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(54) Title: DETERMINING THE SEQUENCE OF A POLYNUCLEOTIDE

(57) Abstract: The sequence of a target polynucleotide can be determined by: (i) contacting the target polynucleotide with a polymerase enzyme and one of the nuncleotides A, T(U), G and C under conditions suitable for the polymerase reaction to proceed; (ii) measuring the time taken for the polymerase to bind to and subsequently dissociate from the target polynucleotide, to thereby determine whether the polymerase has incorporated the nucleotide onto the target polynucleotide; (iii) optionally repeating steps (i) and (ii) with additional nucleotides, to thereby identify the sequence of the target polynucleotide.