

## عنوان مقاله:

Self-cleaning of natural stains on nylon-6 fibers automotive textiles under daylight irradiation

## محل انتشار:

چهارمین کنگره بین المللی پوشش های حمل و نقل (سال: 1393)

تعداد صفحات اصل مقاله: 4

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## خلاصه مقاله:

The synthetic fibers are widely used in recent years in automotive industry. Producing textiles with self-cleaning properties is a significant issue in the textile industry. In recent decades, titanium dioxide is known as the best option for photocatalytic applications of self-cleaning. Nano TiO<sub>2</sub> has a high activity due to the ratio of surface area to its volume which is shown the substantial oxidative activity under light. In this research, corona plasma was used as a pre-treatment on nylon fabric. Nano TiO<sub>2</sub> particles which had been sonicated, coated onto untreated and treated nylon-6 fabrics and then fabrics were cured at temperatures 90°C for 5 minutes. In this research, self-cleaning capacity was determined based on discoloration natural stains like tea, coffee and ketchup stain on nylon-6 and the effect of daylight time exposure from 6 to 24 hours on stained samples was reported. Stain of natural materials on .corona with nano TiO<sub>2</sub> treated nylon removed almost completely after 24 hours under daylight irradiation

## کلمات کلیدی:

Self-cleaning –Natural stain – Nylone– NanoTiO<sub>2</sub> – Corona

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/336263>

