

Patrick Garidel

List of Publications by Year in descending order

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64
papers

2,862
citations

172207

29
h-index

174990

52
g-index

70
all docs

70
docs citations

70
times ranked

2950
citing authors

#	ARTICLE	IF	CITATIONS
1	Strategies for the Assessment of Protein Aggregates in Pharmaceutical Biotech Product Development. <i>Pharmaceutical Research</i> , 2011, 28, 920-933.	1.7	312
2	High-concentration protein formulations: How high is high?. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2017, 119, 353-360.	2.0	126
3	Polysorbate degradation in biotherapeutic formulations: Identification and discussion of current root causes. <i>International Journal of Pharmaceutics</i> , 2018, 552, 422-436.	2.6	120
4	Prediction and Reduction of the Aggregation of Monoclonal Antibodies. <i>Journal of Molecular Biology</i> , 2017, 429, 1244-1261.	2.0	112
5	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
6	Membranolytic Activity of Bile Salts: Influence of Biological Membrane Properties and Composition. <i>Molecules</i> , 2007, 12, 2292-2326.	1.7	104
7	A critical evaluation of self-interaction chromatography as a predictive tool for the assessment of protein-protein interactions in protein formulation development: A case study of a therapeutic monoclonal antibody. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2010, 75, 16-25.	2.0	100
8	A thermodynamic analysis of the binding interaction between polysorbate 20 and 80 with human serum albumins and immunoglobulins: A contribution to understand colloidal protein stabilisation. <i>Biophysical Chemistry</i> , 2009, 143, 70-78.	1.5	99
9	A rapid, sensitive and economical assessment of monoclonal antibody conformational stability by intrinsic tryptophan fluorescence spectroscopy. <i>Biotechnology Journal</i> , 2008, 3, 1201-1211.	1.8	98
10	Conformational analysis of protein secondary structure during spray-drying of antibody/mannitol formulations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2007, 65, 1-9.	2.0	92
11	Thermodynamics of Demicellization of Mixed Micelles Composed of Sodium Oleate and Bile Salts. <i>Langmuir</i> , 2004, 20, 320-328.	1.6	90
12	Divalent cations affect chain mobility and aggregate structure of lipopolysaccharide from <i>Salmonella minnesota</i> reflected in a decrease of its biological activity. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2005, 1715, 122-131.	1.4	81
13	1,2-Dimyristoyl-sn-glycero-3-phosphoglycerol (DMPG) monolayers: influence of temperature, pH, ionic strength and binding of alkaline earth cations. <i>Chemistry and Physics of Lipids</i> , 2005, 138, 50-59.	1.5	70
14	Insights into protein-polysorbate interactions analysed by means of isothermal titration and differential scanning calorimetry. <i>European Biophysics Journal</i> , 2009, 38, 557-568.	1.2	66
15	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
16	Systematic Investigation of the Effect of Lyophilizate Collapse on Pharmaceutically Relevant Proteins, Part 2: Stability During Storage at Elevated Temperatures. <i>Journal of Pharmaceutical Sciences</i> , 2012, 101, 2288-2306.	1.6	63
17	Boosting antibody developability through rational sequence optimization. <i>MAbs</i> , 2015, 7, 505-515.	2.6	60
18	Buffer capacity of biologics—from buffer salts to buffering by antibodies. <i>Biotechnology Progress</i> , 2013, 29, 480-492.	1.3	53

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19	Mechanisms of endotoxin neutralization by synthetic cationic compounds. <i>Journal of Endotoxin Research</i> , 2006, 12, 261-277.	2.5	48
20	Prediction of colloidal stability of high concentration protein formulations. <i>Pharmaceutical Development and Technology</i> , 2015, 20, 367-374.	1.1	46
21	Liquid-liquid phase separation of a monoclonal antibody at low ionic strength: Influence of anion charge and concentration. <i>Biophysical Chemistry</i> , 2017, 220, 7-19.	1.5	45
22	Thermodynamics of Lipid Organization and Domain Formation in Phospholipid Bilayers. <i>Journal of Liposome Research</i> , 2000, 10, 131-158.	1.5	38
23	Lysozyme self-interactions as assessed by the osmotic second virial coefficient: Impact for physical protein stabilization. <i>Biotechnology Journal</i> , 2009, 4, 1305-1319.	1.8	37
24	Resolving power of dynamic light scattering for protein and polystyrene nanoparticles. <i>Pharmaceutical Development and Technology</i> , 2015, 20, 84-89.	1.1	37
25	Poloxamer 188 as surfactant in biological formulations – An alternative for polysorbate 20/80?. <i>International Journal of Pharmaceutics</i> , 2022, 620, 121706.	2.6	34
26	Particle Detection and Characterization for Biopharmaceutical Applications: Current Principles of Established and Alternative Techniques. <i>Pharmaceutics</i> , 2020, 12, 1112.	2.0	33
27	Stability of buffer-free freeze-dried formulations: A feasibility study of a monoclonal antibody at high protein concentrations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 97, 125-139.	2.0	32
28	Complex Micellization Behavior of the Polysorbates Tween 20 and Tween 80. <i>Molecular Pharmaceutics</i> , 2021, 18, 3147-3157.	2.3	31
29	Correlation of protein-protein interactions as assessed by affinity chromatography with colloidal protein stability: A case study with lysozyme. <i>Pharmaceutical Development and Technology</i> , 2010, 15, 421-430.	1.1	30
30	Acidic and alkaline hydrolysis of polysorbates under aqueous conditions: Towards understanding polysorbate degradation in biopharmaceutical formulations. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 144, 105211.	1.9	29
31	Surface Tension and Self-association Properties of Aqueous Polysorbate 20 HP and 80 HP Solutions: Insights into Protein Stabilisation Mechanisms. <i>Journal of Pharmaceutical Innovation</i> , 2021, 16, 726-734.	1.1	28
32	Industry Perspective on the use and Characterization of Polysorbates for Biopharmaceutical Products Part 1: Survey Report on Current State and Common Practices for Handling and Control of Polysorbates. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 1280-1291.	1.6	27
33	Improved Solution-State Properties of Monoclonal Antibodies by Targeted Mutations. <i>Journal of Physical Chemistry B</i> , 2017, 121, 10818-10827.	1.2	25
34	An in-depth examination of fatty acid solubility limits in biotherapeutic protein formulations containing polysorbate 20 and polysorbate 80. <i>International Journal of Pharmaceutics</i> , 2020, 591, 119934.	2.6	25
35	Cathelicidin and PMB neutralize endotoxins by multifactorial mechanisms including LPS interaction and targeting of host cell membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	25
36	Structural organisation and phase behaviour of a stratum corneum lipid analogue: ceramide 3A. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 2265.	1.3	24

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37	Buffer-free therapeutic antibody preparations provide a viable alternative to conventionally buffered solutions: From protein buffer capacity prediction to bioprocess applications. <i>Biotechnology Journal</i> , 2015, 10, 610-622.	1.8	23
38	Hydrophobic interactions are the driving force for the binding of peptide mimotopes and Staphylococcal protein A to recombinant human IgG1. <i>European Biophysics Journal</i> , 2007, 36, 647-660.	1.2	21
39	Development and validation of a selective marker-based quantification of polysorbate 20 in biopharmaceutical formulations using UPLC-QDa detection. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2020, 1157, 122287.	1.2	21
40	Assessing the polysorbate degradation fingerprints and kinetics of lipases – how the activity of polysorbate degrading hydrolases is influenced by the assay and assay conditions. <i>European Journal of Pharmaceutical Sciences</i> , 2021, 166, 105980.	1.9	21
41	Spectroscopic methods for assessing the molecular origins of macroscopic solution properties of highly concentrated liquid protein solutions. <i>Analytical Biochemistry</i> , 2018, 561-562, 70-88.	1.1	19
42	Thermal and Chemical Unfolding of a Monoclonal IgG1 Antibody: Application of the Multistate Zimm-Bragg Theory. <i>Biophysical Journal</i> , 2020, 118, 1067-1075.	0.2	19
43	Albumin displacement at the air-water interface by Tween (Polysorbate) surfactants. <i>European Biophysics Journal</i> , 2020, 49, 533-547.	1.2	18
44	Structure of a Therapeutic Full-Length Anti-NPRA IgG4 Antibody: Dissecting Conformational Diversity. <i>Biophysical Journal</i> , 2019, 116, 1637-1649.	0.2	17
45	HP- β -CD for the formulation of IgG and Ig-based biotherapeutics. <i>International Journal of Pharmaceutics</i> , 2021, 601, 120531.	2.6	17
46	The electrokinetic potential of therapeutic proteins and its modulation: Impact on protein stability. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 415, 421-430.	2.3	16
47	Viscosity measurements of antibody solutions by photon correlation spectroscopy: an indirect approach – limitations and applicability for high-concentration liquid protein solutions. <i>Pharmaceutical Development and Technology</i> , 2013, 18, 963-970.	1.1	16
48	Rational optimization of a monoclonal antibody improves the aggregation propensity and enhances the CMC properties along the entire pharmaceutical process chain. <i>MAbs</i> , 2020, 12, 1787121.	2.6	15
49	An Infrared Reflection-Absorption Spectroscopic (IRRAS) Study of the Interaction of Lipid A and Lipopolysaccharide Re with Endotoxin-Binding Proteins. <i>Medicinal Chemistry</i> , 2009, 5, 535-542.	0.7	13
50	Characterizing protein-protein-interaction in high-concentration monoclonal antibody systems with the quartz crystal microbalance. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 32698-32707.	1.3	13
51	Hydrogel formulations for biologicals: current spotlight from a commercial perspective. <i>Therapeutic Delivery</i> , 2018, 9, 221-230.	1.2	13
52	Photo-Oxidation of Therapeutic Protein Formulations: From Radical Formation to Analytical Techniques. <i>Pharmaceutics</i> , 2022, 14, 72.	2.0	11
53	Concentration Effects in the Interaction of Monoclonal Antibodies (mAbs) with their Immediate Environment Characterized by EPR Spectroscopy. <i>Molecules</i> , 2019, 24, 2528.	1.7	10
54	Hydrolytic polysorbate 20 degradation – Sensitive detection of free fatty acids in biopharmaceuticals via UPLC-QDa analytics with isolator column. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2021, 1174, 122717.	1.2	8

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55	Biophysical Mechanisms of the Neutralization of Endotoxins by Lipopolyamines. The Open Biochemistry Journal, 2013, 7, 82-93.	0.3	8
56	Lyophilization of High-Concentration Protein Formulations. Methods in Pharmacology and Toxicology, 2019, , 291-325.	0.1	7
57	Investigating photodegradation of antibodies governed by the light dosage. International Journal of Pharmaceutics, 2021, 604, 120723.	2.6	7
58	Thermodynamic Unfolding and Aggregation Fingerprints of Monoclonal Antibodies Using Thermal Profiling. Pharmaceutical Research, 2020, 37, 78.	1.7	6
59	An Interlaboratory Comparison on the Characterization of a Sub-micrometer Polydisperse Particle Dispersion. Journal of Pharmaceutical Sciences, 2022, 111, 699-709.	1.6	6
60	Dipolar Interactions and Protein Hydration in Highly Concentrated Antibody Formulations. Molecular Pharmaceutics, 2022, 19, 494-507.	2.3	6
61	Fast pH-mediated changes of the viscosity of protein solutions studied with a voltage-modulated quartz crystal microbalance. Biointerphases, 2020, 15, 021004.	0.6	4
62	Characterization of radicals in polysorbate 80 using electron paramagnetic resonance (EPR) spectroscopy and spin trapping. International Journal of Pharmaceutics: X, 2022, , 100123.	1.2	2
63	Expanding the toolbox for predictive parameters describing antibody stability considering thermodynamic and kinetic determinants. Pharmaceutical Research, 2021, 38, 2065-2089.	1.7	1
64	Physico-chemistry of Lipopolysaccharides. , 2020, , 1-18.		0