Inorganic nano filler in polymer nanocomposites its thermal behaviours

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Abstract

Thermal analysis is one of the oldest techniques for the analysis of materials for the test of materials to be genuine or fake, on the basis of simple heat test. Due to enormous advances in material sciences and day by day new materials are added up to the life of human being, so quality and perfection is highly in need with features such as light weight, high tensile strength, excellent physical and chemical properties, so thermal characterization is an ideal tool for the determining these parameter as well as other transition and materials properties. In the present presentation, various research work performed on polymer nanocomposites of nano particles filler such as Calcium, barium, zinc, tin, silver were highlighted taking matrix as polymer. Research work performed by various scientists in polymer nanocomposites for material development using thermal analysis tool will also be discussed and also highlight its future aspect, behaviors of Tg and Td will be discussed with the increase in nanoparticles loadings in polymer matrix. Various analytical tool such as XRD, FTIR, SEM, EDS, and UV-Vis spectrum of Polymeric films of Nano composites will also be used for correlation and characterization of materials.

Biography:

Dr. Gautam Jaiswar has completed his PhD at the age of 27 from Dr. Bhimrao Ambedkar University Agra. He has qualified national level test for Assistant Professor (in the year 2003) and now is Professor of Chemistry. He is having 15 years of Teaching and Research(Polymer nanocomposite) Experience. He has over 30 publications in various national and international journals that have been cited over 85 times and his publication H-Index is 5 and has been serving as an editorial board member of journal Composite Materials Research.


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