

Eric M ZiÅ©mons

List of Publications by Year in descending order

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103
papers

2,922
citations

159358

30
h-index

197535

49
g-index

104
all docs

104
docs citations

104
times ranked

2751
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of recent pharmaceutical regulatory documents on analytical method validation. <i>Journal of Chromatography A</i> , 2007, 1158, 111-125.	1.8	229
2	Vibrational spectroscopy in analysis of pharmaceuticals: Critical review of innovative portable and handheld NIR and Raman spectrophotometers. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 114, 251-259.	5.8	130
3	Advances in validation, risk and uncertainty assessment of bioanalytical methods. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2011, 55, 848-858.	1.4	121
4	Critical review of near-infrared spectroscopic methods validations in pharmaceutical applications. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2012, 69, 125-132.	1.4	101
5	Data processing of vibrational chemical imaging for pharmaceutical applications. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 101, 123-140.	1.4	95
6	In Vitro Antiplasmodial Activity of <i>Tithonia diversifolia</i> and Identification of its Main Active Constituent: Tagitinin C. <i>Planta Medica</i> , 2002, 68, 543-545.	0.7	94
7	Moisture content determination of pharmaceutical pellets by near infrared spectroscopy: Method development and validation. <i>Analytica Chimica Acta</i> , 2009, 642, 186-192.	2.6	88
8	Development and validation of an in-line NIR spectroscopic method for continuous blend potency determination in the feed frame of a tablet press. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 151, 274-283.	1.4	72
9	Critical review of surface-enhanced Raman spectroscopy applications in the pharmaceutical field. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 147, 458-472.	1.4	71
10	Using tolerance intervals in pre-study validation of analytical methods to predict in-study results. <i>Journal of Chromatography A</i> , 2007, 1158, 126-137.	1.8	69
11	Acetaminophen determination in low-dose pharmaceutical syrup by NIR spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2010, 53, 510-516.	1.4	65
12	Continuous production of itraconazole-based solid dispersions by hot melt extrusion: Preformulation, optimization and design space determination. <i>International Journal of Pharmaceutics</i> , 2016, 515, 114-124.	2.6	62
13	Critical analysis of several analytical method validation strategies in the framework of the fit for purpose concept. <i>Journal of Chromatography A</i> , 2010, 1217, 3180-3192.	1.8	56
14	Active content determination of non-coated pharmaceutical pellets by near infrared spectroscopy: Method development, validation and reliability evaluation. <i>Talanta</i> , 2010, 80, 1750-1757.	2.9	55
15	Improvement of a stability-indicating method by Quality-by-Design versus Quality-by-Testing: A case of a learning process. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 88, 401-409.	1.4	54
16	Quality by Design Compliant Analytical Method Validation. <i>Analytical Chemistry</i> , 2012, 84, 106-112.	3.2	50
17	Breakage and drying behaviour of granules in a continuous fluid bed dryer: Influence of process parameters and wet granule transfer. <i>European Journal of Pharmaceutical Sciences</i> , 2018, 115, 223-232.	1.9	49
18	Comparing the qualitative performances of handheld NIR and Raman spectrophotometers for the detection of falsified pharmaceutical products. <i>Talanta</i> , 2019, 202, 469-478.	2.9	47

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19	Determination of 4-aminophenol in a pharmaceutical formulation using surface enhanced Raman scattering: From development to method validation. <i>Talanta</i> , 2013, 116, 899-905.	2.9	46
20	A new criterion to assess distributional homogeneity in hyperspectral images of solid pharmaceutical dosage forms. <i>Analytica Chimica Acta</i> , 2014, 818, 7-14.	2.6	44
21	Evaluation of the quantitative performances of supercritical fluid chromatography: From method development to validation. <i>Journal of Chromatography A</i> , 2014, 1353, 78-88.	1.8	42
22	Optimization and validation of a fast supercritical fluid chromatography method for the quantitative determination of vitamin D3 and its related impurities. <i>Journal of Chromatography A</i> , 2017, 1491, 171-181.	1.8	41
23	Validation of manufacturing process of Diltiazem HCl tablets by NIR spectrophotometry (NIRS). <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2007, 45, 356-361.	1.4	37
24	Providing illicit drugs results in five seconds using ultra-portable NIR technology: An opportunity for forensic laboratories to cope with the trend toward the decentralization of forensic capabilities. <i>Forensic Science International</i> , 2020, 317, 110498.	1.3	37
25	Building the quality into pellet manufacturing environment – Feasibility study and validation of an in-line quantitative near infrared (NIR) method. <i>Talanta</i> , 2010, 83, 305-311.	2.9	36
26	PAT tools for the control of co-extrusion implants manufacturing process. <i>International Journal of Pharmaceutics</i> , 2013, 458, 15-24.	2.6	36
27	Innovative green supercritical fluid chromatography development for the determination of polar compounds. <i>Journal of Chromatography A</i> , 2012, 1256, 253-260.	1.8	33
28	Towards a real time release approach for manufacturing tablets using NIR spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 98, 60-67.	1.4	33
29	Methodologies for the transfer of analytical methods: A review. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2009, 877, 2214-2223.	1.2	32
30	Global regression model for moisture content determination using near-infrared spectroscopy. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2017, 119, 343-352.	2.0	32
31	Near infrared and Raman spectroscopy as Process Analytical Technology tools for the manufacturing of silicone-based drug reservoirs. <i>Analytica Chimica Acta</i> , 2011, 699, 96-106.	2.6	30
32	Raman chemical imaging, a new tool in kidney stone structure analysis: Case-study and comparison to Fourier Transform Infrared spectroscopy. <i>PLoS ONE</i> , 2018, 13, e0201460.	1.1	30
33	Total error and uncertainty: Friends or foes?. <i>TrAC - Trends in Analytical Chemistry</i> , 2011, 30, 797-806.	5.8	29
34	Active content determination of pharmaceutical tablets using near infrared spectroscopy as Process Analytical Technology tool. <i>Talanta</i> , 2015, 144, 1352-1359.	2.9	29
35	Optimization of a pharmaceutical tablet formulation based on a design space approach and using vibrational spectroscopy as PAT tool. <i>International Journal of Pharmaceutics</i> , 2015, 486, 13-20.	2.6	28
36	Models to estimate overall analytical measurements uncertainty: Assumptions, comparisons and applications. <i>Analytica Chimica Acta</i> , 2011, 702, 160-171.	2.6	27

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37	Development of an analytical method for crystalline content determination in amorphous solid dispersions produced by hot-melt extrusion using transmission Raman spectroscopy: A feasibility study. <i>International Journal of Pharmaceutics</i> , 2017, 530, 249-255.	2.6	27
38	Determination of Arsenic(III) at a Nanogold Modified Solid Carbon Paste Electrode. <i>Electroanalysis</i> , 2015, 27, 309-316.	1.5	25
39	Design of experiments and design space approaches in the pharmaceutical bioprocess optimization. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 166, 144-154.	2.0	25
40	Optimisation and validation of a fast HPLC method for the quantification of sulindac and its related impurities. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2011, 54, 694-700.	1.4	24
41	From near-infrared and Raman to surface-enhanced Raman spectroscopy: progress, limitations and perspectives in bioanalysis. <i>Bioanalysis</i> , 2016, 8, 1077-1103.	0.6	24
42	Quantitation of active pharmaceutical ingredient through the packaging using Raman handheld spectrophotometers: A comparison study. <i>Talanta</i> , 2020, 207, 120306.	2.9	24
43	New perspective for the in-field analysis of cannabis samples using handheld near-infrared spectroscopy: A case study focusing on the determination of δ^9 -tetrahydrocannabinol. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 202, 114150.	1.4	24
44	Development of a quantitative approach using surface-enhanced Raman chemical imaging: First step for the determination of an impurity in a pharmaceutical model. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 90, 111-118.	1.4	23
45	Development, validation and comparison of NIR and Raman methods for the identification and assay of poor-quality oral quinine drops. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 111, 21-27.	1.4	23
46	Robustness testing of a chiral NACE method for R-timolol determination in S-timolol maleate and uncertainty assessment from quantitative data. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2007, 44, 640-651.	1.4	22
47	Comparison of hyperspectral imaging techniques for the elucidation of falsified medicines composition. <i>Talanta</i> , 2019, 198, 457-463.	2.9	20
48	Theoretical and experimental investigations of organic acids/cyclodextrin complexes and their consequences upon the formation of miconazole/cyclodextrin/acid ternary inclusion complexes. <i>International Journal of Pharmaceutics</i> , 2008, 347, 62-70.	2.6	19
49	A simple approach for ultrasensitive detection of bisphenols by multiplexed surface-enhanced Raman scattering. <i>Analytica Chimica Acta</i> , 2015, 888, 118-125.	2.6	18
50	Determination of binary polymorphic mixtures of fluconazole using near infrared spectroscopy and X-ray powder diffraction: A comparative study based on the pre-validation stage results. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2011, 55, 1208-1212.	1.4	17
51	Quantification of tagitinin C in <i>Tithonia diversifolia</i> by reversed-phase high-performance liquid chromatography. <i>Phytochemical Analysis</i> , 2003, 14, 378-380.	1.2	16
52	Vibrational spectroscopy and microspectroscopy analyzing qualitatively and quantitatively pharmaceutical hot melt extrudates. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 113, 21-33.	1.4	16
53	Global approach for the validation of an in-line Raman spectroscopic method to determine the API content in real-time during a hot-melt extrusion process. <i>Talanta</i> , 2017, 171, 45-52.	2.9	16
54	Towards a spray-coating method for the detection of low-dose compounds in pharmaceutical tablets using surface-enhanced Raman chemical imaging (SER-CI). <i>Talanta</i> , 2018, 188, 584-592.	2.9	16

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55	Evaluation of the analytical performances of two Raman handheld spectrophotometers for pharmaceutical solid dosage form quantitation. <i>Talanta</i> , 2020, 214, 120888.	2.9	16
56	Study of the physicochemical properties in aqueous medium and molecular modeling of tagitinin C/cyclodextrin complexes. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2007, 43, 910-919.	1.4	15
57	Risk-based approach for the transfer of quantitative methods: Bioanalytical applications. <i>Journal of Chromatography A</i> , 2008, 1189, 32-41.	1.8	15
58	Is supercritical fluid chromatography hyphenated to mass spectrometry suitable for the quality control of vitamin D3 oily formulations?. <i>Journal of Chromatography A</i> , 2017, 1515, 209-217.	1.8	15
59	Development of a SERS strategy to overcome the nanoparticle stabilisation effect in serum-containing samples: Application to the quantification of dopamine in the culture medium of PC-12 cells. <i>Talanta</i> , 2018, 186, 8-16.	2.9	15
60	Implementation of a generic SFC-MS method for the quality control of potentially counterfeited medicinal cannabis with synthetic cannabinoids. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2018, 1092, 332-342.	1.2	15
61	Composition analysis of falsified chloroquine phosphate samples seized during the COVID-19 pandemic. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 194, 113761.	1.4	15
62	Pixel-based Raman hyperspectral identification of complex pharmaceutical formulations. <i>Analytica Chimica Acta</i> , 2021, 1155, 338361.	2.6	15
63	Theoretical and experimental vibrational study of miconazole and its dimers with organic acids: Application to the IR characterization of its inclusion complexes with cyclodextrins. <i>International Journal of Pharmaceutics</i> , 2008, 350, 155-165.	2.6	14
64	Usefulness of capability indices in the framework of analytical methods validation. <i>Analytica Chimica Acta</i> , 2012, 714, 47-56.	2.6	13
65	Usefulness of Information Criteria for the Selection of Calibration Curves. <i>Analytical Chemistry</i> , 2013, 85, 6327-6335.	3.2	13
66	Critical review on recent trends in cannabinoid determination on cannabis herbal samples: From chromatographic to vibrational spectroscopic techniques. <i>Analytica Chimica Acta</i> , 2022, 1209, 339184.	2.6	13
67	Moisture content determination in an antibody-drug conjugate freeze-dried medicine by near-infrared spectroscopy: A case study for release testing. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 131, 380-390.	1.4	12
68	Near-Infrared Spectroscopy to Determine Residual Moisture in Freeze-Dried Products: Model Generation by Statistical Design of Experiments. <i>Journal of Pharmaceutical Sciences</i> , 2020, 109, 719-729.	1.6	12
69	Classification of polymorphic forms of fluconazole in pharmaceuticals by FT-IR and FT-NIR spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 196, 113922.	1.4	12
70	FT-IR measurement of tagitinin C after solvent extraction from <i>Tithonia diversifolia</i> . <i>Talanta</i> , 2004, 62, 383-387.	2.9	11
71	Evaluating the reliability of analytical results using a probability criterion: A Bayesian perspective. <i>Analytica Chimica Acta</i> , 2011, 705, 193-206.	2.6	11
72	Direct determination of tagitinin C in <i>Tithonia diversifolia</i> leaves by on-line coupling of supercritical carbon dioxide extraction to FT-IR spectroscopy by means of optical fibres. <i>Talanta</i> , 2007, 71, 911-917.	2.9	10

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73	Validation of analytical methods involved in dissolution assays: Acceptance limits and decision methodologies. <i>Analytica Chimica Acta</i> , 2012, 751, 44-51.	2.6	9
74	Poplarâ€™Root Knot Nematode Interaction: A Model for Perennial Woody Species. <i>Molecular Plant-Microbe Interactions</i> , 2016, 29, 560-572.	1.4	9
75	The analysis of cannabinoids in cannabis samples by supercritical fluid chromatography and ultraâ€™highâ€™performance liquid chromatography: A comparison study. <i>Analytical Science Advances</i> , 2021, 2, 2-14.	1.2	9
76	Application of NIR handheld transmission spectroscopy and chemometrics to assess the quality of locally produced antimalarial medicines in the Democratic Republic of Congo. <i>Talanta Open</i> , 2021, 3, 100025.	1.7	9
77	Selection of essential spectra to improve the multivariate curve resolution of minor compounds in complex pharmaceutical formulations. <i>Analytica Chimica Acta</i> , 2022, 1198, 339532.	2.6	9
78	Development and validation of a quantitative method for the selective determination of tin species in tin octoate by differential pulse polarography. <i>Talanta</i> , 2010, 80, 1413-1420.	2.9	8
79	Comments on â€™Uncertainty profiles for the validation of analytical methodsâ€™ by Saffaj and Ihssane. <i>Talanta</i> , 2012, 88, 769-771.	2.9	8
80	Methodology for the validation of analytical methods involved in uniformity of dosage units tests. <i>Analytica Chimica Acta</i> , 2013, 760, 46-52.	2.6	8
81	Effect of the functionalisation agent on the surface-enhanced Raman scattering (SERS) spectrum: Case study of pyridine derivatives. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 233, 118180.	2.0	8
82	Evaluation of distributional homogeneity of pharmaceutical formulation using laser direct infrared imaging. <i>International Journal of Pharmaceutics</i> , 2022, 612, 121373.	2.6	8
83	Thorough characterization of a Self-Emulsifying Drug Delivery System with Raman hyperspectral imaging: A case study. <i>International Journal of Pharmaceutics</i> , 2015, 484, 85-94.	2.6	7
84	Raman imaging as a new analytical tool for the quality control of the monitoring of osteogenic differentiation in forming 3D bone tissue. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2020, 186, 113319.	1.4	7
85	Comparison of several strategies for the deployment of a multivariate regression model on several handheld NIR instruments. Application to the quality control of medicines. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 215, 114755.	1.4	7
86	Detection of low dose of piroxicam polymorph in pharmaceutical tablets by surface-enhanced Raman chemical imaging (SER-Cl) and multivariate analysis. <i>International Journal of Pharmaceutics</i> , 2020, 574, 118913.	2.6	6
87	Development of a prototype device for near real-time surface-enhanced Raman scattering monitoring of biological samples. <i>Talanta</i> , 2021, 224, 121866.	2.9	6
88	Development of a sensitive MEKCâ€™LIF method for synthetic cathinones analysis. <i>Electrophoresis</i> , 2021, 42, 1127-1134.	1.3	6
89	Reply to the responses on the comments on â€™Uncertainty profiles for the validation of analytical methodsâ€™ by Saffaj and Ihssane. <i>Talanta</i> , 2012, 100, 290-292.	2.9	5
90	A simple calibration approach based on film-casting for confocal Raman microscopy to support the development of a hot-melt extrusion process. <i>Talanta</i> , 2016, 154, 392-399.	2.9	5

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91	A probabilistic class-modelling method based on prediction bands for functional spectral data: Methodological approach and application to near-infrared spectroscopy. <i>Analytica Chimica Acta</i> , 2021, 1144, 130-149.	2.6	5
92	Development of a highly persistent silicone-based sprayable emulsion containing essential oils for treatment of skin infections. <i>International Journal of Pharmaceutics</i> , 2021, 596, 120214.	2.6	5
93	Optimization of a robust and reliable FITC labeling process for CE-LIF analysis of pharmaceutical compounds using design of experiments strategy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 205, 114304.	1.4	5
94	A new alternative tool to analyse glycosylation in pharmaceutical proteins based on infrared spectroscopy combined with nonlinear support vector regression. <i>Analyst, The</i> , 2022, 147, 1086-1098.	1.7	5
95	Do placebo based validation standards mimic real batch products behaviour? Case studies. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2011, 55, 583-590.	1.4	4
96	Generic SFC-MS methodology for the quality control of vitamin D3 oily formulations. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 209, 114492.	1.4	4
97	Application of the analytical quality by design principles to the development of a qualitative surface-enhanced Raman scattering method: A proof of concept. <i>Journal of Raman Spectroscopy</i> , 0, , .	1.2	2
98	Influence of API physico-chemical properties on amorphization capacity of several mesoporous silica loading methods. <i>International Journal of Pharmaceutics</i> , 2022, 613, 121372.	2.6	2
99	Monitoring of anatabine release by methyl jasmonate elicited BY-2 cells using surface-enhanced Raman scattering. <i>Talanta</i> , 2016, 160, 754-760.	2.9	1
100	Interpretable One-Class Classification of Raman Spectra Using Prediction Bands Estimated by Wavelet Regression. <i>Analytical Chemistry</i> , 2022, 94, 4183-4191.	3.2	1
101	Process Analysis Maintenance, Reliability, and Training. , 2018, , .		0
102	Process Analysisâ€™ Overview. , 2018, , 396-396.		0
103	A New Alternative Tool to Analyse Glycosylation in Monoclonal Antibodies Based on Drop-Coating Deposition Raman imaging: A Proof of Concept. <i>Molecules</i> , 2022, 27, 4405.	1.7	0