

عنوان مقاله:

Biopolymer brushes grafted from PDMS substrates via surface initiated atom transfer radical polymerization for enhancement of antifouling properties

محل انتشار:

اولین کنفرانس بین المللی یافته های پژوهشی شیمی و مهندسی شیمی (سال: 1400)

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خلاصه مقاله:

Protein/surface interactions are well known to play an important role in various biological phenomena and to determine the ultimate biofunctionality of a given material once it is in contact with a biological environment. Control over the interactions between proteins and material surfaces are not only of great theoretical interest but also of crucial importance for many biomedical applications. Herein, poly(oligoethylene glycol methyl methacrylate) brushes were grafted on poly(dimethylsiloxane) substrates via surface initiated atom transfer radical polymerization. The brush modified coatings confer "nonfouling" properties protein and cell resistance—to the surface in a biological microenvironments.

کلمات کلیدی:

Poly(dimethylsiloxane), Poly(oligo(ethylene glycol) methacrylate), Surface initiated-atom transfer radical polymerization, Protein adsorption

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