

Title (en)
POTENTIOMETRIC BIOSENSORS, CONTROL AND APPLICATIONS THEREOF

Title (de)
POTENTIOMETRISCHER BIOSENSOR, REGELUNG UND ANWENDUNG

Title (fr)
BIOCAPTEURS POTENTIOMETRIQUES, SYSTEME DE COMMANDE DE CES DERNIERS ET LEURS APPLICATIONS

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Abstract (en)
[origin: WO9514962A1] The present invention relates generally to a potentiometric alternating biosensor system (PAB) which can use a silicon based light-addressable transducer to measure parameters such as pH and redox potential. A first aspect relates to temperature control of a PAB system. A second aspect relates to a biosensor for measuring pH and/or redox potential variations in enzymic reactions associated with cells. A third aspect relates to a silicon transducer redox potential biosensor having deposited thereon a metal layer over at least a portion of the surface, and its use in a PAB to monitor enzymes catalyzing redox reactions. A fourth aspect relates to a 2D PAB system capable of simultaneous pH and redox potential measurement. A fifth aspect relates to use of a PAB system for measurement of extracellular acidification to monitor cell metabolism and its use for testing anti-cancer activity/toxicity of compounds on cells. A sixth aspect relates to a PAB system capable of acting as an immunosensor in an immunoassay by virtue of the application to the transducer of an immobilized monolayer of an enzyme.

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