Bruno C Hancock

List of Publications by Year
in descending order

96 papers	11,975 citations	61984 43 h-index	43889 91 g-index
96 all docs	96 docs citations	96 times ranked	7397 citing authors

#	Article	IF	Citations
1	Journal of Pharmaceutical Sciences Topic Cluster on Co-Processed API â€“ Call for Papers. Journal of Pharmaceutical Sciences, 2022, , .	3.3	0
2	Prediction of the Relative Free Energies of Drug Polymorphs above Zero Kelvin. Crystal Growth and Design, 2020, 20, 5211-5224.	3.0	26
3	Assessment of machine learning approaches for predicting the crystallization propensity of active pharmaceutical ingredients. CrystEngComm, 2019, 21, 1215-1223.	2.6	28
4	The Wall Friction Properties of Pharmaceutical Powders, Blends, and Granulations. Journal of Pharmaceutical Sciences, 2019, 108, 457-463.	3.3	20
5	Influence of normal contact force model on simulations of spherocylindrical particles. AICHE Journal, 2018, 64, 1986-2001.	3.6	15
6	Harnessing Cloud Architecture for Crystal Structure Prediction Calculations. Crystal Growth and Design, 2018, 18, 6891-6900.	3.0	41
7	What is the â€œtypicalâ€•particle shape of active pharmaceutical ingredients?. Powder Technology, 2017, 313, 1-8.	4.2	24
8	Predicting the Crystallization Propensity of Drug-Like Molecules. Journal of Pharmaceutical Sciences, 2017, 106, 28-30.	3.3	13
9	Quantification of Tribocharging of Pharmaceutical Powders in V-Blenders: Experiments, Multiscale Modeling, and Simulations. Journal of Pharmaceutical Sciences, 2016, 105, 1467-1477.	3.3	22
10	An experimental and numerical modeling study of tribocharging in pharmaceutical granular mixtures. Powder Technology, 2016, 297, 211-219.	4.2	30
11	Quantitative analysis of impact measurements using dynamic load cells. Sensing and Bio-Sensing Research, 2016, 7, 31-37.	4.2	5
12	A combined experimental and numerical approach to explore tribocharging of pharmaceutical excipients in a hopper chute assembly. International Journal of Pharmaceutics, 2015, 491, 58-68.	5.2	39
13	Experimental Study of Wet Cohesive Particles Discharging from a Rectangular Hopper. Industrial & Engineering Chemistry Research, 2015, 54, 4545-4551.	3.7	5
14	Surface Acidity and Solid-State Compatibility of Excipients with an Acid-Sensitive API: Case Study of Atorvastatin Calcium. AAPS PharmSciTech, 2015, 16, 354-363.	3.3	22
15	George Zografi and the Science of Solids and Surfaces. Journal of Pharmaceutical Sciences, 2014, 103, 2592-2594.	3.3	3
16	Ultrasonic approach for viscoelastic and microstructure characterization of granular pharmaceutical tablets. International Journal of Pharmaceutics, 2013, 454, 333-343.	5.2	11
17	Ultrasonic real-time in-die monitoring of the tablet compaction processâ€”A proof of concept study. International Journal of Pharmaceutics, 2013, 442, 20-26.	5.2	12
18	Editorial. International Journal of Pharmaceutics, 2013, 442, 1-2.	5.2	0

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19	How do Formulation and Process Parameters Impact Blend and Unit Dose Uniformity? Further Analysis of the Product Quality Research Institute Blend Uniformity Working Group Industry Survey. Journal of Pharmaceutical Sciences, 2013, 102, 982-986.	3.3	16
20	Numerical simulation of dilute turbulent gasâ€particle flow with turbulence modulation. AICHE Journal, 2012, 58, 1381-1396.	3.6	27
21	Discrete element method modeling of bi-convex pharmaceutical tablets: Contact detection algorithms and validation. Chemical Engineering Science, 2012, 69, 587-601.	3.8	56
22	Effect of particle size on energy dissipation in viscoelastic granular collisions. Physical Review E, 2011, 84, 021303.	2.1	30
23	Discrete element method (DEM) simulations of stratified sampling during solid dosage form manufacturing. International Journal of Pharmaceutics, 2011, 418, 265-272.	5.2	10
24	A priori Performance Predictions in the Pharmaceutical Sciences. International Journal of Pharmaceutics, 2011, 418, 149-150.	5.2	2
25	Acoustic assessment of mean grain size in pharmaceutical compacts. International Journal of Pharmaceutics, 2011, 419, 137-146.	5.2	17
26	Classifying the fluidization and segregation behavior of binary mixtures using particle size and density ratios. AICHE Journal, 2011, 57, 1446-1458.	3.6	55
27	The powder flow and compact mechanical properties of two recently developed matrix-forming polymers. Journal of Pharmacy and Pharmacology, 2010, 53, 1193-1199.	2.4	25
28	Disordered drug delivery: destiny, dynamics and the Deborah number. Journal of Pharmacy and Pharmacology, 2010, 54, 737-746.	2.4	73
29	Polyamorphism: a pharmaceutical science perspective. Journal of Pharmacy and Pharmacology, 2010, 54, 1151-1152.	2.4	59
30	An investigation into the kinetic (sliding) friction of some tablets and capsules. International Journal of Pharmaceutics, 2010, 384, 39-45.	5.2	24
31	A study on the sensitivity of Druckerâ€“Prager Cap model parameters during the decompression phase of powder compaction simulations. Powder Technology, 2010, 198, 315-324.	4.2	45
32	Segregation of cohesive granular materials during discharge from a rectangular hopper. Granular Matter, 2010, 12, 193-200.	2.2	31
33	The effect of column diameter and bed height on minimum fluidization velocity. AICHE Journal, 2010, 56, 2304-2311.	3.6	44
34	Correlating Particle Hardness with Powder Compaction Performance. Journal of Pharmaceutical Sciences, 2010, 99, 4307-4316.	3.3	39
35	Finite element analysis of pharmaceutical tablet compaction using a density dependent material plasticity model. Powder Technology, 2010, 202, 46-54.	4.2	45
36	The coefficient of rolling resistance (CoRR) of some pharmaceutical tablets. International Journal of Pharmaceutics, 2010, 392, 107-110.	5.2	41

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37	The coefficient of restitution of some pharmaceutical tablets/compacts. International Journal of Pharmaceutics, 2010, 402, 50-56.	5.2	35
38	Discrete element simulation study of a Freeman powder rheometer. Chemical Engineering Science, 2010, 65, 5747-5756.	3.8	92
39	Cylindrical object contact detection for use in discrete element method simulations. Part I â€“ Contact detection algorithms. Chemical Engineering Science, 2010, 65, 5852-5862.	3.8	118
40	Cylindrical object contact detection for use in discrete element method simulations, Part Iiâ€”Experimental validation. Chemical Engineering Science, 2010, 65, 5863-5871.	3.8	94
41	Optimizing the design of eccentric feed hoppers for tablet presses using DEM. Computers and Chemical Engineering, 2010, 34, 1072-1081.	3.8	48
42	Process Modeling in the Pharmaceutical Industry using the Discrete Element Method. Journal of Pharmaceutical Sciences, 2009, 98, 442-470.	3.3	180
43	Estimating the refractive index of pharmaceutical solids using predictive methods. International Journal of Pharmaceutics, 2009, 368, 16-23.	5.2	20
44	Predicting the flow mode from hoppers using the discrete element method. Powder Technology, 2009, 195, 1-10.	4.2	181
45	Force model considerations for glued-sphere discrete element method simulations. Chemical Engineering Science, 2009, 64, 3466-3475.	3.8	117
46	Predicting discharge dynamics of wet cohesive particles from a rectangular hopper using the discrete element method (DEM). Chemical Engineering Science, 2009, 64, 5268-5275.	3.8	116
47	Modeling granular segregation in flow from quasi-three-dimensional, wedge-shaped hoppers. Powder Technology, 2008, 179, 126-143.	4.2	133
48	Dispersant selection for aqueous medium pressure injection moulding of anhydrous dicalcium phosphate. Journal of the European Ceramic Society, 2008, 28, 547-553.	5.7	17
49	Predicting discharge dynamics from a rectangular hopper using the discrete element method (DEM). Chemical Engineering Science, 2008, 63, 5821-5830.	3.8	194
50	Use of prediction methods to estimate true density of active pharmaceutical ingredients. International Journal of Pharmaceutics, 2008, 355, 231-237.	5.2	36
51	Evaluation of dynamic image analysis for characterizing pharmaceutical excipient particles. International Journal of Pharmaceutics, 2008, 361, 150-157.	5.2	57
52	Granular segregation in discharging cylindrical hoppers: A discrete element and experimental study. Chemical Engineering Science, 2007, 62, 6423-6439.	3.8	139
53	Application of X-ray Microtomography and Image Processing to the Investigation of a Compacted Granular System. Particle and Particle Systems Characterization, 2006, 23, 229-236.	2.3	39
54	Mechanical property anisotropy of pharmaceutical excipient compacts. International Journal of Pharmaceutics, 2006, 314, 9-14.	5.2	32

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55	Effect of pressure up to 5.5GPa on dry powder samples of chlorpropamide form-A. International Journal of Pharmaceutics, 2006, 327, 51-57.	5.2	54
56	Investigation of particle packing in model pharmaceutical powders using X-ray microtomography and discrete element method. Powder Technology, 2006, 167, 134-140.	4.2	89
57	Predicting the Tensile Strength of Compacted Multi-Component Mixtures of Pharmaceutical Powders. Pharmaceutical Research, 2006, 23, 1898-1905.	3.5	66
58	Coupling Between Chemical Reactivity and Structural Relaxation in Pharmaceutical Glasses. Pharmaceutical Research, 2006, 23, 2254-2268.	3.5	100
59	Ionization States in the Microenvironment of Solid Dosage Forms: Effect of Formulation Variables and Processing. Pharmaceutical Research, 2006, 23, 2454-2468.	3.5	43
60	Towards an Understanding of the Structurally Based Potential for Mechanically Activated Disordering of Small Molecule Organic Crystals. Journal of Pharmaceutical Sciences, 2006, 95, 2645-2656.	3.3	74
61	A Comparison of Physical and Mechanical Properties of Common Tableting Diluents. , 2006, , 127-153.		1
62	Quantitative analysis of packed and compacted granular systems by x-ray microtomography. , 2005, , .		6
63	An implementation of granular dynamics for simulating frictional elastic particles based on the DL_POLY code. Computer Physics Communications, 2005, 166, 26-44.	7.5	20
64	A simple predictive model for the tensile strength of binary tablets. European Journal of Pharmaceutical Sciences, 2005, 25, 331-336.	4.0	105
65	The influence of measurement conditions on the Hammett acidity function of solid pharmaceutical excipients. European Journal of Pharmaceutics and Biopharmaceutics, 2005, 61, 158-170.	4.3	22
66	Improving the prediction of exceptionally poor tableting performance: An investigation into Hiestand's â€œspecial caseâ€• Journal of Pharmaceutical Sciences, 2004, 93, 2017-2021.	3.3	21
67	Simulation of roller compaction using a laboratory scale compaction simulator. International Journal of Pharmaceutics, 2004, 269, 403-415.	5.2	83
68	Development of a robust procedure for assessing powder flow using a commercial avalanche testing instrument. Journal of Pharmaceutical and Biomedical Analysis, 2004, 35, 979-990.	2.8	34
69	Modeling of Transmitted X-ray Intensity Variation with Sample Thickness and Solid Fraction in Glycine Compacts. Journal of Pharmaceutical Sciences, 2003, 92, 2345-2353.	3.3	13
70	The powder flow and compact mechanical properties of sucrose and three high-intensity sweeteners used in chewable tablets. International Journal of Pharmaceutics, 2003, 257, 227-236.	5.2	47
71	The relationship between the particle properties, mechanical behavior, and surface roughness of some pharmaceutical excipient compacts. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 355, 24-36.	5.6	84
72	Comparison of the mechanical properties of the crystalline and amorphous forms of a drug substance. International Journal of Pharmaceutics, 2002, 241, 73-85.	5.2	99

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73	Micro-scale measurement of the mechanical properties of compressed pharmaceutical powders. 2: The dynamic moduli of microcrystalline cellulose. International Journal of Pharmaceutics, 2001, 228, 139-145.	5.2	18
74	Molecular mobility of amorphous pharmaceuticals determined using differential scanning calorimetry. Thermochimica Acta, 2001, 380, 95-107.	2.7	131
75	Interpretation of Relaxation Time Constants for Amorphous Pharmaceutical Systems. Journal of Pharmaceutical Sciences, 2000, 89, 417-427.	3.3	131
76	What is the true solubility advantage for amorphous pharmaceuticals?. , 2000, 17, 397-404.		1,186
77	Interpretation of relaxation time constants for amorphous pharmaceutical systems. Journal of Pharmaceutical Sciences, 2000, 89, 417.	3.3	91
78	Determination of the viscosity of an amorphous drug using thermomechanical analysis (TMA). Pharmaceutical Research, 1999, 16, 672-675.	3.5	27
79	Differential scanning calorimetry: applications in drug development. Pharmaceutical Science & Technology Today, 1999, 2, 311-320.	0.7	156
80	The Effect of Temperature on Water Vapor Sorption by Some Amorphous Pharmaceutical Sugars. Pharmaceutical Development and Technology, 1999, 4, 125-131.	2.4	50
81	Characterization of the Time Scales of Molecular Motion in Pharmaceutically Important Glasses. Journal of Physical Chemistry B, 1999, 103, 4113-4121.	2.6	329
82	The Effect of Temperature on Water Vapor Sorption by Some Amorphous Pharmaceutical Sugars. Pharmaceutical Development and Technology, 1999, 4, 125-131.	2.4	17
83	A pragmatic test of a simple calorimetric method for determining the fragility of some amorphous pharmaceutical materials. Pharmaceutical Research, 1998, 15, 762-767.	3.5	66
84	Estimating the critical molecular mobility temperature (T(K)) of amorphous pharmaceuticals. Pharmaceutical Research, 1998, 15, 1649-1651.	3.5	33
85	Water vapour sorption by pharmaceutical sugars. Pharmaceutical Science & Technology Today, 1998, 1, 345-351.	0.7	57
86	Water vapor sorption by peptides, proteins and their formulations. European Journal of Pharmaceutics and Biopharmaceutics, 1998, 45, 239-247.	4.3	59
87	Characteristics and Significance of the Amorphous State in Pharmaceutical Systems. Journal of Pharmaceutical Sciences, 1997, 86, 1-12.	3.3	1,598
88	Processing and storage effects on water vapor sorption by some model pharmaceutical solid dosage formulations. International Journal of Pharmaceutics, 1997, 156, 143-151.	5.2	40
89	Suppression of Intestinal Polyposis in Apcî”716 Knockout Mice by Inhibition of Cyclooxygenase 2 (COX-2). Cell, 1996, 87, 803-809.	28.9	2,230
90	Effects of Solid-State Processing on Water Vapor Sorption by Aspirin. Journal of Pharmaceutical Sciences, 1996, 85, 246-248.	3.3	19

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91	Direct visualization of Superdisintegrant Hydration Using Environmental Scanning Electron Microscopy. Journal of Pharmaceutical Sciences, 1996, 85, 1255-1258.	3.3	21
92	Inhibition of indomethacin crystallization in poly(vinylpyrrolidone) coprecipitates. Journal of Pharmaceutical Sciences, 1995, 84, 983-986.	3.3	237
93	Molecular mobility of amorphous pharmaceutical solids below their glass transition temperatures. Pharmaceutical Research, 1995, 12, 799-806.	3.5	788
94	Crystallization of Indomethacin from the Amorphous State below and above Its Glass Transition Temperature. Journal of Pharmaceutical Sciences, 1994, 83, 1700-1705.	3.3	408
95	The relationship between the glass transition temperature and the water content of amorphous pharmaceutical solids. Pharmaceutical Research, 1994, 11, 471-477.	3.5	617
96	The use of solution theories for predicting water vapor absorption by amorphous pharmaceutical solids: a test of the Flory-Huggins and Vrentas models. Pharmaceutical Research, 1993, 10, 1262-1267.	3.5	102