

## Processing of Polymer-based Nanocomposites: Introduction

Introduction to nanomaterials and polymer nanocomposite processing

Ojijo, Vincent O; Sinha Ray, Suprakash

### Abstract:

Polymer nanocomposites are a relatively new class of material containing components with at least one dimension less than 100 nm. This chapter provides an introduction to these polymer nanocomposites and their relationship to microcomposites. The overall “nano-effect” in these advanced composites is briefly discussed. Research and development trends in the field of nanotechnology (including nanocomposites) are also presented. Finally, the chapter discusses current views on pertinent issues related to nanotechnology, including the environment, safety, health, and ethics.