

## Series Preface

Renewable resources, their use and modification are involved in a multitude of important processes with a major influence on our everyday lives. Applications can be found in the energy sector, chemistry, pharmacy, the textile industry, paints and coatings, to name but a few.

The field of renewable resources crosses several scientific disciplines (agriculture, biochemistry, chemistry, technology, environmental sciences, forestry), which makes it very difficult to have an expert view on the complicated interaction. Therefore, the idea of creating a series of scientific books, focusing on specific topics concerning renewable resources, has been very opportune and can help to clarify some of the underlying connections in this field.

In our fast changing world, trends are not only characteristic of fashion and political standpoints, science also is not free of hypes and buzzwords. The use of renewable resources is again more important nowadays, however, it is not part of a hype or a fashion. As the lively discussions among scientists continue about how many years we will still be able to use fossil fuels, with opinions ranging from 50 to 500 years, they agree that reserves are limited and that it is essential not only to search for new energy carriers but also for new material sources.

In this respect, renewable resources are a crucial area in the search for alternatives to fossil-based raw materials and energy. In the field of energy supply, biomass and renewable-based resources will be part of the solution, alongside other alternatives such as solar energy, wind energy, hydraulic power, hydrogen technology and nuclear energy.

In the field of material sciences, the impact of renewable resources will probably be even greater. Integral utilization of crops and the use of waste streams in certain industries will grow in importance, leading to a more sustainable way of producing materials.

Although our society was much more (almost exclusively) based on renewable resources centuries ago, this disappeared in the Western world in the nineteenth century. Now it is time to focus again on this field of research. However, it should not mean a 'retour à la nature', but it should be a multidisciplinary effort at a highly technological level to perform research aimed at developing new opportunities, new crops and new products from renewable resources. This will be essential to guarantee a level of comfort for the growing numbers of people living on our planet. The major challenge for the coming generations of scientists is to develop more sustainable ways to create prosperity and fight poverty and hunger in the world. A global approach is certainly favoured. This

challenge can only be faced if scientists are attracted to this field and are recognized for their efforts in this interdisciplinary arena. It is therefore also essential that consumers recognize the place of renewable resources in a number of products.

Furthermore, scientists do need to communicate with each other and the general public and discuss the relevance of their work. The use and modification of renewable resources should not follow the path of the genetic engineering concept with regard to consumer acceptance in Europe. Related to this aspect, the series will certainly help to increase the visibility of the importance of renewable resources.

Being convinced of the value of the renewables approach for the industrial world, as well as for developing countries, I was delighted to collaborate on this series of books focusing on different aspects of renewable resources. I hope that readers become aware of the complexity, the interaction and interconnections, and the challenges of this field and that they will help the debate on the importance of renewable resources.

I would like to thank the staff at Wiley in Chichester, especially David Hughes, Jenny Cossham and Lyn Roberts, for seeing the need for such a series of books on renewable resources, for initiating and supporting it and for helping to carry the project through to the end.

Last, but not least, I want to thank my family, especially my wife, Hilde, and my children, Paulien and Pieter-Jan, for their patience and for giving me the time to work on the series when other activities seemed to be more inviting.

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June 2005