1. Record Nr. UNINA9910554258803321

Autore	Dietrich Roger
Titolo	Paint Analysis : 2nd Revised Edition / / Roger Dietrich
Pubbl/distr/stampa	Hannover : , : Vincentz Network, , [2021] ©2021
ISBN	3-7486-0435-1
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (275 p.)
Collana	European Coatings LIBRARY
Soggetti	SCIENCE / Chemistry / General
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Frontmatter -- Foreword -- Contents -- Part I General information about paint analysis -- 1 The surface -- 2 Why paint analysis? -- 3 Relevance of modern analytical techniques to paint analysis -- 4 General considerations -- 5 Chemical mapping -- 6 Depth profiling -- 7 Instrumentation -- Part II Coating failure analysis -- 1 The bumpy road to knowledge -- 2 The analytical procedure -- 3 The power of sampling -- 4 Paint failures and their analytical approach -- Part III Quality control and process analysis -- 1 Quality control of raw material -- 2 Quality control of paint production -- 3 Field analysis -- Part IV Methods of coating analysis -- 1 Optical light microscopy -- 2 Fluorescence microscopy -- 3 Infrared spectroscopy -- 4 Surface infrared spectroscopy -- 5 Infrared microscopy -- 6 Raman spectroscopy -- 7 Time-of-flight secondary ion mass spectrometry -- 8 Scanning electron microscopy -- 9 Electron microanalysis -- 10 X-ray photoelectron spectroscopy -- 11 GC-MS -- 12 Thin layer chromatography TLC-ATR-FT-IR -- 13 References -- Author/Acknowledgements -- Index
Sommario/riassunto	The market demands modern, high-performance, flawless paints that possess specified properties. Where deviations from set points occur, the cause must be investigated and the error must be remedied. What "standard methods" don't disclose is why a particular coating either meets or fails to meet a requirement. Thus the author presents modern analytical techniques and their applications in the coatings industry

that answer further complex questions. The information in this book can be used for performing failure analysis, production control and quality control, and also meet the requirements of modern high-level quality management. An excellent combination of theory and practice for formulators, paint engineers and applied technologists seeking a sound basic introduction to instrumental paint analysis and concrete answers to everyday problems.