

*Immunochemical Techniques, Part A*

Methods in Enzymology, volume 70

Edited by Helen van Vunakis and John J. Langone  
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This volume of *Methods in Enzymology* is the first of several intended to describe latest developments in *Immunochemical Techniques*, emphasising their quantitative application, as in for example radioimmunoassay. It is subdivided into three sections, the first two being organised such that each has opening chapters covering general principles while later chapters detail specific techniques. Section I begins with a general discussion of basic principles of antigen-antibody reactions and succeeding chapters cover first the general principles of antibody production and finally the details of specific methodology. I view this section as an introduction both to this volume, and to the eventual series.

Section II is titled 'Radioimmunoassay and Immunoradiometric Assays for the Detection and Estimation of Antigens and Antibodies'. Following an overview of radioimmunoassays, there are chapters detailing different techniques of radioiodination and methods for the separation of free ligand from antibody complexes. Thus between them sections I and II review the general principles of radioimmunoassay and immunoradiometric assays, and describe the preparation of reagents for use in these assays. A chapter guiding the reader in assay design to enable him to put his reagents to best use once he has obtained them, and optimise a given assay, would at this stage be welcome -- perhaps

it is intended for later in the series.

Throughout this volume, emphasis is rightly placed on the provision of ample methodological details and copious references are cited. Useful comprehensive tables are included -- for example one long table reviews the experience of many laboratories using the Bolton-Hunter reagent; this allows the reader to rapidly survey the field, and extract information relevant to his needs. It seems churlish to criticise such an ambitious overview, but a few omissions are I suppose almost inevitable, e.g., no detailed description of the use of solid-phase lactoperoxidase for iodination, a method which has proved successful and popular. In addition, in my view, not sufficient prominence in the overall organisation of contents is given to contrasting the general principles underlying radioimmunoassay as opposed to immunoradiometric assays, despite a very strong chapter on the latter.

A relatively short section III concludes this volume and discusses some developments in non-isotopic immunoassays, which are becoming increasingly widely used.

I have no doubt that this volume will prove an invaluable reference text for, in particular, the numerous practitioners of ligand-binding assays.

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