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| Sommario/riassunto | Over the past decade, we have witnessed significant advancements in the label-free biosensing field. Label-free biosensors aim at detecting the target molecules or biological processes without labels, thus allowing evaluation of their intrinsic properties in their natural forms, as well as easy operations without sophisticated pre-treatments of samples, which has drawn more and more attention in biological studies and rapid clinical tests. The main challenges include two aspects. First, the measurement system should be sensitive enough to detect the tiny signals corresponding to the specific target properties. Second, the signal processing protocols should be able to recognize the signals from the complex background. Owing to the great advances of commercial detection components with high sensitivity, more and more ingenious but economic label-free biosensors have been presented for diverse applications. This Special Issue, entitled "Label-free Biosensors", focuses on recent advances in producing sensitive and easy-to-use label-free biosensors and their applications in diverse fields. This collection presents several novel label-free detection techniques to introduce design strategies and operation protocols in practical application, which might be of particular value to beginners and graduate students who have just entered this field. |