Î± and eIF4E Eukaryotic Translation Initiation Factors on Reporter Gene Expression in Mammalian Cells Upon Cold-Shock. Molecular Biotechnology, 2006, 34, 141-150.	1.3	15
82	The cold-shock response in cultured mammalian cells: Harnessing the response for the improvement of recombinant protein production. Biotechnology and Bioengineering, 2006, 93, 829-835.	1.7	130
83	Functional proteomic analysis of GS-NS0 murine myeloma cell lines with varying recombinant monoclonal antibody production rate. Biotechnology and Bioengineering, 2006, 94, 830-841.	1.7	76
84	Noncovalently linked nuclear localization peptides for enhanced calcium phosphate transfection. Molecular Biotechnology, 2006, 33, 1-11.	1.3	9
85	eIF2? phosphorylation, stress perception, and the shutdown of global protein synthesis in cultured CHO cells. Biotechnology and Bioengineering, 2005, 89, 805-814.	1.7	30
86	Proteomic analysis of enriched microsomal fractions from GS-NS0 murine myeloma cells with varying secreted recombinant monoclonal antibody productivities. Proteomics, 2005, 5, 4689-4704.	1.3	48
87	NMR Analysis of Synthetic Human Serum Albumin Î±-Helix 28 Identifies Structural Distortion upon Amadori Modification. Journal of Biological Chemistry, 2005, 280, 22582-22589.	1.6	38
88	Characterization of Therapeutic Proteins by Membrane and In-Gel Tryptic Digestion. , 2005, 308, 375-380.		4
89	Global changes in gene expression observed at the transition from growth to stationary phase in Listeria monocytogenes ScottA batch culture. Proteomics, 2004, 4, 123-135.	1.3	13
90	Comparative proteomic analysis of GS-NS0 murine myeloma cell lines with varying recombinant monoclonal antibody production rate. Biotechnology and Bioengineering, 2004, 88, 474-488.	1.7	120

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91	Lysozyme conjugate immune complex formation and the effects on substrate hydrolysis. Biochemical and Biophysical Research Communications, 2003, 304, 818-824.	1.0	2
92	Evaluation of individual protein errors in silver-stained two-dimensional gels. Biochemical and Biophysical Research Communications, 2003, 306, 1050-1055.	1.0	28
93	Use of Defined Estrone Glucuronideâ€"Hen Egg White Lysozyme Conjugates as Signal Generators in Homogeneous Enzyme Immunoassays for Urinary Estrone Glucuronide. Journal of Immunoassay and Immunochemistry, 2003, 24, 147-172.	0.5	5
94	Protein modification during anti-viral heat-treatment bioprocessing of factor VIII concentrates, factor IX concentrates, and model proteins in the presence of sucrose. Biotechnology and Bioengineering, 2002, 77, 37-48.	1.7	25
95	Purification and characterization of lysozyme-pregnanediol glucuronide conjugates: the effect of the hapten and coupling reagent on the substitution level, sites of acylation and the consequences for the development of future immunoassays. Biotechnology and Applied Biochemistry, 2002, 36, 101.	1.4	4
96	How can thermal processing modify the antigenicity of proteins?. Allergy: European Journal of Allergy and Clinical Immunology, 2001, 56, 56-60.	2.7	138
97	Evaluation of protein modification during anti-viral heat bioprocessing by electrospray ionization mass spectrometry. Rapid Communications in Mass Spectrometry, 2001, 15, 351-356.	0.7	7
98	Protein Modifications during Antiviral Heat Bioprocessing and Subsequent Storage. Biotechnology Progress, 2001, 17, 974-978.	1.3	10
99	Protein modification during antiviral heat bioprocessing. Biotechnology and Bioengineering, 2000, 67, 177-188.	1.7	23
100	Mechanisms of protein modification during model anti-viral heat-treatment bioprocessing of Î²-lactoglobulin variant A in the presence of sucrose. Biotechnology and Applied Biochemistry, 2000, 32, 109.	1.4	13
101	A Novel Target Synthesis Laboratory for Students. Journal of Chemical Education, 1999, 76, 1558.	1.1	6
102	Characterization of Lysozyme-Estrone Glucuronide Conjugates. The Effect of the Coupling Reagent on the Substitution Level and Sites of Acylation. Bioconjugate Chemistry, 1999, 10, 693-700.	1.8	20
103	Acid-Polyacrylamide Gel Electrophoresis of Lysozymeâ^'Estrone Glucuronide Conjugates. Bioconjugate Chemistry, 1998, 9, 838-841.	1.8	7
104	An Estroneâ€"Glucuronide Conjugate. Acta Crystallographica Section C: Crystal Structure Communications, 1997, 53, 1082-1084.	0.4	4
105	Use of ion-exchange and hydrophobic-interaction chromatography for the rapid purification of lysozymeâ€"estrone glucuronide conjugates. Biomedical Applications, 1994, 662, 3-14.	1.7	7