

ABSTRACT

A fully automatic oligonucleotide synthesis device, comprising: a pipeline liquid feeding system, a reaction system and a control system, wherein the pipeline liquid feeding system comprises a pumping module, a moving module, and a liquid injection module, the liquid injection module being mounted on the moving module, and the moving module being configured to enable the liquid injection module to move three-dimensionally to inject liquid into the reaction system; and the control system is in communication connection with the pipeline liquid feeding system and the reaction system and is used for controlling the liquid feeding and reaction. The device preferably further comprises a non-pipeline liquid feeding system, wherein the non-pipeline liquid feeding system comprises a pipetting apparatus, and the pipetting apparatus is preferably mounted on the moving module and is used for injecting the liquid into the reaction system. In addition, further provided is a method for synthesizing oligonucleotides by using the fully automatic oligonucleotide synthesis device. The fully automatic oligonucleotide synthesis device has a high degree of automation and is suitable for oligonucleotide synthesis of different scales, thereby achieving high synthesis quality and high efficiency.

FIG. 1