Record Nr. UNINA9910784529303321 Fluorescent and luminescent probes for biological activity [[electronic **Titolo** resource]]: a practical guide to technology for quantitative real-time analysis / / edited by WT Mason San Diego, Calif., : Academic Press, c1999 Pubbl/distr/stampa **ISBN** 1-281-05700-2 9786611057008 0-08-053177-6 Edizione [2nd ed.] 1 online resource (697 p.) Descrizione fisica Collana Biological techniques Altri autori (Persone) MasonW. T Disciplina 570/.28 Soggetti Fluorescent probes Fluorescence 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. Front Cover: Fluorescent and Luminescent Probes for Biological Activity: Nota di contenuto A Practical Guide to Technology for Quantitative Real-Time Analysis: Copyright Page; Series Preface; Preface; Contributors; Contents; Part I: Introduction to Fluorescence Microscopy: Chapter One, Fluorescence Microscopy; 1.1 Introduction; 1.2 Microscope design; 1.3 Types of illumination; 1.4 Light sources; 1.5 Filters; 1.6 Objectives and eyepieces; References; Part II: Optical Probes and Their Applications; Chapter Two. Introduction to Fluorescent Probes: Properties, History and Applications; 2.1 Introduction 2.2 Nature of fluorescence and properties of fluorescent probes2.3 Historical developments; 2.4 Applications of fluorochromes in histology and microbiology; 2.5 Introduction of acridine orange into cell physiology, cytology and cytochemistry; 2.6 General applications of fluorescent probes; Acknowledgements; References; Chapter Three. Intracellular Ion Indicators; 3.1 Introduction; 3.2 General properties of intracellular ion indicators; 3.3 Examples of intracellular ion indicators; 3.4 Conclusions; Acknowledgements; References Chapter Four. Fluorescent Imaging of Nucleic Acids and Proteins in Gels4.1 Introduction; 4.2 General properties of fluorescent nucleic acid

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Sommario/riassunto

The use of fluorescent and luminescent probes to measure biological function has increased dramatically since publication of the First Edition due to their improved speed, safety, and power of analytical approach. This eagerly awaited Second Edition, also edited by Bill Mason, contains 19 new chapters and over two thirds new material, and is a must for all life scientists using optical probes. The contents include discussion of new optical methodologies for detection of proteins, DNA and other molecules, as well as probes for ions, receptors, cellular components, and gene expression. Emergi