DESCRIPTION

With contributions from the most prominent experts around the world, this resource provides an accessible summary of electrochemical techniques and the applications of electrochemical concepts to molecular-level systems. It describes the most important electro-active functional supramolecular systems developed so far, including rotaxanes and catenanes as molecular machines and as elements for information processing; dendrimers as molecular batteries, sensors, light harvesting antennae, and drug delivery systems; and bio-hybrid devices.

ABOUT THE AUTHOR

Paola Ceroni, PhD, is Associate Professor at the University of Bologna. Dr. Ceroni’s research focuses on the photochemistry and electrochemistry of molecular and supramolecular systems, with particular emphasis on photoactive dendrimers. Dr. Ceroni is coauthor of approximately 100 scientific papers.

Alberto Credi, PhD, is Associate Professor of Chemistry at the University of Bologna. Dr. Credi is particularly interested in the development of molecular machines, and has coauthored about 160 scientific papers in the fields of molecular and supramolecular photochemistry and electrochemistry. He is also the coauthor of the monograph Molecular Devices and Machines and of a handbook of photochemistry.
Margherita Venturi is Professor of Chemistry at the University of Bologna. From 1972 to 1991, she worked at the National Research Council of Bologna, studying the electron-transfer processes involved in model systems for the conversion of solar energy. Professor Venturi's present research focuses on the field of supramolecular photochemistry and electrochemistry. She is coauthor of about 180 articles, including several reviews. She is also the coauthor of the monograph *Molecular Devices and Machines*.