

# Preface

Recently, nanoclay-dispersed polymeric materials exhibit better utilization in diverse applications. The nanoclay as inorganic fillers consequences from the exfoliation or the dispersion at nanoscale into polymeric matrices, which enhance the improvement of nanocomposites properties by adding slight amounts of clay due to the high specific area. Current studies reported about Wood Polymer Nanocomposites-Chemical Modifications, Properties, and Sustainable Applications, which demonstrated better mechanical and thermal properties as compared to nanoclay-reinforced polymer composites. The proposed book is focused on chemically dispersed nanoclay-impregnated wood polymer nanocomposites properties and applications. It will also include the introduction and reinforcing potential various clay and monomers dispersed wood nanocomposites. The readers will find complete information about preparation and characterizations of various clay and monomers dispersed wood nanocomposites, combined styrene/mma/nanoclay crosslinker effect, oxidation of wood species by phenyl hydrazine, *N,N*-dimethylacetamid impregnation, urea formaldehyde impregnation, epoxy/nanoclay impregnation, nanoclay/phenol formaldehyde resin impregnation, clay-dispersed styrene-co-glycidyl methacrylate impregnation, styrene-co-ethylene glycol dimethacrylate impregnation, styrene-co-3-(trimethoxysilyl)propyl methacrylate with clay impregnation, acrylonitrile/butyl methacrylate/halloysite nanoclay impregnation, furfuryl alcohol-co-glycidyl methacrylate/nanoclay impregnation, furfuryl alcohol-co-ethyl methacrylate-impregnated wood polymer nanocomposites, and sustainable application of various monomer/clay-dispersed wood polymer nanocomposites. I am thankful to all co-authors who contributed book chapters and provided their valuable ideas and knowledge to this edited book. I attempt to gather all the information of co-authors from same fields in chemically modified nanoclay-dispersed nanocomposites and finally produce this project that will hopefully become a success. I impressively appreciate co-authors' support to formulating our idea in reality. I thank Springer International Publishing AG, Gewerbestrasse 11, 6330 Cham, Switzerland, team for their substantial cooperation at every stage of the book production.

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