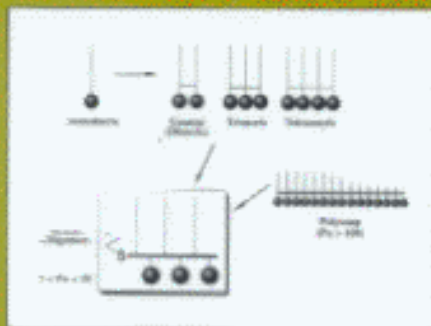


surfactant science series

volume **123**

HANDBOOK of DETERGENTS

Part C: Analysis



edited by

Heinrich Waldhoff
Rüdiger Spilker

Contents

<i>Handbook Introduction</i>	<i>iii</i>
<i>Preface</i>	<i>vii</i>
<i>Contributors</i>	<i>xi</i>
1. Types and Typical Ingredients of Detergents <i>Hermann G. Hauthal</i>	1
2. Analysis of Detergent Formulations—General Procedure <i>Heinrich Waldhoff</i>	101
3. Determination of Nonionic Surfactants <i>Kosuke Tanaka and Akinori Igarashi</i>	149
4. Determination of Anionic Surfactants <i>Rüdiger Spilker</i>	215
5. Analysis of Cationic and Amphoteric Surfactants <i>Norbert Buschmann</i>	289
6. Analysis of Inorganic Detergent Builders <i>Harald P. Bauer</i>	389
7. Sequestrants and Chelating Agents <i>Rüdiger Spilker and Peter Haas</i>	425
8. Analysis of Bleaching Agents and Bleaching Accelerators <i>Martina Hirschen</i>	439
9. Analysis of Detergent Enzymes <i>Karl-Heinz Maurer and Matthias Gabler</i>	471
10. Determination of Optical Brighteners in Laundry Detergents <i>Gerd W. Heinemann and Gerhard Merkle</i>	487
11. Miscellaneous Ingredients <i>Heinrich Waldhoff and Peter Haas</i>	507

12.	Testing Performance of Detergents and Cleansers <i>Anke Ophüls, Thomas Hilgers, and Jürgen Bohnen</i>	541
13.	Environmentally Related Analysis <i>Björn Thiele, Klaus Günther, and Milan Schwuger</i>	551
14.	Analytical Techniques: Basics and Fields of Application <i>Bernhard Menzebach</i>	581
	<i>Future Trends</i>	643
	<i>Index</i>	645