David B Volkin

List of Publications by Year
in descending order

146 papers	6,188 citations	61984 43 h-index	88630 70 g-index
152 all docs	152 docs citations	152 times ranked	4904 citing authors

#	Article	IF	Citations
1	Evaluating the Combined Impact of Temperature and Application of Interfacial Dilatational Stresses on Surface-mediated Protein Particle Formation in Monoclonal Antibody Formulations. Journal of Pharmaceutical Sciences, 2022, 111, 680-689.	3.3	6
2	Interaction of Aluminum-adjuvanted Recombinant P[4] Protein Antigen With Preservatives: Storage Stability and Backbone Flexibility Studies. Journal of Pharmaceutical Sciences, 2022, 111, 970-981.	3.3	2
3	Ongoing Challenges to Develop High Concentration Monoclonal Antibody-based Formulations for Subcutaneous Administration: Quo Vadis?. Journal of Pharmaceutical Sciences, 2022, 111, 861-867.	3.3	30
4	Development of a high-throughput RT-PCR based viral infectivity assay for monitoring the stability of a replicating recombinant Lymphocytic Choriomeningitis viral vector. Journal of Virological Methods, 2022, 301, 114440.	2.1	1
5	Modeling the long-term 2-8ÂÂ°C stability profiles of a live, rotavirus vaccine candidate (RV3-BB) in various liquid formulations via extrapolations of real-time and accelerated stability data. Biologicals, 2022, 75, 21-28.	1.4	3
6	SARS-CoV-2 receptor binding domain displayed on HBsAg virusâ€“like particles elicits protective immunity in macaques. Science Advances, 2022, 8, eabl6015.	10.3	27
7	Development of spirulina for the manufacture and oral delivery of protein therapeutics. Nature Biotechnology, 2022, 40, 956-964.	17.5	50
8	Antigen-adjuvant interactions, stability, and immunogenicity profiles of a SARS-CoV-2 receptor-binding domain (RBD) antigen formulated with aluminum salt and CpG adjuvants. Human Vaccines and Immunotherapeutics, 2022, 18, .	3.3	12
9	Impact of Polysorbate 80 Grade on the Interfacial Properties and Interfacial Stress Induced Subvisible Particle Formation in Monoclonal Antibodies. Journal of Pharmaceutical Sciences, 2021, 110, 746-759.	3.3	17
10	The Science is There: Key Considerations for Stabilizing Viral Vector-Based Covid-19 Vaccines. Journal of Pharmaceutical Sciences, 2021, 110, 627-634.	3.3	42
11	Addressing the Cold Reality of mRNA Vaccine Stability. Journal of Pharmaceutical Sciences, 2021, 110, 997-1001.	3.3	302
12	Effect of Formulation Variables on the Stability of a Live, Rotavirus (RV3-BB) Vaccine Candidate using inÂvitro Gastric Digestion Models to Mimic Oral Delivery. Journal of Pharmaceutical Sciences, 2021, 110, 760-770.	3.3	9
13	Crystallization of a nonreplicating rotavirus vaccine candidate. Biotechnology and Bioengineering, 2021, 118, 1750-1756.	3.3	2
14	Mechanism of Thimerosal-Induced Structural Destabilization of a Recombinant Rotavirus P[4] Protein Antigen Formulated as a Multi-Dose Vaccine. Journal of Pharmaceutical Sciences, 2021, 110, 1054-1066.	3.3	7
15	Rapid Developability Assessments to Formulate Recombinant Protein Antigens as Stable, Low-Cost, Multi-Dose Vaccine Candidates: Case-Study With Non-Replicating Rotavirus (NRRV) Vaccine Antigens. Journal of Pharmaceutical Sciences, 2021, 110, 1042-1053.	3.3	13
16	Developing a manufacturing process to deliver a cost effective and stable liquid human rotavirus vaccine. Vaccine, 2021, 39, 2048-2059.	3.8	5
17	Formulation development of a live attenuated human rotavirus (RV3-BB) vaccine candidate for use in low- and middle-income countries. Human Vaccines and Immunotherapeutics, 2021, 17, 2298-2310.	3.3	9
18	Formulation Development and Improved Stability of a Combination Measles and Rubella Live-Viral Vaccine Dried for Use in the Nanopatch ^{TM} Microneedle Delivery System. Human Vaccines and Immunotherapeutics, 2021, 17, 2501-2516.	3.3	11

#	Article	IF	Citations
19	Molecular engineering improves antigen quality and enables integrated manufacturing of a trivalent subunit vaccine candidate for rotavirus. Microbial Cell Factories, 2021, 20, 94.	4.0	8
20	Engineered SARS-CoV-2 receptor binding domain improves manufacturability in yeast and immunogenicity in mice. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	68
21	Investigation of a monoclonal antibody against enterotoxigenic Escherichia coli, expressed as secretory IgA1 and IgA2 in plants. Gut Microbes, 2021, 13, 1-14.	9.8	14
22	Characterizing and Minimizing Aggregation and Particle Formation of Three Recombinant Fusion-Protein Bulk Antigens for Use in a Candidate Trivalent Rotavirus Vaccine. Journal of Pharmaceutical Sciences, 2020, 109, 394-406.	3.3	13
23	Recombinant Subunit Rotavirus Trivalent Vaccine Candidate: Physicochemical Comparisons and Stability Evaluations of Three Protein Antigens. Journal of Pharmaceutical Sciences, 2020, 109, 380-393.	3.3	13
24	Characterization of Excipient Effects on Reversible Self-Association, Backbone Flexibility, and Solution Properties of an IgG1 Monoclonal Antibody at High Concentrations: Part 2. Journal of Pharmaceutical Sciences, 2020, 109, 353-363.	3.3	6
25	Effect of Aluminum Adjuvant and Preservatives on Structural Integrity and Physicochemical Stability Profiles of Three Recombinant Subunit Rotavirus Vaccine Antigens. Journal of Pharmaceutical Sciences, 2020, 109, 476-487.	3.3	24
26	Characterization of Excipient Effects on Reversible Self-Association, Backbone Flexibility, and Solution Properties of an IgG1 Monoclonal Antibody at High Concentrations: Part 1. Journal of Pharmaceutical Sciences, 2020, 109, 340-352.	3.3	15
27	Preformulation Characterization and Stability Assessments of Secretory IgA Monoclonal Antibodies as Potential Candidates for Passive Immunization by Oral Administration. Journal of Pharmaceutical Sciences, 2020, 109, 407-421.	3.3	26
28	Short-term and longer-term protective immune responses generated by subunit vaccination with smallpox A33, B5, L1 or A27 proteins adjuvanted with aluminum hydroxide and CpG in mice challenged with vaccinia virus. Vaccine, 2020, 38, 6007-6018.	3.8	12
29	Holistic process development to mitigate proteolysis of a subunit rotavirus vaccine candidate produced in <scp>Pichia pastoris</scp> by means of an acid pH pulse during fedâ€batch fermentation. Biotechnology Progress, 2020, 36, e2966.	2.6	12
30	A C-terminal Pfs48/45 malaria transmission-blocking vaccine candidate produced in the baculovirus expression system. Scientific Reports, 2020, 10, 395.	3.3	20
31	The Pfs230 N-terminal fragment, Pfs230D1+: expression and characterization of a potential malaria transmission-blocking vaccine candidate. Malaria Journal, 2019, 18, 356.	2.3	16
32	Stabilization and formulation of a recombinant Human Cytomegalovirus vector for use as a candidate HIV-1 vaccine. Vaccine, 2019, 37, 6696-6706.	3.8	7
33	Developability Assessment of Physicochemical Properties and Stability Profiles of HIV-1 BG505 SOSIP.664 and BG505 SOSIP.v4.1-GT1.1 gp140 Envelope Glycoprotein Trimers as Candidate Vaccine Antigens. Journal of Pharmaceutical Sciences, 2019, 108, 2264-2277.	3.3	16
34	Development of Stabilizing Formulations of a Trivalent Inactivated Poliovirus Vaccine in a Dried State for Delivery in the Nanopatchâ„¢ Microprojection Array. Journal of Pharmaceutical Sciences, 2018, 107, 1540-1551.	3.3	19
35	Evaluation of Hydrogen Exchange Mass Spectrometry as a Stability-Indicating Method for Formulation Excipient Screening for an IgG4 Monoclonal Antibody. Journal of Pharmaceutical Sciences, 2018, 107, 1009-1019.	3.3	23
36	Analytical Comparability Assessments of 5 Recombinant CRM 197 Proteins From Different Manufacturers and Expression Systems. Journal of Pharmaceutical Sciences, 2018, 107, 1806-1819.	3.3	31

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37	Combined semi-empirical screening and design of experiments (DOE) approach to identify candidate formulations of a lyophilized live attenuated tetravalent viral vaccine candidate. Vaccine, 2018, 36, 3169-3179.	3.8	22
38	The Use of a GroEL-BLI Biosensor to Rapidly Assess Preaggregate Populations for Antibody Solutions Exhibiting Different Stability Profiles. Journal of Pharmaceutical Sciences, 2018, 107, 559-570.	3.3	8
39	A Collection of Single-Domain Antibodies that Crowd Ricin Toxinâ€™s Active Site. Antibodies, 2018, 7, 45.	2.5	10
40	Coformulation of Broadly Neutralizing Antibodies 3BNC117 and PGT121: Analytical Challenges During Preformulation Characterization and Storage Stability Studies. Journal of Pharmaceutical Sciences, 2018, 107, 3032-3046.	3.3	18
41	Physical Characterization and Stabilization of a Lentiviral Vector Against Adsorption and Freeze-Thaw. Journal of Pharmaceutical Sciences, 2018, 107, 2764-2774.	3.3	25
42	Impact of Glycosylation on the Local Backbone Flexibility of Well-Defined IgG1-Fc Glycoforms Using Hydrogen Exchange-Mass Spectrometry. Journal of Pharmaceutical Sciences, 2018, 107, 2315-2324.	3.3	15
43	Structural Characterization and Formulation Development of a Trivalent Equine Encephalitis Virus-Like Particle Vaccine Candidate. Journal of Pharmaceutical Sciences, 2018, 107, 2544-2558.	3.3	4
44	Effect of 2 Emulsion-Based Adjuvants on the Structure and Thermal Stability of Staphylococcus aureus Alpha-Toxin. Journal of Pharmaceutical Sciences, 2018, 107, 2325-2334.	3.3	10
45	Postproduction Handling and Administration of Protein Pharmaceuticals and Potential Instability Issues. Journal of Pharmaceutical Sciences, 2018, 107, 2013-2019.	3.3	75
46	Structural Changes and Aggregation Mechanisms of Two Different Dimers of an IgG2 Monoclonal Antibody. Biochemistry, 2018, 57, 5466-5479.	2.5	18
47	Fine-Specificity Epitope Analysis Identifies Contact Points on Ricin Toxin Recognized by Protective Monoclonal Antibodies. ImmunoHorizons, 2018, 2, 262-273.	1.8	15
48	Preformulation Characterization, Stabilization, and Formulation Design for the Acrylodan-Labeled Glucose-Binding Protein SM4-AC. Journal of Pharmaceutical Sciences, 2017, 106, 1197-1210.	3.3	4
49	Correlating the Effects of Antimicrobial Preservatives on Conformational Stability, Aggregation Propensity, and Backbone Flexibility of an IgG1 mAb. Journal of Pharmaceutical Sciences, 2017, 106, 1508-1518.	3.3	28
50	Development of a candidate stabilizing formulation for bulk storage of a double mutant heat labile toxin (dmLT) protein based adjuvant. Vaccine, 2017, 35, 5471-5480.	3.8	14
51	Effect of acrylodan conjugation and forced oxidation on the structural integrity, conformational stability, and binding activity of a glucose binding protein SM4 used in a prototype continuous glucose monitor. Protein Science, 2017, 26, 527-535.	7.6	3
52	High-Resolution Epitope Positioning of a Large Collection of Neutralizing and Nonneutralizing Single-Domain Antibodies on the Enzymatic and Binding Subunits of Ricin Toxin. Vaccine Journal, 2017, 24, .	3.1	31
53	The Botanical Drug Substance Crofelemer as a Model System for Comparative Characterization of Complex Mixture Drugs. Journal of Pharmaceutical Sciences, 2017, 106, 3242-3256.	3.3	14
54	Evaluation of lumazine synthase from Bacillus anthracis as a presentation platform for polyvalent antigen display. Protein Science, 2017, 26, 2059-2072.	7.6	10

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55	Comparative Characterization of Crofelemer Samples Using Data Mining and Machine Learning Approaches With Analytical Stability Data Sets. Journal of Pharmaceutical Sciences, 2017, 106, 3270-3279.	3.3	5
56	Using homology modeling to interrogate binding affinity in neutralization of ricin toxin by a family of single domain antibodies. Proteins: Structure, Function and Bioinformatics, 2017, 85, 1994-2008.	2.6	16
57	Empirical Correction for Differences in Chemical Exchange Rates in Hydrogen Exchange-Mass Spectrometry Measurements. Analytical Chemistry, 2017, 89, 8931-8941.	6.5	16
58	Structural Characterization and Physicochemical Stability Profile of a Double Mutant Heat Labile Toxin Protein Based Adjuvant. Journal of Pharmaceutical Sciences, 2017, 106, 3474-3485.	3.3	9
59	Chemical Stability of the Botanical Drug Substance Crofelemer: A Model System for Comparative Characterization of Complex Mixture Drugs. Journal of Pharmaceutical Sciences, 2017, 106, 3257-3269.	3.3	6
60	A Formulation Development Approach to Identify and Select Stable Ultraâ€“High-Concentration Monoclonal Antibody Formulations With Reduced Viscosities. Journal of Pharmaceutical Sciences, 2017, 106, 3230-3241.	3.3	55
61	High-Definition Mapping of Four Spatially Distinct Neutralizing Epitope Clusters on RiVax, a Candidate Ricin Toxin Subunit Vaccine. Vaccine Journal, 2017, 24, .	3.1	39
62	Effects of Protein Conformation, Apparent Solubility, and Proteinâ€“Protein Interactions on the Rates and Mechanisms of Aggregation for an IgG1Monoclonal Antibody. Journal of Physical Chemistry B, 2016, 120, 7062-7075.	2.6	51
63	Evaluating the Role of the Air-Solution Interface on the Mechanism of Subvisible Particle Formation Caused by Mechanical Agitation for an IgG1 mAb. Journal of Pharmaceutical Sciences, 2016, 105, 1643-1656.	3.3	60
64	Correlating the Impact of Well-Defined Oligosaccharide Structures on Physical Stability Profiles of IgG1-Fc Glycoforms. Journal of Pharmaceutical Sciences, 2016, 105, 588-601.	3.3	24
65	Challenges and opportunities of using liquid chromatography and mass spectrometry methods to develop complex vaccine antigens as pharmaceutical dosage forms. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2016, 1032, 23-38.	2.3	7
66	Biosimilarity Assessments of Model IgG1-Fc Glycoforms Using a Machine Learning Approach. Journal of Pharmaceutical Sciences, 2016, 105, 602-612.	3.3	11
67	Formulation Studies During Preclinical Development of Influenza Hemagglutinin and Virus-Like Particle Vaccine Candidates. Methods in Molecular Biology, 2016, 1404, 393-421.	0.9	0
68	Production of Well-Characterized Virus-like Particles in an Escherichia coli-Based Expression Platform for Preclinical Vaccine Assessments. Methods in Molecular Biology, 2016, 1404, 437-457.	0.9	3
69	Charge-mediated Fab-Fc interactions in an IgG1 antibody induce reversible self-association, cluster formation, and elevated viscosity. MAbs, 2016, 8, 1561-1574.	5.2	81
70	A Microâ€“Polyethylene Glycol Precipitation Assay as a Relative Solubility Screening Tool for Monoclonal Antibody Design and Formulation Development. Journal of Pharmaceutical Sciences, 2016, 105, 2319-2327.	3.3	29
71	Comparative Evaluation of the Chemical Stability of 4 Well-Defined Immunoglobulin G1-Fc Glycoforms. Journal of Pharmaceutical Sciences, 2016, 105, 575-587.	3.3	20
72	Novel Ricin Subunit Antigens With Enhanced Capacity to Elicit Toxin-Neutralizing Antibody Responses in Mice. Journal of Pharmaceutical Sciences, 2016, 105, 1603-1613.	3.3	8

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73	Improved Comparative Signature Diagrams to Evaluate Similarity of Storage Stability Profiles of Different IgG1 mAbs. Journal of Pharmaceutical Sciences, 2016, 105, 1028-1035.	3.3	4
74	Production, Characterization, and Biological Evaluation of Well-Defined IgG1 Fc Glycoforms as a Model System for Biosimilarity Analysis. Journal of Pharmaceutical Sciences, 2016, 105, 559-574.	3.3	27
75	Site-Specific Hydrolysis Reaction C-Terminal of Methionine in Met-His during Metal-Catalyzed Oxidation of IgG-1. Molecular Pharmaceutics, 2016, 13, 1317-1328.	4.6	7
76	Characterization of the Physical Stability of a Lyophilized IgG1 mAb after Accelerated Shipping-Like Stress. Journal of Pharmaceutical Sciences, 2015, 104, 495-507.	3.3	43
77	Two Decades of Publishing Excellence in Pharmaceutical Biotechnology. Journal of Pharmaceutical Sciences, 2015, 104, 290-300.	3.3	15
78	Glassy-State Stabilization of a Dominant Negative Inhibitor Anthrax Vaccine Containing Aluminum Hydroxide and Glycopyranoside Lipid A Adjuvants. Journal of Pharmaceutical Sciences, 2015, 104, 627-639.	3.3	26
79	Correlations between changes in conformational dynamics and physical stability in a mutant IgG1 mAb engineered for extended serum half-life. MAbs, 2015, 7, 84-95.	5.2	64
80	Hydrogen exchange mass spectrometry reveals protein interfaces and distant dynamic coupling effects during the reversible self-association of an IgG1 monoclonal antibody. MAbs, 2015, 7, 525-539.	5.2	69
81	Physical Characterization and In Vitro Biological Impact of Highly Aggregated Antibodies Separated into Size-Enriched Populations by Fluorescence-Activated Cell Sorting. Journal of Pharmaceutical Sciences, 2015, 104, 1575-1591.	3.3	57
82	Calculating the Mass of Subvisible Protein Particles with Improved Accuracy Using Microflow Imaging Data. Journal of Pharmaceutical Sciences, 2015, 104, 536-547.	3.3	38
83	Hydrogen-Deuterium Exchange Mass Spectrometry as an Emerging Analytical Tool for Stabilization and Formulation Development of Therapeutic Monoclonal Antibodies. Journal of Pharmaceutical Sciences, 2015, 104, 327-345.	3.3	68
84	Formulation and stabilization of recombinant protein based virus-like particle vaccines. Advanced Drug Delivery Reviews, 2015, 93, 42-55.	13.7	75
85	Characterization of an Oncolytic Herpes Simplex Virus Drug Candidate. Journal of Pharmaceutical Sciences, 2015, 104, 485-494.	3.3	16
86	Protein comparability assessments and potential applicability of high throughput biophysical methods and data visualization tools to compare physical stability profiles. Frontiers in Pharmacology, 2014, 5, 39.	3.5	47
87	Mechanism of a Decrease in Potency for the Recombinant Influenza A Virus Hemagglutinin H3 Antigen During Storage. Journal of Pharmaceutical Sciences, 2014, 103, 821-827.	3.3	14
88	Physical Stability Comparisons of IgG1-Fc Variants: Effects of N-Glycosylation Site Occupancy and Asp/Gln Residues at Site Asn 297. Journal of Pharmaceutical Sciences, 2014, 103, 1613-1627.	3.3	31
89	Structural Characterization of IgG1 mAb Aggregates and Particles Generated Under Various Stress Conditions. Journal of Pharmaceutical Sciences, 2014, 103, 796-809.	3.3	111
90	Vaccine instability in the cold chain: Mechanisms, analysis and formulation strategies. Biologicals, 2014, 42, 237-259.	1.4	296

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91	High-Throughput Biophysical Analysis of Protein Therapeutics to Examine Interrelationships Between Aggregate Formation and Conformational Stability. AAPS Journal, 2014, 16, 48-64.	4.4	106
92	Probing structurally altered and aggregated states of therapeutically relevant proteins using <scp>G</scp>roEL coupled to bioâ€layer interferometry. Protein Science, 2014, 23, 1461-1478.	7.6	19
93	Effect of solution properties on the counting and sizing of subvisible particle standards as measured by light obscuration and digital imaging methods. European Journal of Pharmaceutical Sciences, 2014, 53, 95-108.	4.0	53
94	Effect of Ionic Strength and pH on the Physical and Chemical Stability of a Monoclonal Antibody Antigen-Binding Fragment. Journal of Pharmaceutical Sciences, 2013, 102, 2520-2537.	3.3	40
95	Case Studies Applying Biophysical Techniques to Better Characterize Protein Aggregates and Particulates of Varying Size. , 2013, , 205-243.		5
96	Characterization and Stabilization of Recombinant Human Protein Pentraxin (rhPTX-2). Journal of Pharmaceutical Sciences, 2013, 102, 827-841.	3.3	12
97	Development of a Stable Virus-Like Particle Vaccine Formulation against Chikungunya Virus and Investigation of the Effects of Polyanions. Journal of Pharmaceutical Sciences, 2013, 102, 4305-4314.	3.3	21
98	Correlating Excipient Effects on Conformational and Storage Stability of an IgG1 Monoclonal Antibody with Local Dynamics as Measured by Hydrogen/Deuterium-Exchange Mass Spectrometry. Journal of Pharmaceutical Sciences, 2013, 102, 2136-2151.	3.3	92
99	Analytical lessons learned from selected therapeutic protein drug comparability studies. Biologicals, 2013, 41, 131-147.	1.4	63
100	Adsorption of recombinant poxvirus L1-protein to aluminum hydroxide/CpG vaccine adjuvants enhances immune responses and protection of mice from vaccinia virus challenge. Vaccine, 2013, 31, 319-326.	3.8	13
101	Comparative Signature Diagrams to Evaluate Biophysical Data for Differences in Protein Structure Across Various Formulations. Journal of Pharmaceutical Sciences, 2013, 102, 43-51.	3.3	14
102	Physical Characterization and Formulation Development of a Recombinant Pneumolysoid Protein-Based Pneumococcal Vaccine. Journal of Pharmaceutical Sciences, 2013, 102, 387-400.	3.3	23
103	Effects of Salts from the Hofmeister Series on the Conformational Stability, Aggregation Propensity, and Local Flexibility of an IgG1 Monoclonal Antibody. Biochemistry, 2013, 52, 3376-3389.	2.5	96
104	High-Throughput Biophysical Analysis and Data Visualization of Conformational Stability of an IgG1 Monoclonal Antibody After Deglycosylation. Journal of Pharmaceutical Sciences, 2013, 102, 3942-3956.	3.3	31
105	Understanding the relevance of local conformational stability and dynamics to the aggregation propensity of an IgG1 and IgG2 monoclonal antibodies. Protein Science, 2013, 22, 1295-1305.	7.6	18
106	Radar Chart Array Analysis to Visualize Effects of Formulation Variables on IgG1 Particle Formation as Measured by Multiple Analytical Techniques. Journal of Pharmaceutical Sciences, 2013, 102, 4256-4267.	3.3	37
107	Biophysical and formulation studies of theSchistosoma mansoniTSP-2 extracellular domain recombinant protein, a lead vaccine candidate antigen for intestinal schistosomiasis. Human Vaccines and Immunotherapeutics, 2013, 9, 2351-2361.	3.3	17
108	Comparison of the Structural Stability and Dynamic Properties of Recombinant Anthrax Protective Antigen and its 2-Fluorohistidine-Labeled Analogue. Journal of Pharmaceutical Sciences, 2012, 101, 4118-4128.	3.3	16

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109	Local Dynamics and Their Alteration by Excipients Modulate the Global Conformational Stability of an IgG1 Monoclonal Antibody. Journal of Pharmaceutical Sciences, 2012, 101, 4444-4457.	3.3	21
110	Minimizing Carry-Over in an Online Pepsin Digestion System used for the H/D Exchange Mass Spectrometric Analysis of an IgG1 Monoclonal Antibody. Journal of the American Society for Mass Spectrometry, 2012, 23, 2140-2148.	2.8	64
111	Improved data visualization techniques for analyzing macromolecule structural changes. Protein Science, 2012, 21, 1540-1553.	7.6	42
112	An empirical phase diagram approach to investigate conformational stability of â€œsecondâ€generationâ€• functional mutants of acidic fibroblast growth factorâ€1. Protein Science, 2012, 21, 418-432.	7.6	24
113	Comparison of High-Throughput Biophysical Methods to Identify Stabilizing Excipients for a Model IgG2 Monoclonal Antibody: Conformational Stability and Kinetic Aggregation Measurements. Journal of Pharmaceutical Sciences, 2012, 101, 1701-1720.	3.3	58
114	Biophysical Characterization and Stabilization of the Recombinant Albumin Fusion Protein sEphB4â€“HSA. Journal of Pharmaceutical Sciences, 2012, 101, 1969-1984.	3.3	31
115	An Improved Methodology for Multidimensional High-Throughput Preformulation Characterization of Protein Conformational Stability. Journal of Pharmaceutical Sciences, 2012, 101, 2017-2024.	3.3	19
116	Preformulation Characterization of an Aluminum Salt-Adjuvanted Trivalent Recombinant Protein-Based Vaccine Candidate Against Streptococcus Pneumoniae. Journal of Pharmaceutical Sciences, 2012, 101, 3078-3090.	3.3	28
117	Excipients Differentially Influence the Conformational Stability and Pretransition Dynamics of Two IgG1 Monoclonal Antibodies. Journal of Pharmaceutical Sciences, 2012, 101, 3062-3077.	3.3	56
118	Compatibility, Physical Stability, and Characterization of an IgG4 Monoclonal Antibody After Dilution into Different Intravenous Administration Bags. Journal of Pharmaceutical Sciences, 2012, 101, 3636-3650.	3.3	86
119	Protein Instability and Immunogenicity: Roadblocks to Clinical Application of Injectable Protein Delivery Systems for Sustained Release. Journal of Pharmaceutical Sciences, 2012, 101, 946-954.	3.3	205
120	Investigation of Protein Conformational Stability Employing a Multimodal Spectrometer. Analytical Chemistry, 2011, 83, 9399-9405.	6.5	28
121	Comparability assessments of process and product changes made during development of two different monoclonal antibodies. Biologicals, 2011, 39, 9-22.	1.4	100
122	Proteinâ€“excipient interactions: Mechanisms and biophysical characterization applied to protein formulation development. Advanced Drug Delivery Reviews, 2011, 63, 1118-1159.	13.7	416
123	Identifying Stabilizers of Plasmid DNA for Pharmaceutical Use. Journal of Pharmaceutical Sciences, 2011, 100, 904-914.	3.3	11
124	Application of a High-Throughput Screening Procedure with PEG-Induced Precipitation to Compare Relative Protein Solubility During Formulation Development with IgG1 Monoclonal Antibodies. Journal of Pharmaceutical Sciences, 2011, 100, 1009-1021.	3.3	85
125	Multidimensional methods for the formulation of biopharmaceuticals and vaccines. Journal of Pharmaceutical Sciences, 2011, 100, 4171-4197.	3.3	97
126	Evaluation of a Dual-Wavelength Size Exclusion HPLC Method With Improved Sensitivity to Detect Protein Aggregates and Its Use to Better Characterize Degradation Pathways of an IgG1 Monoclonal Antibody. Journal of Pharmaceutical Sciences, 2010, 99, 2582-2597.	3.3	58

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127	Development of a Microflow Digital Imaging Assay to Characterize Protein Particulates During Storage of a High Concentration IgG1 Monoclonal Antibody Formulation. Journal of Pharmaceutical Sciences, 2010, 99, 3343-3361.	3.3	90
128	Vaccines as physically and chemically well-defined pharmaceutical dosage forms. Expert Review of Vaccines, 2010, 9, 689-691.	4.4	22
129	Preformulation studiesâ€"The next advance in aluminum adjuvant-containing vaccines. Vaccine, 2010, 28, 4868-4870.	3.8	38
130	Characterization of the photodegradation of a human IgG1 monoclonal antibody formulated as a high-concentration liquid dosage form. Journal of Pharmaceutical Sciences, 2009, 98, 3117-3130.	3.3	117
131	Disassembly and reassembly of yeastâ€derived recombinant human papillomavirus virusâ€like particles (HPV VLPs). Journal of Pharmaceutical Sciences, 2006, 95, 2195-2206.	3.3	126
132	Stabilization of human papillomavirus virus-like particles by non-ionic surfactants. Journal of Pharmaceutical Sciences, 2005, 94, 1538-1551.	3.3	103
133	Characterization and biological evaluation of a microparticle adjuvant formulation for plasmid DNA vaccines. Journal of Pharmaceutical Sciences, 2004, 93, 1924-1939.	3.3	33
134	Development of stable liquid formulations for adenovirus-based vaccines. Journal of Pharmaceutical Sciences, 2004, 93, 2458-2475.	3.3	141
135	Safety, immunogenicity and efficacy in healthy infants of G1 and G2 human reassortant rotavirus vaccine in a new stabilizer/buffer liquid formulation. Pediatric Infectious Disease Journal, 2003, 22, 914-920.	2.0	62
136	The Characterization, Stabilization, and Formulation of Acidic Fibroblast Growth Factor. Pharmaceutical Biotechnology, 2002, 9, 181-217.	0.3	11
137	Evaluation of Degradation Pathways for Plasmid DNA in Pharmaceutical Formulations via Accelerated Stability Studies. , 2000, 89, 76-87.		113
138	Size and Conformational Stability of the Hepatitis a Virus used to Prepare VAQTAâŠ¥, a Highly Purified Inactivated Vaccine. Journal of Pharmaceutical Sciences, 1997, 86, 666-673.	3.3	45
139	Degradative covalent reactions important to protein stability. Molecular Biotechnology, 1997, 8, 105-122.	2.4	104
140	Ultraviolet Absorption Spectroscopy. , 1995, 40, 91-114.		48
141	Infrared Spectroscopy. , 1995, 40, 137-156.		16
142	Sucralfate and soluble sucrose octasulfate bind and stabilize acidic fibroblast growth factor. BBA - Proteins and Proteomics, 1993, 1203, 18-26.	2.1	56
143	Origin of the isoelectric heterogeneity of monoclonal immunoglobulin h1B4. Pharmaceutical Research, 1993, 10, 1580-1586.	3.5	56
144	Formulation design of acidic fibroblast growth factor. Pharmaceutical Research, 1993, 10, 649-659.	3.5	105

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145	Effect of polyanions on the unfolding of acidic fibroblast growth factor. Biochemistry, 1993, 32, 6419-6426.	2.5	61
146	The adsorption of proteins to pharmaceutical container surfaces. International Journal of Pharmaceutics, 1992, 86, 89-93.	5.2	49