1. Record Nr. UNINA990002868570403321

Autore	Pap, Endre
Titolo	Null-additive set functions / Endre Pap
Pubbl/distr/stampa	Dordrecht : Kluwer, c1995
ISBN	0-7923-3658-5
Descrizione fisica	X, 315 P. ; 24 cm
Collana	Mathematics and its applications ; 337
Disciplina	515
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Collocazione	MIX-C-57
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNISA996205512603316

Titolo	Process analytical technology [[electronic resource]] : spectroscopic tools and implementation strategies for the chemical and pharmaceutical industries / / edited by Katherine A. Bakeev
Pubbl/distr/stampa	Oxford, UK ; ; Ames, Iowa, : Blackwell Pub., 2005
ISBN	1-280-74787-0 9786610747870 0-470-98845-2 1-4051-7319-X
Descrizione fisica	1 online resource (476 p.)
Altri autori (Persone)	BakeevKatherine A
Disciplina	660.2 660.29 660/.2
Soggetti	Chemical process control - Industrial applications Chemistry, Technical Chemistry, Analytic - Technological innovations Chemistry, Analytic - Technique Spectrum analysis Pharmaceutical chemistry

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Process Analytical Technology : Spectroscopic Tools and Implementation Strategies for the Chemical and Pharmaceutical Industries; Contents; Contributors; Preface; List of Abbreviations; 1 Process Analytical Chemistry: Introduction and Historical Perspective; 1.1 Historical perspective; 1.2 Early instrument development; 1.3 Sampling systems; 1.4 Examples; References; 2 Implementation of Process Analytical Technologies; 2.1 Introduction to implementation of process analytical technologies (PATs) in the industrial setting; 2.1.1 Definition of process analytics 2.1.2 Differences between process analyzers and laboratory analysis2.1.3 General industrial drivers for process analytics; 2.1.4 Types of applications (R&D vs. Manufacturing); 2.1.5 Organizational considerations; 2.2 Generalized process analytics work process; 2.2.1 Project identification and definition; 2.2.2 Analytical application development; 2.2.3 Design, specify and procure; 2.2.4 Implementation in production; 2.2.5 Routine operation; 2.2.6 Continuous improvement; 2.3 Differences between implementation in chemical and pharmaceutical industries; 2.3.1 Introduction; 2.3.2 Business model 2.3.3 Technical differences2.3.4 Regulatory differences; 2.4 Conclusions; References; 3 Near-Infrared Spectroscopy for Process Analytical Chemistry: Theory, Technology and Implementation; 3.1 Introduction; 3.2 Theory of near-infrared spectroscopy; 3.2.1 Molecular vibrations; 3.2.2 Anharmonicity of the potential well; 3.2.3 Combination and overtone absorptions in the near-infrared; 3.2.4 Examples of useful near-infrared absorption bands; 3.3 Analyser technologies in the near-infrared; 3.3.1 The scanning grating monochromator; 3.3.2 Light sources and detectors for near-infrared analysers 3.3.3 The polychromator photodiode-array analyser3.3.4 The acousto-optic tunable (AOTF) analyser; 3.3.5 Fourier transform near-infrared analysers; 3.4 The sampling interface; 3.4.1 Introduction; 3.4.2 Further discussion of sampling issues; 3.4.3 The use of fibre-optics; 3.5 Conclusion; Bibliography; 4 Infrared Spectroscopy for Process Analytical Applications; Abstract; 4.1 Introduction; 4.2 Basic IR spectroscopy; 4.3 Instrumentation design and technology; 4.4 Process IR instrumentation; 4.4.1 Commercially available IR instruments; 4.4.2 Important IR component technologies 4.4.3 New technologies for IR components and instruments4.4.4 Requirements for process infrared analyzers; 4.4.5 Sample handling for IR process analyzers; 4.4.6 Issues for consideration in the implementation of process IR; 4.5 Applications of process IR analyzers; 4.6 Process IR analyzers: A review; 4.7 Trends and directions; References; 5 Process Raman Spectroscopy; 5.1 How Raman spectroscopy works; 5.2 When Raman spectroscopy works well and when it does not; 5.2.1 Advantages; 5.2.2 Disadvantages and risks; 5.3 What are the special design issues for process Raman instruments?; 5.3.1 Safety 5.3.2 Laser wavelength selection
Sommario/riassunto	The use of real or near real time measurement of chemical production process parameters as the basis for achieving control or optimisation of a manufacturing process has wide application in the petrochemical,

food and chemical industries. Process analytical chemistry (PAC), or process analytical technology (PAT) as it has recently been called, is now being deployed in the pharmaceutical industry, where it is seen as a technology that can help companies to improve their conformity with manufacturing compliance regulations. The objective of this book is to provide a starting point