

Title (en)

SYSTEMS, METHODS AND COMPOSITIONS FOR ENHANCING THE SPECIFICITY OF NUCLEIC ACID HYBRIDIZATION

Title (de)

SYSTEME, VERFAHREN UND ZUSAMMENSETZUNGEN ZUR VERBESSERUNG DER SPEZIFITÄT VON NUKLEINSÄUREHYBRIDISIERUNG

Title (fr)

SYSTÈMES, MÉTHODES ET COMPOSITIONS POUR AMÉLIORER LA SPÉCIFICITÉ DE L'HYBRIDATION DES ACIDES NUCLÉIQUES

Publication

**EP 3387431 A1 20181017 (EN)**

Application

**EP 16874070 A 20161212**

Priority

- US 201562266143 P 20151211
- US 2016066227 W 20161212

Abstract (en)

[origin: WO2017100792A1] Systems, methods and compositions of matter according to the present invention, can be used in capture/enrichment, gene expression profiling and targeted sequencing. Provided are systems, methods and compositions concerning the enhancement of nucleic acid hybridization specificity and controlling the shapes of melting curves revealed by nucleic acid hybrid pairs to optimize nucleic acid analysis. These systems, methods and compositions comprise producing a positively charged surface or surface coating, on the surface of microarray slides or other types of surfaces similarly purposed, which enhances melting curve analysis to the point of allowing detection or differentiation of small changes in sequences between nucleic acid binding partners. The accuracy or resolution of melting curve analysis was to be sufficient to distinguish between the melting of perfect matched dsDNA and dsDNA with the smallest possible change in sequence, a one base pair mismatch.

IPC 8 full level

**G01N 33/48** (2006.01); **C12Q 1/68** (2018.01); **C40B 30/04** (2006.01); **C40B 60/12** (2006.01); **G01N 33/50** (2006.01)

CPC (source: EP)

**C12Q 1/6832** (2013.01); **C12Q 1/6837** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2017100792 A1 20170615**; EP 3387431 A1 20181017; EP 3387431 A4 20190501

DOCDB simple family (application)

**US 2016066227 W 20161212**; EP 16874070 A 20161212