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(54) Title: PROBE BASED NUCLEIC ACID DETECTION

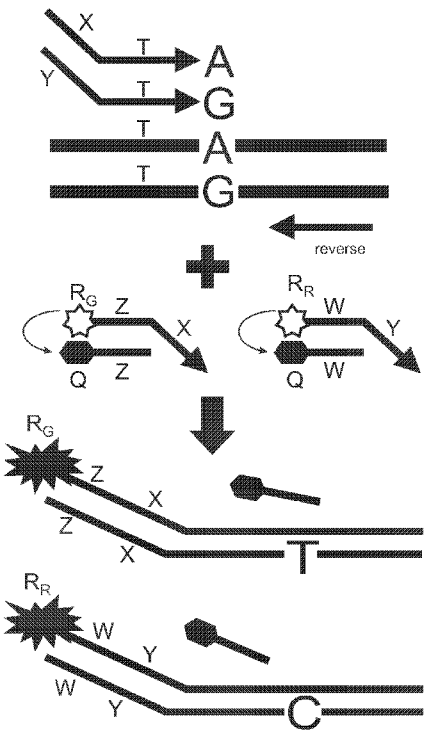

FIG. 1

(57) Abstract: The invention provides a method for detecting a target nucleotide sequence by tagging the nucleotide sequence with a nucleotide tag, providing a probe oligonucleotide with a melting temperature Tm1, comprising a regulatory sequence and a nucleotide tag recognition sequence; incorporating the probe oligonucleotide into the tagged polynucleotide in a polynucleotide amplification reaction, providing a regulatory oligonucleotide with a melting temperature Tm2, comprising a sequence segment that is at least partially complementary to the regulatory sequence, amplifying the tagged target nucleic acid sequence in a PCR amplification reaction using the probe oligonucleotide as a primer, and detecting the amplification product; wherein Tm1 and Tm2 are higher than the annealing temperature associated with the polynucleotide amplification reaction.

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