

عنوان مقاله:

The Performance of a Self-Cleaning Glass Surface in Building Façades

محل انتشار:

اولین کنفرانس بین المللی کاربرد پژوهش و تحقیق در علوم و مهندسی (سال: 1395)

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خلاصه مقاله:

Nowadays, the self-cleaning glasses are commonly used for outdoor and indoor applications. Providing self-cleaning properties to polymeric materials has become a pressing issue for a number of applications ranging from building materials to solar panel covers or domestic uses. Highly versatile multilayer polymeric/TiO₂ composites with double self-cleaning properties implying both photo-oxidation and anti-sticking are here proposed. The hydrophobic side was obtained by synthesizing UV and thermal resistant sulfonated polyethersulfone (SPES) by a novel procedure involving the use of hydrophobic ionic liquids and controlling the morphology during deposition. On the other side, the photo-active selfcleaning titania obtained by an ad hoc procedure (developed to preserve the polymeric support features) maintains the material clean upon light exposure.

کلمات کلیدی:

Self-cleaning glass, TiO₂-coated glass, Transparent facades

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