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Sommario/riassunto

Label-free biosensors are devices that use biological or chemical receptors to detect analytes (molecules) in a sample. They give detailed information on the selectivity, affinity, and, in many cases, also the binding kinetics and thermodynamics of an interaction. Although they can be powerful tools in the hands of a skilled user, there is often a lack of knowledge of the best methods for using label-free assays to screen for biologically active molecules and accurately and precisely characterize molecular recognition events. This book reviews both established and newer label-free techniques giving both the expert user and the general reader interested in the technologies and applications behind label-free an insight into the field from expert opinion leaders and practitioners of the technologies. Most importantly, chapters contain worked examples from leaders in the field that take the reader through the basics of experimental design, setup, assay development, and data analysis.