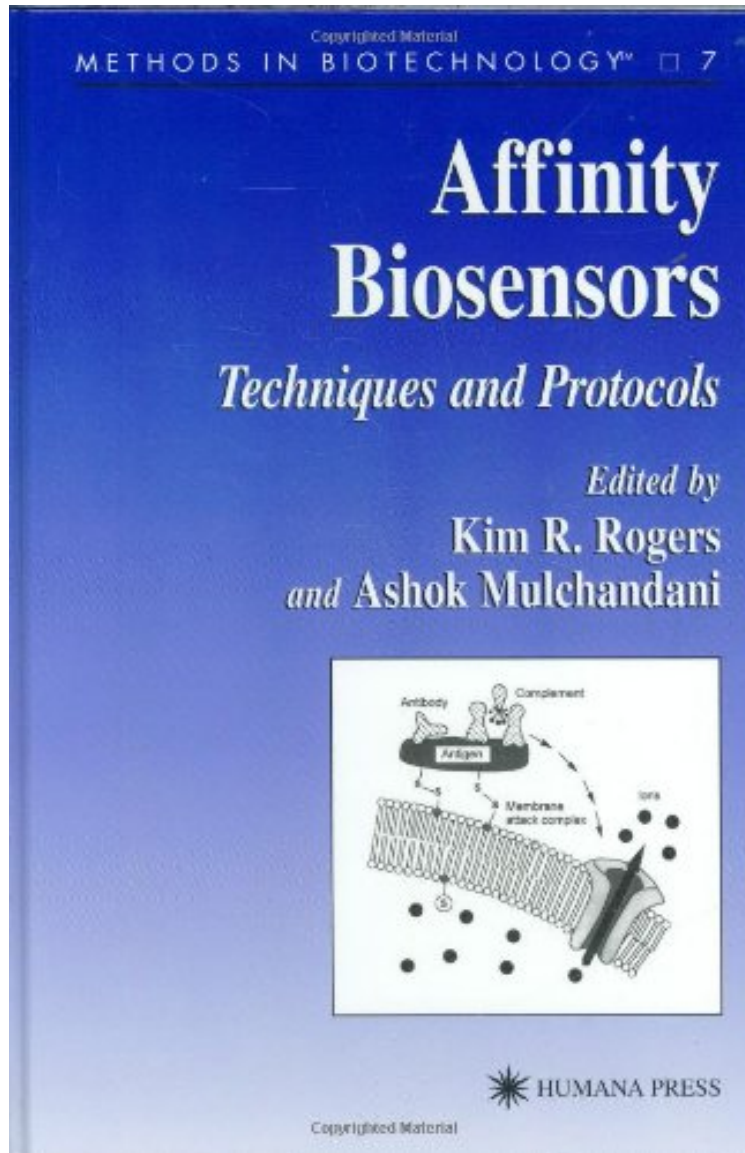


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Affinity Biosensors: Techniques and Protocols (Methods in Biotechnology)

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before purchasing it in order to gauge whether or not it would be worth my time, and all praised Affinity Biosensors:
Techniques and Protocols (Methods in Biotechnology):

The frequency of reports concerning the interface of biological recognition elements to signal transduction technologies has risen dramatically over the last decade. Because any one of a wide variety of biological recognition elements (e. g. , antibodies, receptors, DNA, microorganisms, or enzymes) can theoretically be interfaced with any one of a wide variety of signal transducers (e. g. , optical, electrochemical, thermal, or acoustic), the potential range of devices and techniques can be bewildering. The purpose of this volume and the previous volume in this series is to provide a basic reference and starting point for investigators in academics, industry, and government to begin or expand their biosensors research. This volume, *Methods in Biotechnology vol. 7: Affinity Biosensors: Techniques and Protocols*, describes a variety of classical and emerging transduction technologies that have been interfaced to bioaffinity elements (e. g. , antibodies and receptors). Some of the reasons for the expansion in the use of affinity-based biosensors include both advances in signal transduction technologies (e. g. , fiber optics, microelectronics, and microfabrication) and the availability of bioaffinity elements. More specifically, with respect to biological recognition elements, commercially and noncommercially produced antibodies directed toward a variety of analytes have become widely available. In addition, techniques for the purification and stabilization of receptors have also significantly improved. As a result of these recent advances in the field, biosensors research and development projects are being pursued by investigators from a wide range of disciplines.

"I enthusiastically recommend this book for anyone involved in the biosensor fields. . .allows one to quickly become knowledgeable in the field. . .very well written and organized, and it has a good index. The chapters are written by the noted experts who have developed each sensor type. . . an essential complement to its companion volume, which covers enzyme and microbial sensors."-John I. Peterson, NIH reviewing for *Analytical Chemistry*

From the Back Cover
Affinity Biosensors: Protocols and Techniques is a major new work that describes how affinity biosensors are developed, constructed, and applied across the widest range of biological research. Here, scientists long-experienced with the construction and evaluation of these biosensors detail their most successful techniques and applications. The methods include protocols for affinity biosensors based on optical, electrochemical, thermal acoustic, and plasmon resonance techniques involving the use of antibodies, receptor, nucleic acids, liposomes, and eukaryotic cells. All the techniques are time-tested and sufficiently detailed to ensure robust and easily reproducible results. A companion volume, *Enzyme and Microbial Biosensors: Protocols and Techniques*, by Mulchandani Rogers, concentrates on enzyme-biosensors based on potentiometric, amperometric, conductimetric, optical, and thermal transducers, as well as microbial biosensors based on amperometric and optical transducers. Clearly the optimal starting point for all graduate students, postdoctoral and senior researchers, and technicians in academia, industry, and research establishments seeking rapid entry into the field of biosensors, *Affinity Biosensors: Protocols and Techniques* instantly becomes today's leading reference. Its step-by-step descriptions of various affinity biosensor techniques will allow both novices and experienced investigators alike successfully to apply these powerful new tools, and thus sharply enhance their laboratories' productivity.