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Descrizione fisica	1 online resource (x, 162 pages) : illustrations (some color)
Collana	Lectures notes in chemistry ; ; v.81
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Soggetti	Electrodes, Ion selective Electrochemical analysis
Lingua di pubblicazione	Inglese
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Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introductory issues -- The basics of the ISEs -- Ion-selective electrode characteristics -- Ionophore-based ISEs -- Glass electrodes -- Ion-selective electrodes with crystalline membranes -- Modern trends in the ISEs theory and applications -- ISE constructions -- The basics of the routine analysis with ISEs.
Sommario/riassunto	Ion-selective electrodes (ISEs) have a wide range of applications in clinical, environmental, food and pharmaceutical analysis as well as further uses in chemistry and life sciences. Based on his profound experience as a researcher in ISEs and a course instructor, the author summarizes current knowledge for advanced teaching and training purposes with a particular focus on ionophore-based ISEs. Coverage includes the basics of measuring with ISEs, essential membrane potential theory and a comprehensive overview of the various classes of ion-selective electrodes. The principles of constructing ISEs are outlined, and the transfer of methods into routine analysis is considered. Advanced students, researchers, and practitioners will benefit from this expedient introduction.