

Preface

The special edition includes articles that represented the latest research results and engineering solutions in the synthesis of nanomaterials, analysis processes of semiconductor wafer fabrication, and some decisions on coatings and exploration of tribological performance of several polymer and composite materials.

The methods of green synthesis of silver, zinc oxide and iron nanoparticles, design and implementation of montmorillonite clay-based catalyst for carbon nanotube synthesizing are the topics of the first section.

The second chapter is devoted to the analysis of the technological features of semiconductor wafer fabrication for power electronics. Some technological operations such as plasma etching, ion implantation, layer forming by laser annealing, etc. are evaluated here.

The last section is dedicated to the investigation of some decisions on coatings and tribological performance of polyurethane coatings filled with graphene oxide, and polyimide composites.

This special edition will be interesting to specialists in nanomaterials synthesis, semiconductor power device production and protective coatings in machinery.