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(71) Applicant: **RIBOPRO B.V.** [NL/NL]; Kloosterstraat 9, 5349AB Oss (NL).

(72) Inventor: **VAN ASBECK, Alexander**; Kloosterstraat 9, Building RK, 5349AB Oss (NL).

(74) Agent: **HUTTER, Anton** et al.; Venner Shipley LLP, The Surrey Research Park, 5 Stirling House, Stirling Road, Guildford Surrey GU2 7RF (GB).

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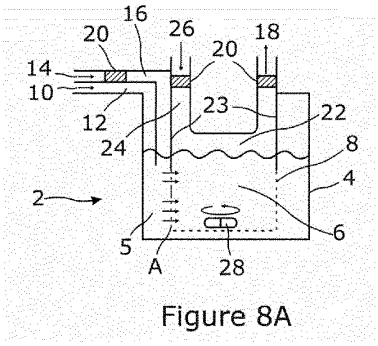


Figure 8A

(57) Abstract: The invention relates to ribonucleic acid (RNA), and to methods for synthesizing and co-transcriptionally capping RNA. The invention is especially concerned with methods for enhanced co-transcriptional capping of mRNA using cap analogues. The invention also relates to apparatus for performing such methods, and to devices that enable the improved synthesis of in vitro transcribed mRNA, and more specifically to the addition of a 5' cap structure to in vitro transcribed mRNA.