

Contents

List of Contributors.....	viii
Preface	x
I. CHEMICALS, SOLUTIONS, EQUIPMENT AND GENERAL PROCEDURES	
1. Chemicals, Solutions, Equipment and General Procedures	3
II. ELECTROPHORESIS AND IMMUNOFIXATION	
2. Agarose Gel Electrophoresis—Immunofixation	23
3. Imprint Immunofixation of Antibodies Separated by Agarose Electrophoreses or by Electrofocusing.....	33
III. IMMUNODIFFUSION	
4. Single Radial Immunodiffusion.....	41
5. Double Diffusion-in-Gel.....	57
IV. CLASSICAL IMMUNOELECTROPHORESIS AND SPOT IMMUNOPRECIPITATE ASSAY	
6. Immunoelectrophoresis	71
7. Spot Immunoprecipitate Assay (SIA) and Stained Protein Assay (SPA).....	77
V. ELECTROIMMUNOPRECIPITATION: PRINCIPLES AND FUNDAMENTAL METHODS	
8. Immunoprecipitation in an Electric Field	87
9. Immunoelectro-osmophoresis or Counterimmunoelectrophoresis	97
10. Electroimmunoassay (Rocket Immunoelectrophoresis).....	103
11. Fused Rocket Immunoelectrophoresis	107
12. Crossed Immunoelectrophoresis	113
13. Crossed Immunoelectrophoresis as Modified for Quantitative Purposes.....	125
14. Tandem Crossed Immunoelectrophoresis.....	135
15. Intermediate Gel Immunoelectrophoresis.....	141
16. Line Immunoelectrophoresis	151
17. Rocket-Line Immunoelectrophoresis.....	165
18. Crossed-Line Immunoelectrophoresis.....	171
VI. ELECTROIMMUNOPRECIPITATION: COMPARISON OF ANTIGENS AND ANTIBODIES	
19. Antigenic Identity.....	177
20. Partial Antigenic Identity.....	183
21. Comparison of Antisera	189
VII. ELECTROIMMUNOPRECIPITATION: MODIFIED METHODS	
22. Counter Current-Line Immunoelectrophoresis	199
23. High-Voltage Electroimmunoassay—An Ultrarapid Method for Immunochemical Quantitation.....	205
24. Electroimmunoassay in a Micromodification	209
25. Quantitative Crossed Immunoelectrophoresis—A Convenient Procedure for the Simultaneous Quantitation of Various Molecular Forms of an Antigen	213
26. Sample Tubes in Immunoelectrophoretic Quantitation—A Means of Improved Sensitivity	217

27. Immunoelectrophoresis Utilizing Carbamylated Antibodies.....	225
Addendum: Immunoglobulin Quantitation at pH 5.0.....	231
28. Electrofocusing—Immunoelectrophoresis.....	233
29. Affinity Electrophoresis with Lectins for the Study of Glycoproteins.....	243
30. Amplification of Immunoprecipitates in Agarose Gels by Horseradish Peroxidase-Labelled Antibody.....	255
31. Radioimmunoelectrophoresis with Labelled Antigen in the Gel.....	259
32. Crossed Radioimmunoelectrophoresis (CRIE) for Identification of Allergens and Determination of the Antigenic Specificities of Patients' IgE.....	265
33. Quantitative Radioimmunoelectrophoresis for Determination of Binding to IgG of Insulin and Other Polypeptides.....	273
34. Radioimmunoelectrophoresis for Determination of Molecular Size of Polypeptides.....	279
35. Isoelectric Focusing and Two-Dimensional Electrophoresis by the Method of O'Farrell of ¹²⁵ I-Labelled Antigens Isolated by Means of Crossed Immunoelectrophoresis.....	283
36. Detergent Immunoelectrophoresis of Membrane Proteins—General Principles.....	289
37. Crossed Hydrophobic Interaction Immunoelectrophoresis.....	303
38. Detection of Detergent-Binding to Amphiphilic Protein in Complex Mixtures—Charge-Shift Crossed Immunoelectrophoresis and Autoradiographic Detection of Detergent-Binding to Proteins in Crossed Immunoelectrophoresis.....	313
39. Enzyme Characterization in Quantitative Immunoelectrophoresis—Some Potentialities and some Pitfalls.....	325
VIII. ELECTROIMMUNOPRECIPITATION: ARTEFACTS	
40. Electroimmunoprecipitation Artefacts.....	333
IX. ANTIBODY PRODUCTION	
41. Immunization, Isolation of Immunoglobulins and Antibody Titre Determination.....	345
42. Immunization with Precipitates Obtained by Crossed Immunoelectrophoresis.....	353
REFERENCES.....	361