

Raj Suryanarayanan

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168
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176
ext. papers

5,357
ext. citations

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avg, IF

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L-index

#	Paper	IF	Citations
168	Local mobility in amorphous pharmaceuticals--characterization and implications on stability. <i>Journal of Pharmaceutical Sciences</i> , 2009 , 98, 2935-53	3.9	166
167	Polymorphism in anhydrous theophylline--implications on the dissolution rate of theophylline tablets. <i>Journal of Pharmaceutical Sciences</i> , 1997 , 86, 1256-63	3.9	152
166	Effect of preparation method on physical properties of amorphous trehalose. <i>Pharmaceutical Research</i> , 2004 , 21, 1167-76	4.5	133
165	The role of drug-polymer hydrogen bonding interactions on the molecular mobility and physical stability of nifedipine solid dispersions. <i>Molecular Pharmaceutics</i> , 2015 , 12, 162-70	5.6	103
164	Role of the Strength of Drug-Polymer Interactions on the Molecular Mobility and Crystallization Inhibition in Ketoconazole Solid Dispersions. <i>Molecular Pharmaceutics</i> , 2015 , 12, 3339-50	5.6	95
163	Crystallization behavior of mannitol in frozen aqueous solutions. <i>Pharmaceutical Research</i> , 2002 , 19, 894-900	4.5	93
162	In situ dehydration of carbamazepine dihydrate: a novel technique to prepare amorphous anhydrous carbamazepine. <i>Pharmaceutical Development and Technology</i> , 2000 , 5, 257-66	3.4	89
161	Quantification of crystallinity in substantially amorphous materials by synchrotron X-ray powder diffractometry. <i>Pharmaceutical Research</i> , 2005 , 22, 1942-53	4.5	82
160	Correlation between molecular mobility and physical stability of amorphous itraconazole. <i>Molecular Pharmaceutics</i> , 2013 , 10, 694-700	5.6	81
159	Influence of molecular mobility on the physical stability of amorphous pharmaceuticals in the supercooled and glassy States. <i>Molecular Pharmaceutics</i> , 2014 , 11, 3048-55	5.6	76
158	Effect of aging on the physical properties of amorphous trehalose. <i>Pharmaceutical Research</i> , 2004 , 21, 867-74	4.5	76
157	Effective inhibition of mannitol crystallization in frozen solutions by sodium chloride. <i>Pharmaceutical Research</i> , 2003 , 20, 660-7	4.5	75
156	Crystallization of mannitol below Tg' during freeze-drying in binary and ternary aqueous systems. <i>Pharmaceutical Research</i> , 2002 , 19, 901-8	4.5	70
155	Molecular mobility as an effective predictor of the physical stability of amorphous trehalose. <i>Molecular Pharmaceutics</i> , 2012 , 9, 3209-17	5.6	69
154	Influence of processing conditions on the physical state of mannitol--implications in freeze-drying. <i>Pharmaceutical Research</i> , 2007 , 24, 370-6	4.5	67
153	Determination of the relative amounts of anhydrous carbamazepine (C ₁₅ H ₁₂ N ₂ O) and carbamazepine dihydrate (C ₁₅ H ₁₂ N ₂ O.2H ₂ O) in a mixture by powder x-ray diffractometry. <i>Pharmaceutical Research</i> , 1989 , 6, 1017-24	4.5	64
152	Phase transitions of glycine in frozen aqueous solutions and during freeze-drying. <i>Pharmaceutical Research</i> , 2001 , 18, 1448-54	4.5	60

151	Characterization of phase transitions during freeze-drying by in situ X-ray powder diffractometry. <i>Pharmaceutical Development and Technology</i> , 1998 , 3, 579-86	3.4	57
150	Influence of the active pharmaceutical ingredient concentration on the physical state of mannitol--implications in freeze-drying. <i>Pharmaceutical Research</i> , 2005 , 22, 1978-85	4.5	56
149	Evaluation of two concepts of crystallinity using calcium gluceptate as a model compound. <i>International Journal of Pharmaceutics</i> , 1985 , 24, 1-17	6.5	56
148	Effect of Water on Molecular Mobility and Physical Stability of Amorphous Pharmaceuticals. <i>Molecular Pharmaceutics</i> , 2016 , 13, 1339-46	5.6	54
147	Trehalose Crystallization During Freeze-Drying: Implications On Lyoprotection. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 510-514	6.4	52
146	Drug-Excipient Interactions: Effect on Molecular Mobility and Physical Stability of Ketoconazole-Organic Acid Coamorphous Systems. <i>Molecular Pharmaceutics</i> , 2018 , 15, 1052-1061	5.6	51
145	Characterization and crystal structure of D-mannitol hemihydrate. <i>Journal of Pharmaceutical Sciences</i> , 2004 , 93, 2800-9	3.9	50
144	Recent advances in the characterization of amorphous pharmaceuticals by X-ray diffractometry. <i>Advanced Drug Delivery Reviews</i> , 2016 , 100, 183-93	18.5	49
143	Quantitation of the relative amounts of anhydrous carbamazepine (C ₁₅ H ₁₂ N ₂ O) and carbamazepine dihydrate (C ₁₅ H ₁₂ N ₂ O.2H ₂ O) in a mixture by solid-state nuclear magnetic resonance (NMR). <i>Pharmaceutical Research</i> , 1990 , 7, 184-7	4.5	49
142	Compression-induced crystallization of amorphous indomethacin in tablets: characterization of spatial heterogeneity by two-dimensional X-ray diffractometry. <i>Molecular Pharmaceutics</i> , 2015 , 12, 253-63	5.6	48
141	Influence of environmental conditions on the kinetics and mechanism of dehydration of carbamazepine dihydrate. <i>Pharmaceutical Development and Technology</i> , 1998 , 3, 587-96	3.4	48
140	Solute crystallization in mannitol-glycine systems--implications on protein stabilization in freeze-dried formulations. <i>Journal of Pharmaceutical Sciences</i> , 2003 , 92, 2272-83	3.9	48
139	Correlation between Molecular Mobility and Physical Stability in Pharmaceutical Glasses. <i>Molecular Pharmaceutics</i> , 2016 , 13, 1267-77	5.6	46
138	pH Swing In Frozen Solutions--Consequence of Sequential Crystallization of Buffer Components. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 265-268	6.4	46
137	Physical Stability and Dissolution Behavior of Ketoconazole-Organic Acid Coamorphous Systems. <i>Molecular Pharmaceutics</i> , 2018 , 15, 1862-1869	5.6	45
136	Controlling the physical form of mannitol in freeze-dried systems. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2013 , 85, 207-13	5.7	45
135	Glycine crystallization in frozen and freeze-dried systems: effect of pH and buffer concentration. <i>Pharmaceutical Research</i> , 2007 , 24, 593-604	4.5	45
134	Characterization of frozen aqueous solutions by low temperature X-ray powder diffractometry. <i>Pharmaceutical Research</i> , 1998 , 15, 194-9	4.5	44

133	Processing-induced phase transitions of theophylline--implications on the dissolution of theophylline tablets. <i>Journal of Pharmaceutical Sciences</i> , 2007 , 96, 1434-44	3.9	44
132	Crystallization of trehalose in frozen solutions and its phase behavior during drying. <i>Pharmaceutical Research</i> , 2010 , 27, 2374-83	4.5	43
131	Applications of pressure differential scanning calorimetry in the study of pharmaceutical hydrates. I. Carbamazepine dihydrate. <i>International Journal of Pharmaceutics</i> , 1997 , 157, 209-218	6.5	43
130	Phosphonoxyethyl Prodrug of Triptolide: Synthesis, Physicochemical Characterization, and Efficacy in Human Colon Adenocarcinoma and Ovarian Cancer Xenografts. <i>Journal of Medicinal Chemistry</i> , 2015 , 58, 9334-44	8.3	41
129	Unintended water mediated cocrystal formation in carbamazepine and aspirin tablets. <i>Molecular Pharmaceutics</i> , 2011 , 8, 982-9	5.6	41
128	Measurement of enthalpic relaxation by differential scanning calorimetry--effect of experimental conditions. <i>Thermochimica Acta</i> , 2005 , 433, 173-182	2.9	41
127	A method for the rapid evaluation of the physical stability of pharmaceutical hydrates. <i>Thermochimica Acta</i> , 1999 , 329, 163-170	2.9	41
126	Ionization states in the microenvironment of solid dosage forms: effect of formulation variables and processing. <i>Pharmaceutical Research</i> , 2006 , 23, 2454-68	4.5	40
125	Physical characterization of dibasic calcium phosphate dihydrate and anhydrate. <i>Journal of Pharmaceutical Sciences</i> , 2009 , 98, 905-16	3.9	39
124	Impact of freeze-drying on ionization of sulfonephthalein probe molecules in trehalose-citrate systems. <i>Journal of Pharmaceutical Sciences</i> , 2006 , 95, 1498-510	3.9	37
123	Use of glancing angle X-ray powder diffractometry to depth-profile phase transformations during dissolution of indomethacin and theophylline tablets. <i>Pharmaceutical Research</i> , 2004 , 21, 149-59	4.5	37
122	Crystalline to amorphous transition of disodium hydrogen phosphate during primary drying. <i>Pharmaceutical Research</i> , 2003 , 20, 802-3	4.5	37
121	Quantitation of crystallinity in substantially amorphous pharmaceuticals and study of crystallization kinetics by X-ray powder diffractometry. <i>Powder Diffraction</i> , 2000 , 15, 2-6	1.8	37
120	Effect of Polymer Molecular Weight on the Crystallization Behavior of Indomethacin Amorphous Solid Dispersions. <i>Crystal Growth and Design</i> , 2017 , 17, 3142-3150	3.5	36
119	Structure in dehydrated trehalose dihydrate--evaluation of the concept of partial crystallinity. <i>Pharmaceutical Research</i> , 2006 , 23, 2356-67	4.5	35
118	Quantification of glycine crystallinity by near-infrared (NIR) spectroscopy. <i>Journal of Pharmaceutical Sciences</i> , 2004 , 93, 2439-47	3.9	35
117	Enthalpic relaxation in frozen aqueous trehalose solutions. <i>Thermochimica Acta</i> , 2003 , 405, 225-234	2.9	34
116	Partially crystalline systems in lyophilization: II. Withstanding collapse at high primary drying temperatures and impact on protein activity recovery. <i>Journal of Pharmaceutical Sciences</i> , 2005 , 94, 809-20	3.0	34

115	The role of polymer concentration on the molecular mobility and physical stability of nifedipine solid dispersions. <i>Molecular Pharmaceutics</i> , 2015 , 12, 1477-84	5.6	33
114	Mechanism of amorphous itraconazole stabilization in polymer solid dispersions: role of molecular mobility. <i>Molecular Pharmaceutics</i> , 2014 , 11, 4228-37	5.6	33
113	Crystallization of D-mannitol in binary mixtures with NaCl: phase diagram and polymorphism. <i>Pharmaceutical Research</i> , 2003 , 20, 1939-45	4.5	33
112	Investigation of the multi-step dehydration reaction of theophylline monohydrate using 2-dimensional powder X-ray diffractometry. <i>Pharmaceutical Research</i> , 2006 , 23, 2393-404	4.5	32
111	Crystallization of cephalothin sodium during lyophilization from tert-butyl alcohol-water cosolvent system. <i>Pharmaceutical Research</i> , 2005 , 22, 153-60	4.5	32
110	Strength of Drug-Polymer Interactions: Implications for Crystallization in Dispersions. <i>Crystal Growth and Design</i> , 2016 , 16, 5141-5149	3.5	31
109	Influence of crystallizing and non-crystallizing cosolutes on trehalose crystallization during freeze-drying. <i>Pharmaceutical Research</i> , 2010 , 27, 2384-93	4.5	30
108	Crystal structure of anhydrous D-mannitol. <i>Powder Diffraction</i> , 2003 , 18, 214-218	1.8	30
107	Raffinose crystallization during freeze-drying and its impact on recovery of protein activity. <i>Pharmaceutical Research</i> , 2005 , 22, 303-9	4.5	30
106	Calorimetric and diffractometric evidence for the sequential crystallization of buffer components and the consequential pH swing in frozen solutions. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 4915-23	3.4	29
105	Mechanistic Insight into Caffeine-Oxalic Cocrystal Dissociation in Formulations: Role of Excipients. <i>Molecular Pharmaceutics</i> , 2017 , 14, 3879-3887	5.6	28
104	Quantitative analyses of complex pharmaceutical mixtures by the Rietveld method. <i>Powder Diffraction</i> , 2001 , 16, 20-24	1.8	27
103	X-Ray Powder Diffractometry. <i>Drugs and the Pharmaceutical Sciences</i> , 1995 , 187-221		27
102	The effect of crystallizing and non-crystallizing cosolutes on succinate buffer crystallization and the consequent pH shift in frozen solutions. <i>Pharmaceutical Research</i> , 2011 , 28, 374-85	4.5	26
101	Applications of pressure differential scanning calorimetry in the study of pharmaceutical hydrates. II. Ampicillin trihydrate. <i>International Journal of Pharmaceutics</i> , 1998 , 170, 63-72	6.5	26
100	Freezing-induced protein aggregation - Role of pH shift and potential mitigation strategies. <i>Journal of Controlled Release</i> , 2020 , 323, 591-599	11.7	25
99	Synchrotron X-ray diffraction investigation of the anomalous behavior of ice during freezing of aqueous systems. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 6177-82	3.4	25
98	Solute crystallization in frozen systems-use of synchrotron radiation to improve sensitivity. <i>Pharmaceutical Research</i> , 2006 , 23, 2368-74	4.5	25

97	Solid-state properties of tobramycin. <i>Pharmaceutical Research</i> , 1991 , 8, 1159-65	4.5	25
96	Salt Disproportionation in the Solid State: Role of Solubility and Counterion Volatility. <i>Molecular Pharmaceutics</i> , 2016 , 13, 4141-4151	5.6	24
95	Determination of the Relative Amounts of Carbamazepine and Carbamazepine in a Mixture by Powder X-Ray Diffractometry. <i>Powder Diffraction</i> , 1990 , 5, 155-159	1.8	24
94	Characterization of Phosphate Buffered Saline (PBS) in Frozen State and after Freeze-Drying. <i>Pharmaceutical Research</i> , 2019 , 36, 98	4.5	23
93	Insights into the dehydration behavior of thiamine hydrochloride (vitamin B1) hydrates: part I. <i>Journal of Pharmaceutical Sciences</i> , 2010 , 99, 816-27	3.9	23
92	Investigation of solid-state reactions using variable temperature X-ray powder diffractometry. I. Aspartame hemihydrate. <i>Pharmaceutical Research</i> , 2001 , 18, 267-73	4.5	23
91	Quantitative analysis of the active ingredient in a multi-component tablet formulation by powder X-ray diffractometry. <i>International Journal of Pharmaceutics</i> , 1991 , 77, 287-295	6.5	23
90	Mutual Influence of Mannitol and Trehalose on Crystallization Behavior in Frozen Solutions. <i>Pharmaceutical Research</i> , 2016 , 33, 1413-25	4.5	22
89	An implantable dosage form for the treatment of bone infections. <i>Pharmaceutical Research</i> , 1992 , 9, 993-1002	4.5	22
88	Mechanisms by which crystalline mannitol improves the reconstitution time of high concentration lyophilized protein formulations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018 , 131, 70-81	5.7	21
87	Partially crystalline systems in lyophilization: I. Use of ternary state diagrams to determine extent of crystallization of bulking agent. <i>Journal of Pharmaceutical Sciences</i> , 2005 , 94, 798-808	3.9	21
86	Effects of Excipient Interactions on the State of the Freeze-Concentrate and Protein Stability. <i>Pharmaceutical Research</i> , 2017 , 34, 462-478	4.5	20
85	Compression-Induced Crystallization in Sucrose-Polyvinylpyrrolidone Amorphous Solid Dispersions. <i>Crystal Growth and Design</i> , 2018 , 18, 839-848	3.5	20
84	Use of a Plasticizer for Physical Stability Prediction of Amorphous Solid Dispersions. <i>Crystal Growth and Design</i> , 2017 , 17, 4315-4325	3.5	20
83	Phase transitions in frozen systems and during freeze-drying: quantification using synchrotron X-ray diffractometry. <i>Pharmaceutical Research</i> , 2009 , 26, 1596-606	4.5	20
82	Rapid Assessment of the Physical Stability of Amorphous Solid Dispersions. <i>Crystal Growth and Design</i> , 2017 , 17, 2478-2485	3.5	19
81	Molecular motions in sucrose-PVP and sucrose-sorbitol dispersions: I. Implications of global and local mobility on stability. <i>Pharmaceutical Research</i> , 2011 , 28, 2191-203	4.5	19
80	Implications of global and local mobility in amorphous sucrose and trehalose as determined by differential scanning calorimetry. <i>Pharmaceutical Research</i> , 2009 , 26, 1064-72	4.5	19

79	Simultaneous quantification of an enantiomer and the racemic compound of ibuprofen by X-ray powder diffractometry. <i>Pharmaceutical Research</i> , 1997 , 14, 1176-80	4.5	19
78	Role of Coformer and Excipient Properties on the Solid-State Stability of Theophylline Cocrystals. <i>Crystal Growth and Design</i> , 2019 , 19, 868-875	3.5	19
77	Challenges in Transitioning Cocrystals from Bench to Bedside: Dissociation in Prototype Drug Product Environment. <i>Molecular Pharmaceutics</i> , 2018 , 15, 3297-3307	5.6	19
76	Instability in theophylline and carbamazepine hydrate tablets: cocrystal formation due to release of lattice water. <i>Pharmaceutical Research</i> , 2013 , 30, 1779-89	4.5	18
75	Thermophysical properties of carboxylic and amino acid buffers at subzero temperatures: relevance to frozen state stabilization. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 7154-64	3.4	18
74	Influence of processing-induced phase transformations on the dissolution of theophylline tablets. <i>AAPS PharmSciTech</i> , 2004 , 5, 39-49	3.9	18
73	Investigation of Spatial Heterogeneity of Salt Disproportionation in Tablets by Synchrotron X-ray Diffractometry. <i>Molecular Pharmaceutics</i> , 2017 , 14, 1133-1144	5.6	17
72	Surface acidity and solid-state compatibility of excipients with an acid-sensitive API: case study of atorvastatin calcium. <i>AAPS PharmSciTech</i> , 2015 , 16, 354-63	3.9	17
71	Calorimetry and complementary techniques to characterize frozen and freeze-dried systems. <i>Advanced Drug Delivery Reviews</i> , 2012 , 64, 384-95	18.5	17
70	Correlation between chemical reactivity and the Hammett acidity function in amorphous solids using inversion of sucrose as a model reaction. <i>Journal of Pharmaceutical Sciences</i> , 2008 , 97, 274-86	3.9	17
69	Influence of processing-induced phase transformations on the dissolution of theophylline tablets. <i>AAPS PharmSciTech</i> , 2004 , 5, E8	3.9	17
68	Crosslinking: An avenue to develop stable amorphous solid dispersion with high drug loading and tailored physical stability. <i>Journal of Controlled Release</i> , 2019 , 311-312, 212-224	11.7	16
67	Role of Lattice Disorder in Water-Mediated Dissociation of Pharmaceutical Cocrystal Systems. <i>Molecular Pharmaceutics</i> , 2019 , 16, 3167-3177	5.6	16
66	Accelerated Physical Stability Testing of Amorphous Dispersions. <i>Molecular Pharmaceutics</i> , 2016 , 13, 2661-6	5.6	16
65	Quantification, mechanism, and mitigation of active ingredient phase transformation in tablets. <i>Molecular Pharmaceutics</i> , 2013 , 10, 3128-36	5.6	16
64	Use of dielectric spectroscopy to monitor molecular mobility in glassy and supercooled trehalose. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 11728-36	3.4	16
63	Unusual effect of water vapor pressure on dehydration of dibasic calcium phosphate dihydrate. <i>Journal of Pharmaceutical Sciences</i> , 2011 , 100, 1456-66	3.9	16
62	The effect of additives on the crystallization of cefazolin sodium during freeze-drying. <i>Pharmaceutical Research</i> , 2003 , 20, 283-91	4.5	16

61	Quantitative analysis of the active tablet ingredient by powder X-ray diffractometry. <i>Pharmaceutical Research</i> , 1991 , 8, 393-9	4.5	16
60	Investigation of PEG crystallization in frozen PEG-sucrose-water solutions: II. Characterization of the equilibrium behavior during freeze-thawing. <i>Journal of Pharmaceutical Sciences</i> , 2010 , 99, 4510-24	3.9	15
59	Effect of Organic Acids on Molecular Mobility, Physical Stability, and Dissolution of Ternary Ketoconazole Spray-Dried Dispersions. <i>Molecular Pharmaceutics</i> , 2019 , 16, 41-48	5.6	15
58	A supramolecular synthon approach to design amorphous solid dispersions with exceptional physical stability. <i>Chemical Communications</i> , 2019 , 55, 5551-5554	5.8	14
57	Azithromycin hydrates-implications of processing-induced phase transformations. <i>Journal of Pharmaceutical Sciences</i> , 2014 , 103, 3095-106	3.9	13
56	Phase transformation in thiamine hydrochloride tablets: Influence on tablet microstructure, physical properties, and performance. <i>Journal of Pharmaceutical Sciences</i> , 2012 , 101, 1410-22	3.9	13
55	X-ray powder diffractometry of intact film coated tablets--an approach to monitor the physical form of the active pharmaceutical ingredient during processing and storage. <i>Journal of Pharmaceutical Sciences</i> , 2007 , 96, 2029-36	3.9	13
54	Predicting the crystallization propensity of carboxylic acid buffers in frozen systems--relevance to freeze-drying. <i>Journal of Pharmaceutical Sciences</i> , 2011 , 100, 1288-93	3.9	12
53	Monitoring phase transformations in intact tablets of trehalose by FT-Raman spectroscopy. <i>AAPS PharmSciTech</i> , 2009 , 10, 1420-6	3.9	12
52	Solid-vapor interactions: influence of environmental conditions on the dehydration of carbamazepine dihydrate. <i>AAPS PharmSciTech</i> , 2004 , 4, E68	3.9	12
51	Phase transitions of calcium gluceptate. <i>International Journal of Pharmaceutics</i> , 1986 , 32, 213-221	6.5	12
50	Salt formation during freeze-drying--an approach to enhance indomethacin dissolution. <i>Pharmaceutical Research</i> , 2015 , 32, 3722-31	4.5	11
49	Investigation of PEG crystallization in frozen PEG-sucrose-water solutions. I. Characterization of the nonequilibrium behavior during freeze-thawing. <i>Journal of Pharmaceutical Sciences</i> , 2010 , 99, 2609-19	3.9	11
48	Investigation of solid-state reactions using variable temperature X-ray powder diffractometry. II. Aminophylline monohydrate. <i>Pharmaceutical Research</i> , 2002 , 19, 1265-73	4.5	11
47	Stabilizers and their interaction with formulation components in frozen and freeze-dried protein formulations. <i>Advanced Drug Delivery Reviews</i> , 2021 , 173, 1-19	18.5	11
46	Investigation of PEG crystallization in frozen and freeze-dried PEGylated recombinant human growth hormone-sucrose systems: implications on storage stability. <i>Journal of Pharmaceutical Sciences</i> , 2011 , 100, 3062-3075	3.9	10
45	The effect of bulking agents on the chemical stability of acid-sensitive compounds in freeze-dried formulations: sucrose inversion study. <i>Journal of Pharmaceutical Sciences</i> , 2009 , 98, 3387-96	3.9	10
44	A novel X-ray powder diffractometric method for studying the reaction between pseudoephedrine enantiomers. <i>Journal of Pharmaceutical Sciences</i> , 1997 , 86, 340-5	3.9	10

43	Processing-induced Phase Transformations and Their Implications on Pharmaceutical Product Quality 2006 , 333-364		10
42	Compression-Induced Polymorphic Transformation in Tablets: Role of Shear Stress and Development of Mitigation Strategies. <i>Journal of Pharmaceutical Sciences</i> , 2019 , 108, 476-484	3.9	10
41	Subtraction of DC conductivity and annealing: approaches to identify Johari-Goldstein relaxation in amorphous trehalose. <i>Molecular Pharmaceutics</i> , 2011 , 8, 1416-22	5.6	9
40	Spatial Distribution of Trehalose Dihydrate Crystallization in Tablets by X-ray Diffractometry. <i>Molecular Pharmaceutics</i> , 2015 , 12, 3766-75	5.6	8
39	Physical characterization of pentamidine isethionate during freeze-drying-relevance to development of stable lyophilized product. <i>Journal of Pharmaceutical Sciences</i> , 2012 , 101, 1732-43	3.9	8
38	Calculation of the penetration depth of X-rays in intact pharmaceutical film-coated tablets by microdiffractometry. <i>Pharmaceutical Research</i> , 2006 , 23, 2149-57	4.5	8
37	Development and in vivo evaluation of a novel lyophilized formulation for the treatment of hemorrhagic shock. <i>International Journal of Pharmaceutics</i> , 2018 , 537, 162-171	6.5	6
36	Molecular mobility as a predictor of the water sorption by annealed amorphous trehalose. <i>Pharmaceutical Research</i> , 2013 , 30, 714-20	4.5	6
35	Modulation of Microenvironmental Acidity: A Strategy to Mitigate Salt Disproportionation in Drug Product Environment. <i>Molecular Pharmaceutics</i> , 2020 , 17, 1324-1334	5.6	5
34	Effect of Formulation and Process Parameters on the Disproportionation of Indomethacin Sodium in Buffered Lyophilized Formulations. <i>Pharmaceutical Research</i> , 2018 , 35, 21	4.5	5
33	Stability of lyophilized albumin formulations: Role of excipient crystallinity and molecular mobility. <i>International Journal of Pharmaceutics</i> , 2019 , 569, 118568	6.5	5
32	Non-destructive determination of the coating film thickness by X-ray powder diffractometry and correlation with the dissolution behavior of film-coated tablets. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2010 , 51, 952-7	3.5	5
31	A refined phase diagram of the tert-butanol-water system and implications on lyophilization process optimization of pharmaceuticals. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 1583-1590	3.6	5
30	Applications of synchrotron powder X-ray diffractometry in drug substance and drug product characterization. <i>TrAC - Trends in Analytical Chemistry</i> , 2021 , 136, 116181	14.6	5
29	Nanobubbles in Reconstituted Lyophilized Formulations: Interaction With Proteins and Mechanism of Formation. <i>Journal of Pharmaceutical Sciences</i> , 2020 , 109, 284-292	3.9	5
28	-Butanol Enables Dual Functionality of Mannitol: A Cryoprotectant in Frozen Systems and Bulking Agent in Freeze-Dried Formulations. <i>Molecular Pharmaceutics</i> , 2020 , 17, 3075-3086	5.6	4
27	Estimation of Drug Particle Size in Intact Tablets by 2-Dimensional X-Ray Diffractometry. <i>Journal of Pharmaceutical Sciences</i> , 2018 , 107, 231-238	3.9	4
26	Modulating the dehydration conditions of adefovir dipivoxil dihydrate to obtain different physical forms of anhydrate. <i>Journal of Pharmaceutical Sciences</i> , 2015 , 104, 1056-64	3.9	4

25	Formation of Indomethacin-Saccharin Cocrystals during Wet Granulation: Role of Polymeric Excipients. <i>Molecular Pharmaceutics</i> , 2020 , 17, 274-283	5.6	4
24	Stabilization of Amorphous Drugs by Polymers: The Role of Overlap Concentration (*). <i>Molecular Pharmaceutics</i> , 2020 , 17, 4401-4406	5.6	4
23	Partial Dehydration of Levothyroxine Sodium Pentahydrate in a Drug Product Environment: Structural Insights into Stability. <i>Molecular Pharmaceutics</i> , 2020 , 17, 3915-3929	5.6	4
22	The Influence of the Strength of Drug-Polymer Interactions on the Dissolution of Amorphous Solid Dispersions. <i>Molecular Pharmaceutics</i> , 2021 , 18, 174-186	5.6	4
21	Anomalous behavior of mannitol hemihydrate: Implications on sucrose crystallization in colyophilized systems. <i>International Journal of Pharmaceutics</i> , 2020 , 587, 119629	6.5	3
20	Molecular motions in sucrose-PVP and sucrose-sorbitol dispersions-II. Implications of annealing on secondary relaxations. <i>Pharmaceutical Research</i> , 2014 , 31, 2822-8	4.5	3
19	Solid-state phase transitions of AG337, an antitumor agent. <i>Pharmaceutical Development and Technology</i> , 1999 , 4, 623-32	3.4	3
18	Effect of glycerol on the order of the mesophase transitions of supercooled itraconazole. <i>Journal of Molecular Liquids</i> , 2020 , 320, 114222	6	3
17	Influence of Disorder on Dissolution 2016 , 57-84		3
16	Lower endoscopic delivery of freeze-dried intestinal microbiota results in more rapid and efficient engraftment than oral administration. <i>Scientific Reports</i> , 2021 , 11, 4519	4.9	3
15	Processing-Induced Phase Transformations and Their Implications on Pharmaceutical Product Quality 2018 , 329-380		3
14	Annealing effect reversal by water sorption-desorption and heating above the glass transition temperature-comparison of properties. <i>Molecular Pharmaceutics</i> , 2013 , 10, 3005-12	5.6	2
13	Ultrasonication as a potential tool to predict solute crystallization in freeze-concentrates. <i>Pharmaceutical Research</i> , 2014 , 31, 1512-24	4.5	2
12	Reversible Self-Association in Lactate Dehydrogenase during Freeze-Thaw in Buffered Solutions Using Neutron Scattering. <i>Molecular Pharmaceutics</i> , 2021 , 18, 4459-4474	5.6	2
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