DESCRIPTION

Materials scientists are often faced with the problem of modifying surfaces of objects, yet keeping their shape and properties. This book provides a detailed survey on the new technology of adsorption from solution for the fabrication of molecularly ordered multicomposite films in order to replace and expand on the well known Langmuir-Blodgett technology and to open the field of molecular self-assembly to materials and biosciences.

The book is aimed at scientists who want to integrate several different functional entities in a single device. To this audience it presents the technique of layer-by-layer assembly as today's most powerful key technology, which is low cost, solution based and very robust. It is already beginning to make the transition from academic research into industrial mass production.

ABOUT THE AUTHOR

Gero Decher is a Distinguished Professor of Chemistry at the University of Strasbourg, France, a senior member of the Institut Universitaire de France and a member of the International Center for Frontier Research in Chemistry. His research team is located at CNRS Institut Charles Sadron in Strasbourg where he continues to develop the layer-by-layer assembly method in collaboration with his colleagues, Pierre Schaaf and Jean-Claude Voegel. This method is applied in many laboratories worldwide in various scientific disciplines, including chemistry, materials science and biotechnology. Gero Decher has received numerous awards,

**Joseph B. Schlenoff** is Mandelkern Professor of Polymer Science of the Department of Chemistry and Biochemistry at Florida State University. His laboratory is engaged in multidisciplinary research centered on the use of novel structures made from polyelectrolytes that are deposited using the layer-by-layer technique. His work, supported by the National Science Foundation and the National Institutes of Health, among others, focuses on fundamental polymer science aspects of polyelectrolyte complexes and on their interactions with biological materials. In 2011, Joseph Schlenoff received a Gutenberg Chair at the University of Strasbourg.

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