

عنوان مقاله:

Application of nanoparticles as new flame retardant agents for textiles

محل انتشار:

همایش ملی نانو فناوری و شیمی سبز (سال: 1391)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Mohammad Norouzi - *Young Researchers and Elites Club, Science and Research Branch, Islamic Azad University, Tehran, Iran*

Parvin Kiany - *Department of Polymer Engineering and Color Technology, Amirkabir University of Technology, Tehran, Iran*

Mahtab Asadian - *Department of Textile Engineering, Islamic Azad University, Science and Research Branch, Tehran, Iran*

خلاصه مقاله:

Textiles are considered as one of the main ignition sources in fire accident. Therefore, improving flame retardant behavior of the textiles has received considerable attention to ensure the safety of consumers. High levels of flame retardancy are currently being obtained with the halogenated or phosphorus compounds. Nevertheless, environmental and toxicological concerns have restricted the application of these compounds. Improvements in flame retardation, and reduction in consumption of the hazardous compounds, have been reported by using nanoparticles as an eco-friendly approach. In this article, we have reviewed the applications of nanoparticles including nano-metal oxides, nanoclays, carbon nanotubes and other nanoparticles as flame retardant agents for textiles. Furthermore, the effects of the nanoparticles on thermal behavior of the textiles and their flame retardancy mechanisms are discussed in detail. Key words: Textiles, Nanoparticles, Flame retardant agents

کلمات کلیدی:

Textiles, Nanoparticles, Flame retardant agents

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/203378>

