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Synthesis of efficient bacterial adhesion-resistant coatings by one-step polydopamine-assisted deposition of branched polyethylenimine-*g*-poly(sulfobetaine methacrylate) copolymers

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Abstract

Bacterial adhesion-resistant coatings were fabricated by one-step polydopamine-assisted deposition of zwitterionic branched polyethylenimine-*g*-poly(sulfobetaine methacrylate) copolymers on the substrate. The resistance activities for bacterial adhesion of coatings were evaluated by bacterial adhesion rate and SEM images. It turned out that such coatings resisted over 93% bacterial adhesion for 24 h. The coatings also exhibited a good performance to reduce protein absorption.

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