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(54) Title: SYSTEM AND METHOD FOR THE PRODUCTION OF RNA

(57) Abstract: The current application relates to a system for producing RNA, said system comprising an in vitro transcription (IVT) unit and a processing unit for downstream processing of said compound, wherein the IVT unit comprises a plurality of chambers, wherein each of the plurality of chambers is configured to receive one or more IVT reagents and to execute an IVT reaction based on a DNA template, thereby obtaining a plurality of RNA molecules; and wherein the processing unit comprises a purification device for performing at least one downstream purification step of said plurality of RNA molecules, said purification device comprising one or more sample holders, said sample holders are suited to receive a container holding a liquid medium comprising RNA molecules and magnetic particles, and wherein a magnet is positioned at each sample, said magnet unit is configured to capture or to introduce a movement of said magnetic particles and wherein the sample holders are configured to perform a mechanical motion, such that the magnetic particles are mixed with the liquid. The current application also discloses a method for the production of RNA, more preferably mRNA.



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