DESCRIPTION

This second, comprehensive edition of the pioneering book in this field has been completely revised and extended, now stretching to two volumes. The result is a comprehensive summary of layer-by-layer assembled, truly hybrid nanomaterials and thin films, covering organic, inorganic, colloidal, macromolecular, and biological components, as well as the assembly of nanoscale films derived from them on surfaces.

These two volumes are essential for anyone working in the field, as well as scientists and researchers active in materials development, who need the key knowledge provided herein for linking the field of molecular self-assembly with the bio- and materials sciences.

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 (IUF) 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 world-
wide in various scientific disciplines, including chemistry, materials science and biotechnology. Gero Decher has received numerous awards, including the ECIS-Rhodia prize in 2010 and the Grand Prix of the French "Académie des Sciences" for Nanobiotechnology in 2009.

Joseph B. Schlenoff is Mandelkern Professor of Polymer Science of the Department of Chemistry and Biochemistry at the Florida State University, USA. 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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