



Preface

The development of new and sensitive methods for the determination of large biomolecules and biopolymers is driven by the needs of clinicians, biochemists, pharmacologists, geneticists, pathologists, and many others. The field of separation science is suitably poised to meet these needs. However, adequate selectivity and sensitivity for these large biomolecules can often be achieved only by their transformation into suitably detectable forms by chemical or physical means. Not only is it important to be able to quantitatively determine the transformed biomolecules, but also, to understand the transformation process itself. This understanding, which may come from any number of explorations, such as kinetics and binding studies, will hopefully guide further development not only of derivatization and labeling processes, but also of the design and synthesis of derivatization and labeling reagents. As such, a closer survey of the diverse range of labeling and derivatization methods and reagents that facilitate the determination of large biomolecules and biopolymers seems warranted, and will hopefully prove of interest to members of the bioanalytical science community, as well as to members of the broader communities of synthetic dye chemistry, molecular spectroscopy, and life and biomedical science.

Just such a survey is presented in this special issue

of the Journal of Chromatography B, entitled “*Derivatization of Large Biomolecules*”. Included in this issue is a mixture of review articles and original research articles, which describe the transformation of DNA, proteins, peptides, carbohydrates and phospholipids into forms suitable for spectroscopic (absorbance, fluorescence, chemiluminescence, mass) detection in conjunction with chromatographic or electrophoretic separations.

It has been my sincere pleasure to work with and learn from the many esteemed contributors to this issue, who are dedicated to understanding and improving the mechanisms and applications of derivatization/labeling processes as they pertain to a wide number of biomolecules. It is hoped that the reader will find these articles as intriguing and insightful as I have, and perhaps that one or more of the topics covered herein will cause the reader to exclaim (as one of the reviewers did): “I will certainly follow this subject with much keener interest in the future.”

Finally, thanks are extended to the many scientists who gave so graciously of their time and expertise to serve as reviewers for these articles, and whose comments and suggestions constitute a critical element of the success of this endeavor.

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