FIG. 1:

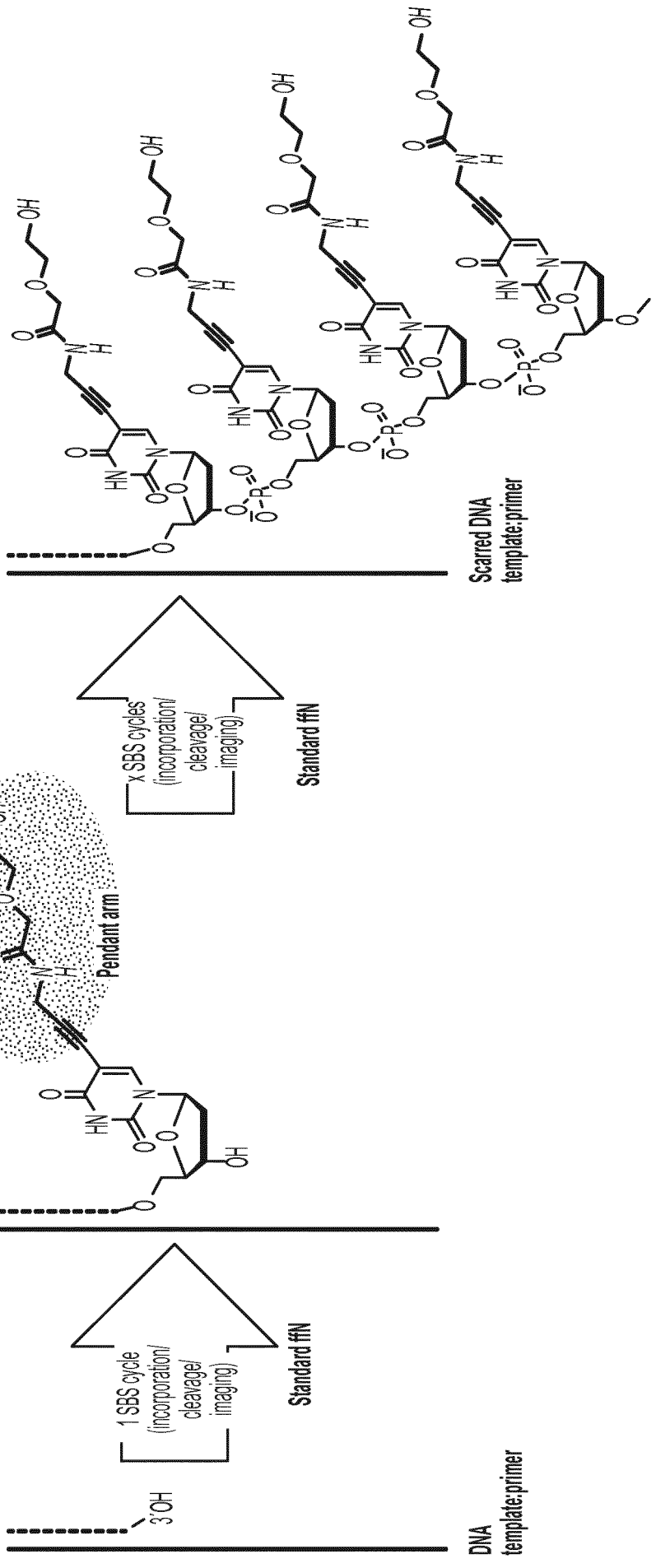

3'OH
DNA template:primer
1 SBS cycle (incorporation/ cleavage/ imaging)
Standard ffN
Pendant arm
x SBS cycles (incorporation/ cleavage/ imaging)
Standard ffN
Scarred DNA template:primer

FIG. 2:

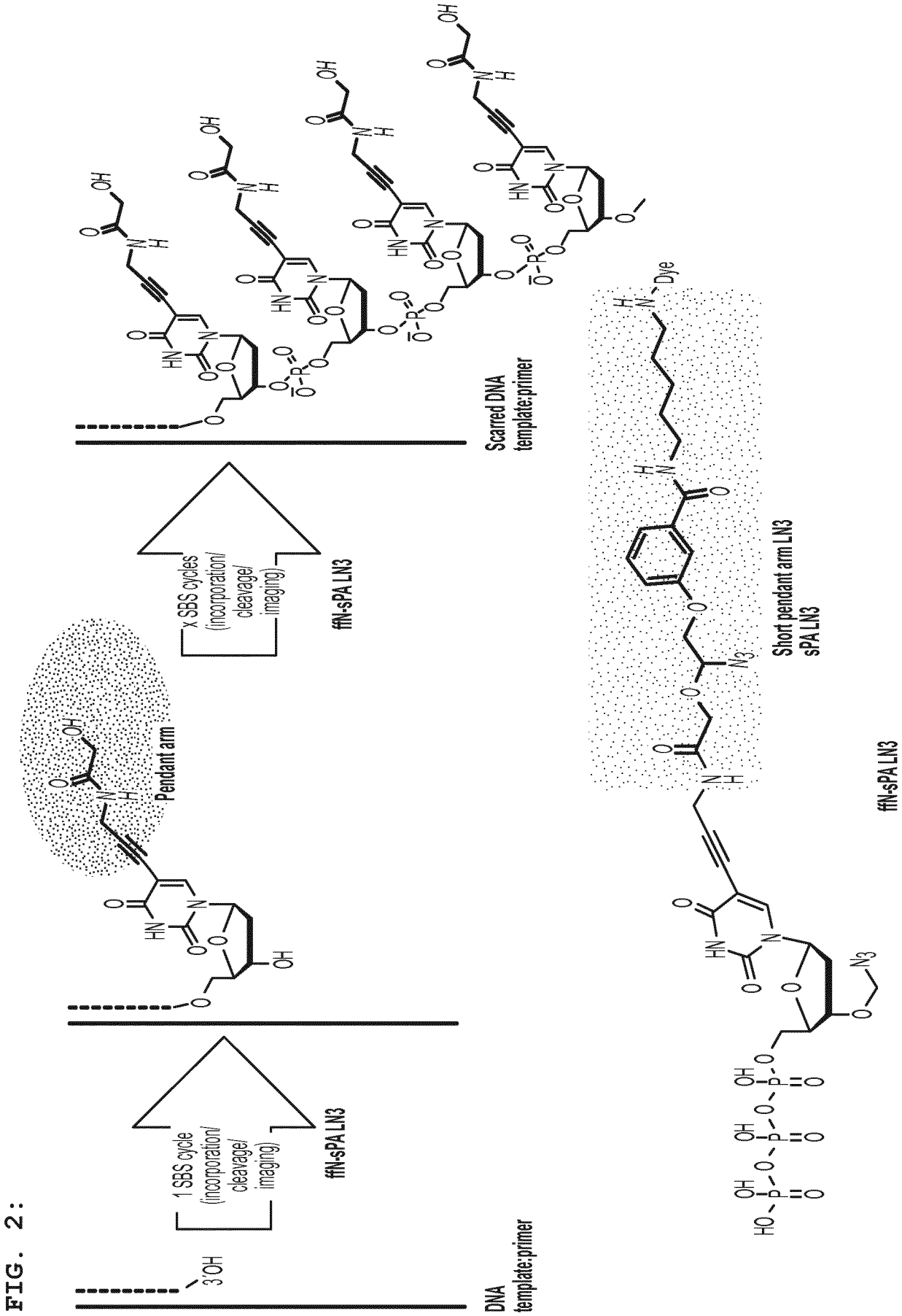
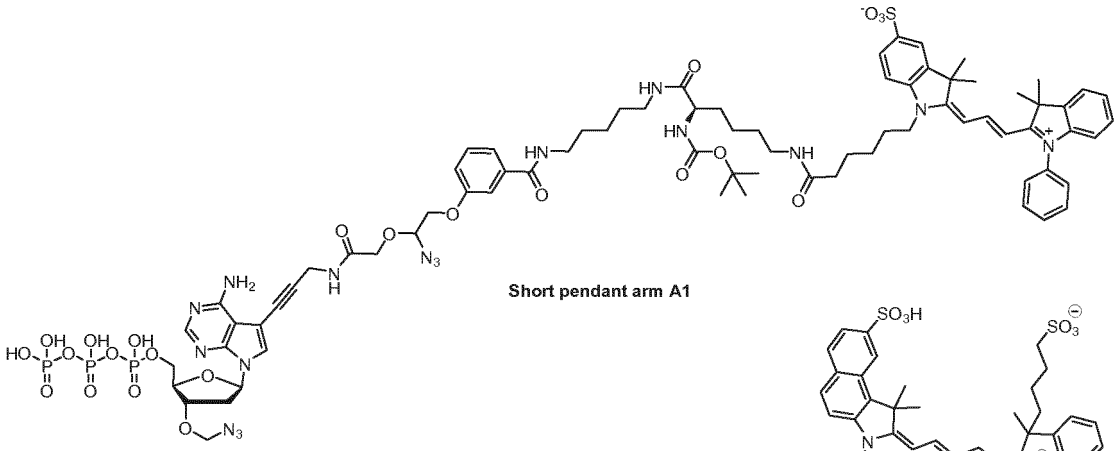
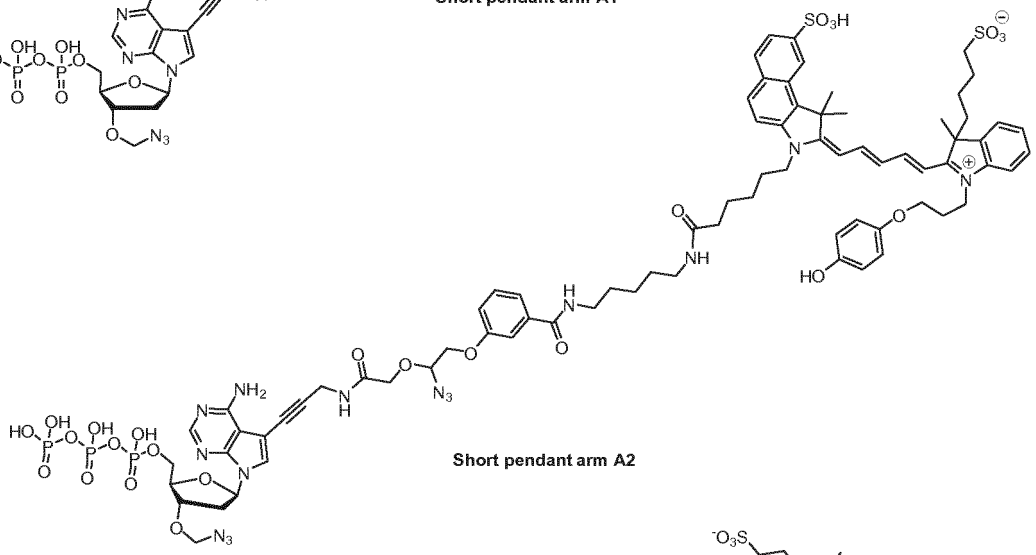

3'OH
DNA template:primer
1 SBS cycle (incorporation/ cleavage/ imaging)
ffN-sPA LN3
Pendant arm
x SBS cycles (incorporation/ cleavage/ imaging)
ffN-sPA LN3
Scarred DNA template:primer
Short pendant arm LN3 sPA LN3
ffN-sPA LN3

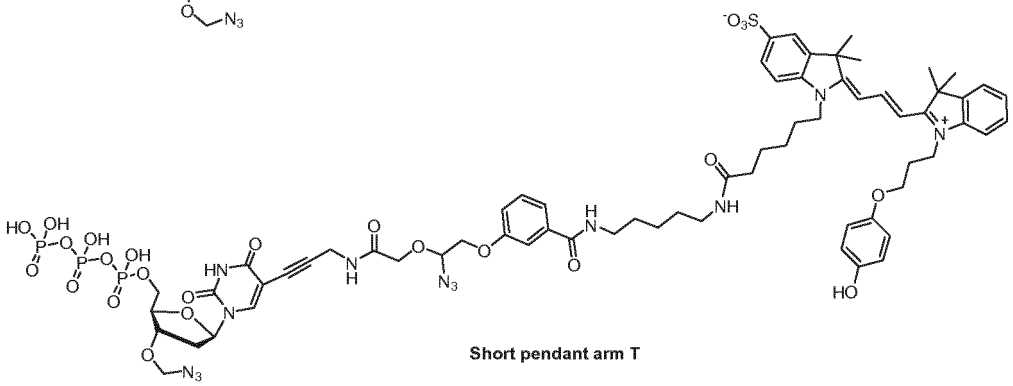
FIG. 3:



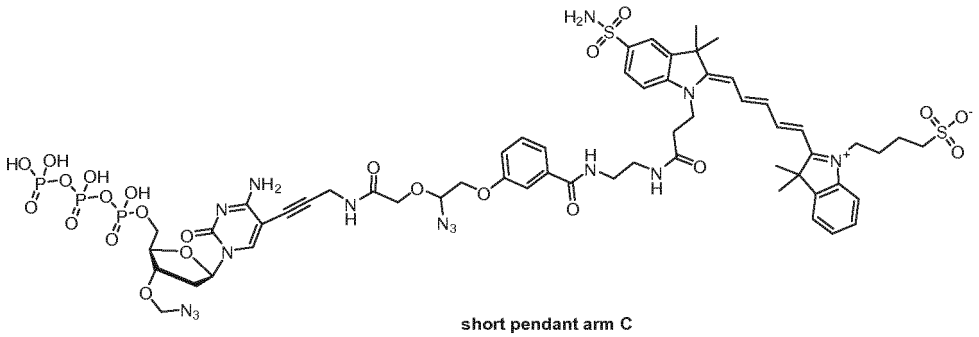
Short pendant arm A1



Short pendant arm A2



Short pendant arm T



short pendant arm C

FIG. 4A

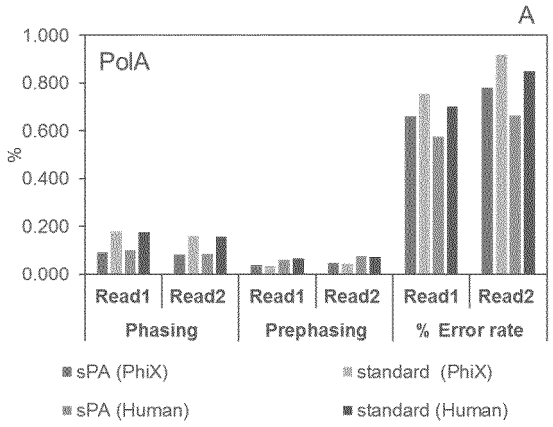
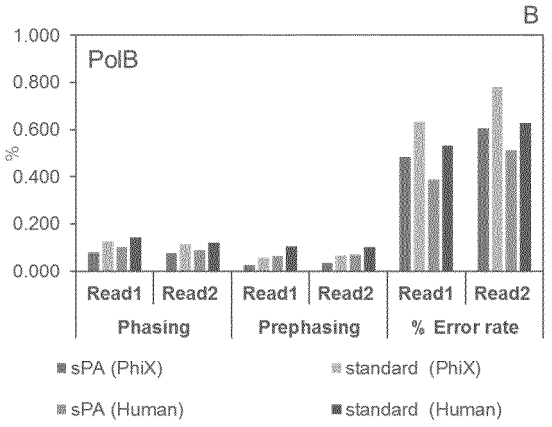


FIG. 4B



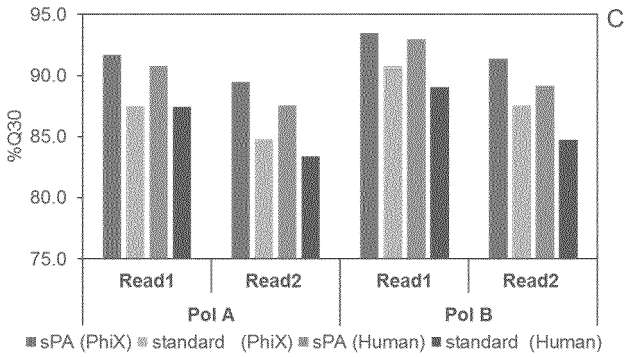
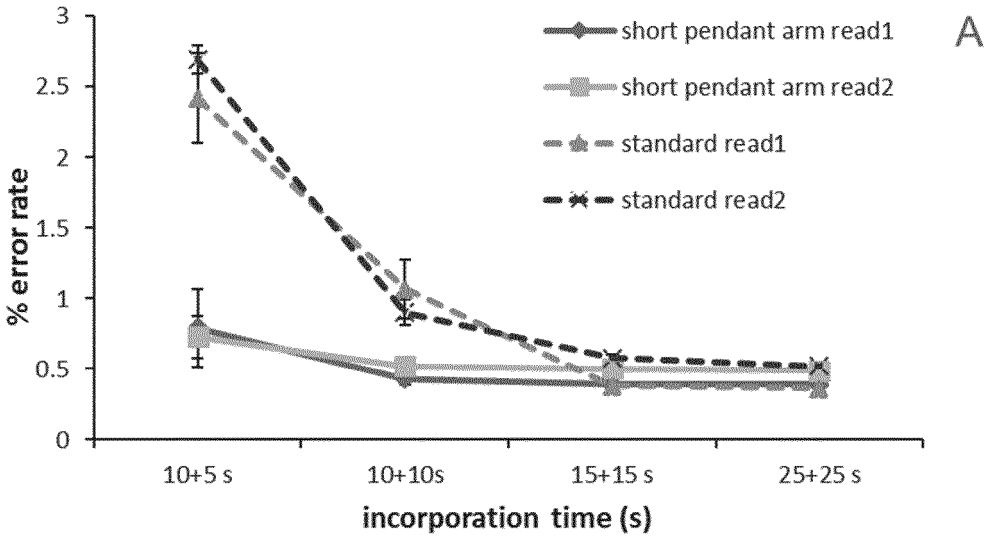


FIG. 4C

FIG. 5A


A
short pendant arm read1
short pendant arm read2
standard read1
standard read2
% error rate
3
2.5
2
1.5
1
0.5
0
10+5 s
10+10s
15+15 s
25+25 s
incorporation time (s)

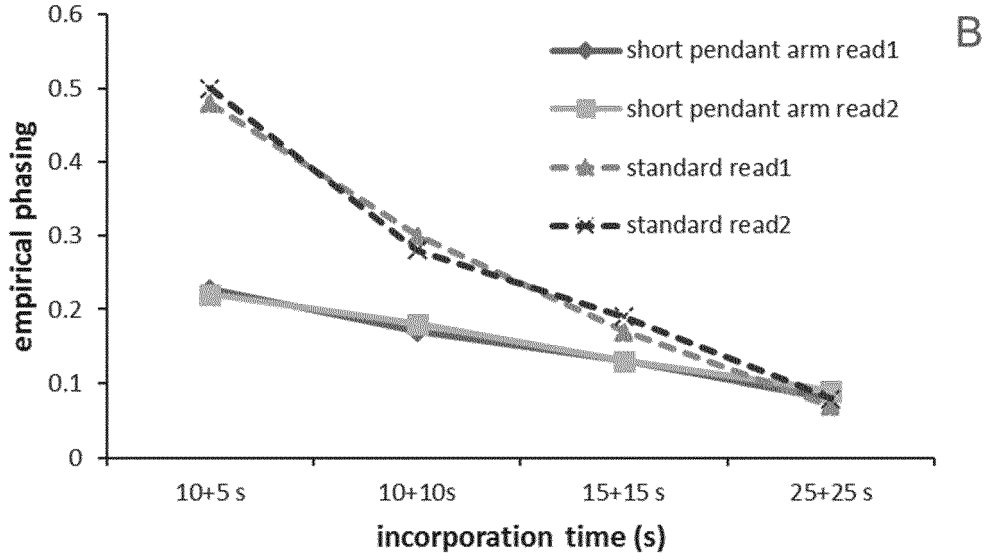

B
short pendant arm read1
short pendant arm read2
standard read1
standard read2
empirical phasing
0.6
0.5
0.4
0.3
0.2
0.1
0
10+5 s
10+10s
15+15 s
25+25 s
incorporation time (s)

FIG. 5B