ABSTRACT

ELECTROCHEMICAL TREATMENT OF NUCLEIC ACID CONTAINING SOLUTIONS

A process is described for denaturing native double-stranded nucleic acid material into its individual strands in an electrochemical cell. The process is an electrical treatment of the nucleic acid with a voltage applied to the nucleic acid material by an electrode. The process employs a promoter which is an inorganic multivalent cation such as magnesium ions to speed denaturation. The process may be used in the detection of nucleic acid by hybridrising with a labelled probe or in the amplification of DNA by a polymerase chain reaction or ligase chain reaction.

(Figure 1)