

Title (en)

RAPID SOLID PHASE SYNTHESIS OF OLIGONUCLEOTIDES USING PHOSPHORUS OXYCHLORIDE ACTIVATION.

Title (de)

SCHNELLE HERSTELLUNG IN FESTER PHASE VON OLIGONUKLEOTIDEN UNTER VERWENDUNG VON PHOSPHOROXYCHLORID.

Title (fr)

SYNTHESE RAPIDE EN PHASE SOLIDE D'OLIGONUCLEOTIDES PAR L'ACTIVATION D'OXYCHLORURE DE PHOSPHORE.

Publication

EP 0073826 A1 19830316 (EN)

Application

EP 82901233 A 19820309

Priority

US 24223181 A 19810310

Abstract (en)

[origin: WO8203079A1] A method for the synthesis of oligonucleotides which comprises the steps of packing a flow reactor with supported nucleoside comprised of a first nucleoside attached at its 5'-position of an insoluble solid support, activating said support-nucleoside by treatment with phosphorus oxychloride in the presence of a basic catalyst to provide a 3'-dichlorophosphoryl group on said first nucleoside, coupling a second similar or dissimilar nucleoside, unprotected at the 3'-and 5'-position, to said first nucleoside by condensation with said dichlorophosphoryl group and repeating said activation and coupling step until the desired oligonucleotide sequence is obtained. The oligonucleotide may then be recovered by cleavage from the support and purified, if required.

Abstract (fr)

Procede de synthese d'oligonucleotides comprenant les etapes consistant a remplir un reacteur a ecoulement avec un nucleoside supporte se composant d'un premier nucleoside attache en position (5') a un support solide insoluble, a activer ce nucleoside de support par un traitement a l'oxychlorure de phosphore en presence d'un catalyseur basique afin de former un groupe 3'-dichlorophosphoryle sur le premier nucleoside, a coupler un deuxieme nucleoside analogue ou different, non protege aux positions 3'et 5', au premier nucleoside par condensation avec le groupe dichlorophosphoryle et a repeter cette etape d'activation et de couplage jusqu'a obtention de la sequence d'oligonucleotide desires. L'oligonucleotide peut ensuite etre extrait par clivage du support et purifie, si necessaire.

IPC 1-7

C07H 21/02; C07H 21/04

IPC 8 full level

C07H 21/00 (2006.01)

CPC (source: EP)

C07H 21/00 (2013.01)

Designated contracting state (EPC)

AT BE CH DE FR GB LI LU NL SE

DOCDB simple family (publication)

WO 8203079 A1 19820916; EP 0073826 A1 19830316; ZA 821534 B 19840425

DOCDB simple family (application)

US 8200305 W 19820309; EP 82901233 A 19820309; ZA 821534 A 19820309