

# Preface

When there is a material, there is absolutely an interface between the material and the surrounding environment. Therefore, it is important to look at the interface for the design and fabrication of materials. It is also a lesson for us in fundamental sciences lying there. This book introduces recent progress in stimuli-responsive interfaces constructed on colloidal materials such as micelles and vesicles and on solid material surfaces.

The publication of this book is a project of the Division of Colloid and Interface Science, Research Institute for Science and Technology (RIST), Organization for Research Advancement, Tokyo University of Science (TUS), Japan. The division was established in 1981 and has been playing a leading role in research related to colloid and interface science and technology both in Japan and internationally.

This book was designed and edited in order to:

- Include not only schematic illustrations, but also visual demonstrations of many actual samples' morphological or functional changes
- Cover interdisciplinary fields from fundamental sciences to practical applications
- Be useful for graduate students and young researchers in academia and industry

The book is not an introduction of the division; contributions are from various universities' or institutes' scientists who are actively involved in the field of stimuli-responsive interfaces. About one-third of the chapters are written by division members. We hope this volume serves as an excellent guide to designing and fabricating novel, functional, eco-friendly, stimuli-responsive interfaces and related materials.

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