

Title (en)
METHOD AND APPARATUS FOR THERMAL CYCLING AND FOR AUTOMATED SAMPLE PREPARATION WITH THERMAL CYCLING

Title (de)
VERFAHREN UND VORRICHTUNG ZUR DURCHFÜHRUNG VON TEMPERATURZYKLEN UND ZUR AUTOMATISCHEN
PROBENVORBEREITUNG MITTELS TEMPERATURZYKLEN

Title (fr)
PROCEDE ET DISPOSITIF DESTINES A LA PRODUCTION DE CYCLES THERMIQUES ET A L'AUTOMATISATION DE LA PREPARATION
D'ECHANTILLONS AU MOYEN DE CES CYCLES THERMIQUES

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Application
EP 97919230 A 19970501

Priority

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- US 68449896 A 19960719
- US 70373096 A 19960827

Abstract (en)
[origin: WO9740939A1] An apparatus and method for thermally cycling a reaction mixture in a reaction vessel to expose the mixture to the varying temperatures necessary to, for example, achieve PCR amplification or the preparation of sequencing fragments using a cycle sequencing operation makes use of flow-through reaction vessels, such as capillary tubes, for the preparation and thermal cycling of reaction mixtures. In order to prevent loss of the reaction mixture from the vessels during heating, the thermal cycling apparatus of the invention provides means for reversibly sealing the proximal and distal ends of each reaction vessel. The proximal ends can be sealed by coupling to a pump which permits movement of the samples within the reaction vessels. As to the distal ends, the reaction vessels can be sealed by pressing the distal end of each vessel against a sealing element with a conformable surface, or by immersing the distal end of each vessel in the reservoir of liquid, preferably of an oil, that is not miscible with the reaction mixture.

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