

Title (en)
HYDROPHILIC PRESSURE SENSITIVE BIOADHESIVES WITH TARGETED ADHESION TOWARDS TEETH AND TOOTH CARE COMPOSITIONS BASED THEREON

Title (de)
HYDROPHILE DRUCKEMPFFINDLICHE BIOHAFTSTOFFE MIT GEZIELTER HAFTUNG AN DEN ZÄHNEN UND ZAHNPFLEGEMITTEL DAMIT

Title (fr)
BIOADHÉSIFS SENSIBLES À LA PRESSION, HYDROPHILES, AYANT UNE ADHÉRENCE CIBLÉE VIS-À-VIS DES DENTS ET COMPOSITIONS POUR SOINS DENTAIRES À BASE DE CEUX-CI

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Abstract (en)
[origin: WO2013162404A1] Present invention relates to adhesive hydrogel compositions, namely to "smart" water-absorbing pressure-sensitive bioadhesive films, which possess strong targeted adhesion towards teeth but do not adhere to other mucosal tissues in oral cavity. The compositions comprise a film-forming, hydrophilic polymer and other hydrophilic polymeric, oligomeric or low-molecular weight components, providing a complex formation with particular values of glass transition temperature, elasticity modulus G' loss tangent, swelling degree and swell ratio. The film-forming, hydrophilic polymer is present in a higher concentration than others composition components, and the latter contain complementary reactive functional groups which are capable of forming noncovalent hydrogen, electrostatic or ionic bonds with the functional groups of the hydrophilic film-forming polymer. In swollen state the "smart" hydrophilic pressure- sensitive bioadhesive is softer than the dental substrate but harder than the mucosal tissues in oral cavity. The compositions find utility as tooth whitening strips or gels, and with this purpose contain a whitening agent, preferably peroxide.

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- [X] US 2005113510 A1 20050526 - FELDSTEIN MIKHAIL M [RU], et al
- See references of WO 2013162404A1

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