

Title (en)

NANOPARTICLES HAVING OLIGONUCLEOTIDES ATTACHED THERETO AND USES THEREFOR

Title (de)

NANOPARTIKEL MIT DARAN GEBUNDENEN OLIGONUKLEOTIDEN UND VERWENDUNGEN DAFÜR

Title (fr)

DETECTION ELECTRIQUE D'ADN BASEE SUR UN ENSEMBLE ET METTANT EN APPLICATION DES SONDAS SOUS FORME DE NANOPARTICULES

Publication

EP 1478774 A4 20061129 (EN)

Application

EP 02799155 A 20021008

Priority

- US 0232088 W 20021008
- US 32786401 P 20011009
- US 897801 A 20011207

Abstract (en)

[origin: WO03035829A2] The invention provides methods of detecting a nucleic acid. The methods comprise contacting the nucleic acid with one or more types of particles having oligonucleotides attached thereto. In one embodiment of the method, the oligonucleotides are attached to nanoparticles and have sequences complementary to portions of the sequence of the nucleic acid. A detectable change (preferably a color change) is brought about as a result of the hybridization of the oligonucleotides on the nanoparticles to the nucleic acid. The invention also provides compositions and kits comprising particles. The invention further provides methods of synthesizing unique nanoparticle-oligonucleotide conjugates, the conjugates produced by the methods, and methods of using the conjugates. In addition, the invention provides nanomaterials and nanostructures comprising nanoparticles and methods of nanofabrication utilizing nanoparticles. Finally, the invention provides a method of separating a selected nucleic acid from other nucleic acids.

IPC 1-7

C12Q 1/68; C07H 21/00; C07H 21/02; C07H 21/04

IPC 8 full level

C12N 15/09 (2006.01); **C07H 21/00** (2006.01); **C07H 21/02** (2006.01); **C07H 21/04** (2006.01); **C12N 15/10** (2006.01); **C12Q 1/68** (2006.01); **G01N 33/53** (2006.01)

IPC 8 main group level

C12N (2006.01)

CPC (source: EP)

C12Q 1/6816 (2013.01); **C12Q 1/6834** (2013.01)

Citation (search report)

- [X] WO 0173123 A2 20011004 - NANOSPHERE INC [US]
- See references of WO 03035829A2

Cited by

US10640763B2; US9335292B2; US11365409B2; US11535882B2; US11460468B2; US10669570B2; US10676779B2; US11332776B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03035829 A2 20030501; **WO 03035829 A3 20040826**; AU 2002363062 B2 20070322; CA 2463323 A1 20030501; CA 2463323 C 20101221; EP 1478774 A2 20041124; EP 1478774 A4 20061129; JP 2005525084 A 20050825; JP 4347049 B2 20091021

DOCDB simple family (application)

US 0232088 W 20021008; AU 2002363062 A 20021008; CA 2463323 A 20021008; EP 02799155 A 20021008; JP 2003538330 A 20021008