
Preface

Nanotechnology plays an important role in fabrication of sensors. Its usage leads to new findings for the mechanism of reactions as well as fabrication of new types of sensors. In many sciences, sensors are commonly called as transducers. The main characteristic of sensors is their having a detector which is sensitive to signals. Nanosensor is biological, chemical, mechanical, and electromechanical spots created to transfer information from their micro world - where there are a large number of nanoscale particles - to the macro world. In general, due to super fine dimensions of nanoparticles it is impossible to directly visualize their features and reactions; therefore it is required to have a transducer which is sensitive to one of distinct properties of these particles that inform us about particles variations, properties, and states. Application of nanosensors has been proved in very diverse, and even rather irrelevant, fields. This novel technology is widely applied in pharmaceutical and medical sciences and scientists utilize it as the most reliable technique in critical conditions.

This book collects new developments in nanotechnology and its usage for optics and sensors. I like to appreciate all of contributors to this book and thank them for their high quality manuscripts. I wish open access publishing of this book help all researchers to benefit from this collection.

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