

Preface

Si j'avais une prière à formuler, ce serait moins "donnez-moi la force" que "donnez-moi le désir" de faire.

(If I had to say a prayer, it would be less "give me the strength" than "give me the desire" to do.)

FRANÇOIS JACOB

La statue intérieure

Biocalorimetry has presently become established as a most valuable research tool in the biological area, due to the appearance and commercialization of very-high-sensitivity instruments. The idea behind this book is to provide readers and users with biocalorimetry's fundamentals, history, and methodology background, brought to us by some of the most important developers in the field, representing an invaluable personal account of discovery, together with special and original applications of the technique, written by their creators or specialized users. Further, the book aims to have a very wide scope, as it deals with calorimetry use on membranes, nucleic acids, and proteins, addressing both thermodynamics and kinetics and its use as a tool in applied fields. Thus, the book builds a bridge between past, present, and future instrument developments and their use.

I am very lucky to have had the honor to work with all these exceptional scientists, who embraced this project and produced excellent chapters that I believe will be very useful to present and future users of calorimetry in the biological area. To all I express my deep gratitude; it has been an exhilarating experience to read each chapter and exchange comments throughout these months. To Sandro Keller, the first author to come onboard, further thanks are due for his support and suggestions on the inception of the book.

I am very grateful to Francesca McGowan, who invited me to put together the book, and to Stephanie Morkert, Sarfraz Kahn, Alex Edwards, and Amber Donley for their assistance throughout the process.

Finally and very importantly, I would like to thank my family for their unconditional support for this project: my daughter Rita for her continual help with picking up references from friends around the world whenever I needed them, and for checking the quality of the

figures and working on some of them; my son Tiago for making me believe I could do it and for spending several nights working with me while I was writing the original proposal; my husband Luís for his calm and supporting presence in our lives; and my larger family and friends, for their companionship through life.

Margarida Bastos
Porto, Portugal

Biocatalysis has recently become established as a most valuable research tool in the biological area, due to the appearance and commercialization of very high-sensitivity instruments. The idea behind this book is to provide readers and users with biocatalysis, its fundamentals, history and methodology background, brought to us by some of the most important developers in the field, representing an invaluable personal account of discovery together with special and original applications of the technique, written by their creation or specialized users. Further, the book aims to have a very wide scope, as it deals with calorimetry, use of membranes, nucleic acids, and proteins, addressing both thermodynamics and kinetics and its use as a tool in applied fields. Thus, the book builds a bridge between past, present and future instrument developments and their use.

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