GÃ¶ran Frenning

List of Publications by Year
in descending order

#	Article	IF	Citations
1	On the physical interpretation of the Kawakita and Adams parameters derived from confined compression of granular solids. Powder Technology, 2008, 182, 424-435.	4.2	77
2	Modelling drug release from inert matrix systems: From moving-boundary to continuous-field descriptions. International Journal of Pharmaceutics, 2011, 418, 88-99.	5.2	71
3	An efficient finite/discrete element procedure for simulating compression of 3D particle assemblies. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 4266-4272.	6.6	59
4	Theoretical investigation of drug release from planar matrix systems: effects of a finite dissolution rate. Journal of Controlled Release, 2003, 92, 331-339.	9.9	56
5	Finite element analysis of the release of slowly dissolving drugs from cylindrical matrix systems. Journal of Controlled Release, 2005, 107, 320-329.	9.9	49
6	Modelling of drug release from coated granular pellets. Journal of Controlled Release, 2003, 92, 113-123.	9.9	44
7	A model describing the internal structure of core/shell hydrogels. Soft Matter, 2011, 7, 10327.	2.7	44
8	Compression behaviour and tablet-forming ability of spray-dried amorphous composite particles. European Journal of Pharmaceutical Sciences, 2004, 22, 191-200.	4.0	43
9	Analysis of pharmaceutical powder compaction using multiplicative hyperelasto-plastic theory. Powder Technology, 2007, 172, 103-112.	4.2	40
10	Compression mechanics of granule beds: A combined finite/discrete element study. Chemical Engineering Science, 2010, 65, 2464-2471.	3.8	38
11	Factors Affecting Enzymatic Degradation of Microgel-Bound Peptides. Biomacromolecules, 2013, 14, 2317-2325.	5.4	34
12	Effective Kawakita parameters for binary mixtures. Powder Technology, 2009, 189, 270-275.	4.2	31
13	Relationships between surface coverage ratio and powder mechanics of binary adhesive mixtures for dry powder inhalers. International Journal of Pharmaceutics, 2018, 541, 143-156.	5.2	31
14	Theoretical analysis of the release of slowly dissolving drugs from spherical matrix systems. Journal of Controlled Release, 2004, 95, 109-117.	9.9	30
15	Ionic Motion in Polypyrroleâ^'Cellulose Composites: Trap Release Mechanism during Potentiostatic Reduction. Journal of Physical Chemistry B, 2009, 113, 4582-4589.	2.6	30
16	Drug release from reservoir pellets compacted with some excipients of different physical properties. European Journal of Pharmaceutical Sciences, 2003, 20, 469-479.	4.0	29
17	The degree of compression of spherical granular solids controls the evolution of microstructure and bond probability during compaction. International Journal of Pharmaceutics, 2013, 442, 3-12.	5.2	28
18	Modeling Structureâ€"Function Relationships for Diffusive Drug Transport in Inert Porous Geopolymer Matrices. Journal of Pharmaceutical Sciences, 2011, 100, 4338-4348.	3.3	27

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19	A New Method for Characterizing the Release of Drugs from Tablets in low Liquid Surroundings. Journal of Pharmaceutical Sciences, 2002, 91, 776-784.	3.3	25
20	An experimental evaluation of the accuracy to simulate granule bed compression using the discrete element method. Powder Technology, 2012, 219, 249-256.	4.2	25
21	A comparison between two powder compaction parameters of plasticity: The effective medium A parameter and the Heckel 1/K parameter. International Journal of Pharmaceutics, 2013, 453, 295-299.	5.2	25
22	Compression analysis for assessment of pellet plasticity: Identification of reactant pores and comparison between Heckel, Kawakita, and Adams equations. Chemical Engineering Research and Design, 2016, 110, 183-191.	5.6	24
23	Electrostatic Swelling Transitions in Surface-Bound Microgels. ACS Applied Materials & Interfaces, 2016, 8, 27129-27139.	8.0	23
24	Linking carrier morphology to the powder mechanics of adhesive mixtures for dry powder inhalers via a blend-state model. International Journal of Pharmaceutics, 2019, 561, 148-160.	5.2	23
25	Flowability of surface modified pharmaceutical granules: A comparative experimental and numerical study. European Journal of Pharmaceutical Sciences, 2011, 42, 199-209.	4.0	20
26	Relating solubility data of parabens in liquid PEG 400 to the behaviour of PEG 4000-parabens solid dispersions. European Journal of Pharmaceutics and Biopharmaceutics, 2009, 73, 260-268.	4.3	19
27	Conductivity Percolation in Loosely Compacted Microcrystalline Cellulose:Â An in Situ Study by Dielectric Spectroscopy during Densification. Journal of Physical Chemistry B, 2006, 110, 20502-20506.	2.6	18
28	Compressibility and tablet forming ability of bimodal granule mixtures: Experiments and DEM simulations. International Journal of Pharmaceutics, 2018, 540, 120-131.	5.2	18
29	Towards a mechanistic model for the interaction between plastically deforming particles under confined conditions: A numerical and analytical analysis. Materials Letters, 2013, 92, 365-368.	2.6	17
30	Implications of regular solution theory on the release mechanism of catanionic mixtures from gels. Colloids and Surfaces B: Biointerfaces, 2009, 71, 214-225.	5.0	16
31	Chain and Pore-Blocking Effects on Matrix Degradation in Protein-Loaded Microgels. Biomacromolecules, 2014, 15, 3671-3678.	5.4	16
32	A new method for characterizing the release of drugs from single agglomerates. Chemical Engineering Science, 2005, 60, 3909-3918.	3.8	15
33	An effective-medium analysis of confined compression of granular materials. Powder Technology, 2009, 194, 228-232.	4.2	14
34	An experimental evaluation of discrete element simulations of confined powder compression using an extended truncated-sphere model. Powder Technology, 2015, 284, 257-264.	4.2	13
35	Investigations of single microcrystalline cellulose-based granules subjected to confined triaxial compression. Powder Technology, 2016, 289, 79-87.	4.2	13
36	Characterization of the Drug Release Process by Investigation of Its Temperature Dependence. Journal of Pharmaceutical Sciences, 2004, 93, 1796-1803.	3.3	11

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37	Towards a mechanistic contact model for elastoplastic particles at high relative densities. Finite Elements in Analysis and Design, 2015, 104, 56-60.	3.2	10
38	Evaluation of bulk compression using a discrete element procedure calibrated with data from triaxial compression experiments on single particles. Powder Technology, 2019, 345, 74-81.	4.2	10
39	Solid-State Characterization of PEG 4000/Monoolein Mixtures. Macromolecules, 2004, 37, 2665-2667.	4.8	8
40	Nanoscale characterization of PEGylated phospholipid coatings formed by spray drying on silica microparticles. Journal of Colloid and Interface Science, 2020, 577, 92-100.	9.4	8
41	Influence of polymer molecular weight on the solid-state structure of PEG/monoolein mixtures. Polymer, 2005, 46, 12210-12217.	3.8	7
42	Proton Absorption in As-Synthesized Mesoporous Silica Nanoparticles as a Structure-Function Relationship Probing Mechanism. Langmuir, 2009, 25, 4306-4310.	3.5	7
43	Effect of lubrication on the distribution of force between spherical agglomerates during compression. Powder Technology, 2010, 198, 69-74.	4.2	7
44	The influence of rolling friction on the shear behaviour of non-cohesive pharmaceutical granules â€“ An experimental and numerical investigation. European Journal of Pharmaceutical Sciences, 2013, 49, 241-250.	4.0	7
45	Efficient Voronoi volume estimation for DEM simulations of granular materials under confined conditions. MethodsX, 2015, 2, 79-90.	1.6	7
46	An apparatus for confined triaxial testing of single particles. Powder Technology, 2015, 270, 121-127.	4.2	7
47	Mechanical behaviour of ideal elastic-plastic particles subjected to different triaxial loading conditions. Powder Technology, 2017, 315, 347-355.	4.2	7
48	Model for the Analysis of Membrane-Type Dissolution Tests for Inhaled Drugs. Molecular Pharmaceutics, 2020, 17, 2426-2434.	4.6	6
49	An experimental evaluation of an effective medium based compaction equation. European Journal of Pharmaceutical Sciences, 2012, 46, 49-55.	4.0	5
50	Computational fluid dynamics (CFD) studies of a miniaturized dissolution system. International Journal of Pharmaceutics, 2017, 521, 274-281.	5.2	5
51	Crack nucleation and propagation in microcrystalline-cellulose based granules subject to uniaxial and triaxial load. International Journal of Pharmaceutics, 2019, 559, 130-137.	5.2	5
52	Effect of fine particle shape on the stability and performance of adhesive mixtures intended for inhalation. Powder Technology, 2021, 385, 299-305.	4.2	5
53	Evolution of distributions and spatial correlations of single-particle forces and stresses during compression of ductile granular materials. Physical Review E, 2005, 71, 011305.	2.1	4
54	Spectral analysis of force fluctuations during probe penetration into cohesive powders. Powder Technology, 2008, 187, 62-67.	4.2	4

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55	Effect of carrier size and mechanical properties on adhesive unit stability for inhalation: A numerical study. Powder Technology, 2021, 390, 230-239.	4.2	4
56	Determination of Intrinsic Drug Dissolution and Solute Effective Transport Rate during Laminar Fluid Flow at Different Velocities. Pharmaceutics, 2021, 13, 835.	4.5	2
57	Towards a macroscopically consistent discrete method for granular materials: Delaunay strain-based formulation. Computational Particle Mechanics, 2022, 9, 1105-1118.	3.0	2
58	The release of catanionic mixtures embedded in gels: An approximate analytical analysis. AICHE Journal, 2011, 57, 1402-1408.	3.6	1
59	Effect of spherical-agglomerate strength on the distribution of force during uniaxial compression. Powder Technology, 2011, 206, 283-290.	4.2	1
60	On the relationship between blend state and dispersibility of adhesive mixtures containing active pharmaceutical ingredients. International Journal of Pharmaceutics: X, 2021, 3, 100069.	1.6	1
61	Effect of pressure drop on the in vitro dispersion of adhesive mixtures of different blend states for inhalation. International Journal of Pharmaceutics, 2022, 617, 121590.	5.2	1
62	Generalized regular singular-point description of low-frequency dielectric responses. Physical Review B, 2004, 70, .	3.2	0
63	Order and Disorder in Powder Mixtures: Spatial Distribution Functions as Tools to Assess Powder Homogeneity. Particle and Particle Systems Characterization, 2008, 25, 397-405.	2.3	0
64	Numerical modeling of collision of adhesive units: Stability and mechanical properties during handling. Chemical Engineering Science: X, 2020, 6, 100051.	1.5	0