

An Industry Perspective on the Monitoring of Subvisibl for Protein Therapeutics

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Characterization of Particles in Protein Solutions: Reaching the Limits of Current Technologies. AAPS Journal, 2010, 12, 708-715.	2.2	102
3	Exposure of a Monoclonal Antibody, IgG1, to UV-Light Leads to Protein Dithiohemiacetal and Thioether Cross-Links: A Role for Thiyl Radicals?. Chemical Research in Toxicology, 2010, 23, 1310-1312.	1.7	38
4	Classification and Characterization of Therapeutic Antibody Aggregates. Journal of Biological Chemistry, 2011, 286, 25118-25133.	1.6	262
5	A facile enantioseparation for amino acids enantiomers using β -cyclodextrins functionalized Fe ₃ O ₄ nanospheres. Chemical Communications, 2011, 47, 10317.	2.2	74
6	Field-Flow Fractionation: Addressing the Nano Challenge. Analytical Chemistry, 2011, 83, 634-642.	3.2	103
7	Product Quality During Manufacture and Supply. , 2011, , 313-339.		15
8	Addressing new analytical challenges in protein formulation development. European Journal of Pharmaceutics and Biopharmaceutics, 2011, 78, 196-207.	2.0	29
9	Regulatory Aspects of Chemistry Manufacturing and Controls for Investigational New Drug Applications and Biologic License Applications to the United States Food and Drug Administration. , 2011, , 439-452.		1
10	Recent and Emerging Trends and Concerns Related to the Manufacturing and Testing of Monoclonal Antibodies Intended for Clinical Use. , 2011, , 363-375.		0
11	Immunogenicity of biotherapeutics in the context of developing biosimilars and biobetters. Drug Discovery Today, 2011, 16, 345-353.	3.2	45
12	Strategies for the Assessment of Protein Aggregates in Pharmaceutical Biotech Product Development. Pharmaceutical Research, 2011, 28, 920-933.	1.7	312
13	Impact of Product-Related Factors on Immunogenicity of Biotherapeutics. Journal of Pharmaceutical Sciences, 2011, 100, 354-387.	1.6	293
14	The Use of Flow Cytometry for the Detection of Subvisible Particles in Therapeutic Protein Formulations. Journal of Pharmaceutical Sciences, 2011, 100, 1671-1678.	1.6	46
15	Evaluation of the Effect of Syringe Surfaces on Protein Formulations. Journal of Pharmaceutical Sciences, 2011, 100, 2563-2573.	1.6	85
16	Effects of Surfaces and Leachables on the Stability of Biopharmaceuticals. Journal of Pharmaceutical Sciences, 2011, 100, 4158-4170.	1.6	133
17	Characterization of Subvisible Particle Formation During the Filling Pump Operation of a Monoclonal Antibody Solution. Journal of Pharmaceutical Sciences, 2011, 100, 4198-4204.	1.6	82
18	Demonstrating the Stability of Albinterferon Alfa-2b in the Presence of Silicone Oil. Journal of Pharmaceutical Sciences, 2011, 100, 5100-5114.	1.6	28
19	Transfer of engineered biophysical properties between different antibody formats and expression systems. Protein Engineering, Design and Selection, 2012, 25, 485-506.	1.0	34

#	ARTICLE	IF	CITATIONS
20	Properties of protein formulations. , 2012, , 47-65.		12
21	Immunogenicity of different stressed IgG monoclonal antibody formulations in immune tolerant transgenic mice. MAbs, 2012, 4, 740-752.	2.6	137
22	High-dose monoclonal antibodies via the subcutaneous route: challenges and technical solutions, an industry perspective. Therapeutic Delivery, 2012, 3, 889-900.	1.2	48
23	Inhibition of Tungsten-Induced Protein Aggregation by Cetyl Trimethyl Ammonium Bromide. PDA Journal of Pharmaceutical Science and Technology, 2012, 66, 2-11.	0.3	6
24	Highly Aggregated Antibody Therapeutics Can Enhance the in Vitro Innate and Late-stage T-cell Immune Responses. Journal of Biological Chemistry, 2012, 287, 25266-25279.	1.6	224
25	Protein Particulate Detection Issues in Biotherapeutics Developmentâ€”Current Status. AAPS PharmSciTech, 2012, 13, 732-746.	1.5	93
26	Minimizing immunogenicity of biopharmaceuticals by controlling critical quality attributes of proteins. Biotechnology Journal, 2012, 7, 1473-1484.	1.8	129
27	Silicone-Oil-Based Subvisible Particles: Their Detection, Interactions, and Regulation in Prefilled Container Closure Systems for Biopharmaceuticals. Journal of Pharmaceutical Sciences, 2012, 101, 4569-4583.	1.6	52
28	Crystallization of l-alanine in the presence of additives on a circular PMMA platform designed for metal-assisted and microwave-accelerated evaporative crystallization. CrystEngComm, 2012, 14, 8424.	1.3	15
29	Effects of rotational speed on the hydrodynamic properties of pharmaceutical antibodies measured by analytical ultracentrifugation sedimentation velocity. European Journal of Pharmaceutical Sciences, 2012, 47, 367-374.	1.9	6
30	Monitoring of Subvisible Particles in Therapeutic Proteins. Methods in Molecular Biology, 2012, 899, 379-401.	0.4	18
31	Asymmetrical Flow Field-Flow Fractionation Method for the Analysis of Submicron Protein Aggregates. Journal of Pharmaceutical Sciences, 2012, 101, 4129-4139.	1.6	37
32	Mechanistic Complexity of Subvisible Particle Formation: Links to Protein Aggregation are Highly Specific. Journal of Pharmaceutical Sciences, 2012, 101, 4140-4154.	1.6	19
33	Analytical characterization of ch14.18. MAbs, 2012, 4, 84-100.	2.6	12
34	Analytical tools for characterizing biopharmaceuticals and the implications for biosimilars. Nature Reviews Drug Discovery, 2012, 11, 527-540.	21.5	441
36	Applications of nanomaterials in enantioseparation and related techniques. TrAC - Trends in Analytical Chemistry, 2012, 39, 195-206.	5.8	88
37	Managing particulates in cellular therapy. Cytotherapy, 2012, 14, 1032-1040.	0.3	7
38	Quantification and Characterization of Micrometer and Submicrometer Subvisible Particles in Protein Therapeutics by Use of a Suspended Microchannel Resonator. Analytical Chemistry, 2012, 84, 6833-6840.	3.2	52

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39	Electrosprayâ€“Differential Mobility Analysis as an Orthogonal Tool to Size-Exclusion Chromatography for Characterization of Protein Aggregates. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 1985-1994.	1.6	9
40	Protein particles: What we know and what we do not know. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 3568-3579.	1.6	86
41	Managing uncertainty: A perspective on risk pertaining to product quality attributes as they bear on immunogenicity of therapeutic proteins. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 3560-3567.	1.6	91
42	Quality attributes of recombinant therapeutic proteins: An assessment of impact on safety and efficacy as part of a quality by design development approach. <i>Biotechnology Progress</i> , 2012, 28, 608-622.	1.3	163
43	Development of resistance to biologic therapies with reference to IFN- α . <i>Rheumatology</i> , 2012, 51, 590-599.	0.9	22
44	Structure and Function of Purified Monoclonal Antibody Dimers Induced by Different Stress Conditions. <i>Pharmaceutical Research</i> , 2012, 29, 2047-2059.	1.7	68
45	Detection and Characterization of Subvisible Aggregates of Monoclonal IgG in Serum. <i>Pharmaceutical Research</i> , 2012, 29, 2202-2212.	1.7	61
47	Immunogenicity of protein aggregatesâ€“Concerns and realities. <i>International Journal of Pharmaceutics</i> , 2012, 431, 1-11.	2.6	212
48	Microneedle technologies for (trans)dermal drug and vaccine delivery. <i>Journal of Controlled Release</i> , 2012, 161, 645-655.	4.8	504
49	Critical Evaluation and Guidance for Using the Coulter Method for Counting Subvisible Particles in Protein Solutions. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 140-153.	1.6	31
50	Classification of Protein Aggregates1. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 493-498.	1.6	193
51	Particles in Therapeutic Protein Formulations, Part 1: Overview of Analytical Methods. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 914-935.	1.6	191
52	Discrimination Between Silicone Oil Droplets and Protein Aggregates in Biopharmaceuticals: A Novel Multiparametric Image Filter for Sub-visible Particles in Microflow Imaging Analysis. <i>Pharmaceutical Research</i> , 2012, 29, 594-602.	1.7	101
53	Application of a Kosmotrope-Based Solubility Assay to Multiple Protein Therapeutic Classes Indicates Broad Use as a High-Throughput Screen for Protein Therapeutic Aggregation Propensity. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 2424-2439.	1.6	25
54	Application of different analytical methods for the characterization of non-spherical micro- and nanoparticles. <i>International Journal of Pharmaceutics</i> , 2013, 453, 620-629.	2.6	37
55	Case Studies Applying Biophysical Techniques to Better Characterize Protein Aggregates and Particulates of Varying Size. , 2013, , 205-243.		5
56	How Subvisible Particles Become Invisibleâ€“Relevance of the Refractive Index for Protein Particle Analysis. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 1434-1446.	1.6	88
57	Particulate Matter in Injectable Drug Products. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2013, 67, 186-200.	0.3	78

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58	Characterization and Quantitation of Aggregates and Particles in Interferon- β Products: Potential Links Between Product Quality Attributes and Immunogenicity. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 915-928.	1.6	101
59	Aggregation of biopharmaceuticals in human plasma and human serum. <i>MAbs</i> , 2013, 5, 491-500.	2.6	37
60	Forced degradation studies: an essential tool for the formulation development of vaccines. <i>Vaccine (Auckland, N Z)</i> , 0, , 11.	1.7	18
61	Refolding of biotech therapeutic proteins expressed in bacteria: review. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 1794-1806.	1.6	47
62	Biopharmaceutical formulations for pre-filled delivery devices. <i>Expert Opinion on Drug Delivery</i> , 2013, 10, 811-828.	2.4	55
63	Towards Dynamic Control of Wettability by Using Functionalized Altitudinal Molecular Motors on Solid Surfaces. <i>Chemistry - A European Journal</i> , 2013, 19, 10690-10697.	1.7	38
64	Development of Biophysical Assays to Better Understand Adjuvanted Vaccine Formulation Potency and Stability. , 2013, , 107-118.		0
65	Flow Imaging: Moving Toward Best Practices for Subvisible Particle Quantitation in Protein Products. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 1133-1134.	1.6	17
66	Size Fractionation of Microscopic Protein Aggregates Using a Preparative Fluorescence-Activated Cell Sorter. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 2128-2135.	1.6	5
67	Comparability of biotherapeutics: characterization of protein vaccine antigens. <i>Pharmaceutical Bioprocessing</i> , 2013, 1, 373-380.	0.8	6
68	Quality Control of Protein Crystal Suspensions Using Microflow Imaging and Flow Cytometry. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 3860-3866.	1.6	5
69	Stability of lyophilized sucrose formulations of an IgG1: subvisible particle formation. <i>Pharmaceutical Development and Technology</i> , 2013, 18, 883-896.	1.1	10
70	Aggregation of Human Recombinant Monoclonal Antibodies Influences the Capacity of Dendritic Cells to Stimulate Adaptive T-Cell Responses In Vitro. <i>PLoS ONE</i> , 2014, 9, e86322.	1.1	125
71	The Use of Index-Matched Beads in Optical Particle Counters. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2014, 119, 644.	0.4	16
72	Separation and quantification of monoclonal-antibody aggregates by hollow-fiber-flow field-flow fractionation. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 6257-6264.	1.9	13
73	Protein Aggregation and Particle Formation in Prefilled Glass Syringes. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 1601-1612.	1.6	142
74	The Effect of Protein PEGylation on Physical Stability in Liquid Formulation. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 3043-3054.	1.6	18
75	Recombinant Murine Growth Hormone Particles are More Immunogenic with Intravenous than Subcutaneous Administration. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 128-139.	1.6	26

#	ARTICLE	IF	CITATIONS
76	Unmasking Translucent Protein Particles by Improved Micro-Flow Imagingâ„ƒ Algorithms. Journal of Pharmaceutical Sciences, 2014, 103, 107-114.	1.6	20
77	Functional Evaluation and Characterization of a Newly Developed Silicone Oil-Free Prefillable Syringe System. Journal of Pharmaceutical Sciences, 2014, 103, 1520-1528.	1.6	51
78	Localized Crystallization of Enantiomeric Organic Compounds on Chiral Microâ€patterns from Various Organic Solutions. Chemistry - A European Journal, 2014, 20, 10466-10474.	1.7	3
79	In Vivo Fluorescence Imaging of IgG1 Aggregates After Subcutaneous and Intravenous Injection in Mice. Pharmaceutical Research, 2014, 31, 216-227.	1.7	32
80	A perspective on the characterization of colloids and macromolecules using asymmetrical flow field-flow fractionation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 442, 25-33.	2.3	35
81	Impact of Residual Impurities and Contaminants on Protein Stability. Journal of Pharmaceutical Sciences, 2014, 103, 1315-1330.	1.6	91
82	Control of Protein Particle Formation During Ultrafiltration/Diafiltration Through Interfacial Protection. Journal of Pharmaceutical Sciences, 2014, 103, 862-869.	1.6	39
83	Both protein adsorption and aggregation contribute to shear yielding and viscosity increase in protein solutions. Soft Matter, 2014, 10, 122-131.	1.2	73
84	Measurement of Subvisible Particulates in Lyophilised Erwinia chrysanthemi l-asparaginase and Relationship with Clinical Experience. AAPS Journal, 2014, 16, 784-790.	2.2	5
85	Utilization of a precolumn with size exclusion and reversed-phase modes for size-exclusion chromatographic analysis of polysorbate-containing protein aggregates. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2014, 953-954, 68-72.	1.2	4
86	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.	1.9	53
87	Therapeutic protein aggregation: mechanisms, design, and control. Trends in Biotechnology, 2014, 32, 372-380.	4.9	339
92	Cross-Linked Silicone Coating: A Novel Prefilled Syringe Technology That Reduces Subvisible Particles and Maintains Compatibility with Biologics. Journal of Pharmaceutical Sciences, 2014, 103, 1384-1393.	1.6	32
93	Characterization of Nanoparticle Tracking Analysis for Quantification and Sizing of Submicron Particles of Therapeutic Proteins. Journal of Pharmaceutical Sciences, 2015, 104, 2441-2450.	1.6	23
94	Particle Shedding from Peristaltic Pump Tubing in Biopharmaceutical Drug Product Manufacturing. Journal of Pharmaceutical Sciences, 2015, 104, 1440-1450.	1.6	29
95	Protein Adsorption, Desorption, and Aggregation Mediated by Solid-Liquid Interfaces. Journal of Pharmaceutical Sciences, 2015, 104, 1946-1959.	1.6	45
96	Two Decades of Publishing Excellence in Pharmaceutical Biotechnology. Journal of Pharmaceutical Sciences, 2015, 104, 290-300.	1.6	15
97	Reconstitution of L-Asparaginase in Siliconized Syringes with Shaking and Headspace Air Induces Protein Aggregation. Chemical and Pharmaceutical Bulletin, 2015, 63, 770-779.	0.6	5

#	ARTICLE	IF	CITATIONS
98	Developability Assessment Workflows to De-Risk Biopharmaceutical Development. , 2015, , 221-290.		1
100	Factors to Govern Soluble and Insoluble Aggregate-formation in Monoclonal Antibodies. Analytical Sciences, 2015, 31, 1233-1240.	0.8	10
101	An Interlaboratory Comparison of Sizing and Counting of Subvisible Particles Mimicking Protein Aggregates. Journal of Pharmaceutical Sciences, 2015, 104, 666-677.	1.6	31
102	Determination of the Density of Protein Particles Using a Suspended Microchannel Resonator. Journal of Pharmaceutical Sciences, 2015, 104, 4034-4040.	1.6	29
103	Characterisation of Stress-Induced Aggregate Size Distributions and Morphological Changes of a Bi-Specific Antibody Using Orthogonal Techniques. Journal of Pharmaceutical Sciences, 2015, 104, 2473-2481.	1.6	13
104	Early Implementation of QbD in Biopharmaceutical Development: A Practical Example. BioMed Research International, 2015, 2015, 1-19.	0.9	47
105	Quantitative Laser Diffraction Method for the Assessment of Protein Subvisible Particles. Journal of Pharmaceutical Sciences, 2015, 104, 618-626.	1.6	23
106	Particle contamination of parenteralia and in-line filtration of proteinaceous drugs. International Journal of Pharmaceutics, 2015, 496, 250-267.	2.6	23
107	Regulatory strategy for the development of analytical methods for the routine determination of aggregate profiles for a biosimilar product. Pharmaceutical Bioprocessing, 2015, 3, 305-312.	0.8	0
108	Low Leachable Container System Consisting of a Polymer-Based Syringe with Chlorinated Isoprene Isobutene Rubber Plunger Stopper. PDA Journal of Pharmaceutical Science and Technology, 2015, 69, 713-724.	0.3	9
109	Small Amounts of Sub-Visible Aggregates Enhance the Immunogenic Potential of Monoclonal Antibody Therapeutics. Pharmaceutical Research, 2015, 32, 1383-1394.	1.7	134
110	Transmission Electron Microscopy as an Orthogonal Method to Characterize Protein Aggregates. Journal of Pharmaceutical Sciences, 2015, 104, 750-759.	1.6	39
111	Purification and Identification of High Molecular Weight Products Formed During Storage of Neutral Formulation of Human Insulin. Pharmaceutical Research, 2015, 32, 2072-2085.	1.7	22
112	Accelerated Formulation Development of Monoclonal Antibodies (mAbs) and mAb-Based Modalities: Review of Methods and Tools. Journal of Biomolecular Screening, 2015, 20, 468-483.	2.6	58
113	Technical Decision-Making with Higher Order Structure Data: Starting a New Dialogue. Journal of Pharmaceutical Sciences, 2015, 104, 1240-1245.	1.6	31
114	Characterization of Submicron (0.1-1 µm) Particles in Therapeutic Proteins by Nanoparticle Tracking Analysis. Journal of Pharmaceutical Sciences, 2015, 104, 1622-1631.	1.6	17
115	Silylated Precision Particles for Controlled Release of Proteins. ACS Applied Materials & Interfaces, 2015, 7, 5756-5767.	4.0	7
116	Measuring Subvisible Particles in Protein Formulations Using a Modified Light Obscuration Sensor with Improved Detection Capabilities. Analytical Chemistry, 2015, 87, 6119-6124.	3.2	7

#	ARTICLE	IF	CITATIONS
117	Stability of monoclonal antibodies (mAbs). , 2015, , 45-92.		9
118	The Immunogenicity of Antibody Aggregates in a Novel Transgenic Mouse Model. <i>Pharmaceutical Research</i> , 2015, 32, 2344-2359.	1.7	107
119	Identification of Subvisible Particles in Biopharmaceutical Formulations Using Raman Spectroscopy Provides Insight into Polysorbate 20 Degradation Pathway. <i>Pharmaceutical Research</i> , 2015, 32, 2877-2888.	1.7	77
120	Antibody-Drug Conjugates: Design, Formulation and Physicochemical Stability. <i>Pharmaceutical Research</i> , 2015, 32, 3541-3571.	1.7	54
121	Molecular Trajectories Provide Signatures of Protein Clustering and Crowding at the Oil/Water Interface. <i>Langmuir</i> , 2015, 31, 5882-5890.	1.6	18
122	Subvisible (2-100 μm) Particle Analysis During Biotherapeutic Drug Product Development: Part 1, Considerations and Strategy. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 1899-1908.	1.6	64
123	Subvisible (2-100 μm) particle analysis during biotherapeutic drug product development: Part 2, experience with the application of subvisible particle analysis. <i>Biologicals</i> , 2015, 43, 457-473.	0.5	60
124	Protein Particles (0.1 μm to 100 μm). <i>ACS Symposium Series</i> , 2015, , 357-386.	0.5	4
125	Comparative Evaluation of Two Methods for Preparative Fractionation of Proteinaceous Subvisible Particles—Differential Centrifugation and FACS. <i>Pharmaceutical Research</i> , 2015, 32, 3952-3964.	1.7	5
126	Predicting the Agitation-Induced Aggregation of Monoclonal Antibodies Using Surface Tensiometry. <i>Molecular Pharmaceutics</i> , 2015, 12, 3184-3193.	2.3	73
127	Practical Considerations for Detection and Characterization of Sub-Micron Particles in Protein Solutions by Nanoparticle Tracking Analysis. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2015, 69, 427-439.	0.3	11
128	Subvisible and Visible Particle Analysis in Biopharmaceutical Research and Development. , 2015, , 261-286.		0
129	Effects of Syringe Material and Silicone Oil Lubrication on the Stability of Pharmaceutical Proteins. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 527-535.	1.6	125
130	Improved Stability of a Model IgG3 by DoE-Based Evaluation of Buffer Formulations. <i>BioMed Research International</i> , 2016, 2016, 1-8.	0.9	16
131	Immunogenicity of Therapeutic Protein Aggregates. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 417-430.	1.6	392
132	Evaluating the Role of the Air-Solution Interface on the Mechanism of Subvisible Particle Formation Caused by Mechanical Agitation for an IgG1 mAb. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 1643-1656.	1.6	60
133	Characterization of mAb dimers reveals predominant dimer forms common in therapeutic mAbs. <i>MABs</i> , 2016, 8, 928-940.	2.6	42
134	Optimization of the bake-on siliconization of cartridges. Part I: Optimization of the spray-on parameters. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2016, 104, 200-215.	2.0	11

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135	Physicochemical characterization of biopharmaceuticals. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 130, 366-389.	1.4	58
136	Novel polymer container systems for protein therapeutics and cell culturing. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016, 65, 568-573.	1.8	2
137	Nanoparticle tracking analysis of particle size and concentration detection in suspensions of polymer and protein samples: Influence of experimental and data evaluation parameters. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2016, 104, 30-41.	2.0	109
138	A Biopharmaceutical Industry Perspective on the Control of Visible Particles in Biotechnology-Derived Injectable Drug Products. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2016, 70, 392-408.	0.3	37
139	Variability in Flow-Imaging Microscopy Measurements and Considerations for Biopharmaceutical Development. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3296-3303.	1.6	5
140	A Comprehensive Evaluation of Nanoparticle Tracking Analysis (NanoSight) for Characterization of Proteinaceous Submicron Particles. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3366-3375.	1.6	42
141	Antibody-drug conjugate characterization by chromatographic and electrophoretic techniques. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2016, 1032, 39-50.	1.2	55
142	Silicone Migration From Baked-on Silicone Layers. Particle Characterization in Placebo and Protein Solutions. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3520-3531.	1.6	25
143	Factors Governing the Precision of Subvisible Particle Measurement Methods – A Case Study with a Low-Concentration Therapeutic Protein Product in a Prefilled Syringe. <i>Pharmaceutical Research</i> , 2016, 33, 450-461.	1.7	35
144	Effect of channel-induced shear on biologics during ultrafiltration/diafiltration (UF/DF). <i>Journal of Membrane Science</i> , 2016, 514, 671-683.	4.1	23
145	Origin of Aggregate Formation in Antibody Crystal Suspensions Containing PEG. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 1059-1065.	1.6	5
146	Factors Governing the Accuracy of Subvisible Particle Counting Methods. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 2042-2052.	1.6	19
147	Protein aggregate turbidity: Simulation of turbidity profiles for mixed-aggregation reactions. <i>Analytical Biochemistry</i> , 2016, 498, 78-94.	1.1	48
148	Probing Submicron Aggregation Kinetics of an IgG Protein by Asymmetrical Flow Field-Flow Fractionation. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 31-39.	1.6	12
149	Holographic Characterization of Protein Aggregates. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 1074-1085.	1.6	52
150	Correcting the Relative Bias of Light Obscuration and Flow Imaging Particle Counters. <i>Pharmaceutical Research</i> , 2016, 33, 653-672.	1.7	29
151	Structure, Aggregation, and Activity of a Covalent Insulin Dimer Formed During Storage of Neutral Formulation of Human Insulin. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 1376-1386.	1.6	34
152	Visible and Sub-visible Particle Formation for a Model Bioconjugate. <i>AAPS PharmSciTech</i> , 2017, 18, 926-931.	1.5	4

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153	Evaluation of aggregate and silicone-oil counts in pre-filled siliconized syringes: An orthogonal study characterising the entire subvisible size range. <i>International Journal of Pharmaceutics</i> , 2017, 519, 58-66.	2.6	16
154	Extensive Chemical Modifications in the Primary Protein Structure of IgG1 Subvisible Particles Are Necessary for Breaking Immune Tolerance. <i>Molecular Pharmaceutics</i> , 2017, 14, 1292-1299.	2.3	56
156	Characterization of Protein Particles in Therapeutic Formulations Using Imaging Flow Cytometry. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 1952-1960.	1.6	16
157	Characterization of drug delivery particles produced by supercritical carbon dioxide technologies. <i>Journal of Supercritical Fluids</i> , 2017, 128, 244-262.	1.6	40
158	Impact of Freeze/Thaw Process on Drug Substance Storage of Therapeutics. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 1944-1951.	1.6	15
159	Interference from Proteins and Surfactants on Particle Size Distributions Measured by Nanoparticle Tracking Analysis (NTA). <i>Pharmaceutical Research</i> , 2017, 34, 800-808.	1.7	27
160	A Random Forest Approach for Counting Silicone Oil Droplets and Protein Particles in Antibody Formulations Using Flow Microscopy. <i>Pharmaceutical Research</i> , 2017, 34, 479-491.	1.7	36
161	Improving Biopharmaceutical Safety through Verification-Based Quality Control. <i>Trends in Biotechnology</i> , 2017, 35, 1140-1155.	4.9	14
163	Immunogenicity of protein aggregates of a monoclonal antibody generated by forced shaking stress with siliconized and nonsiliconized syringes in BALB/c mice. <i>Journal of Pharmacy and Pharmacology</i> , 2017, 69, 1341-1351.	1.2	30
164	Monitoring of Flow-Induced Aggregation and Conformational Change of Monoclonal Antibodies. <i>Chemie-Ingenieur-Technik</i> , 2017, 89, 987-994.	0.4	4
165	Nanoparticulate Impurities Isolated from Pharmaceutical-Grade Sucrose Are a Potential Threat to Protein Stability. <i>Pharmaceutical Research</i> , 2017, 34, 2910-2921.	1.7	13
166	Closing the Gap: Counting and Sizing of Particles Across Submicron Range by Flow Cytometry in Therapeutic Protein Products. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 3215-3221.	1.6	9
167	Microparticles and Nanoparticles Delivered in Intravenous Saline and in an Intravenous Solution of a Therapeutic Antibody Product. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 511-520.	1.6	49
168	A Comparison of Protein Stability in Prefillable Syringes Made of Glass and Plastic. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2017, 71, 462-477.	0.3	15
169	Next Generation Biopharmaceuticals: Product Development. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2018, 165, 253-276.	0.6	2
170	Submicron Protein Particle Characterization using Resistive Pulse Sensing and Conventional Light Scattering Based Approaches. <i>Pharmaceutical Research</i> , 2018, 35, 58.	1.7	10
171	Deep Convolutional Neural Network Analysis of Flow Imaging Microscopy Data to Classify Subvisible Particles in Protein Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2018, 107, 999-1008.	1.6	58
172	Monoclonal Antibody Interfaces: Dilatation Mechanics and Bubble Coalescence. <i>Langmuir</i> , 2018, 34, 630-638.	1.6	51

#	ARTICLE	IF	CITATIONS
173	Protein Nanoparticles Promote Microparticle Formation in Intravenous Immunoglobulin Solutions During Freeze-Thawing and Agitation Stresses. <i>Journal of Pharmaceutical Sciences</i> , 2018, 107, 1852-1857.	1.6	13
174	Light-scattering detection within the difficult size range of protein particle measurement using flow cytometry. <i>Nanoscale</i> , 2018, 10, 19277-19285.	2.8	6
175	Drug Product Considerations for Biosimilars. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 221-258.	0.2	0
177	Commentary: New perspectives on protein aggregation during Biopharmaceutical development. <i>International Journal of Pharmaceutics</i> , 2018, 552, 1-6.	2.6	17
178	Suppression of Aggregation of Therapeutic Monoclonal Antibodies during Storage by Removal of Aggregation Precursors Using a Specific Adsorbent of Non-Native IgG Conformers. <i>Bioconjugate Chemistry</i> , 2018, 29, 3250-3261.	1.8	7
179	Solubility, Opalescence, and Particulate Matter. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 125-137.	0.2	2
180	Introduction of a glycosylation site in the constant region decreases the aggregation of adalimumab Fab. <i>Biochemical and Biophysical Research Communications</i> , 2018, 503, 752-756.	1.0	17
181	Effect of temperature ramp rate during the primary drying process on the properties of amorphous-based lyophilized cake, Part 2: Successful lyophilization by adopting a fast ramp rate during primary drying in protein formulations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 130, 83-95.	2.0	12
182	Special Topics in Analytics of Pre-filled Syringes. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 225-233.	0.2	0
183	In vitro models for immunogenicity prediction of therapeutic proteins. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 130, 128-142.	2.0	33
184	Origins and Evolution of Drug Regulation. , 2019, , 17-52.		0
185	Subvisible Particulate Matter in Therapeutic Protein Injections. <i>Pharmaceutical Chemistry Journal</i> , 2019, 53, 353-360.	0.3	2
186	The differential effect of sub-micron level HA aggregates on influenza potency assays. <i>Vaccine</i> , 2019, 37, 5276-5287.	1.7	0
187	Advances in liquid formulations of parenteral therapeutic proteins. <i>Biotechnology Advances</i> , 2019, 37, 107412.	6.0	49
188	Regulatory Aspects of Chemistry Manufacturing and Controls for Investigational New Drug Applications and Biologic License Applications to the United States Food and Drug Administration. , 2019, , 473-486.		0
189	Analytical Platform for Monitoring Aggregation of Monoclonal Antibody Therapeutics. <i>Pharmaceutical Research</i> , 2019, 36, 152.	1.7	37
190	Interlaboratory comparison about feasibility of insoluble particulate matter test for injections with reduced test volume in light obscuration method. <i>Biologicals</i> , 2019, 57, 46-49.	0.5	8
191	Application of ER Stress Biomarkers to Predict Formulated Monoclonal Antibody Stability. <i>Biotechnology Journal</i> , 2019, 14, e1900024.	1.8	5

#	ARTICLE	IF	CITATIONS
192	Linking aggregation and interfacial properties in monoclonal antibody-surfactant formulations. Journal of Colloid and Interface Science, 2019, 550, 128-138.	5.0	61
193	Variance Between Different Light Obscuration and Flow Imaging Microscopy Instruments and the Impact of Instrument Calibration. Journal of Pharmaceutical Sciences, 2019, 108, 2397-2405.	1.6	12
194	Interfacial Stress in the Development of Biologics: Fundamental Understanding, Current Practice, and Future Perspective. AAPS Journal, 2019, 21, 44.	2.2	96
195	Contribution of Intravenous Administration Components to Subvisible and Submicron Particles Present in Administered Drug Product. Journal of Pharmaceutical Sciences, 2019, 108, 2406-2414.	1.6	12
196	Application of a Best Practice Approach Using Resonant Mass Measurement for Biotherapeutic Product Characterization. Journal of Pharmaceutical Sciences, 2019, 108, 1675-1685.	1.6	9
197	Effects of Product Handling Parameters on Particle Levels in a Commercial Factor VIII Product: Impacts and Mitigation. Journal of Pharmaceutical Sciences, 2019, 108, 775-786.	1.6	14
198	Critical Evaluation of Microfluidic Resistive Pulse Sensing for Quantification and Sizing of Nanometer- and Micrometer-Sized Particles in Biopharmaceutical Products. Journal of Pharmaceutical Sciences, 2019, 108, 563-573.	1.6	40
199	Structure, heterogeneity and developability assessment of therapeutic antibodies. MAbs, 2019, 11, 239-264.	2.6	186
200	Detection and Sizing of Submicron Particles in Biologics With Interferometric Scattering Microscopy. Journal of Pharmaceutical Sciences, 2020, 109, 881-890.	1.6	4
201	Backgrounded Membrane Imaging (BMI) for High-Throughput Characterization of Subvisible Particles During Biopharmaceutical Drug Product Development. Journal of Pharmaceutical Sciences, 2020, 109, 264-276.	1.6	26
202	Shape Characterization of Subvisible Particles Using Dynamic Imaging Analysis. Journal of Pharmaceutical Sciences, 2020, 109, 375-379.	1.6	10
203	Effects of Tubing Type, Formulation, and Postpumping Agitation on Nanoparticle and Microparticle Formation in Intravenous Immunoglobulin Solutions Processed With a Peristaltic Filling Pump. Journal of Pharmaceutical Sciences, 2020, 109, 739-749.	1.6	34
204	DEHP Nanodroplets Leached From Polyvinyl Chloride IV Bags Promote Aggregation of IVIG and Activate Complement in Human Serum. Journal of Pharmaceutical Sciences, 2020, 109, 429-442.	1.6	13
205	A Multicompany Assessment of Submicron Particle Levels by NTA and RMM in a Wide Range of Late-Phase Clinical and Commercial Biotechnology-Derived Protein Products. Journal of Pharmaceutical Sciences, 2020, 109, 830-844.	1.6	17
206	Submicrometer, micrometer and visible particle analysis in biopharmaceutical research and development. , 2020, , 285-310.		5
207	Phase-Appropriate Application of Analytical Methods to Monitor Subvisible Particles Across the Biotherapeutic Drug Product Life Cycle. AAPS Journal, 2020, 22, 1.	2.2	34
208	Fc γ 3 Receptor Activation by Human Monoclonal Antibody Aggregates. Journal of Pharmaceutical Sciences, 2020, 109, 576-583.	1.6	17
209	Overcoming Challenges of Implementing Closed System Transfer Device Clinical In-Use Compatibility Testing for Drug Development of Antibody Drug Conjugates. Journal of Pharmaceutical Sciences, 2020, 109, 761-768.	1.6	27

#	ARTICLE	IF	CITATIONS
210	Subvisible Particulate Contamination in Cell Therapy Products—Can We Distinguish?. Journal of Pharmaceutical Sciences, 2020, 109, 216-219.	1.6	7
211	Challenges of Using Closed System Transfer Devices With Biological Drug Products: An Industry Perspective. Journal of Pharmaceutical Sciences, 2020, 109, 22-29.	1.6	28
212	Impact of Surfactants on the Functionality of Prefilled Syringes. Journal of Pharmaceutical Sciences, 2020, 109, 3413-3422.	1.6	14
213	Can Cross-Linked Siliconized PFS Come to the Rescue of the Biologics Drug Product?. Journal of Pharmaceutical Sciences, 2020, 109, 3340-3351.	1.6	3
214	Using First Principles to Link Silicone Oil/Formulation Interfacial Tension With Syringe Functionality in Pre-Filled Syringes Systems. Journal of Pharmaceutical Sciences, 2020, 109, 3006-3012.	1.6	7
215	Protein aggregation and immunogenicity of biotherapeutics. International Journal of Pharmaceutics, 2020, 585, 119523.	2.6	64
216	Protein-Polydimethylsiloxane Particles in Liquid Vial Monoclonal Antibody Formulations Containing Poloxamer 188. Journal of Pharmaceutical Sciences, 2020, 109, 2393-2404.	1.6	33
217	The Effect of Point Mutations on the Biophysical Properties of an Antimicrobial Peptide: Development of a Screening Protocol for Peptide Stability Screening. Molecular Pharmaceutics, 2020, 17, 3298-3313.	2.3	9
218	Freezing-induced protein aggregation - Role of pH shift and potential mitigation strategies. Journal of Controlled Release, 2020, 323, 591-599.	4.8	43
219	Finding the Needle in the Haystack: High-Resolution Techniques for Characterization of Mixed Protein Particles Containing Shed Silicone Rubber Particles Generated During Pumping. Journal of Pharmaceutical Sciences, 2021, 110, 2093-2104.	1.6	6
220	The Impact of Product and Process Related Critical Quality Attributes on Immunogenicity and Adverse Immunological Effects of Biotherapeutics. Journal of Pharmaceutical Sciences, 2021, 110, 1025-1041.	1.6	15
221	Physicochemical Characterization of Sabin Inactivated Poliovirus Vaccine for Process Development. Journal of Pharmaceutical Sciences, 2021, 110, 2121-2129.	1.6	7
222	In-Use Interfacial Stability of Monoclonal Antibody Formulations Diluted in Saline i.v. Bags. Journal of Pharmaceutical Sciences, 2021, 110, 1687-1692.	1.6	25
223	Evaluation of Interfacial Stress During Drug Product Development. AAPS Advances in the Pharmaceutical Sciences Series, 2021, , 131-152.	0.2	1
224	Long-Term Stability of Anti-Vascular Endothelial Growth Factor (a-VEGF) Biologics Under Physiologically Relevant Conditions and Its Impact on the Development of Long-Acting Delivery Systems. Journal of Pharmaceutical Sciences, 2021, 110, 860-870.	1.6	8
225	Extended Characterization and Impact of Visible Fatty Acid Particles - A Case Study With a mAb Product. Journal of Pharmaceutical Sciences, 2021, 110, 1093-1102.	1.6	13
226	Secondary Packages cannot Protect Liquid Biopharmaceutical Formulations from Dropping-Induced Degradation. Pharmaceutical Research, 2021, 38, 1397-1404.	1.7	4
227	Machine Learning and Accelerated Stress Approaches to Differentiate Potential Causes of Aggregation in Polyclonal Antibody Formulations During Shipping. Journal of Pharmaceutical Sciences, 2021, 110, 2743-2752.	1.6	14

#	ARTICLE	IF	CITATIONS
228	Application of ultraviolet, visible, and infrared light imaging in protein-based biopharmaceutical formulation characterization and development studies. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 165, 319-336.	2.0	9
229	Subvisible Particle Analysis of 17 Monoclonal Antibodies Approved in China Using Flow Imaging and Light Obscuration. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 1164-1171.	1.6	5
230	Factors affecting the quality of therapeutic proteins in recombinant Chinese hamster ovary cell culture. <i>Biotechnology Advances</i> , 2022, 54, 107831.	6.0	20
231	Mimicking Low pH Virus Inactivation Used in Antibody Manufacturing Processes: Effect of Processing Conditions and Biophysical Properties on Antibody Aggregation and Particle Formation. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 3188-3199.	1.6	4
232	Off-label use of plastic syringes with silicone oil for intravenous infusion bags of antibodies. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 166, 205-215.	2.0	5
233	Assessment of Therapeutic Antibody Developability by Combinations of In Vitro and In Silico Methods. <i>Methods in Molecular Biology</i> , 2022, 2313, 57-113.	0.4	26
234	Particulate Matter in Sterile Parenteral Products. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2013, , 359-409.	0.2	1
235	Field-Flow Fractionation in Therapeutic Protein Development. , 2012, , 73-88.		2
236	Separation, Characterization and Discriminant Analysis of Subvisible Particles in Biologics Formulations. <i>Current Pharmaceutical Biotechnology</i> , 2019, 20, 232-244.	0.9	10
237	Quantitative Evaluation of Insoluble Particulate Matters in Therapeutic Protein Injections Using Light Obscuration and Flow Imaging Methods. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 648-654.	1.6	10
238	Recent and Emerging Trends and Concerns Related to the Manufacturing and Testing of Monoclonal Antibodies Intended for Clinical Use. , 2011, , 402-413.		0
241	Visible and Subvisible Protein Particle Inspection Within a QbD-Based Strategy. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2015, , 331-352.	0.2	0
242	Protein Particulates and Biosimilar Development: Analytical Tools and Therapeutic Implications. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 363-391.	0.2	1
244	Chapter 13: Formulation Development for Biologics Utilizing Lab Automation and In Vivo Performance Models. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2020, , 299-341.	0.2	0
245	Chapter 11: Particles in Biopharmaceuticals: Causes, Characterization, and Strategy. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2020, , 251-264.	0.2	0
247	Innate Immunity Modulating Impurities and the Immunotoxicity of Nanobiotechnology-Based Drug Products. <i>Molecules</i> , 2021, 26, 7308.	1.7	7
248	Models for Counts and Particle Size Distributions of Subvisible Particle Data. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2021, 75, 213-229.	0.3	0
249	Nucleation in Protein Aggregation in Biotherapeutic Development: A look into the Heart of the Event. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 951-959.	1.6	8

#	ARTICLE	IF	CITATIONS
250	Effects of Transportation of IV Bags Containing Protein Formulations Via Hospital Pneumatic Tube System: Particle Characterization by Multiple Methods. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 1024-1039.	1.6	12
251	Fate of antibody and polysorbate particles in a human serum model. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2022, 171, 72-79.	2.0	4
252	Replacing the Emulsion for Bake-on Siliconization of Containers—Comparison of Emulsion Stability and Container Performance in the Context of Protein Formulations. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2022, 76, 89-108.	0.3	0
253	Qualitative High-Throughput Analysis of Subvisible Particles in Biological Formulations Using Backgrounded Membrane Imaging. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 1605-1613.	1.6	5
254	Emerging Challenges and Innovations in Surfactant-mediated Stabilization of Biologic Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 919-932.	1.6	14
255	Commentary: Multiplex dPCR and SV-AUC are Promising Assays to Robustly Monitor the Critical Quality Attribute of AAV Drug Product Integrity. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 2143-2148.	1.6	6
256	Impact of Poloxamer 188 Material Attributes on Proteinaceous Visible Particle Formation in Liquid Monoclonal Antibody Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 2191-2200.	1.6	8
257	Transfer Learning Analysis for Subvisible Particle Flow Imaging of Pharmaceutical Formulations. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5843.	1.3	8
258	Imaging Flow Cytometry for Sizing and Counting of Subvisible Particles in Biotherapeutics. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 2458-2470.	1.6	2
259	Visible Particle Identification Using Raman Spectroscopy and Machine Learning. <i>AAPS PharmSciTech</i> , 2022, 23, .	1.5	4
260	A Collaborative Study on the Classification of Silicone Oil Droplets and Protein Particles Using Flow Imaging Method. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 2745-2757.	1.6	7
261	Engineering a ceramic piston pump to minimize particle formation for a therapeutic immunoglobulin: A combined factorial and modeling approach. <i>Journal of Advanced Manufacturing and Processing</i> , 0, , .	1.4	0
262	Real-time imaging of monoclonal antibody film reconstitution after mechanical stress at the air-liquid interface by Brewster angle microscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 218, 112757.	2.5	2
263	Mechanism of Protein—PDMS Visible Particles Formation in Liquid Vial Monoclonal Antibody Formulation. <i>Journal of Pharmaceutical Sciences</i> , 2022, , .	1.6	0
264	Residue-Specific Impact of EDTA and Methionine on Protein Oxidation in Biotherapeutics Formulations Using an Integrated Biotherapeutics Drug Product Development Workflow. <i>Journal of Pharmaceutical Sciences</i> , 2023, 112, 471-481.	1.6	1
265	The Impact of Syringe Age Prior to Filling on Migration of Subvisible Silicone-Oil Particles into Drug Product. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 3191-3194.	1.6	5
266	Impact of mechanical stress on flexible tubing used for biomedical applications: Characterization of the damages and impact on the patient's health. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 136, 105477.	1.5	3
267	Polysorbates versus Hydroxypropyl Beta-Cyclodextrin (HP β CD): Comparative Study on Excipient Stability and Stabilization Benefits on Monoclonal Antibodies. <i>Molecules</i> , 2022, 27, 6497.	1.7	3

#	ARTICLE	IF	CITATIONS
268	Convolutional Neural Networks Enable Highly Accurate and Automated Subvisible Particulate Classification of Biopharmaceuticals. <i>Pharmaceutical Research</i> , 2023, 40, 1447-1457.	1.7	4
269	Microneedle-Mediated Transdermal Delivery of Biopharmaceuticals. <i>Pharmaceutics</i> , 2023, 15, 277.	2.0	15
270	The Strengths of Total Holographic Video Microscopy in Detecting Sub-Visible Protein Particles in Biopharmaceuticals: A Comparison to Flow Imaging and Resonant Mass Measurement. <i>Journal of Pharmaceutical Sciences</i> , 2023, 112, 985-990.	1.6	3
271	Micro-flow imaging multi-instrument evaluation for sub-visible particle detection. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2023, 185, 55-70.	2.0	3
272	An Intra-Company Analysis of Inherent Particles in Biologicals Shapes the Protein Particle Mitigation Strategy Across Development Stages. <i>Journal of Pharmaceutical Sciences</i> , 2023, 112, 1476-1484.	1.6	2
273	Global Analysis of Aggregation Profiles of Three Kinds of Immuno-Oncology mAb Drug Products Using Flow Cytometry. <i>Analytical Chemistry</i> , 2023, 95, 4768-4775.	3.2	0
274	Blueprint for antibody biologics developability. <i>MABs</i> , 2023, 15, .	2.6	9
275	The Evolution of Commercial Antibody Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2023, 112, 1801-1810.	1.6	4
276	Quality Control of Industrially Manufactured Particulate Formulation by Particle Counting Approach. <i>Colloid Journal</i> , 0, , .	0.5	0