

Title (en)

HYDROPHILIC CROSS-LINKING AGENTS FOR USE IN ENZYMATIC SENSORS

Title (de)

HYDROPHILE VERNETZUNGSMITTEL ZUR VERWENDUNG IN ENZYMATISCHEN SENSOREN

Title (fr)

AGENTS DE RETICULATION HYDROPHILES S'UTILISANT DANS DES CAPTEURS ENZYMATIQUES

Publication

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Application

EP 03814924 A 20031219

Priority

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Abstract (en)

[origin: WO2004060297A2] An enzymatic sensor comprising an enzyme that generates a signal upon contact with an analyte; a substrate; and a cross-linking agent that comprises one or more hydrophilic moieties. The enzyme is immobilized in the substrate via the hydrophilic cross-linking agent. A biocompatible membrane, comprising the enzyme, substrate and the hydrophilic cross-linking agent, is applied to a sensor to produce an enzymatic sensor. The enzymatic sensor provides enhanced sensing capabilities by improving the diffusion of reactive species and thereby increasing the overall sensitivity and lifetime of the sensor. The incorporation of hydrophilic moieties into the cross-linking agent optimizes hydration of the sensor and creates hydrophilic channels or pathways for reactive species, such as H₂O₂ and the analyte of interest. The membrane and enzymatic sensor can be used in a method for detecting an analyte, such as glucose.

IPC 1-7

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