

Jarkko Ketolainen

List of Publications by Year in descending order

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94
papers

2,245
citations

201674

27
h-index

276875

41
g-index

94
all docs

94
docs citations

94
times ranked

1878
citing authors

#	ARTICLE	IF	CITATIONS
1	Predicting the Formation and Stability of Amorphous Small Molecule Binary Mixtures from Computationally Determined Flory-Huggins Interaction Parameter and Phase Diagram. <i>Molecular Pharmaceutics</i> , 2010, 7, 795-804.	4.6	145
2	Influence of raw material properties upon critical quality attributes of continuously produced granules and tablets. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2014, 87, 252-263.	4.3	70
3	Visualization and understanding of the granulation liquid mixing and distribution during continuous twin screw granulation using NIR chemical imaging. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2014, 86, 383-392.	4.3	65
4	Starch acetate as a tablet matrix for sustained drug release. <i>Journal of Controlled Release</i> , 2004, 94, 293-302.	9.9	61
5	Linking granulation performance with residence time and granulation liquid distributions in twin-screw granulation: An experimental investigation. <i>European Journal of Pharmaceutical Sciences</i> , 2016, 90, 25-37.	4.0	61
6	Characterization of the Pore Structure of Functionalized Calcium Carbonate Tablets by Terahertz Time-Domain Spectroscopy and X-Ray Computed Microtomography. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 1586-1595.	3.3	59
7	Detection of porosity of pharmaceutical compacts by terahertz radiation transmission and light reflection measurement techniques. <i>International Journal of Pharmaceutics</i> , 2014, 465, 70-76.	5.2	56
8	Continuous manufacturing of extended release tablets via powder mixing and direct compression. <i>International Journal of Pharmaceutics</i> , 2015, 495, 290-301.	5.2	53
9	Dehydration of theophylline monohydrate—a two step process. <i>International Journal of Pharmaceutics</i> , 1997, 158, 47-55.	5.2	52
10	Strategic funding priorities in the pharmaceutical sciences allied to Quality by Design (QbD) and Process Analytical Technology (PAT). <i>European Journal of Pharmaceutical Sciences</i> , 2012, 47, 402-405.	4.0	49
11	In-Line Multipoint Near-Infrared Spectroscopy for Moisture Content Quantification during Freeze-Drying. <i>Analytical Chemistry</i> , 2013, 85, 2377-2384.	6.5	48
12	Dynamic solid-state and tableting properties of four theophylline forms. <i>International Journal of Pharmaceutics</i> , 2001, 217, 225-236.	5.2	46
13	The feasibility of using acoustic emissions for monitoring of fluidized bed granulation. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2009, 97, 75-81.	3.5	46
14	Aqueous starch acetate dispersion as a novel coating material for controlled release products. <i>Journal of Controlled Release</i> , 2004, 96, 179-191.	9.9	43
15	Continuous manufacturing of tablets with PROMIS-line — Introduction and case studies from continuous feeding, blending and tableting. <i>European Journal of Pharmaceutical Sciences</i> , 2016, 90, 38-46.	4.0	42
16	Effects of physical properties for starch acetate powders on tableting. <i>AAPS PharmSciTech</i> , 2002, 3, 68-76.	3.3	41
17	Photoacoustic evaluation of elasticity and integrity of pharmaceutical tablets. <i>International Journal of Pharmaceutics</i> , 1995, 125, 45-53.	5.2	40
18	Evaluation of novel starch acetate—diltiazem controlled release tablets in healthy human volunteers. <i>Journal of Controlled Release</i> , 2004, 95, 515-520.	9.9	38

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19	Phase Separation in Coamorphous Systems: <i>in Silico</i> Prediction and the Experimental Challenge of Detection. <i>Molecular Pharmaceutics</i> , 2014, 11, 2271-2279.	4.6	36
20	Theophylline-nicotinamide cocrystal formation in physical mixture during storage. <i>International Journal of Pharmaceutics</i> , 2015, 486, 121-130.	5.2	36
21	Preparation and characterization of hot-melt extruded polycaprolactone-based filaments intended for 3D-printing of tablets. <i>European Journal of Pharmaceutical Sciences</i> , 2021, 158, 105619.	4.0	33
22	In-line ultrasound measurement system for detecting tablet integrity. <i>International Journal of Pharmaceutics</i> , 2010, 400, 104-113.	5.2	32
23	Intraorally fast-dissolving particles of a poorly soluble drug: Preparation and <i>in vitro</i> characterization. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2009, 71, 271-281.	4.3	31
24	Non-contact weight measurement of flat-faced pharmaceutical tablets using terahertz transmission pulse delay measurements. <i>International Journal of Pharmaceutics</i> , 2014, 476, 16-22.	5.2	31
25	Effects of cooling rate in microscale and pilot scale freeze-drying – Variations in excipient polymorphs and protein secondary structure. <i>European Journal of Pharmaceutical Sciences</i> , 2016, 95, 72-81.	4.0	31
26	Terahertz study on porosity and mass fraction of active pharmaceutical ingredient of pharmaceutical tablets. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2016, 105, 122-133.	4.3	30
27	Validation of a multipoint near-infrared spectroscopy method for in-line moisture content analysis during freeze-drying. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 95, 229-237.	2.8	29
28	Provoking an end-to-end continuous direct compression line with raw materials prone to segregation. <i>European Journal of Pharmaceutical Sciences</i> , 2017, 109, 514-524.	4.0	28
29	Resolving the rapid water absorption of porous functionalised calcium carbonate powder compacts by terahertz pulsed imaging. <i>Chemical Engineering Research and Design</i> , 2018, 132, 1082-1090.	5.6	28
30	Surface-Active Derivative of Inulin (Inutec® SP1) Is a Superior Carrier for Solid Dispersions with a High Drug Load. <i>Journal of Pharmaceutical Sciences</i> , 2011, 100, 2333-2342.	3.3	27
31	Fast and non-destructive pore structure analysis using terahertz time-domain spectroscopy. <i>International Journal of Pharmaceutics</i> , 2018, 537, 102-110.	5.2	27
32	Simultaneous investigation of the liquid transport and swelling performance during tablet disintegration. <i>International Journal of Pharmaceutics</i> , 2020, 584, 119380.	5.2	27
33	A Study on the Resolution of a Terahertz Spectrometer for the Assessment of the Porosity of Pharmaceutical Tablets. <i>Applied Spectroscopy</i> , 2012, 66, 319-323.	2.2	26
34	Predicting granule size distribution of a fluidized bed spray granulation process by regime based PLS modeling of acoustic emission data. <i>Powder Technology</i> , 2012, 228, 149-157.	4.2	26
35	Comparison between integrated continuous direct compression line and batch processing – The effect of raw material properties. <i>European Journal of Pharmaceutical Sciences</i> , 2019, 133, 40-53.	4.0	26
36	Predicting the drug concentration in starch acetate matrix tablets from ATR-FTIR spectra using multi-way methods. <i>Analytica Chimica Acta</i> , 2007, 595, 190-197.	5.4	25

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37	Perphenazine solid dispersions for orally fast-disintegrating tablets: physical stability and formulation. <i>Drug Development and Industrial Pharmacy</i> , 2010, 36, 601-613.	2.0	24
38	Microscale Freeze-Drying with Raman Spectroscopy as a Tool for Process Development. <i>Analytical Chemistry</i> , 2013, 85, 2109-2116.	6.5	24
39	Ultrasound transmission measurements for tensile strength evaluation of tablets. <i>International Journal of Pharmaceutics</i> , 2011, 409, 104-110.	5.2	23
40	Complexation with tolbutamide modifies the physicochemical and tableting properties of hydroxypropyl- β -cyclodextrin. <i>International Journal of Pharmaceutics</i> , 2001, 215, 137-145.	5.2	22
41	Kramers' Kronig analysis on the real refractive index of porous media in the terahertz spectral range. <i>Optics Letters</i> , 2011, 36, 778.	3.3	21
42	Wiener Bounds for Complex Permittivity in Terahertz Spectroscopy: Case Study of Two-Phase Pharmaceutical Tablets. <i>Applied Spectroscopy</i> , 2010, 64, 127-131.	2.2	19
43	Computational Approach for Fast Screening of Small Molecular Candidates To Inhibit Crystallization in Amorphous Drugs. <i>Molecular Pharmaceutics</i> , 2012, 9, 2844-2855.	4.6	19
44	Measurement of residence time distributions and material tracking on three continuous manufacturing lines. <i>International Journal of Pharmaceutics</i> , 2019, 563, 184-197.	5.2	19
45	Evolution of Granule Structure and Drug Content During Fluidized Bed Granulation by X-Ray Microtomography and Confocal Raman Spectroscopy. <i>Journal of Pharmaceutical Sciences</i> , 2011, 100, 5254-5269.	3.3	18
46	Estimation of Young's modulus of pharmaceutical tablet obtained by terahertz time-delay measurement. <i>International Journal of Pharmaceutics</i> , 2015, 489, 100-105.	5.2	18
47	Noninvasive porosity measurement of biconvex tablets using terahertz pulses. <i>International Journal of Pharmaceutics</i> , 2016, 509, 439-443.	5.2	18
48	Changes in solid-state structure of cyclophosphamide monohydrate induced by mechanical treatment and storage. <i>Pharmaceutical Research</i> , 1995, 12, 299-304.	3.5	17
49	Controlled release of saccharides from matrix tablets. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2006, 62, 163-170.	4.3	17
50	Monitoring the wetting phase of fluidized bed granulation process using multi-way methods: The separation of successful from unsuccessful batches. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2009, 96, 88-93.	3.5	17
51	On the Correlation of Effective Terahertz Refractive Index and Average Surface Roughness of Pharmaceutical Tablets. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 776-785.	2.2	17
52	On the role of API in determining porosity, pore structure and bulk modulus of the skeletal material in pharmaceutical tablets formed with MCC as sole excipient. <i>International Journal of Pharmaceutics</i> , 2017, 526, 321-331.	5.2	17
53	Efficient production of solid dispersions by spray drying solutions of high solid content using a 3-fluid nozzle. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 123, 50-58.	4.3	17
54	A structure parameter for porous pharmaceutical tablets obtained with the aid of Wiener bounds for effective permittivity and terahertz time-delay measurement. <i>International Journal of Pharmaceutics</i> , 2016, 506, 87-92.	5.2	16

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55	Comparison between twin-screw and high-shear granulation - The effect of filler and active pharmaceutical ingredient on the granule and tablet properties. <i>Powder Technology</i> , 2020, 376, 187-198.	4.2	16
56	Estimation of granule size distribution for batch fluidized bed granulation process using acoustic emission and <i>Partial Least Squares (PLS)</i> . <i>Journal of Chemometrics</i> , 2010, 24, 464-471.	1.3	15
57	Labscale fluidized bed granulator instrumented with non-invasive process monitoring devices. <i>Chemical Engineering Journal</i> , 2010, 164, 268-274.	12.7	15
58	Fast-dissolving sublingual solid dispersion and cyclodextrin complex increase the absorption of perphenazine in rabbits. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 63, 19-25.	2.4	15
59	Strategic framework for education and training in Quality by Design (QbD) and process analytical technology (PAT). <i>European Journal of Pharmaceutical Sciences</i> , 2016, 90, 2-7.	4.0	15
60	Lubricant based determination of design space for continuously manufactured high dose paracetamol tablets. <i>European Journal of Pharmaceutical Sciences</i> , 2018, 115, 1-10.	4.0	15
61	An optical method for continuous monitoring of the dissolution rate of pharmaceutical powders. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2010, 52, 181-189.	2.8	14
62	Disintegrant properties of an agglomerated cellulose powder. <i>International Journal of Pharmaceutics</i> , 1989, 57, 139-147.	5.2	13
63	Drug Release Phenomena Within a Hydrophobic Starch Acetate Matrix: FTIR Mapping of Tablets After In Vitro Dissolution Testing. <i>Journal of Pharmaceutical Sciences</i> , 2008, 97, 3367-3378.	3.3	13
64	Near-Infrared Imaging for High-Throughput Screening of Moisture Induced Changes in Freeze-Dried Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 2839-2846.	3.3	13
65	Monitoring of drug release kinetics from thin polymer films by multi-parametric surface plasmon resonance. <i>International Journal of Pharmaceutics</i> , 2015, 494, 531-536.	5.2	13
66	Partial least square projections to latent structures analysis (PLS) in evaluating and predicting drug release from starch acetate matrix tablets. <i>Journal of Pharmaceutical Sciences</i> , 2005, 94, 2716-2730.	3.3	12
67	Electrical impedance tomography for three-dimensional drug release monitoring. <i>European Journal of Pharmaceutical Sciences</i> , 2010, 41, 407-413.	4.0	12
68	Real-time tablet formation monitoring with ultrasound measurements in eccentric single station tablet press. <i>International Journal of Pharmaceutics</i> , 2013, 442, 27-34.	5.2	11
69	Achieving a robust drug release from extended release tablets using an integrated continuous mixing and direct compression line. <i>International Journal of Pharmaceutics</i> , 2016, 511, 659-668.	5.2	11
70	The Comparison of Two Challenging Low Dose APIs in a Continuous Direct Compression Process. <i>Pharmaceutics</i> , 2020, 12, 279.	4.5	11
71	Prediction of Contact Angle for Pharmaceutical Solids from Their Molecular Structure. <i>Journal of Pharmaceutical Sciences</i> , 2005, 94, 745-758.	3.3	10
72	Modifying Drug Release and Tablet Properties of Starch Acetate Tablets by Dry Powder Agglomeration. <i>Journal of Pharmaceutical Sciences</i> , 2007, 96, 438-447.	3.3	10

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73	Structural attributes of model protein formulations prepared by rapid freeze-drying cycles in a microscale heating stage. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2014, 87, 347-356.	4.3	9
74	Holographic evaluation of bending and integrity of pharmaceutical powder beams. <i>International Journal of Pharmaceutics</i> , 1996, 131, 209-217.	5.2	8
75	Liquid boundary movements in cylindrical and convex hydrophobic matrix tablets: Effects on tablet cracking and drug release. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2006, 64, 167-172.	4.3	8
76	Estimation of drug release profiles of a heterogeneous set of drugs from a hydrophobic matrix tablet using molecular descriptors. <i>Journal of Chemometrics</i> , 2008, 22, 653-660.	1.3	8
77	The effects of unintentional and intentional process disturbances on tablet quality during long continuous manufacturing runs. <i>European Journal of Pharmaceutical Sciences</i> , 2019, 129, 10-20.	4.0	8
78	Deformation behaviors of tolbutamide, hydroxypropyl-beta-cyclodextrin, and their dispersions. <i>Pharmaceutical Research</i> , 2000, 17, 942-948.	3.5	7
79	Local and average gloss from flat-faced sodium chloride tablets. <i>AAPS PharmSciTech</i> , 2006, 7, E43-E48.	3.3	7
80	Effect of formulation parameters and drug-polymer interactions on drug release from starch acetate matrix tablets. <i>Journal of Pharmaceutical Sciences</i> , 2009, 98, 3676-3690.	3.3	7
81	An electrical impedance tomography-based approach to monitor <i>in vitro</i> sodium chloride dissolution from pharmaceutical tablets. <i>Review of Scientific Instruments</i> , 2009, 80, 103706.	1.3	7
82	Optics-based compressibility parameter for pharmaceutical tablets obtained with the aid of the terahertz refractive index. <i>International Journal of Pharmaceutics</i> , 2017, 525, 85-91.	5.2	7
83	Effect of shape on the physical properties of pharmaceutical tablets. <i>International Journal of Pharmaceutics</i> , 2022, 624, 121993.	5.2	7
84	Evaluation of pharmaceutical beam bending tests using double-exposure holographic interferometry. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 1997, 44, 261-267.	4.3	6
85	Terahertz absorption spectra of commonly used antimalarial drugs. <i>Optical Review</i> , 2018, 25, 444-449.	2.0	6
86	Systematic evaluation of a spraying method for preparing thin Eudragit-drug films by Design of Experiments. <i>Journal of Drug Delivery Science and Technology</i> , 2016, 35, 241-251.	3.0	5
87	Investigating elastic relaxation effects on the optical properties of functionalised calcium carbonate compacts using optics-based Heckel analysis. <i>International Journal of Pharmaceutics</i> , 2018, 544, 278-284.	5.2	5
88	Impact of Microscale and Pilot-Scale Freeze-Drying on Protein Secondary Structures: Sucrose Formulations of Lysozyme and Catalase. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 3710-3721.	3.3	4
89	Effect of storage on the physical stability of thin polymethacrylate-perphenazine films. <i>European Journal of Pharmaceutical Sciences</i> , 2017, 104, 293-301.	4.0	4
90	Converting a batch based high-shear granulation process to a continuous dry granulation process; a demonstration with ketoprofen tablets. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 151, 105381.	4.0	4

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91	Reflectometric monitoring of the dissolution process of thin polymeric films. International Journal of Pharmaceutics, 2017, 523, 127-132.	5.2	3
92	Faster to First-time-in-Human: Prediction of the liquid solid ratio for continuous wet granulation. European Journal of Pharmaceutical Sciences, 2022, 172, 106151.	4.0	2
93	Measuring tablet porosity using multispectral imaging system. Optical Review, 2010, 17, 323-326.	2.0	1
94	Analysis of anisotropic pore structures using terahertz spectroscopy and imaging. , 2017, , .		1