

Alberto M Cuitião

List of Publications by Year in descending order

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78
papers

3,132
citations

159358

30
h-index

155451

55
g-index

80
all docs

80
docs citations

80
times ranked

2378
citing authors

#	ARTICLE	IF	CITATIONS
1	DEM analysis of the thermal treatment of granular materials in a rotary drum equipped with baffles. Chemical Engineering Science, 2022, 251, 117476.	1.9	7
2	Continuous dry granulation. , 2022, , 93-118.		0
3	Continuous tableting. , 2022, , 159-177.		0
4	Flow of a moderately cohesive FCC catalyst in two pilot-scale rotary calciners: Residence time distribution and bed depth measurements with and without dams. Chemical Engineering Science, 2021, 230, 116211.	1.9	4
5	Prediction of tablet weight variability in continuous manufacturing. International Journal of Pharmaceutics, 2020, 575, 118727.	2.6	12
6	Investigating the Effect of APAP Crystals on Tablet Behavior Manufactured by Direct Compression. AAPS PharmSciTech, 2019, 20, 168.	1.5	8
7	Particle size induced heterogeneity in compacted powders: Effect of large particles. Advanced Powder Technology, 2018, 29, 2978-2986.	2.0	6
8	Quantification of lubrication and particle size distribution effects on tensile strength and stiffness of tablets. Powder Technology, 2018, 336, 360-374.	2.1	17
9	Measurement of the residence time distribution of a cohesive powder in a flighted rotary kiln. Chemical Engineering Science, 2018, 191, 56-66.	1.9	7
10	Transient Temperature Monitoring of Pharmaceutical Tablets During Compaction Using Infrared Thermography. AAPS PharmSciTech, 2018, 19, 2426-2433.	1.5	2
11	The effect of operating conditions on the residence time distribution and axial dispersion coefficient of a cohesive powder in a rotary kiln. Chemical Engineering Science, 2017, 158, 50-57.	1.9	22
12	Effective Thermal Expansion Property of Consolidated Granular Materials. Materials, 2017, 10, 1289.	1.3	0
13	Toward predicting tensile strength of pharmaceutical tablets by ultrasound measurement in continuous manufacturing. International Journal of Pharmaceutics, 2016, 507, 83-89.	2.6	27
14	Enabling real time release testing by NIR prediction of dissolution of tablets made by continuous direct compression (CDC). International Journal of Pharmaceutics, 2016, 512, 96-107.	2.6	59
15	The effect of mechanical strain on properties of lubricated tablets compacted at different pressures. Powder Technology, 2016, 301, 657-664.	2.1	18
16	Microstructure evolution of compressible granular systems under large deformations. Journal of the Mechanics and Physics of Solids, 2016, 93, 44-56.	2.3	18
17	Prediction of conductive heating time scales of particles in a rotary drum. Chemical Engineering Science, 2016, 152, 45-54.	1.9	44
18	Prediction of dissolution profiles by non-destructive near infrared spectroscopy in tablets subjected to different levels of strain. Journal of Pharmaceutical and Biomedical Analysis, 2016, 117, 568-576.	1.4	54

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19	Evolution of the microstructure during the process of consolidation and bonding in soft granular solids. <i>International Journal of Pharmaceutics</i> , 2016, 503, 68-77.	2.6	25
20	<i>In situ</i> studies of microbial inactivation during high pressure processing. <i>High Pressure Research</i> , 2016, 36, 79-89.	0.4	9
21	Thermo-mechanical Behavior of Confined Granular Systems. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2016, , 41-57.	2.0	1
22	General and mechanistic optimal relationships for tensile strength of doubly convex tablets under diametrical compression. <i>International Journal of Pharmaceutics</i> , 2015, 484, 29-37.	2.6	16
23	The role of fine particles on compaction and tensile strength of pharmaceutical powders. <i>Powder Technology</i> , 2015, 274, 372-378.	2.1	22
24	A simple color concentration measurement technique for powders. <i>Powder Technology</i> , 2015, 286, 392-400.	2.1	17
25	Review of bilayer tablet technology. <i>International Journal of Pharmaceutics</i> , 2014, 461, 549-558.	2.6	80
26	Characterization of interfacial strength of layered powder-compacted solids. <i>Powder Technology</i> , 2013, 239, 300-307.	2.1	9
27	Effects of particle size disparity on the compaction behavior of binary mixtures of pharmaceutical powders. <i>Powder Technology</i> , 2013, 236, 5-11.	2.1	13
28	Measurement of residence time distribution in a rotary calciner. <i>AIChE Journal</i> , 2013, 59, 4068-4076.	1.8	31
29	Micro-RVE modeling of mechanistic response in porous intermetallics subject to weak and moderate impact loading. <i>International Journal of Plasticity</i> , 2013, 51, 1-32.	4.1	10
30	Capillary models of solvent diffusion. <i>Chemical Engineering Science</i> , 2013, 101, 515-522.	1.9	1
31	Mechanistic characterization of bilayer tablet formulations. <i>Powder Technology</i> , 2013, 236, 30-36.	2.1	40
32	Solvent Penetration Rate in Tablet Measurement Using Video Image Processing. <i>AAPS PharmSciTech</i> , 2012, 13, 507-512.	1.5	4
33	Evaluation of the Performance Characteristics of Bilayer Tablets: Part I. Impact of Material Properties and Process Parameters on the Strength of Bilayer Tablets. <i>AAPS PharmSciTech</i> , 2012, 13, 1236-1242.	1.5	35
34	Evaluation of the Performance Characteristics of Bilayer Tablets: Part II. Impact of Environmental Conditions on the Strength of Bilayer Tablets. <i>AAPS PharmSciTech</i> , 2012, 13, 1190-1196.	1.5	12
35	Influence of compaction properties and interfacial topography on the performance of bilayer tablets. <i>International Journal of Pharmaceutics</i> , 2012, 436, 171-178.	2.6	32
36	AFM study of hydrophilicity on acetaminophen crystals. <i>International Journal of Pharmaceutics</i> , 2012, 438, 184-190.	2.6	9

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37	Variations in predicting domain switching of ferroelectric ceramics. <i>Acta Mechanica</i> , 2012, 223, 2243-2256.	1.1	4
38	A nonlocal contact formulation for confined granular systems. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 333-350.	2.3	52
39	Modeling and simulation of compact strength due to particle bonding using a hybrid discrete-continuum approach. <i>International Journal of Pharmaceutics</i> , 2011, 418, 273-285.	2.6	17
40	Anisotropic crystal deformation measurements determined using powder X-ray diffraction and a new in situ compression stage. <i>International Journal of Pharmaceutics</i> , 2011, 418, 199-206.	2.6	12
41	Modeling and simulation of the coupled mechanical–electrical response of soft solids. <i>International Journal of Plasticity</i> , 2011, 27, 1459-1470.	4.1	31
42	A Quantitative Correlation of the Effect of Density Distributions in Roller-Compacted Ribbons on the Mechanical Properties of Tablets Using Ultrasonics and X-ray Tomography. <i>AAPS PharmSciTech</i> , 2011, 12, 834-853.	1.5	57
43	Mixing order of glidant and lubricant – Influence on powder and tablet properties. <i>International Journal of Pharmaceutics</i> , 2011, 409, 269-277.	2.6	63
44	Evaluation of strain-induced hydrophobicity of pharmaceutical blends and its effect on drug release rate under multiple compression conditions. <i>Drug Development and Industrial Pharmacy</i> , 2011, 37, 428-435.	0.9	24
45	Modeling of Dynamically Loaded Open-Cell Metallic Foams: Yielding, Collapse, and Strain Rate Effects. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2010, 77, .	1.1	6
46	Investigation of three-dimensional aspects of grain-scale plastic surface deformation of an aluminum oligocrystal. <i>International Journal of Plasticity</i> , 2008, 24, 2278-2297.	4.1	258
47	Modeling the dynamic response of visco-elastic open-cell foams. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 1916-1943.	2.3	20
48	An explicit formulation for multiscale modeling of bcc metals. <i>International Journal of Plasticity</i> , 2008, 24, 2173-2191.	4.1	29
49	Characterization and Prediction of the Fracture Response of Solid Food Foams. , 2008, , 163-174.		2
50	Biomechanical Alterations in Intact Osteoporotic Spine Due to Synthetic Augmentation: Finite Element Investigation. <i>Journal of Biomechanical Engineering</i> , 2007, 129, 575-585.	0.6	6
51	Influence of in-grain mesh resolution on the prediction of deformation textures in fcc polycrystals by crystal plasticity FEM. <i>Acta Materialia</i> , 2007, 55, 2361-2373.	3.8	80
52	On the measurement of human osteosarcoma cell elastic modulus using shear assay experiments. <i>Journal of Materials Science: Materials in Medicine</i> , 2007, 18, 103-109.	1.7	9
53	Efficient and robust constitutive integrators for single-crystal plasticity modeling. <i>International Journal of Plasticity</i> , 2006, 22, 1988-2011.	4.1	39
54	Investigation of the viscoelasticity of human osteosarcoma cells using a shear assay method. <i>Journal of Materials Research</i> , 2006, 21, 1922-1930.	1.2	11

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55	Fatigue of As-Fabricated Open Cell Aluminum Foams. Journal of Engineering Materials and Technology, Transactions of the ASME, 2005, 127, 40-45.	0.8	12
56	MULTISCALE MODELING OF DEGRADATION AND FAILURE OF INTERCONNECT LINES DRIVEN BY ELECTROMIGRATION AND STRESS GRADIENTS. Lecture Notes Series, Institute for Mathematical Sciences, 2005, , 335-383.	0.2	0
57	A study of surface roughening in fcc metals using direct numerical simulation. Acta Materialia, 2004, 52, 5791-5804.	3.8	104
58	A Parametric Study on Material Properties of Cortical Shell and Trabecular Core in an Osteoporotic, Lumbar Vertebral Bone Model. , 2004, , .		1
59	Direct Numerical Simulation of Polycrystals. , 2003, , .		3
60	Taylor Averaging on Heterogeneous Foams. Journal of Composite Materials, 2003, 37, 701-713.	1.2	13
61	Oscillatory Thermomechanical Instability of an Ultrathin Catalyst. Science, 2003, 300, 1932-1936.	6.0	39
62	A micromechanical model of hardening, rate sensitivity and thermal softening in BCC single crystals. Journal of the Mechanics and Physics of Solids, 2002, 50, 1511-1545.	2.3	77
63	A phase-field theory of dislocation dynamics, strain hardening and hysteresis in ductile single crystals. Journal of the Mechanics and Physics of Solids, 2002, 50, 2597-2635.	2.3	252
64	Full-field measurements of heterogeneous deformation patterns on polymeric foams using digital image correlation. International Journal of Solids and Structures, 2002, 39, 3777-3796.	1.3	126
65	Consolidation Behavior of Inhomogeneous Granular Beds of Ductile Particles using a Mixed Discrete-Continuum Approach. KONA Powder and Particle Journal, 2002, 20, 168-177.	0.9	8
66	Biomechanics of Vertebroplasty. , 2002, , .		0
67	The energetics of heterogeneous deformation in open-cell solid foams. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2001, 457, 1079-1096.	1.0	30
68	Application of phase field microelasticity theory of phase transformations to dislocation dynamics: Model and three-dimensional simulations in a single crystal. Philosophical Magazine Letters, 2001, 81, 385-393.	0.5	35
69	A multiscale approach for modeling crystalline solids. Journal of Computer-Aided Materials Design, 2001, 8, 127-149.	0.7	31
70	Nanoscale phase field microelasticity theory of dislocations: model and 3D simulations. Acta Materialia, 2001, 49, 1847-1857.	3.8	363
71	Phase field microelasticity theory and modeling of multiple dislocation dynamics. Applied Physics Letters, 2001, 78, 2324-2326.	1.5	95
72	Three-dimensional nonlinear open-cell foams with large deformations. Journal of the Mechanics and Physics of Solids, 2000, 48, 961-988.	2.3	85

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73	Ductile fracture by vacancy condensation in f.c.c. single crystals. <i>Acta Materialia</i> , 1996, 44, 427-436.	3.8	132
74	Effect of temperature and stacking fault energy on the hardening of FCC crystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996, 216, 104-116.	2.6	11
75	Three-dimensional crack-tip fields in four-point-bending copper single-crystal specimens. <i>Journal of the Mechanics and Physics of Solids</i> , 1996, 44, 863-904.	2.3	48
76	Constitutive modeling of L12 intermetallic crystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993, 170, 111-123.	2.6	45
77	Finite elements with displacement interpolated embedded localization lines insensitive to mesh size and distortions. <i>International Journal for Numerical Methods in Engineering</i> , 1990, 30, 541-564.	1.5	185
78	A Vlasov beam element. <i>Computers and Structures</i> , 1989, 33, 187-196.	2.4	37