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(54) Title: ACID-FREE THERMAL DEPROTECTION OF TRITYL PROTECTED OLIGONUCLEOTIDES

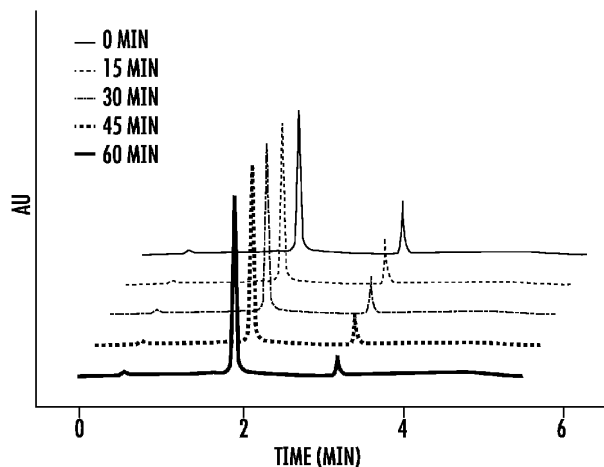


FIG. 1A

(57) Abstract: The present disclosure relates to methods of deprotecting a trityl-based protecting group from an amine group or a hydroxyl group of an oligonucleotide, such as an oligonucleotide modified with a 5'-amine group. The methods generally comprise heating the oligonucleotide in an acid-free aqueous solution at a temperature of at least 60°C, optionally with removal of an insoluble trityl-hydroxyl byproduct to further drive the deprotection reaction. The methods allow facile deprotection of trityl-based protecting groups with little or no depurination of the product oligonucleotide.

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