

# Carl A Anderson

## List of Publications by Year in descending order

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55  
papers

1,088  
citations

361413

20  
h-index

434195

31  
g-index

55  
all docs

55  
docs citations

55  
times ranked

743  
citing authors

#	ARTICLE	IF	CITATIONS
1	Process characterization of powder blending by near-infrared spectroscopy: Blend end-points and beyond. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2008, 47, 738-745.	2.8	102
2	Characterization of Pharmaceutical Powder Blends by NIR Chemical Imaging. <i>Journal of Pharmaceutical Sciences</i> , 2008, 97, 3305-3320.	3.3	76
3	Process analytical technology case study, part III: Calibration monitoring and transfer. <i>AAPS PharmSciTech</i> , 2005, 6, E284-E297.	3.3	54
4	Process analytical technology case study: Part II. Development and validation of quantitative near-infrared calibrations in support of a process analytical technology application for real-time release. <i>AAPS PharmSciTech</i> , 2005, 6, E273-E283.	3.3	41
5	Comparison of Terahertz Pulse Imaging and Near-Infrared Spectroscopy for Rapid, Non-Destructive Analysis of Tablet Coating Thickness and Uniformity. <i>Journal of Pharmaceutical Innovation</i> , 2007, 2, 29-36.	2.4	41
6	Effect of Experimental Design on the Prediction Performance of Calibration Models Based on Near-Infrared Spectroscopy for Pharmaceutical Applications. <i>Applied Spectroscopy</i> , 2012, 66, 1442-1453.	2.2	39
7	Determination of figures of merit for near-infrared and raman spectrometry by net analyte signal analysis for a 4-component solid dosage system. <i>AAPS PharmSciTech</i> , 2007, 8, 109-119.	3.3	38
8	A Near-Infrared Spectroscopic Investigation of Relative Density and Crushing Strength in Four-Component Compacts. <i>Journal of Pharmaceutical Sciences</i> , 2009, 98, 1095-1109.	3.3	38
9	Application of Monte Carlo Simulation-Based Photon Migration for Enhanced Understanding of Near-Infrared (NIR) Diffuse Reflectance. Part I: Depth of Penetration in Pharmaceutical Materials. <i>Journal of Pharmaceutical Sciences</i> , 2010, 99, 2399-2412.	3.3	37
10	Method Development and Validation of an Inline Process Analytical Technology Method for Blend Monitoring in the Tablet Feed Frame Using Raman Spectroscopy. <i>Analytical Chemistry</i> , 2018, 90, 8436-8444.	6.5	37
11	In-line monitoring and optimization of powder flow in a simulated continuous process using transmission near infrared spectroscopy. <i>International Journal of Pharmaceutics</i> , 2017, 526, 199-208.	5.2	36
12	Modeling strategies for pharmaceutical blend monitoring and end-point determination by near-infrared spectroscopy. <i>International Journal of Pharmaceutics</i> , 2014, 473, 219-231.	5.2	31
13	Scattering Orthogonalization of Near-Infrared Spectra for Analysis of Pharmaceutical Tablets. <i>Analytical Chemistry</i> , 2009, 81, 1389-1396.	6.5	30
14	An efficient method-development strategy for quantitative chemical imaging using terahertz pulse spectroscopy. <i>Journal of Pharmaceutical Innovation</i> , 2006, 1, 63-75.	2.4	28
15	Method development and validation for pharmaceutical tablets analysis using transmission Raman spectroscopy. <i>International Journal of Pharmaceutics</i> , 2016, 498, 318-325.	5.2	27
16	Online Monitoring of Pharmaceutical Materials Using Multiple NIR Sensors—Part I: Blend Homogeneity. <i>Journal of Pharmaceutical Innovation</i> , 2011, 6, 47-59.	2.4	26
17	Online Monitoring of Pharmaceutical Materials Using Multiple NIR Sensors—Part II: Blend End-point Determination. <i>Journal of Pharmaceutical Innovation</i> , 2013, 8, 45-55.	2.4	24
18	A robust quantitative near infrared modeling approach for blend monitoring. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 148, 51-57.	2.8	23

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19	Refractive Index Measurement of Pharmaceutical Solids: A Review of Measurement Methods and Pharmaceutical Applications. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 3478-3495.	3.3	23
20	Effects and Detection of Raw Material Variability on the Performance of Near-Infrared Calibration Models for Pharmaceutical Products. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 545-556.	3.3	21
21	Prediction of Dissolution Profiles From Process Parameters, Formulation, and Spectroscopic Measurements. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 2119-2127.	3.3	21
22	Near-Infrared Spatially Resolved Spectroscopy for Tablet Quality Determination. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 4074-4081.	3.3	20
23	Investigation of the Sensitivity of Transmission Raman Spectroscopy for Polymorph Detection in Pharmaceutical Tablets. <i>Applied Spectroscopy</i> , 2017, 71, 1856-1867.	2.2	19
24	Robustness Considerations and Effects of Moisture Variations on near Infrared Method Performance for Solid Dosage Form Assay. <i>Journal of Near Infrared Spectroscopy</i> , 2014, 22, 179-188.	1.5	17
25	Determination of Figures of Merit for Near-Infrared, Raman and Powder X-ray Diffraction by Net Analyte Signal Analysis for a Compacted Amorphous Dispersion with Spiked Crystallinity. <i>Journal of Pharmaceutical Innovation</i> , 2012, 7, 56-68.	2.4	16
26	Efficient Near-Infrared Spectroscopic Calibration Methods for Pharmaceutical Blend Monitoring. <i>Journal of Pharmaceutical Innovation</i> , 2011, 6, 10-23.	2.4	15
27	Review: Use of Thermal, Diffraction, and Vibrational Analytical Methods to Determine Mechanisms of Solid Dispersion Stability. <i>Journal of Pharmaceutical Innovation</i> , 2012, 7, 2-12.	2.4	15
28	Designing a calibration set in spectral space for efficient development of an NIR method for tablet analysis. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2017, 145, 230-239.	2.8	15
29	Development of an In-Line Near-Infrared Method for Blend Content Uniformity Assessment in a Tablet Feed Frame. <i>Applied Spectroscopy</i> , 2019, 73, 1028-1040.	2.2	14
30	Challenges, opportunities and recent advances in near infrared spectroscopy applications for monitoring blend uniformity in the continuous manufacturing of solid oral dosage forms. <i>International Journal of Pharmaceutics</i> , 2022, 615, 121462.	5.2	14
31	Calibration Transfer of a Quantitative Transmission Raman PLS Model: Direct Transfer vs. Global Modeling. <i>Journal of Pharmaceutical Innovation</i> , 2017, 12, 347-356.	2.4	13
32	Determining the effect of photodegradation on film coated nifedipine tablets with terahertz based coating thickness measurements. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2019, 145, 35-41.	4.3	13
33	Rapid at-line early cell death quantification using capacitance spectroscopy. <i>Biotechnology and Bioengineering</i> , 2022, 119, 857-867.	3.3	12
34	Hybrid Controls Combining First-Principle Calculations with Empirical Modeling for Fully Automated Fluid Bed Processing. <i>Journal of Pharmaceutical Innovation</i> , 2012, 7, 140-150.	2.4	10
35	Metabolic trends of Chinese hamster ovary cells in biopharmaceutical production under batch and continuous conditions. <i>Biotechnology Progress</i> , 2022, 38, e3220.	2.6	10
36	Improving Near-Infrared Prediction Model Robustness with Support Vector Machine Regression: A Pharmaceutical Tablet Assay Example. <i>Applied Spectroscopy</i> , 2014, 68, 1348-1356.	2.2	9

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37	Synthetic Calibration for Efficient Method Development: Analysis of Tablet API Concentration by Near-Infrared Spectroscopy. <i>Journal of Pharmaceutical Innovation</i> , 2007, 2, 93-105.	2.4	8
38	Adaptive Design Space as an Integrated Component of Quality by Design. <i>Journal of Pharmaceutical Innovation</i> , 2012, 7, 119-126.	2.4	7
39	Effect of Sampling Frequency for Real-Time Tablet Coating Monitoring Using Near Infrared Spectroscopy. <i>Applied Spectroscopy</i> , 2016, 70, 1476-1488.	2.2	7
40	Influence of moisture variation on the performance of Raman spectroscopy in quantitative pharmaceutical analyses. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2019, 164, 528-535.	2.8	7
41	Variable selection optimization for multivariate models with Polar Qualification System. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2018, 180, 1-14.	3.5	6
42	Feedforward and Feedback Control of a Pharmaceutical Coating Process. <i>AAPS PharmSciTech</i> , 2019, 20, 157.	3.3	6
43	Figures of Merit Comparison of Reflectance and Transmittance Near-Infrared Methods for the Prediction of Constituent Concentrations in Pharmaceutical Compacts. <i>Journal of Pharmaceutical Innovation</i> , 2008, 3, 41-50.	2.4	5
44	Application of Monte Carlo Simulation-Based Photon Migration for Enhanced Understanding of Near-Infrared (NIR) Diffuse Reflectance. Part II: Photon Radial Diffusion in NIR Chemical Images. <i>Journal of Pharmaceutical Sciences</i> , 2010, 99, 4174-4182.	3.3	5
45	Development of NIR Methods for Blend Analysis Using Small Quantities of Materials. <i>Journal of Pharmaceutical Innovation</i> , 2015, 10, 36-46.	2.4	4
46	Optical coefficient-based multivariate calibration on near-infrared spectroscopy. <i>Journal of Chemometrics</i> , 2010, 24, 288-299.	1.3	3
47	2-D Image Localization in Hyperspectral Image Analysis of Pharmaceutical Materials. <i>Journal of Pharmaceutical Innovation</i> , 2011, 6, 2-9.	2.4	3
48	Calibration Transfer from Pharmaceutical Powder Mixtures to Compacts Using the Prediction Augmented Classical Least Squares (PACLS) Method. <i>Applied Spectroscopy</i> , 2012, 66, 1075-1081.	2.2	3
49	Development of a Statistical Tolerance-Based Fluid Bed Drying Design Space. <i>Journal of Pharmaceutical Innovation</i> , 2012, 7, 151-162.	2.4	3
50	Evaluation of the Effect of near Infrared Spectrometer Wavelength Range and Calibration Algorithms on Prediction of Crushing Strength of Pharmaceutical Tablets. <i>Journal of Near Infrared Spectroscopy</i> , 2016, 24, 413-424.	1.5	3
51	Blending and Characterization of Pharmaceutical Powders. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 233-275.	0.6	3
52	Terahertz Time of Flight Spectroscopy as a Coating Thickness Reference Method for Partial Least Squares Near Infrared Spectroscopy Models. <i>Analytical Chemistry</i> , 2020, 92, 3658-3665.	6.5	3
53	Development of calibration-free/minimal calibration wavelength selection for iterative optimization technology algorithms toward process analytical technology application. <i>International Journal of Pharmaceutics</i> , 2022, 614, 121463.	5.2	3
54	Rapid serum-free suspension adaptation: Medium development using a definitive screening design for Chinese hamster ovary cells. <i>Biotechnology Progress</i> , 2021, 37, e3154.	2.6	2

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55	NIR spectroscopic methods for monitoring blend potency in a feed frame - calibration transfer between offline and inline using a continuum regression filter. International Journal of Pharmaceutics, 2022, 614, 121363.	5.2	2