

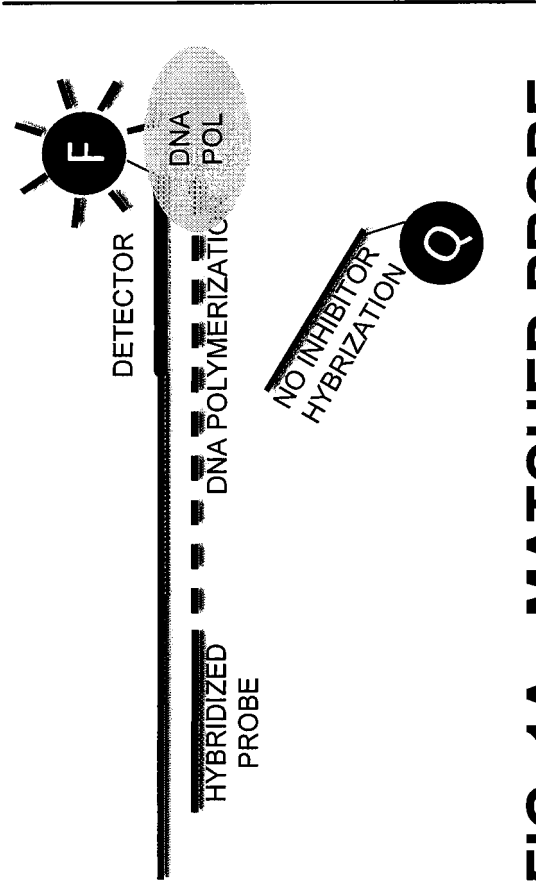


FIG. 1A - MATCHED PROBE

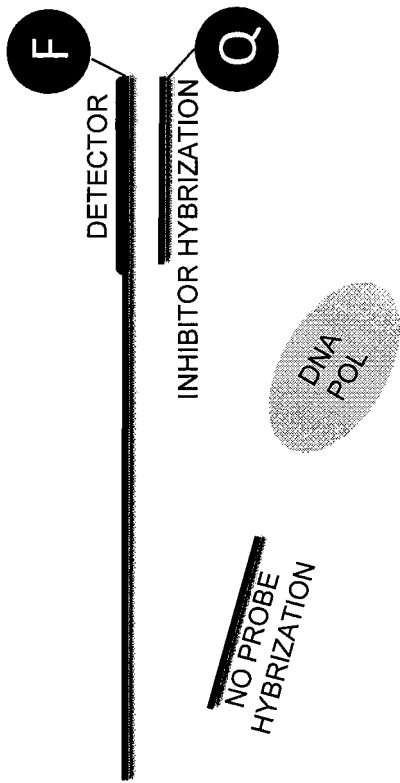


FIG. 1B – MISMATCHED
PROBE

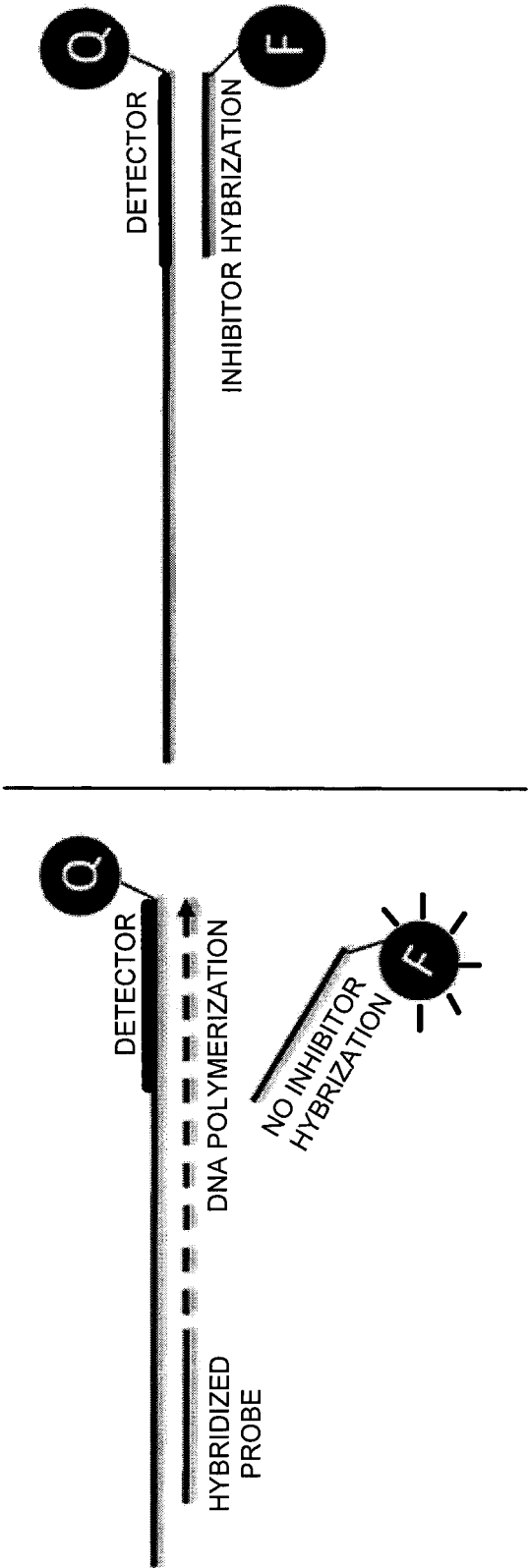


**FIG. 2A - MATCHED
PROBE**

**FIG. 2B - MISMATCHED
PROBE**

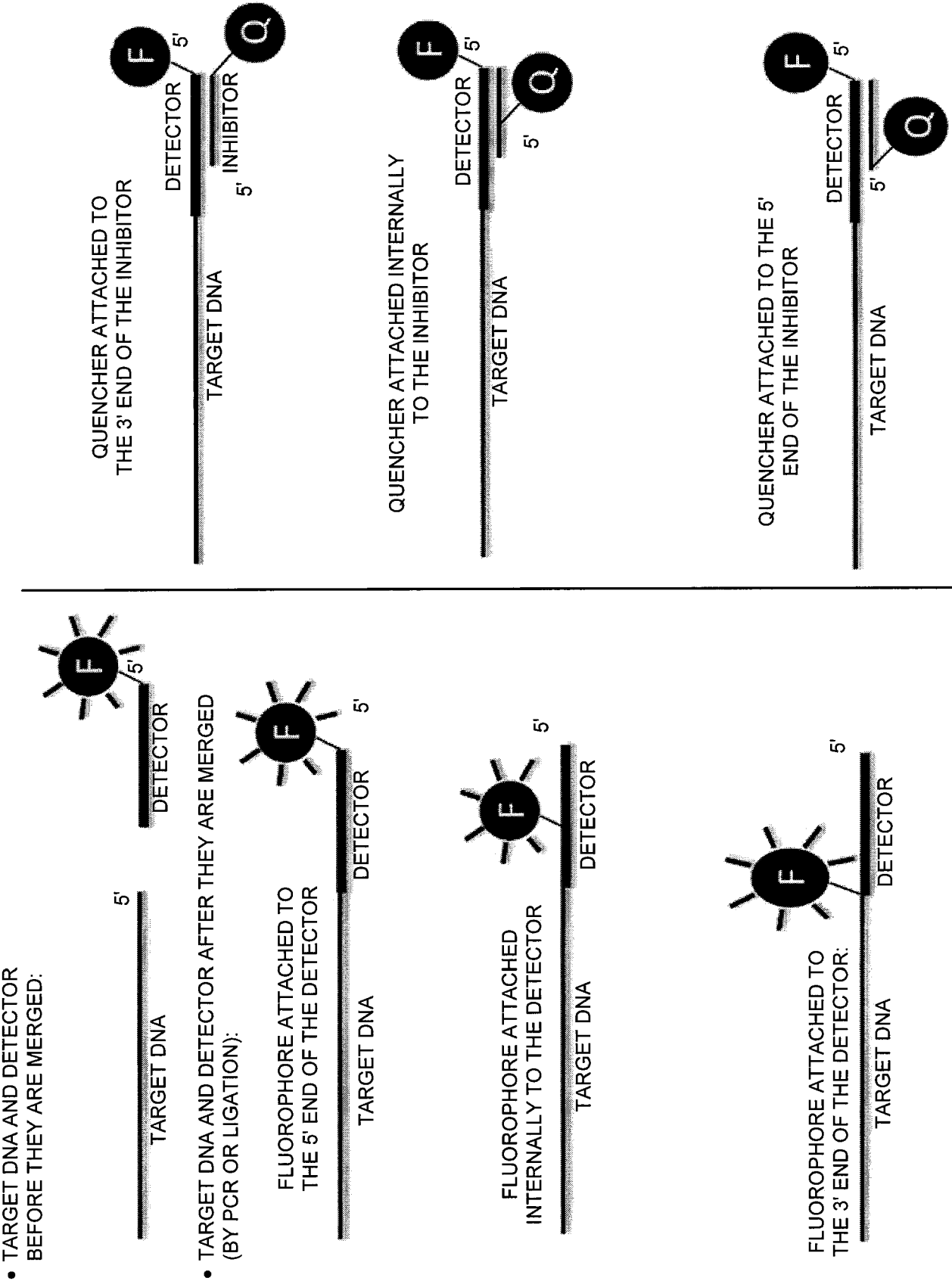


FIG. 3

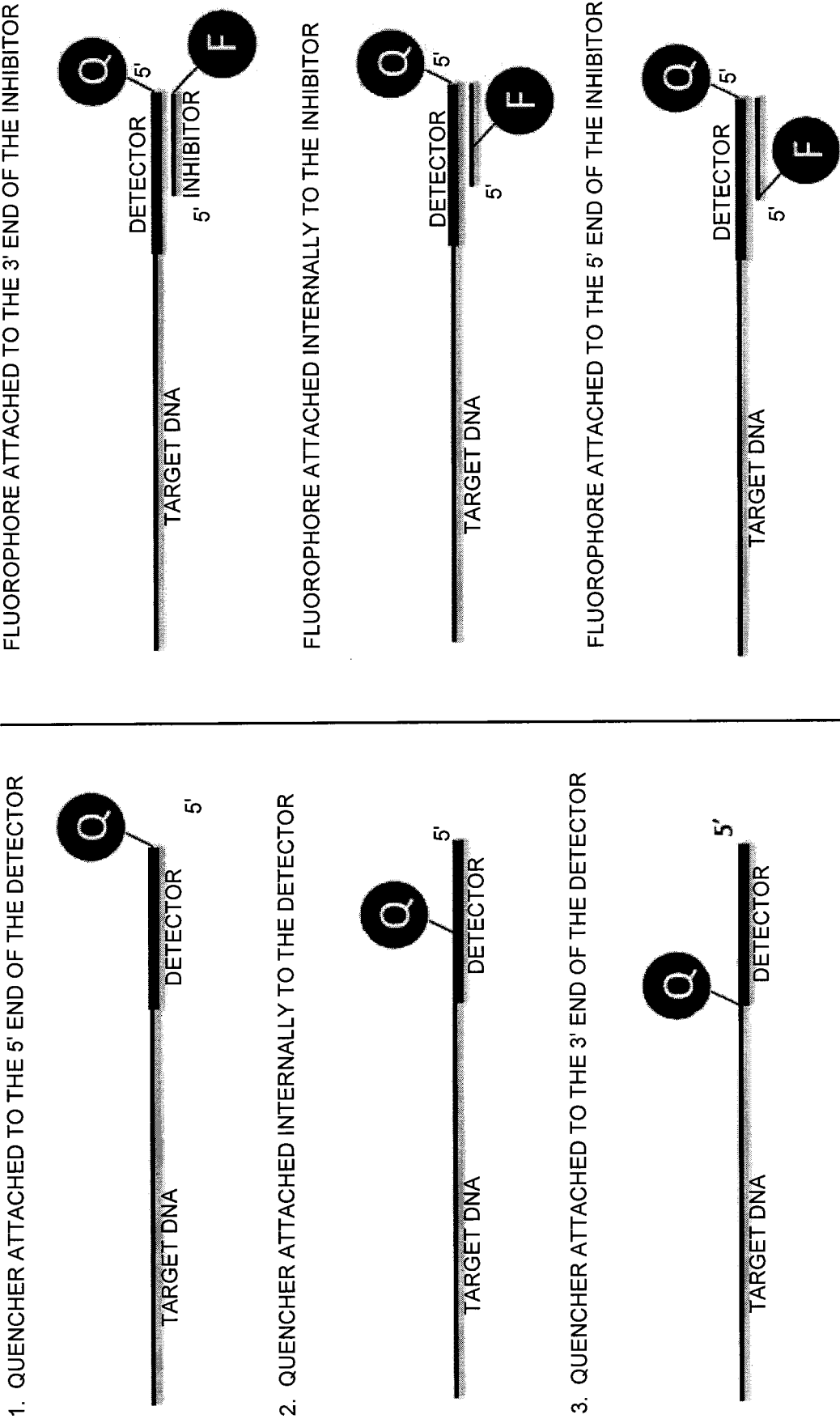


FIG. 4

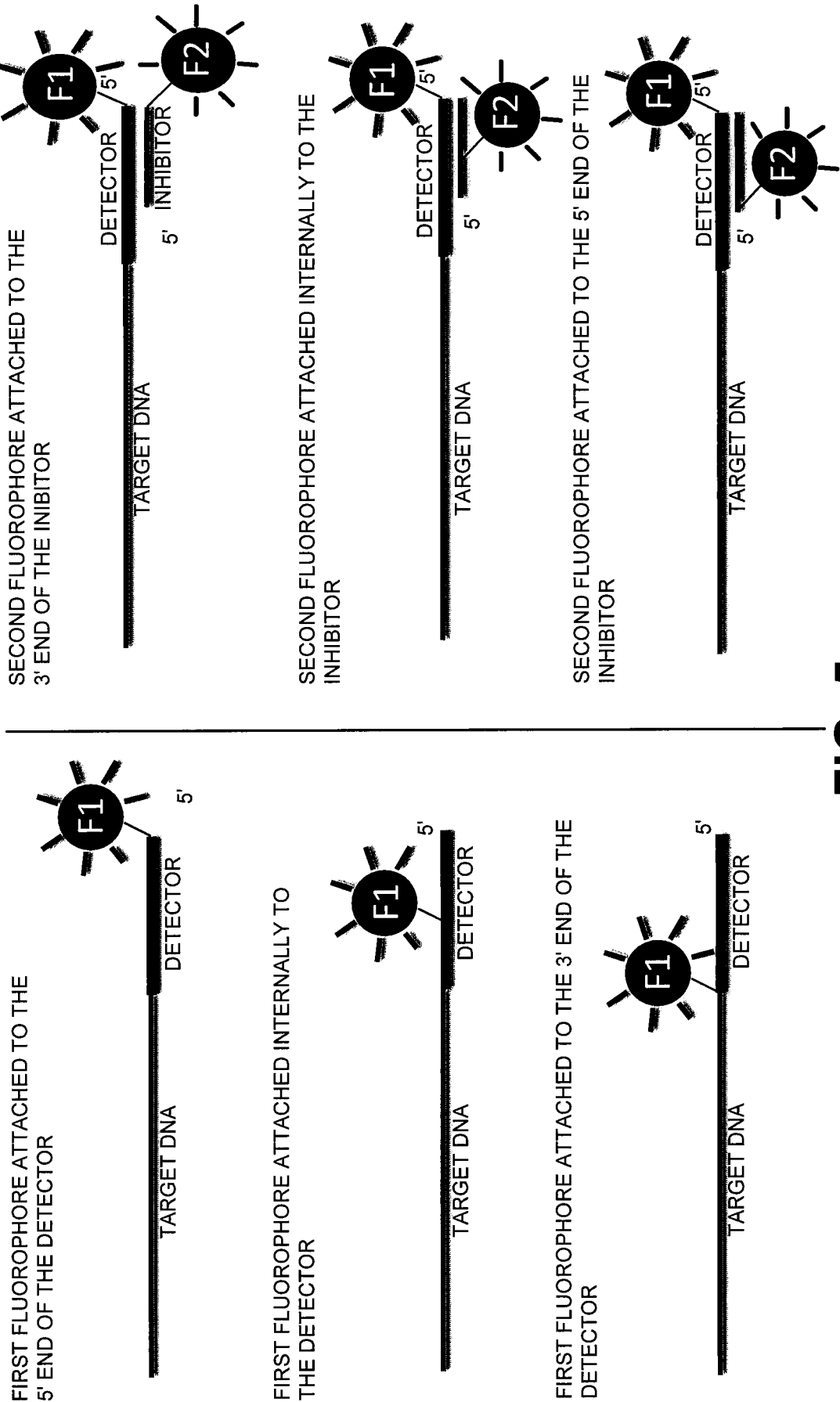
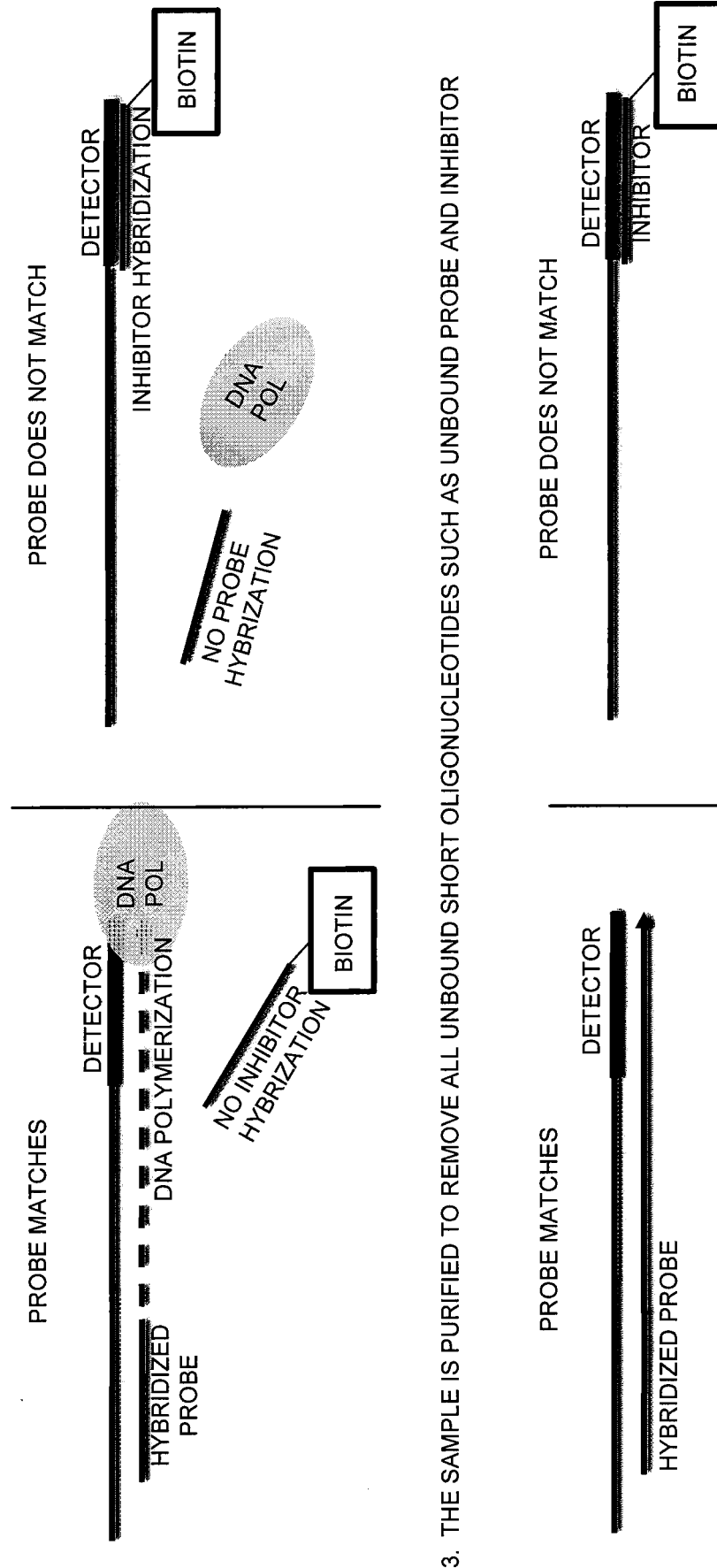


FIG. 5

1. A BIOTIN IS CONJUGATED TO THE INHIBITOR
2. THE STRAND DISPLACEMENT ASSAY LEAVES THE INHIBITOR BOUND TO THE DETECTOR ONLY IF THE PROBE DOES NOT MATCH THE TARGET

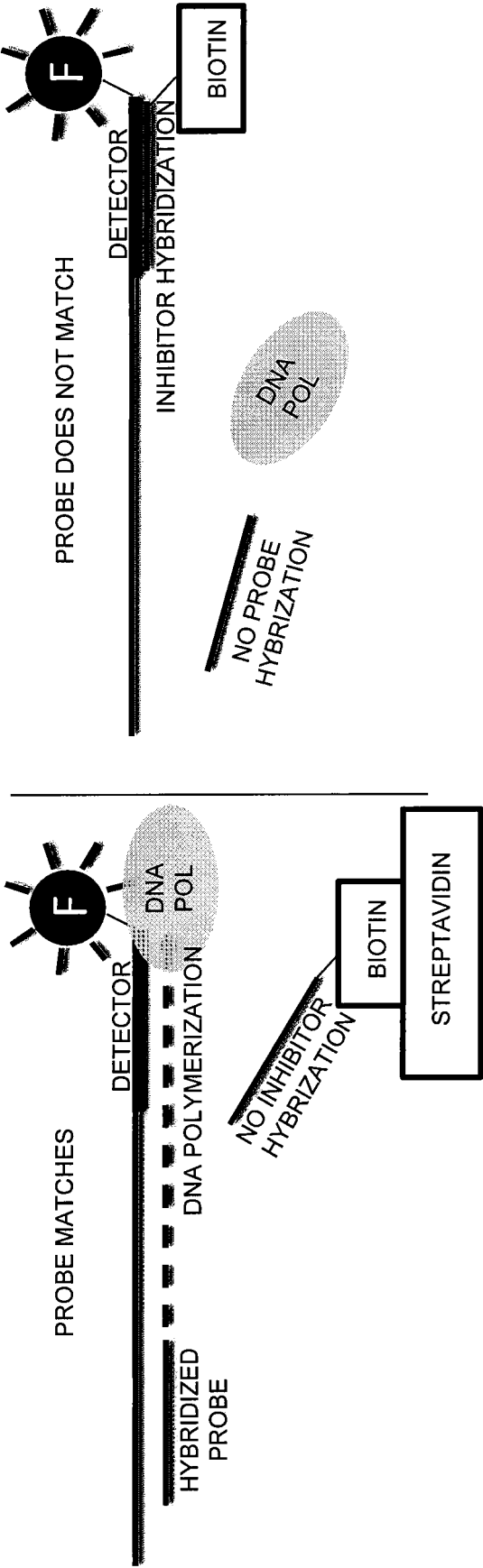


3. THE SAMPLE IS PURIFIED TO REMOVE ALL UNBOUND SHORT OLIGONUCLEOTIDES SUCH AS UNBOUND PROBE AND INHIBITOR

4. THE SAMPLE IS TESTED FOR THE PRESENCE OF INHIBITOR BY AN ANTI-BIOTIN HRP CHEMILUMINESCENCE ASSAY. HIGH CHEMILUMINESCENCE INDICATES THE PROBE DID NOT MATCH WHILE LOW SIGNAL INDICATES A MATCH.

FIG. 6

1. A BIOTIN IS ATTACHED TO THE INHIBITOR AND A FLUOROPHORE IS ATTACHED TO THE DETECTOR
2. THE STRAND DISPLACEMENT ASSAY LEAVES THE INHIBITOR BOUND TO THE DETECTOR ONLY IF THE PROBE DOES NOT MATCH THE TARGET



3. A STREPTAVIDIN SUBSTRATE (E.G. BEAD) IS USED TO ISOLATE THE INHIBITOR. IF THE INHIBITOR IS HYBRIDIZED TO THE TARGET, THE DETECTOR REMAINS IN THE SAMPLE RESULTING IN HIGH FLUORESCENCE (PROBE DOES NOT MATCH)

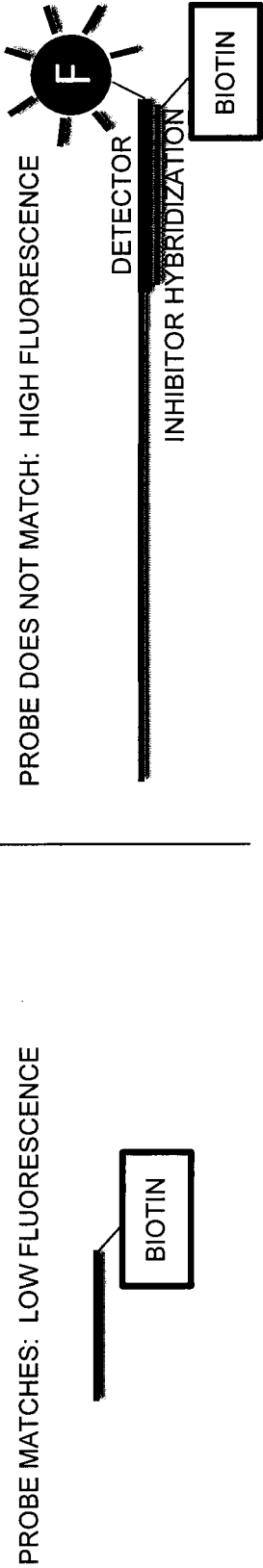


FIG. 7

Matched	CGCATATG
Mismatched 1	CGCATATC
Mismatched 2	CGCATAGG
Mismatched 3	CGCATCTG
Mismatched 4	CGCAGATG
Mismatched 5	CGCCTATG
Mismatched 6	CGGATATG

FIG. 8

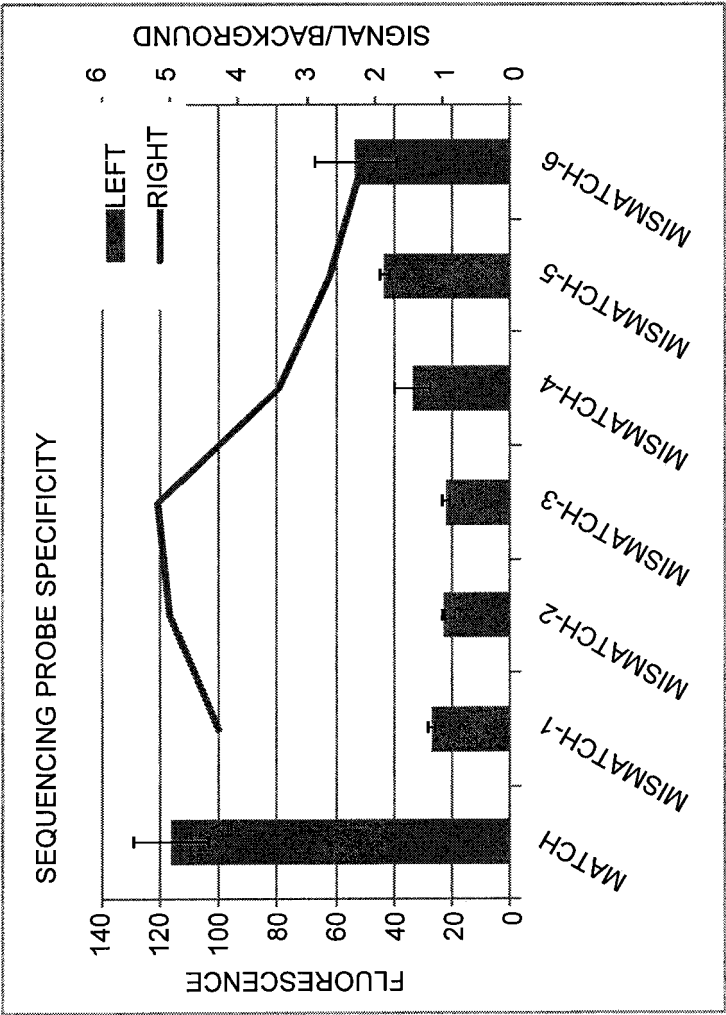


FIG. 9

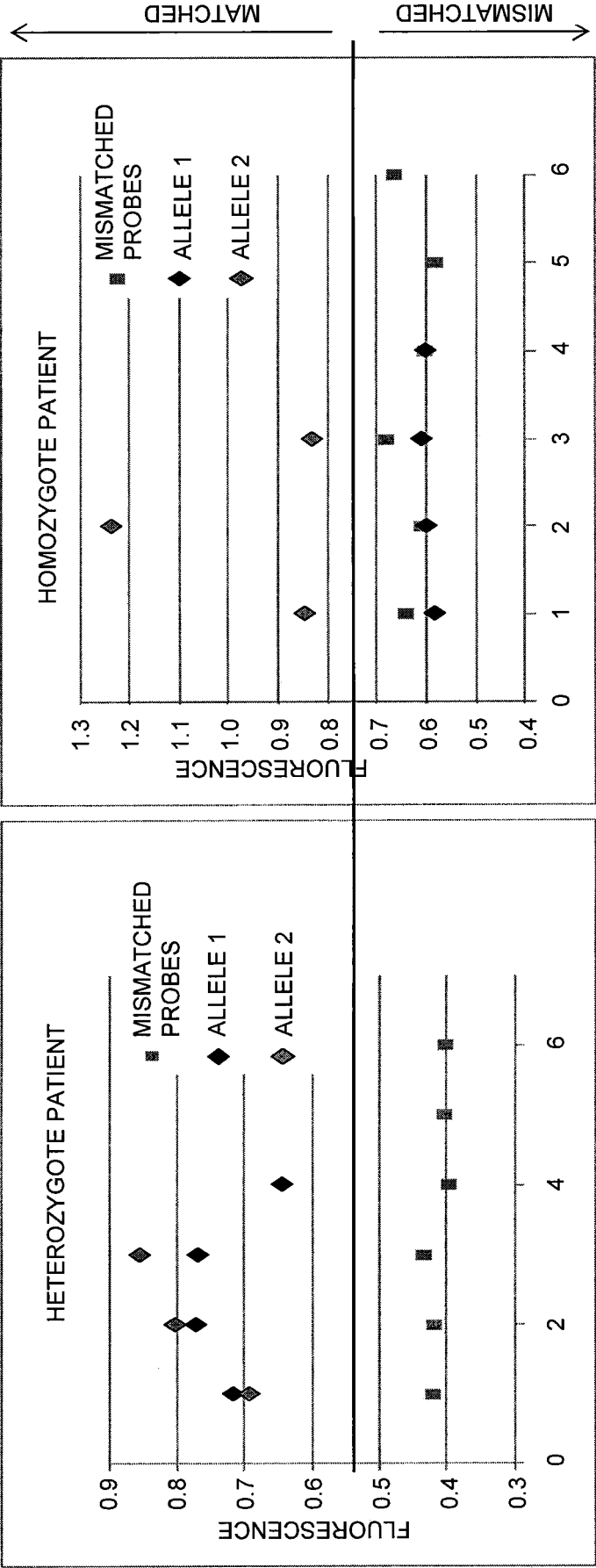


FIG. 10

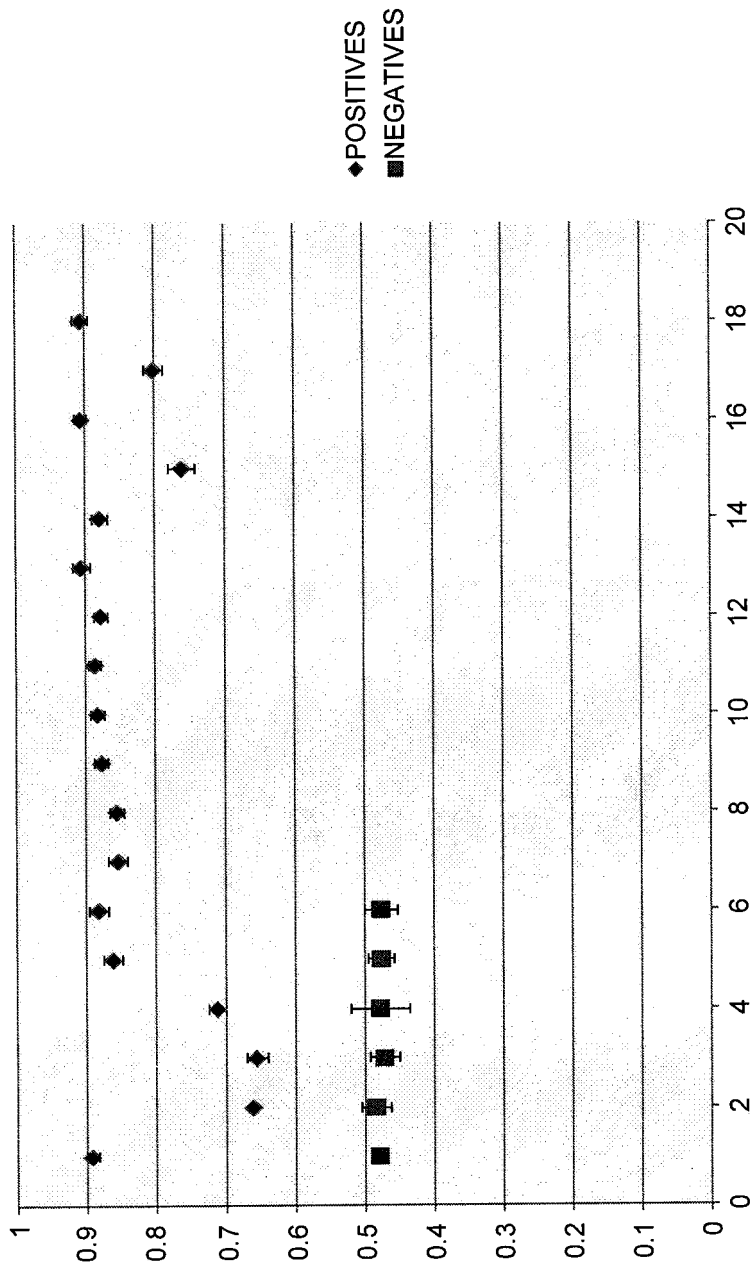


FIG. 11