

Contents

Chapter 1

Introduction to Chemometrics	1
<i>Paul J. Gemperline</i>	

Chapter 2

Statistical Evaluation of Data.....	7
<i>Anthony D. Walmsley</i>	

Chapter 3

Sampling Theory, Distribution Functions, and the Multivariate Normal Distribution.....	41
<i>Paul J. Gemperline and John H. Kalivas</i>	

Chapter 4

Principal Component Analysis	69
<i>Paul J. Gemperline</i>	

Chapter 5

Calibration.....	105
<i>John H. Kalivas and Paul J. Gemperline</i>	

Chapter 6

Robust Calibration.....	167
<i>Mia Hubert</i>	

Chapter 7

Kinetic Modeling of Multivariate Measurements with Nonlinear Regression.....	217
<i>Marcel Maeder and Yorck-Michael Neuhold</i>	

Chapter 8

Response-Surface Modeling and Experimental Design	263
<i>Kalin Stoyanov and Anthony D. Walmsley</i>	

Chapter 9

Classification and Pattern Recognition	339
<i>Barry K. Lavine and Charles E. Davidson</i>	

Chapter 10	
Signal Processing and Digital Filtering	379
<i>Steven D. Brown</i>	
Chapter 11	
Multivariate Curve Resolution	417
<i>Romà Tauler and Anna de Juan</i>	
Chapter 12	
Three-Way Calibration with Hyphenated Data.....	475
<i>Karl S. Booksh</i>	
Chapter 13	
Future Trends in Chemometrics	509
<i>Paul J. Gemperline</i>	
Index.....	521