

Preface

German Version

This book was written for the practitioner of electrophoresis in the laboratory. For this reason, we have avoided physico-chemical derivations and formulas concerning electrophoretic phenomena.

The type of explanation and presentation comes from several years of experience in giving user seminars and courses, writing handbooks, and solving user problems. They should be clear for technical assistants as well as for researchers in the laboratory. The commentary column offers room for personal notes.

In Part I, an introduction – as short as possible – to the actual state of the art is given. The references are not meant to be exhaustive.

Part II contains exact instructions for 11 chosen electrophoretic methods that can be carried out with one single piece of equipment. The sequence of the methods was planned so that an electrophoresis course for beginners and advanced users can be established afterwards. The major methods used in biology, biochemistry, medicine, and food science have been covered.

If – despite following the method precisely – unexplained effects should arise, their cause and remedies can be found in the troubleshooting guide in the Appendix.

The author would welcome any additional comments and solutions for the troubleshooting guide that the reader can supply.

Freiburg, March 1990

R. Westermeier

English Version, Fifth Edition

More than a decade has passed since the last update of this book. In the meantime, new methods have been developed in all areas of electrophoresis, workflows have been simplified, sensitivity of detection has been improved, and more experience has been added. Therefore it was high time to bring out a new, revised edition.

Many lecture tours, congresses, and hands-on workshops on proteomics and electrophoresis techniques inspired me to change the order of the chapters and update information in all sections. Since the book *Proteomics in Practice* had been published in a new edition, and new mass spectrometry methodologies have been evolved, a special chapter on proteomics was no longer needed. Furthermore, as many DNA typing methods are now performed with alternative and more automated techniques, this part could be shortened.

Freising, August 2015

R. Westermeier