Title (en)

ELECTROCHEMICAL DNA DETECTION

Title (de)

ELEKTROCHEMISCHE DNA-DETEKTION

Title (fr)

DÉTECTION ÉLECTROCHIMIQUE D'ADN

Publication

EP 3538666 A1 20190918 (EN)

Application

EP 17800807 A 20171110

Priority

- EP 16382527 A 20161111
- EP 2017078912 W 20171110

Abstract (en)

[origin: EP3321376A1] Electrochemical DNA detection methods are disclosed comprising the steps of: i) Amplifying a target DNA with a pair of amplification primers, wherein at least one of the primers is chemically linked to a label through its 5' end; ii) Denaturing the amplified product to yield two molecules of single stranded DNA (ssDNA) of which at least one is 5'-labeled; iii) Hybridizing a 5'-labeled ssDNA molecule of the amplified product with a complementary oligonucleotide capture probe which is attached through its 3' end to an electrode; and iv) Determining the presence of the label associated with the hybridization product; wherein the distance between the 5'-end and the first nucleotide of the hybridization region within the ssDNA molecule that hybridises to the probe is comprised from 0 to 300 nucleotides. Cartridge devices, operator devices, methods of controlling an operator device, and computer programs implementing said methods are also disclosed, which are suitable for performing such electrochemical DNA detection methods.

IPC 8 full level

C12Q 1/68 (2018.01)

CPC (source: EP)

C12Q 1/6825 (2013.01)

Citation (search report)

See references of WO 2018087303A1

Designated contracting state (EPC)

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