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Titolo	Application of Polarization Modulation Infrared Reflection Absorption Spectroscopy in Electrochemistry / / by Izabella Brand
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Descrizione fisica	1 online resource (xii, 122 pages) : illustrations
Collana	Monographs in Electrochemistry, , 1865-1844
Disciplina	541.37
Soggetti	Electrochemistry Spectrum analysis Surfaces (Physics) Spectroscopy Surface and Interface and Thin Film
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Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This book describes the physical basis of polarization modulation infrared reflection-absorption spectroscopy and its application in electrochemical studies. It provides a concise yet comprehensive review of the research done in this field in the last 20 years. Electrochemical methods are used to determine the rate and mechanism of charge transfer reactions between an electrode and species adsorbed or diffusing to its surface. In the past two decades PM-IRRAS has grown to be one of the most important vibrational spectroscopy techniques applied to investigate structural changes taking place at the electrochemical interface. The monograph presents foundations of this technique and reviews in situ studies of redox-inactive and redox-active films adsorbed on electrode surfaces. It also discusses experimental conditions required in electrochemical and spectroscopic studies and presents practical solutions to perform efficient experiments. As such, it offers an invaluable resource for graduate and postgraduate students, as well as for all researchers in academic and industrial laboratories.

