

Title (en)
LINKED LINEAR AMPLIFICATION OF NUCLEIC ACIDS

Title (de)
LINEARE VERVIELFÄLTIGUNG VON NUKLEINSÄUREN

Title (fr)
AMPLIFICATION LINEAIRE ENCHAÎNÉE D'ACIDES NUCLEIQUES

Publication
EP 0710296 A4 19990526 (EN)

Application
EP 94924010 A 19940725

Priority
• US 9408390 W 19940725
• US 9544293 A 19930723

Abstract (en)
[origin: WO9503432A1] The extensive synthesis ("amplification") of a nucleic acid sequence of interest is attained through a linked series of multi-cycle primer extension reactions (LLA). The primers used in each of the primer extension reactions of the process contain non-replicable elements that halt nucleic acid synthesis and thereby prevent the synthesized molecules from serving as templates in subsequent cycles. Synthesized molecules accumulate during primer extension in a mathematically linear fashion, thereby rendering the process relatively insensitive to contaminating nucleic acids. Multiple primer sets are employed, thereby ensuring the accumulation of a large number of copies of the nucleic acid sequence of interest. The invention also provides for the detection of an amplified nucleic acid sequence of interest, as well as reagent kits for carrying out the reaction.

IPC 1-7
C12Q 1/70; **C12P 19/34**; **C07H 21/02**; **C07H 21/04**

IPC 8 full level
C12N 15/09 (2006.01); **C07H 21/04** (2006.01); **C12Q 1/68** (2006.01); **C12Q 1/6848** (2018.01)

CPC (source: EP)
C12Q 1/6848 (2013.01)

Citation (search report)
• [YD] EP 0416817 A2 19910313 - ICI PLC [GB]
• [A] EP 0332435 A2 19890913 - ICI PLC [GB]
• [Y] GADE R ET AL: "INCORPORATION OF NONBASE RESIDUES INTO SYNTHETIC OLIGONUCLEOTIDES AND THEIR USE IN THE PCR", GENETIC ANALYSIS TECHNIQUES AND APPLICATIONS, vol. 10, no. 2, April 1993 (1993-04-01), pages 61 - 65, XP002056677
• See references of WO 9503432A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 9503432 A1 19950202; CA 2167840 A1 19950202; CN 1127533 A 19960724; EP 0710296 A1 19960508; EP 0710296 A4 19990526; JP H09500539 A 19970121

DOCDB simple family (application)
US 9408390 W 19940725; CA 2167840 A 19940725; CN 94192853 A 19940725; EP 94924010 A 19940725; JP 50538495 A 19940725