

ABSTRACT

NUCLEIC ACID AMPLIFICATION

In some embodiments, the present teachings provide methods for nucleic acid amplification, comprising forming an reaction mixture, and subjecting the reaction mixture to conditions suitable for nucleic acid amplification. In some embodiments, methods for nucleic acid amplification include subjecting the nucleic acid to be amplified to partially denaturing conditions. In some embodiments, methods for nucleic acid amplification include amplifying without fully denaturing the nucleic acid that is amplified. In some embodiments, the methods for nucleic acid amplification employ an enzyme that catalyzes homologous recombination and a polymerase. In some embodiments, methods for nucleic acid amplification can be conducted in a single reaction vessel. In some embodiments, methods for nucleic acid amplification can be conducted in a single continuous liquid phase of an reaction mixture, without need for compartmentalization of the reaction mixture or immobilization of reaction components. In some embodiments, methods for nucleic acid amplification comprise amplifying at least one polynucleotide onto a surface under isothermal amplification conditions, optionally in the presence of a polymer. The polymer can include a sieving agent and/or a diffusion-reducing agent.

[Figure 1]