

# Bruno C Hancock

## List of Publications by Year in descending order

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96  
papers

11,975  
citations

61945

43  
h-index

43868

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 " Call for Papers. Journal of Pharmaceutical Sciences, 2022, , .	1.6	0
2	Prediction of the Relative Free Energies of Drug Polymorphs above Zero Kelvin. Crystal Growth and Design, 2020, 20, 5211-5224.	1.4	26
3	Assessment of machine learning approaches for predicting the crystallization propensity of active pharmaceutical ingredients. CrystEngComm, 2019, 21, 1215-1223.	1.3	28
4	The Wall Friction Properties of Pharmaceutical Powders, Blends, and Granulations. Journal of Pharmaceutical Sciences, 2019, 108, 457-463.	1.6	20
5	Influence of normal contact force model on simulations of spherocylindrical particles. AIChE Journal, 2018, 64, 1986-2001.	1.8	15
6	Harnessing Cloud Architecture for Crystal Structure Prediction Calculations. Crystal Growth and Design, 2018, 18, 6891-6900.	1.4	41
7	What is the "typical" particle shape of active pharmaceutical ingredients?. Powder Technology, 2017, 313, 1-8.	2.1	24
8	Predicting the Crystallization Propensity of Drug-Like Molecules. Journal of Pharmaceutical Sciences, 2017, 106, 28-30.	1.6	13
9	Quantification of Tribocharging of Pharmaceutical Powders in V-Blenders: Experiments, Multiscale Modeling, and Simulations. Journal of Pharmaceutical Sciences, 2016, 105, 1467-1477.	1.6	22
10	An experimental and numerical modeling study of tribocharging in pharmaceutical granular mixtures. Powder Technology, 2016, 297, 211-219.	2.1	30
11	Quantitative analysis of impact measurements using dynamic load cells. Sensing and Bio-Sensing Research, 2016, 7, 31-37.	2.2	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.	2.6	39
13	Experimental Study of Wet Cohesive Particles Discharging from a Rectangular Hopper. Industrial & Engineering Chemistry Research, 2015, 54, 4545-4551.	1.8	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.	1.5	22
15	George Zografi and the Science of Solids and Surfaces. Journal of Pharmaceutical Sciences, 2014, 103, 2592-2594.	1.6	3
16	Ultrasonic approach for viscoelastic and microstructure characterization of granular pharmaceutical tablets. International Journal of Pharmaceutics, 2013, 454, 333-343.	2.6	11
17	Ultrasonic real-time in-die monitoring of the tablet compaction process" A proof of concept study. International Journal of Pharmaceutics, 2013, 442, 20-26.	2.6	12
18	Editorial. International Journal of Pharmaceutics, 2013, 442, 1-2.	2.6	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. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 982-986.	1.6	16
20	Numerical simulation of dilute turbulent gas-particle flow with turbulence modulation. <i>AIChE Journal</i> , 2012, 58, 1381-1396.	1.8	27
21	Discrete element method modeling of bi-convex pharmaceutical tablets: Contact detection algorithms and validation. <i>Chemical Engineering Science</i> , 2012, 69, 587-601.	1.9	56
22	Effect of particle size on energy dissipation in viscoelastic granular collisions. <i>Physical Review E</i> , 2011, 84, 021303.	0.8	30
23	Discrete element method (DEM) simulations of stratified sampling during solid dosage form manufacturing. <i>International Journal of Pharmaceutics</i> , 2011, 418, 265-272.	2.6	10
24	A priori Performance Predictions in the Pharmaceutical Sciences. <i>International Journal of Pharmaceutics</i> , 2011, 418, 149-150.	2.6	2
25	Acoustic assessment of mean grain size in pharmaceutical compacts. <i>International Journal of Pharmaceutics</i> , 2011, 419, 137-146.	2.6	17
26	Classifying the fluidization and segregation behavior of binary mixtures using particle size and density ratios. <i>AIChE Journal</i> , 2011, 57, 1446-1458.	1.8	55
27	The powder flow and compact mechanical properties of two recently developed matrix-forming polymers. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 53, 1193-1199.	1.2	25
28	Disordered drug delivery: destiny, dynamics and the Deborah number. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 54, 737-746.	1.2	73
29	Polyamorphism: a pharmaceutical science perspective. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 54, 1151-1152.	1.2	59
30	An investigation into the kinetic (sliding) friction of some tablets and capsules. <i>International Journal of Pharmaceutics</i> , 2010, 384, 39-45.	2.6	24
31	A study on the sensitivity of Drucker-Prager Cap model parameters during the decompression phase of powder compaction simulations. <i>Powder Technology</i> , 2010, 198, 315-324.	2.1	45
32	Segregation of cohesive granular materials during discharge from a rectangular hopper. <i>Granular Matter</i> , 2010, 12, 193-200.	1.1	31
33	The effect of column diameter and bed height on minimum fluidization velocity. <i>AIChE Journal</i> , 2010, 56, 2304-2311.	1.8	44
34	Correlating Particle Hardness with Powder Compaction Performance. <i>Journal of Pharmaceutical Sciences</i> , 2010, 99, 4307-4316.	1.6	39
35	Finite element analysis of pharmaceutical tablet compaction using a density dependent material plasticity model. <i>Powder Technology</i> , 2010, 202, 46-54.	2.1	45
36	The coefficient of rolling resistance (CoRR) of some pharmaceutical tablets. <i>International Journal of Pharmaceutics</i> , 2010, 392, 107-110.	2.6	41

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37	The coefficient of restitution of some pharmaceutical tablets/compacts. <i>International Journal of Pharmaceutics</i> , 2010, 402, 50-56.	2.6	35
38	Discrete element simulation study of a Freeman powder rheometer. <i>Chemical Engineering Science</i> , 2010, 65, 5747-5756.	1.9	92
39	Cylindrical object contact detection for use in discrete element method simulations. Part I – Contact detection algorithms. <i>Chemical Engineering Science</i> , 2010, 65, 5852-5862.	1.9	118
40	Cylindrical object contact detection for use in discrete element method simulations, Part II – Experimental validation. <i>Chemical Engineering Science</i> , 2010, 65, 5863-5871.	1.9	94
41	Optimizing the design of eccentric feed hoppers for tablet presses using DEM. <i>Computers and Chemical Engineering</i> , 2010, 34, 1072-1081.	2.0	48
42	Process Modeling in the Pharmaceutical Industry using the Discrete Element Method. <i>Journal of Pharmaceutical Sciences</i> , 2009, 98, 442-470.	1.6	180
43	Estimating the refractive index of pharmaceutical solids using predictive methods. <i>International Journal of Pharmaceutics</i> , 2009, 368, 16-23.	2.6	20
44	Predicting the flow mode from hoppers using the discrete element method. <i>Powder Technology</i> , 2009, 195, 1-10.	2.1	181
45	Force model considerations for glued-sphere discrete element method simulations. <i>Chemical Engineering Science</i> , 2009, 64, 3466-3475.	1.9	117
46	Predicting discharge dynamics of wet cohesive particles from a rectangular hopper using the discrete element method (DEM). <i>Chemical Engineering Science</i> , 2009, 64, 5268-5275.	1.9	116
47	Modeling granular segregation in flow from quasi-three-dimensional, wedge-shaped hoppers. <i>Powder Technology</i> , 2008, 179, 126-143.	2.1	133
48	Dispersant selection for aqueous medium pressure injection moulding of anhydrous dicalcium phosphate. <i>Journal of the European Ceramic Society</i> , 2008, 28, 547-553.	2.8	17
49	Predicting discharge dynamics from a rectangular hopper using the discrete element method (DEM). <i>Chemical Engineering Science</i> , 2008, 63, 5821-5830.	1.9	194
50	Use of prediction methods to estimate true density of active pharmaceutical ingredients. <i>International Journal of Pharmaceutics</i> , 2008, 355, 231-237.	2.6	36
51	Evaluation of dynamic image analysis for characterizing pharmaceutical excipient particles. <i>International Journal of Pharmaceutics</i> , 2008, 361, 150-157.	2.6	57
52	Granular segregation in discharging cylindrical hoppers: A discrete element and experimental study. <i>Chemical Engineering Science</i> , 2007, 62, 6423-6439.	1.9	139
53	Application of X-ray Microtomography and Image Processing to the Investigation of a Compacted Granular System. <i>Particle and Particle Systems Characterization</i> , 2006, 23, 229-236.	1.2	39
54	Mechanical property anisotropy of pharmaceutical excipient compacts. <i>International Journal of Pharmaceutics</i> , 2006, 314, 9-14.	2.6	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.	2.6	54
56	Investigation of particle packing in model pharmaceutical powders using X-ray microtomography and discrete element method. Powder Technology, 2006, 167, 134-140.	2.1	89
57	Predicting the Tensile Strength of Compacted Multi-Component Mixtures of Pharmaceutical Powders. Pharmaceutical Research, 2006, 23, 1898-1905.	1.7	66
58	Coupling Between Chemical Reactivity and Structural Relaxation in Pharmaceutical Glasses. Pharmaceutical Research, 2006, 23, 2254-2268.	1.7	100
59	Ionization States in the Microenvironment of Solid Dosage Forms: Effect of Formulation Variables and Processing. Pharmaceutical Research, 2006, 23, 2454-2468.	1.7	43
60	Towards an Understanding of the Structurally Based Potential for Mechanically Activated Disorder of Small Molecule Organic Crystals. Journal of Pharmaceutical Sciences, 2006, 95, 2645-2656.	1.6	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.	3.0	20
64	A simple predictive model for the tensile strength of binary tablets. European Journal of Pharmaceutical Sciences, 2005, 25, 331-336.	1.9	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.	2.0	22
66	Improving the prediction of exceptionally poor tableting performance: An investigation into Hiestand's "special case". Journal of Pharmaceutical Sciences, 2004, 93, 2017-2021.	1.6	21
67	Simulation of roller compaction using a laboratory scale compaction simulator. International Journal of Pharmaceutics, 2004, 269, 403-415.	2.6	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.	1.4	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.	1.6	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.	2.6	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.	2.6	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.	2.6	99

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73	Micro-scale measurement of the mechanical properties of compressed pharmaceutical powders. 2: The dynamic moduli of microcrystalline cellulose. <i>International Journal of Pharmaceutics</i> , 2001, 228, 139-145.	2.6	18
74	Molecular mobility of amorphous pharmaceuticals determined using differential scanning calorimetry. <i>Thermochimica Acta</i> , 2001, 380, 95-107.	1.2	131
75	Interpretation of Relaxation Time Constants for Amorphous Pharmaceutical Systems. <i>Journal of Pharmaceutical Sciences</i> , 2000, 89, 417-427.	1.6	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. <i>Journal of Pharmaceutical Sciences</i> , 2000, 89, 417.	1.6	91
78	Determination of the viscosity of an amorphous drug using thermomechanical analysis (TMA). <i>Pharmaceutical Research</i> , 1999, 16, 672-675.	1.7	27
79	Differential scanning calorimetry: applications in drug development. <i>Pharmaceutical Science &amp; Technology Today</i> , 1999, 2, 311-320.	0.7	156
80	The Effect of Temperature on Water Vapor Sorption by Some Amorphous Pharmaceutical Sugars. <i>Pharmaceutical Development and Technology</i> , 1999, 4, 125-131.	1.1	50
81	Characterization of the Time Scales of Molecular Motion in Pharmaceutically Important Glasses. <i>Journal of Physical Chemistry B</i> , 1999, 103, 4113-4121.	1.2	329
82	The Effect of Temperature on Water Vapor Sorption by Some Amorphous Pharmaceutical Sugars. <i>Pharmaceutical Development and Technology</i> , 1999, 4, 125-131.	1.1	17
83	A pragmatic test of a simple calorimetric method for determining the fragility of some amorphous pharmaceutical materials. <i>Pharmaceutical Research</i> , 1998, 15, 762-767.	1.7	66
84	Estimating the critical molecular mobility temperature (T(K)) of amorphous pharmaceuticals. <i>Pharmaceutical Research</i> , 1998, 15, 1649-1651.	1.7	33
85	Water vapour sorption by pharmaceutical sugars. <i>Pharmaceutical Science &amp; Technology Today</i> , 1998, 1, 345-351.	0.7	57
86	Water vapor sorption by peptides, proteins and their formulations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 1998, 45, 239-247.	2.0	59
87	Characteristics and Significance of the Amorphous State in Pharmaceutical Systems. <i>Journal of Pharmaceutical Sciences</i> , 1997, 86, 1-12.	1.6	1,598
88	Processing and storage effects on water vapor sorption by some model pharmaceutical solid dosage formulations. <i>International Journal of Pharmaceutics</i> , 1997, 156, 143-151.	2.6	40
89	Suppression of Intestinal Polyposis in Apc <sup>fl/fl</sup> 716 Knockout Mice by Inhibition of Cyclooxygenase 2 (COX-2). <i>Cell</i> , 1996, 87, 803-809.	13.5	2,230
90	Effects of Solid-State Processing on Water Vapor Sorption by Aspirin. <i>Journal of Pharmaceutical Sciences</i> , 1996, 85, 246-248.	1.6	19

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91	Direct visualization of Superdisintegrant Hydration Using Environmental Scanning Electron Microscopy. <i>Journal of Pharmaceutical Sciences</i> , 1996, 85, 1255-1258.	1.6	21
92	Inhibition of indomethacin crystallization in poly(vinylpyrrolidone) coprecipitates. <i>Journal of Pharmaceutical Sciences</i> , 1995, 84, 983-986.	1.6	237
93	Molecular mobility of amorphous pharmaceutical solids below their glass transition temperatures. <i>Pharmaceutical Research</i> , 1995, 12, 799-806.	1.7	788
94	Crystallization of Indomethacin from the Amorphous State below and above Its Glass Transition Temperature. <i>Journal of Pharmaceutical Sciences</i> , 1994, 83, 1700-1705.	1.6	408
95	The relationship between the glass transition temperature and the water content of amorphous pharmaceutical solids. <i>Pharmaceutical Research</i> , 1994, 11, 471-477.	1.7	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. <i>Pharmaceutical Research</i> , 1993, 10, 1262-1267.	1.7	102