Title (en)

AN ELECTROCHEMICAL METHOD FOR ENRICHMENT OF MICROORGANISM, A BIOSENSOR FOR ANALYZING ORGANIC SUBSTANCE AND BOD

Title (de)

ELEKTROCHEMISCHES VERFAHREN ZUR ANREICHERUNG EINES MIKROORGANISMUS SOWIE EIN BIOSENSOR ZUR ANALYSE ORGANISCHER SUBSTANZEN UND DES BSB

Title (fr)

PROCEDE ELECTROCHIMIQUE D'ENRICHISSEMENT DE MICRO-ORGANISMES, BIODETECTEUR D'ANALYSE DE SUBSTANCES ORGANIQUES ET DE DBO

Publication

EP 1236043 A1 20020904 (EN)

Application

EP 00913115 A 20000317

Priority

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Abstract (en)

[origin: WO0104626A1] Disclosed herein is a biosensor that allows an organic substance concentration or BOD of a sample to be electrochemically measured in anaerobic condition using a mediator-less biofuel cell. The biosensor utilizes electrochemically active bacteria that were contained in wastewater and sluge and densely cultured during the operation procedure of the biofuel cell for the BOD measurement, as a microbial catalyst of the biofuel cell used in the biosensor. As a result, the biosensor can be operated without an artificial addition of microorganisms, and allows the microorganisms to be maintained at a suitable activity depending on the nature of wastewater. In addition, the biofuel cell used in the biosensor can be operated in a stable manner over six months or more.

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G01N 33/18

IPC 8 full level

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