

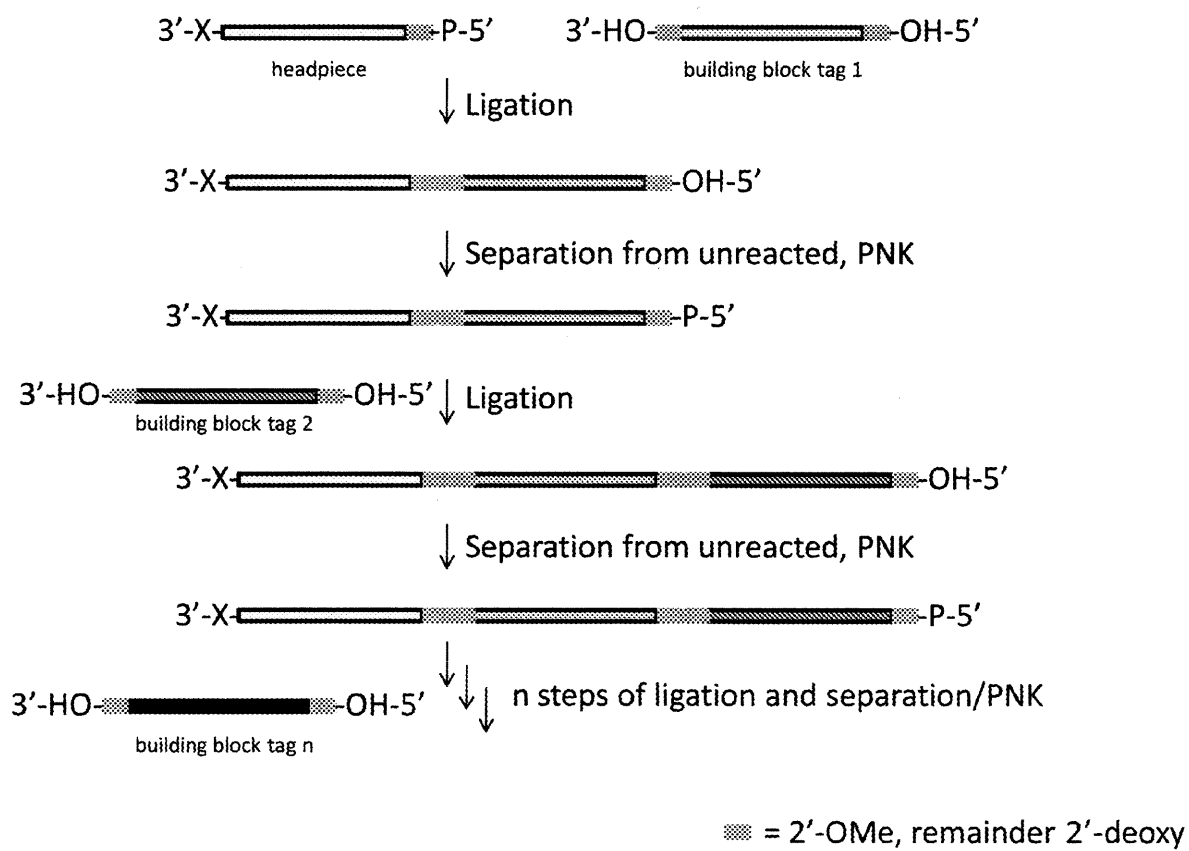


Figure 2A

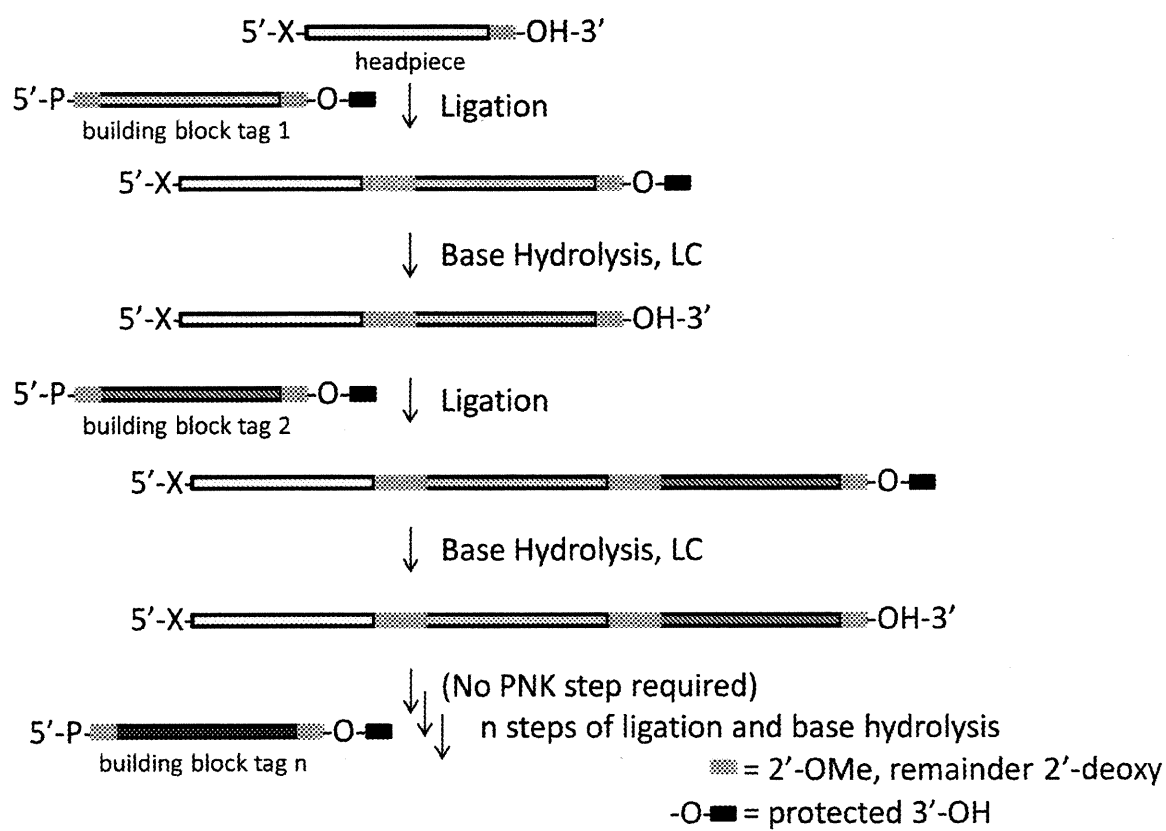
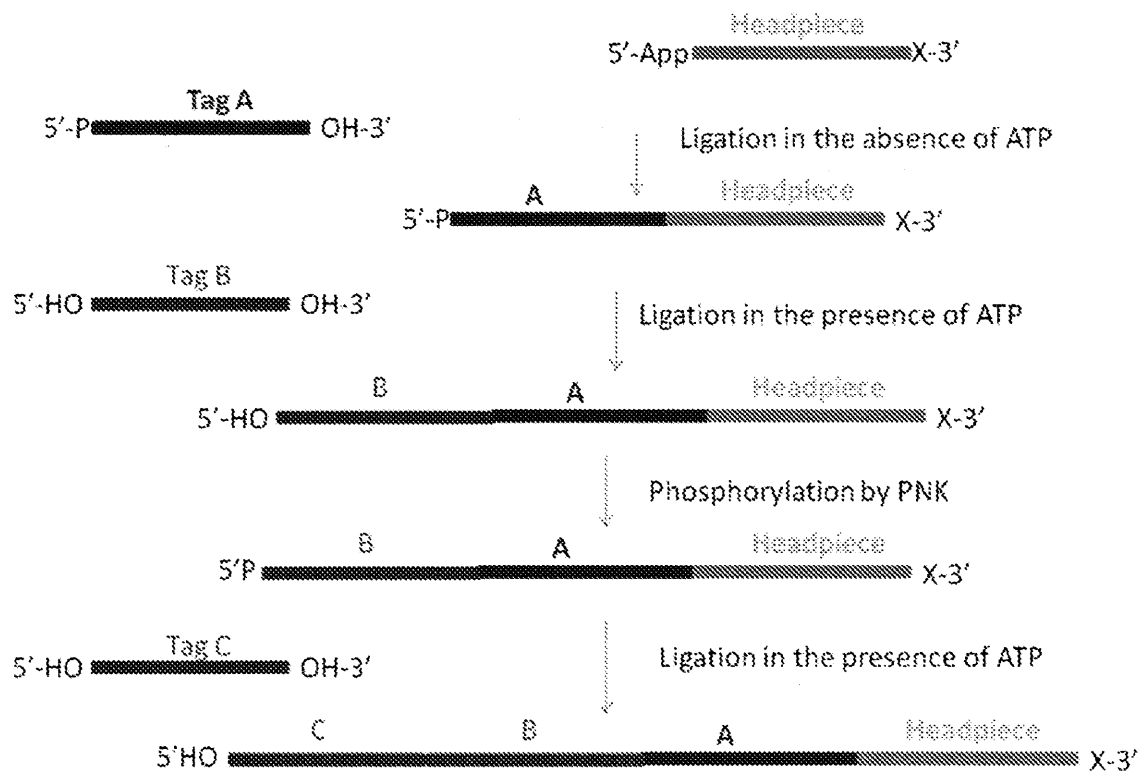
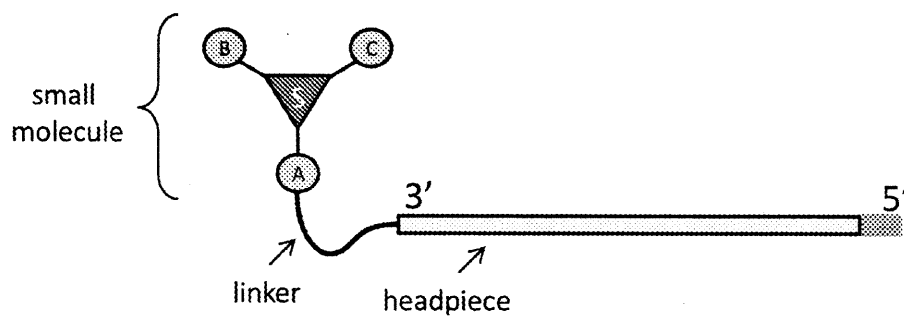
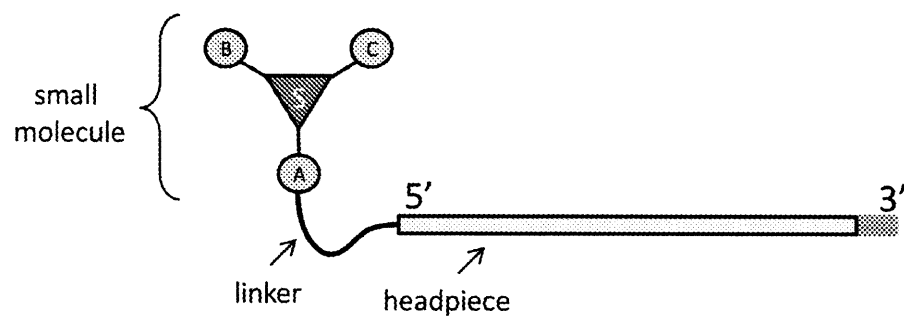
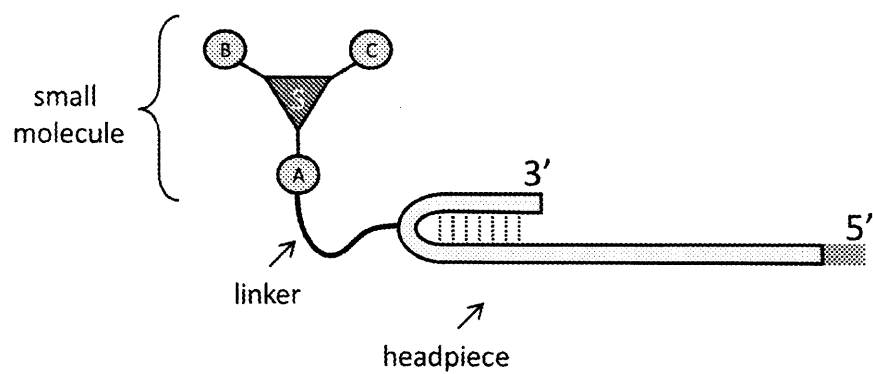
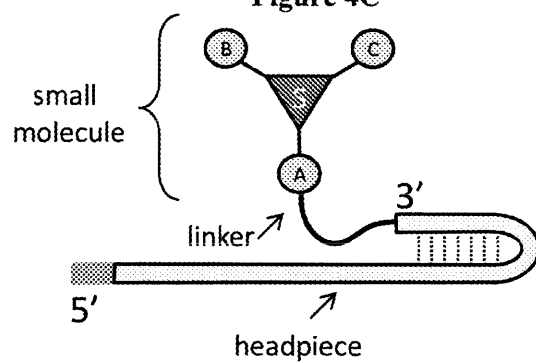


Figure 2B

**Figure 3**

**Figure 4A****Figure 4B****Figure 4C****Figure 4D**

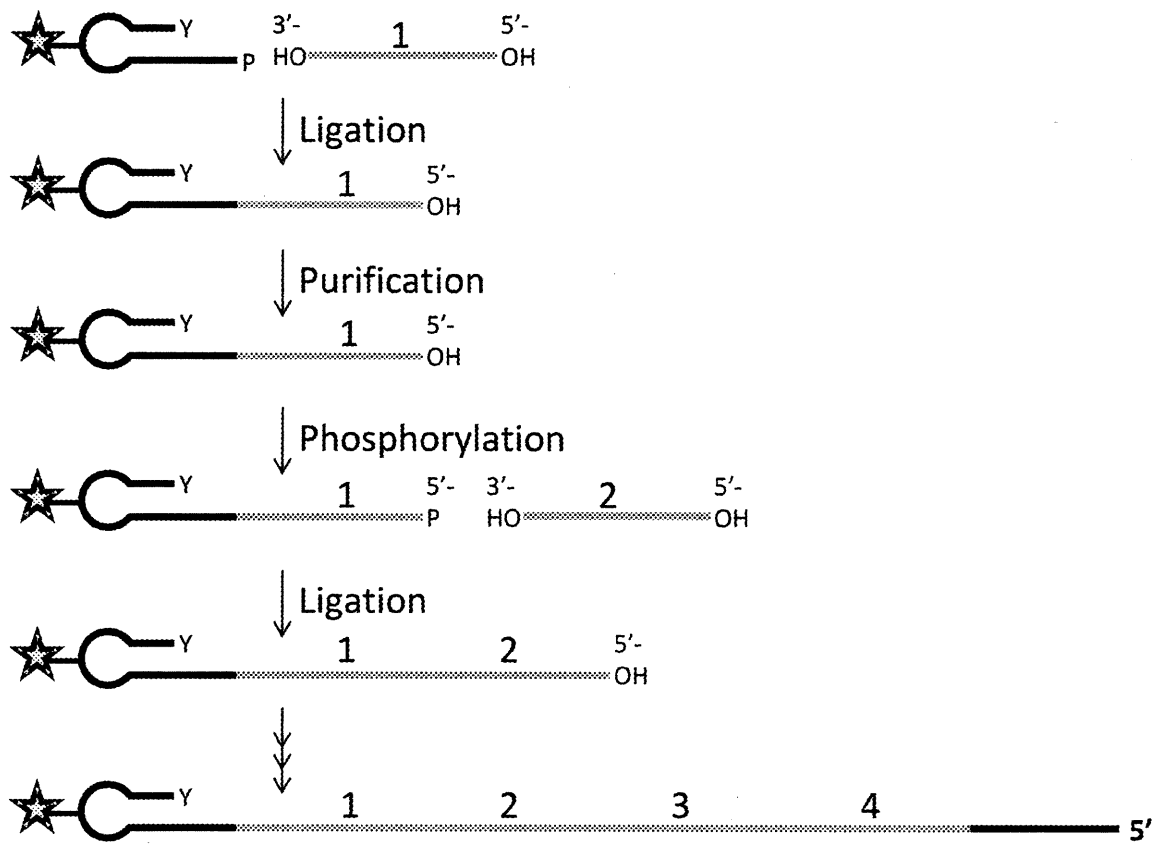


Figure 4E

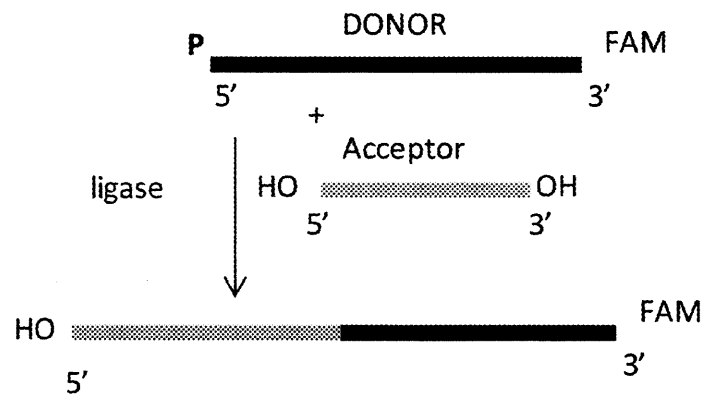


Figure 5A

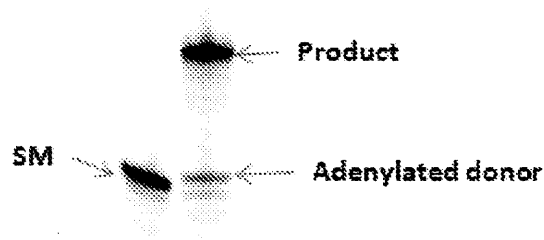


Figure 5B

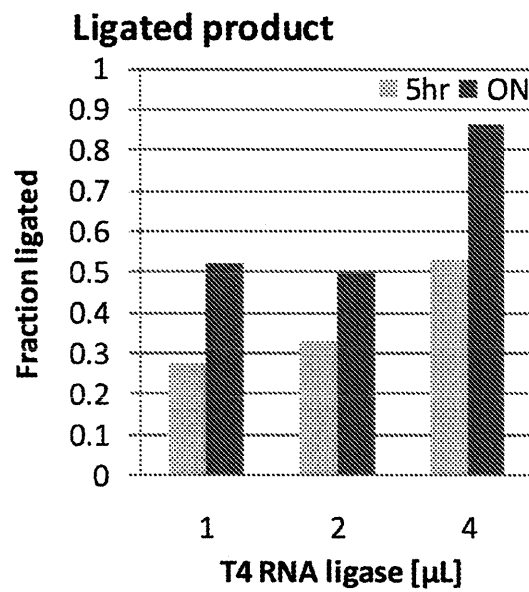


Figure 5C

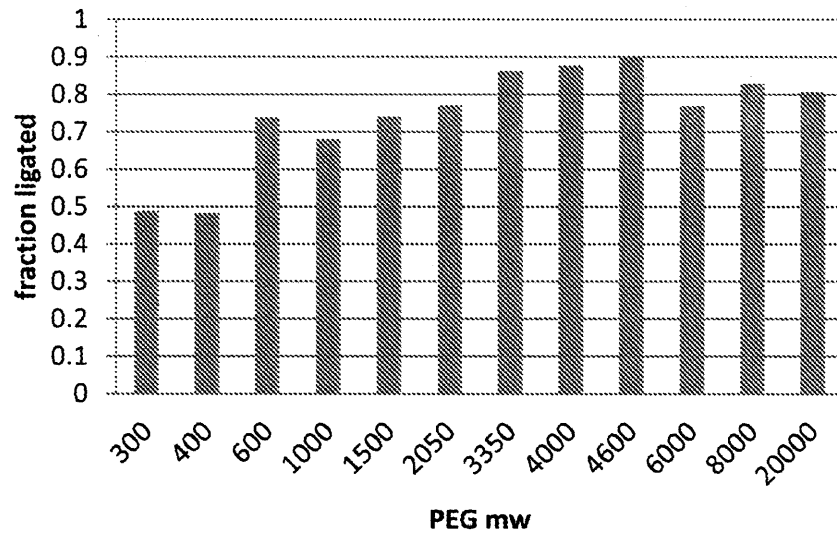


Figure 6A

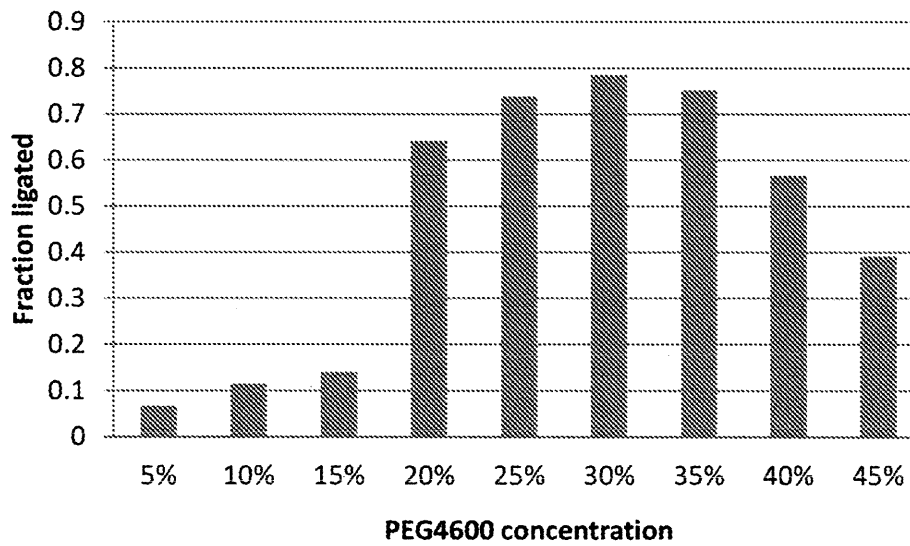


Figure 6B

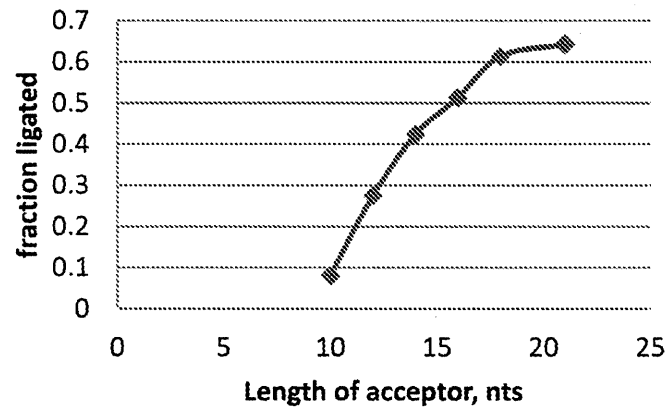
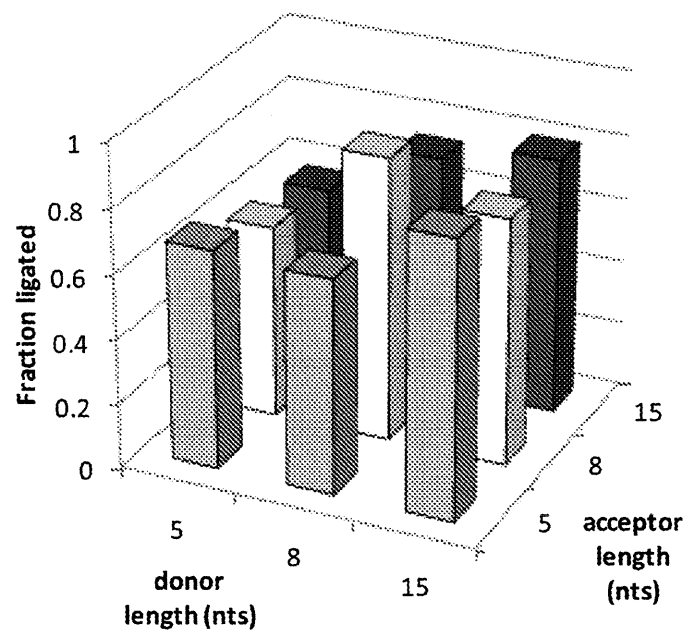


Figure 7A



donor length acceptor length	donor length		
	5	8	15
5	0.68	0.66	0.86
8	0.60	0.88	0.76
15	0.57	0.74	0.80

Figure 7B

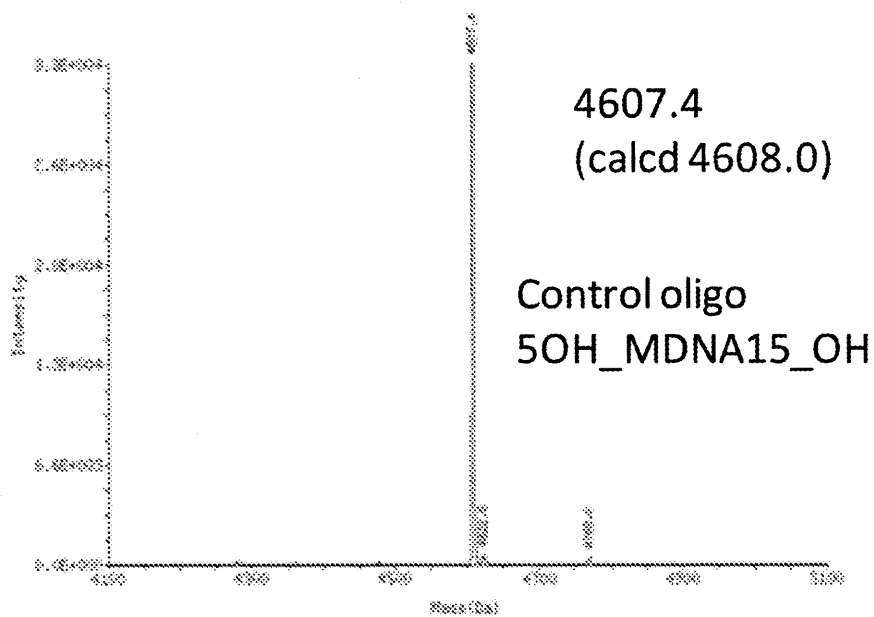


Figure 8A

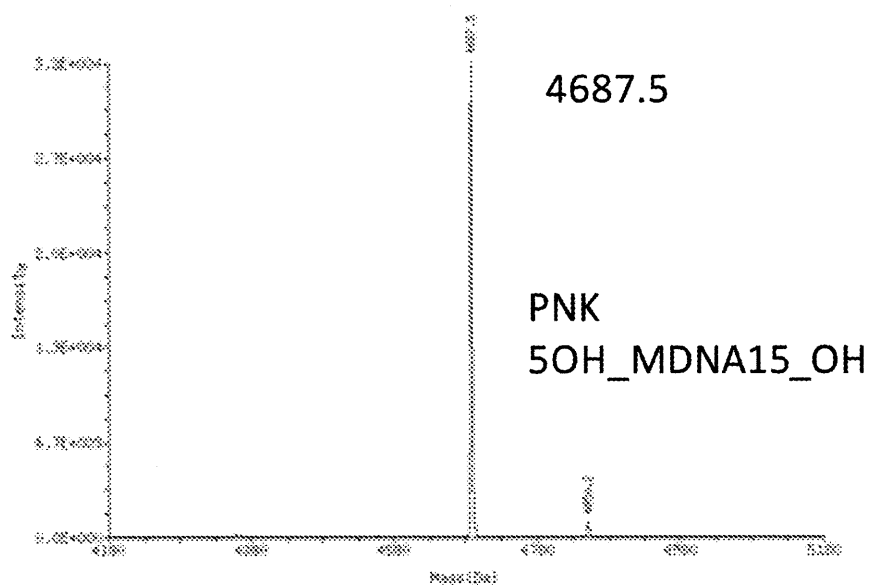
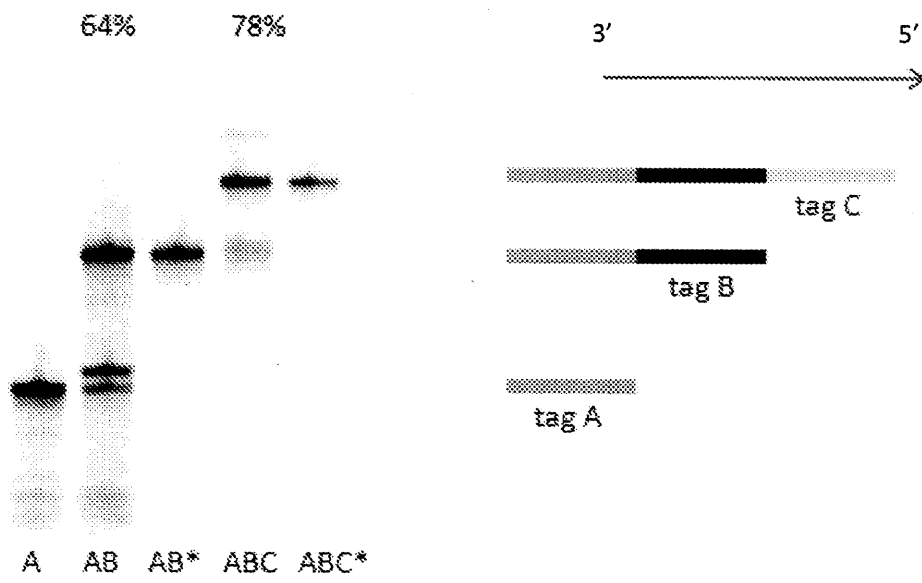


Figure 8B



*-gel purified

Figure 9

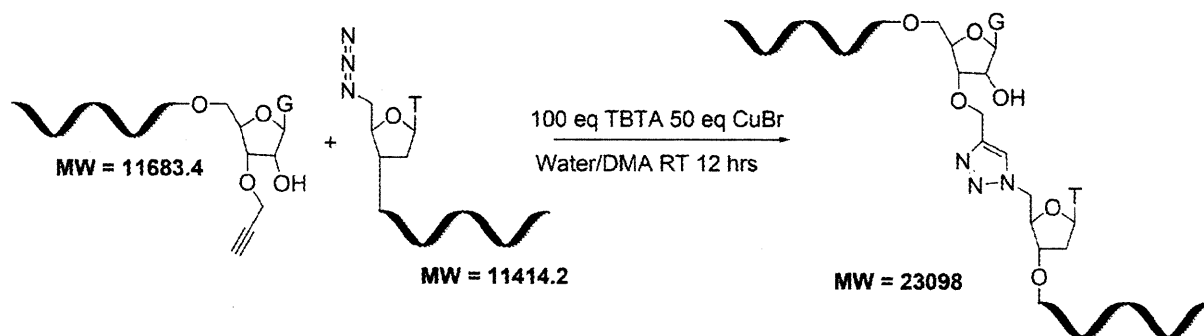


Figure 10A

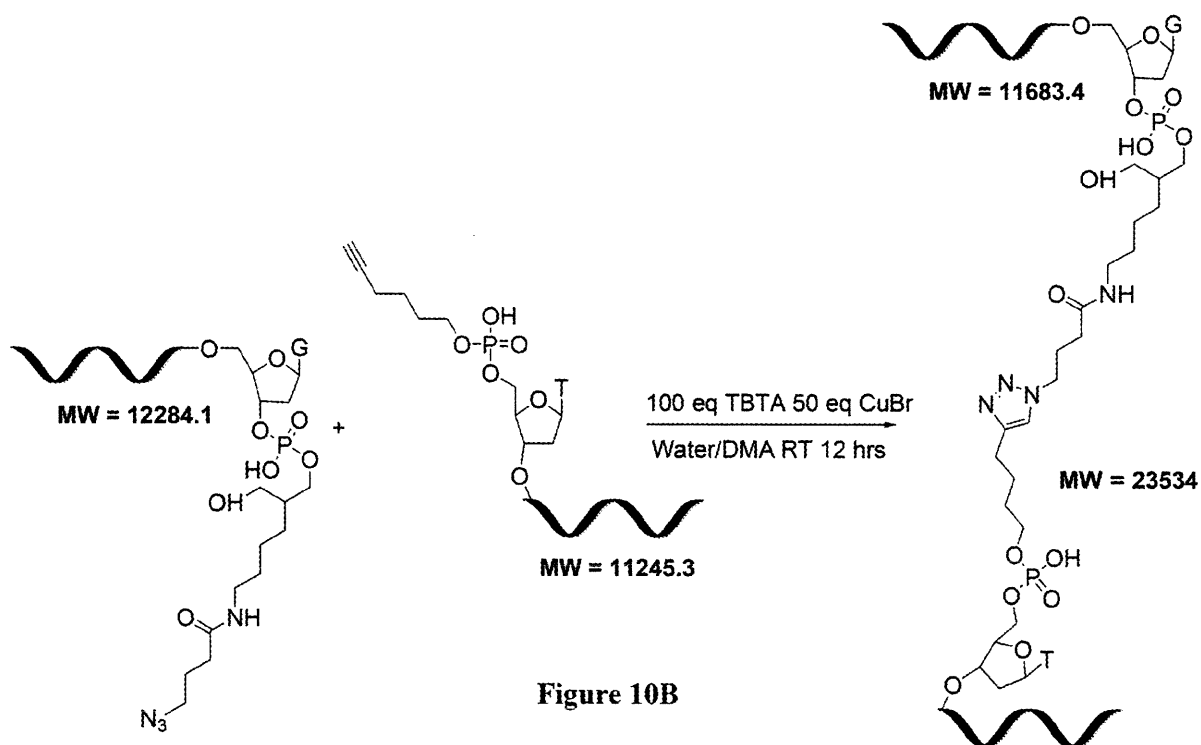


Figure 10B

75 mer DNA; positive control



75 mer with a click-chemistry spacer



Figure 11A

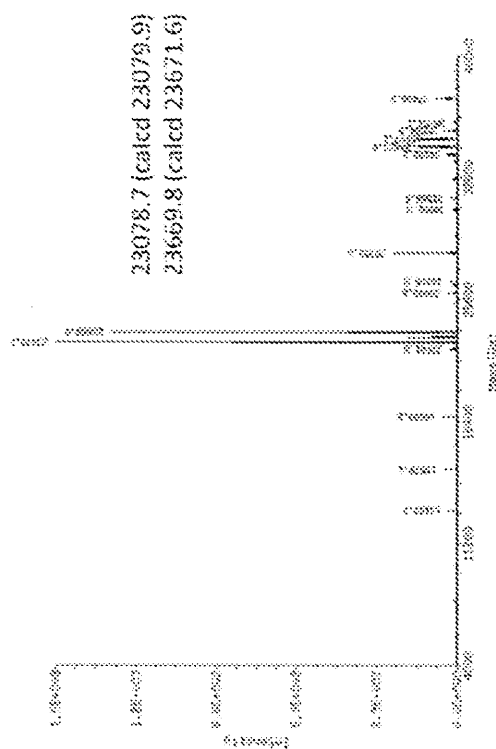
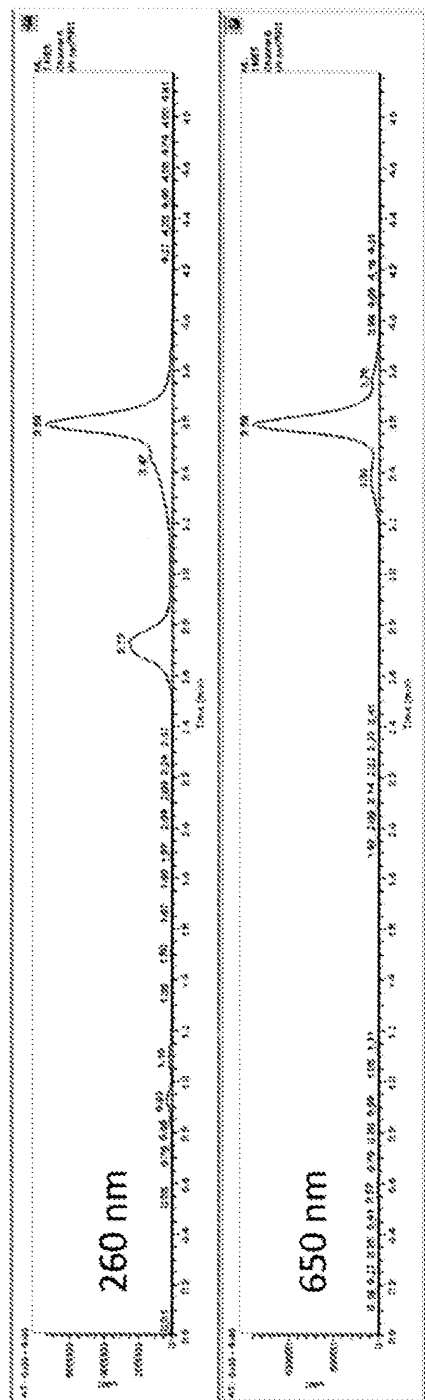


Figure 11B

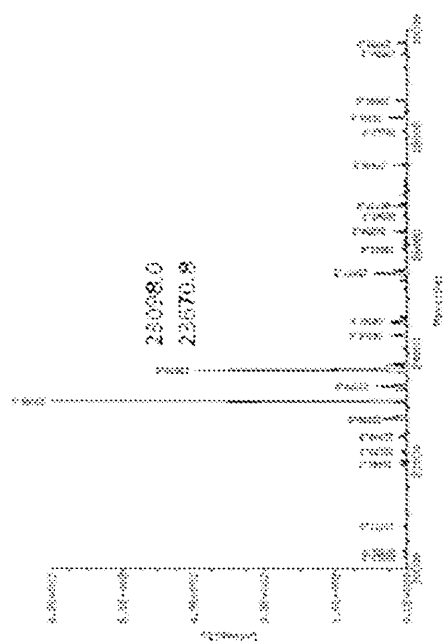
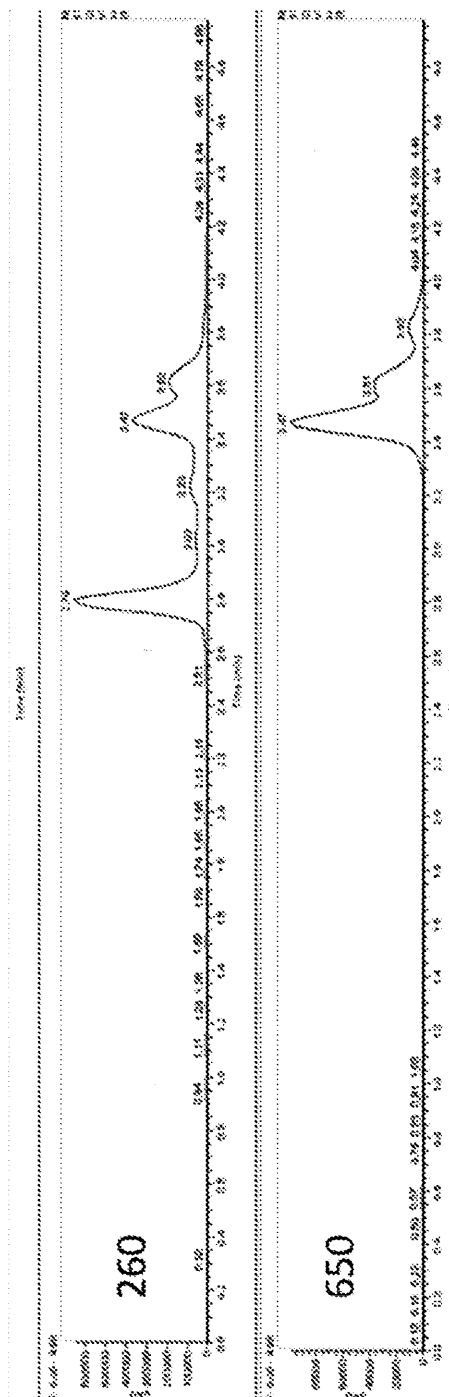


Figure 11C

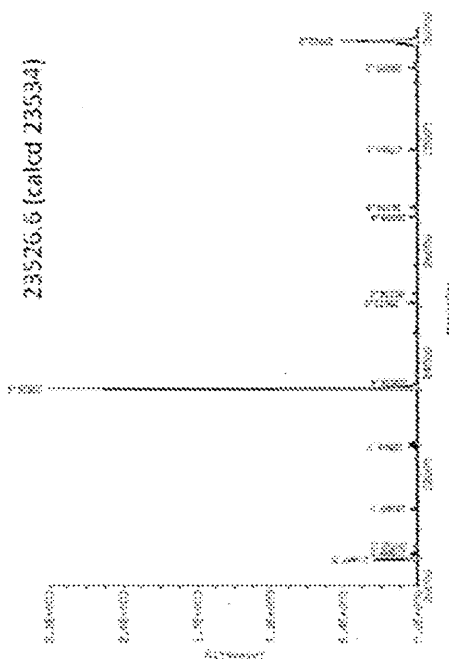
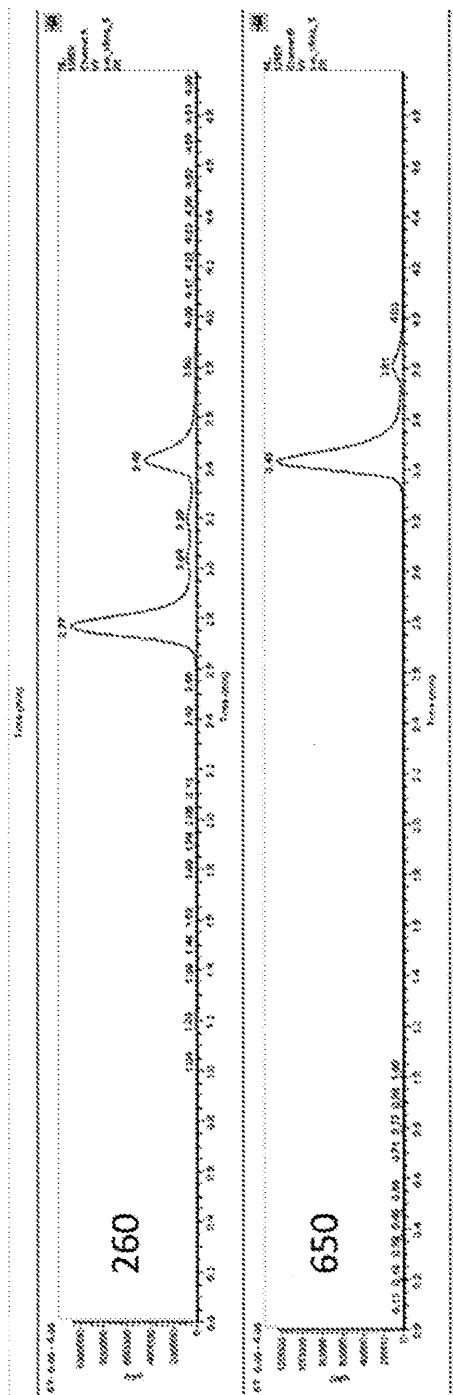
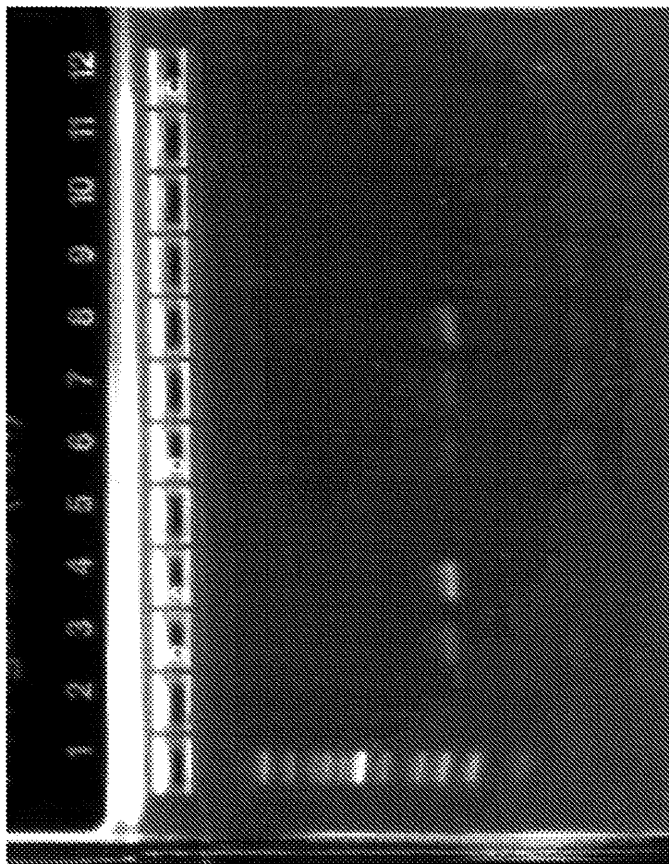


Figure 11D



M	0	templ75	"short click"	"long click"
RT	--	--	+	--
Cycles	11	18	11	18

Figure 11E

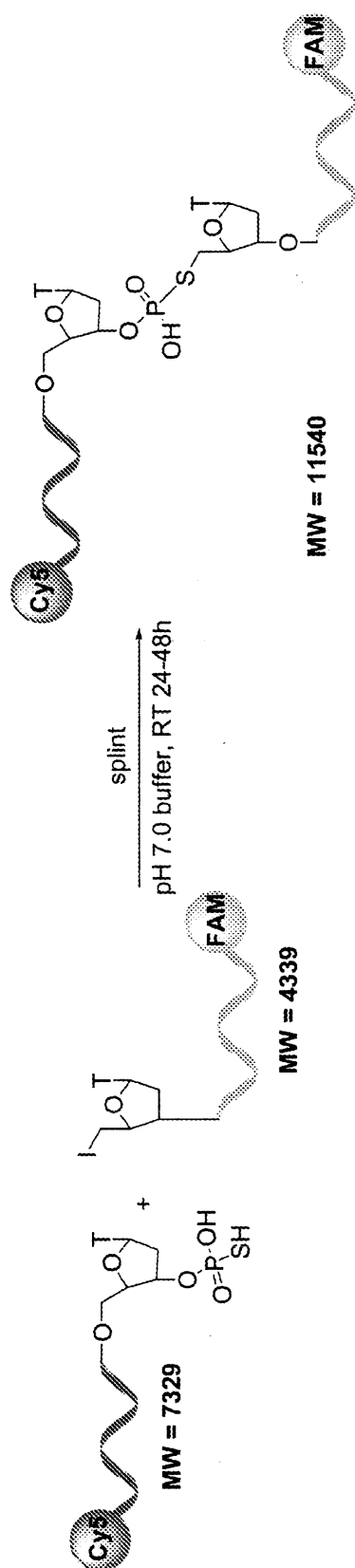


Figure 12A

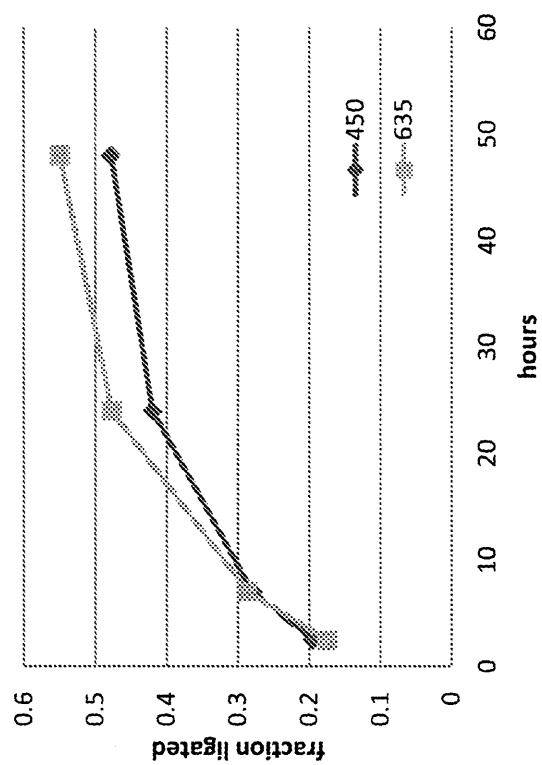


Figure 12C

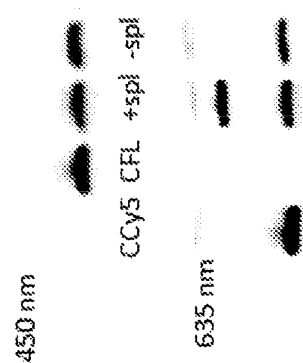
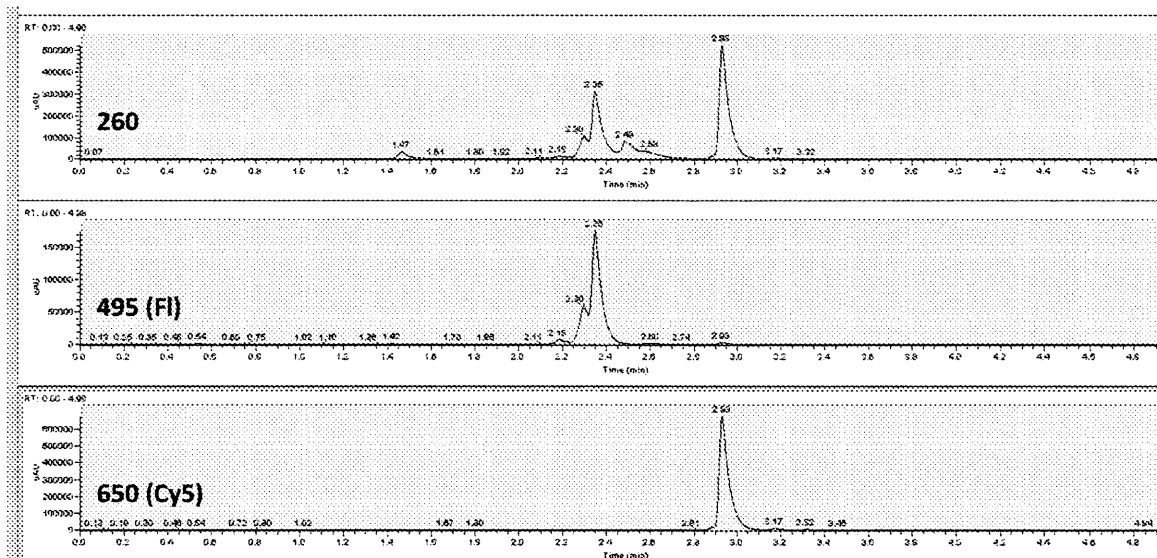


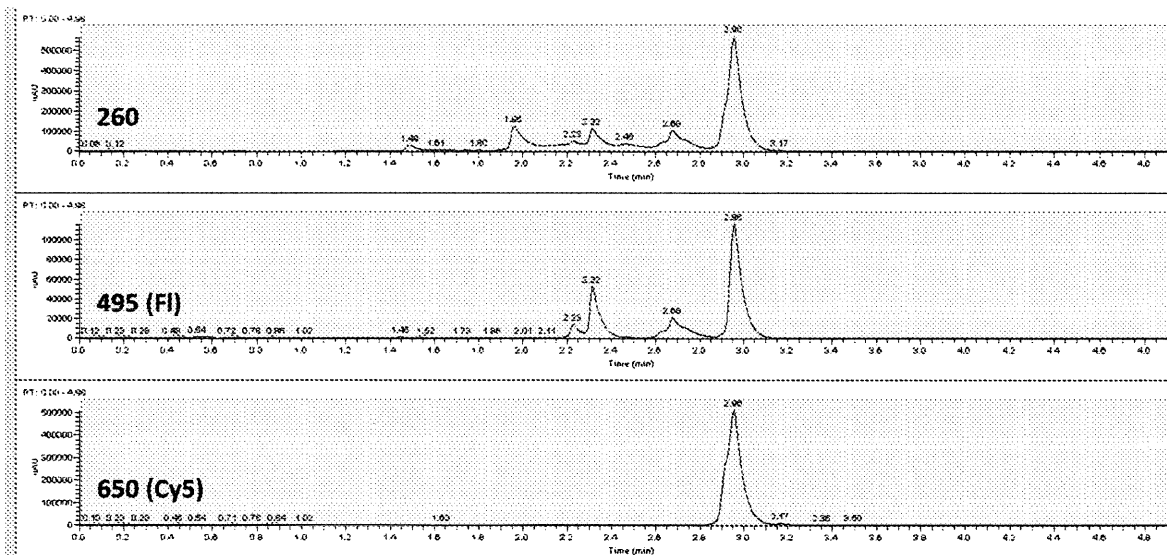
Figure 12B

No splint: incubation for 7 days with 50 μ M oligonucleotides



Only starting materials: Iodo dT₁₂_Fam (4339) and Cy5₂₁_ThioPhosphate (7329)

Splint: incubation for 7 days with 50 μ M oligonucleotides



Product (11542)

Figure 12D

No splint: incubation for 8 days with 400 μ M oligonucleotides

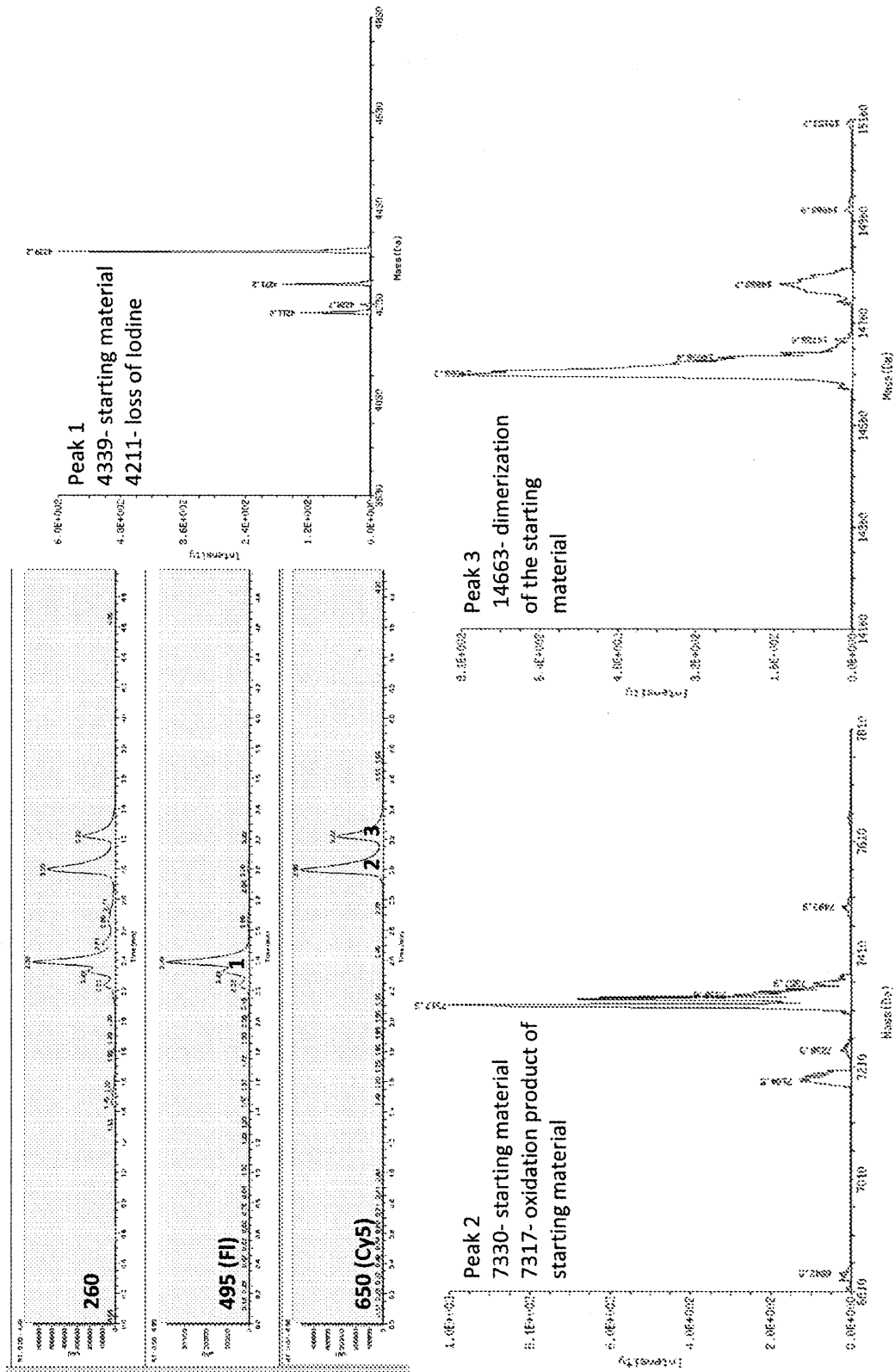


Figure 12E

CFL oligonucleotide in the presence of piperidine

400 eq. of piperidine overnight at RT

4000 eq. of piperidine for 2 hrs at 65°C

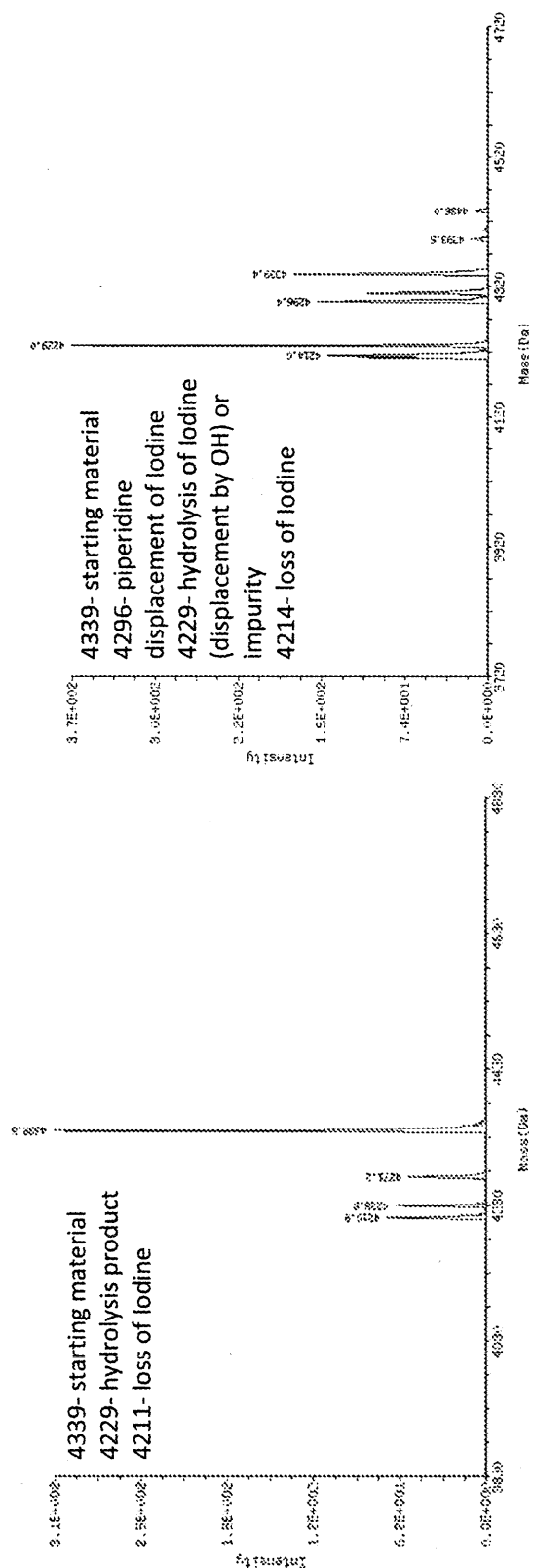


Figure 12F

Splint ligation: CFL and CCy5 oligonucleotides in the presence of piperidine

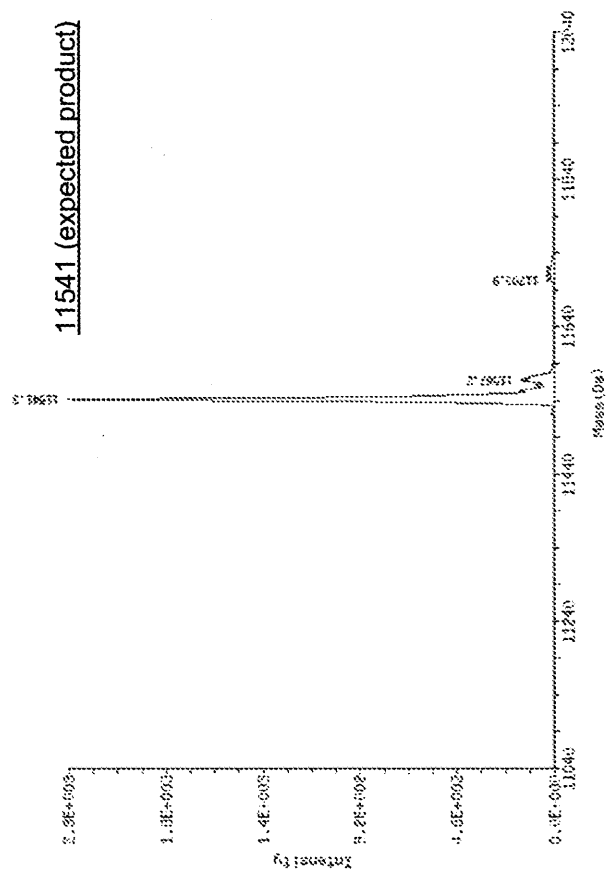
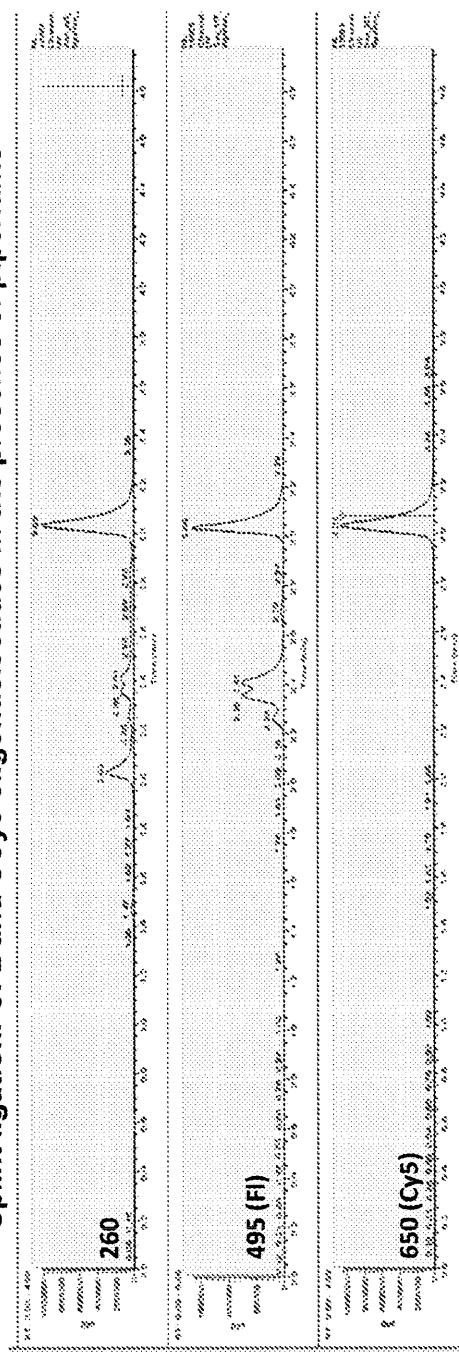
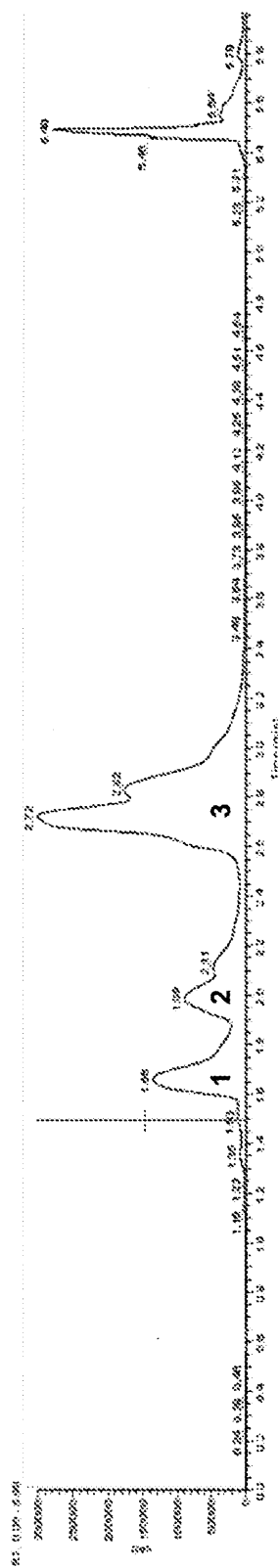


Figure 12G



(Peak 1- tag, peak 2- adenylated HP)

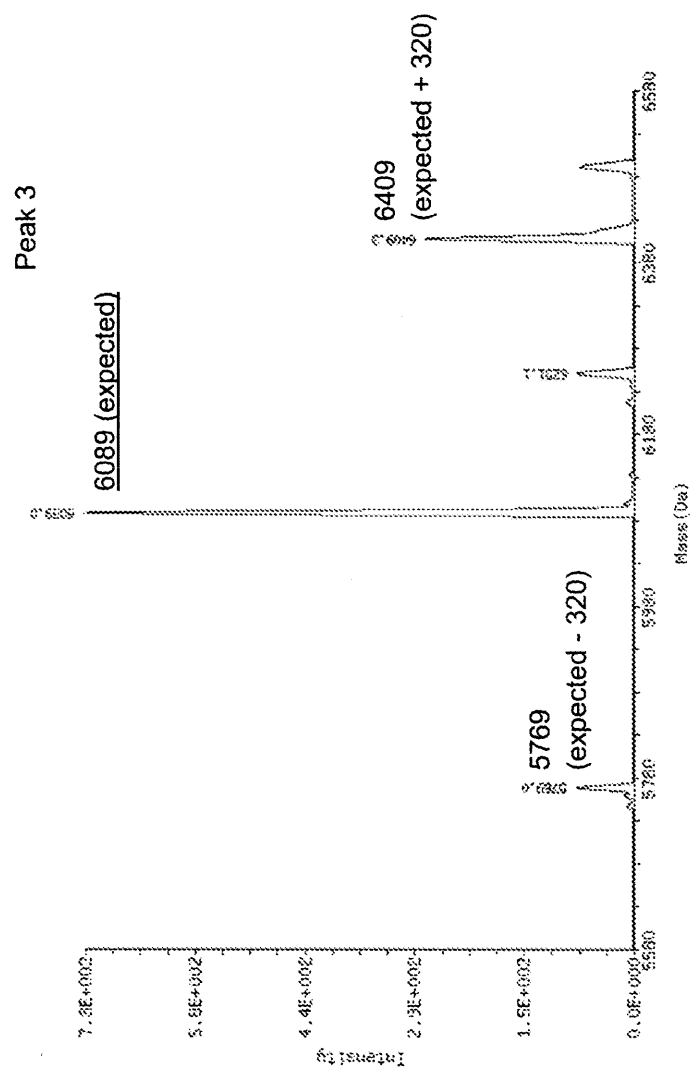


Figure 13A

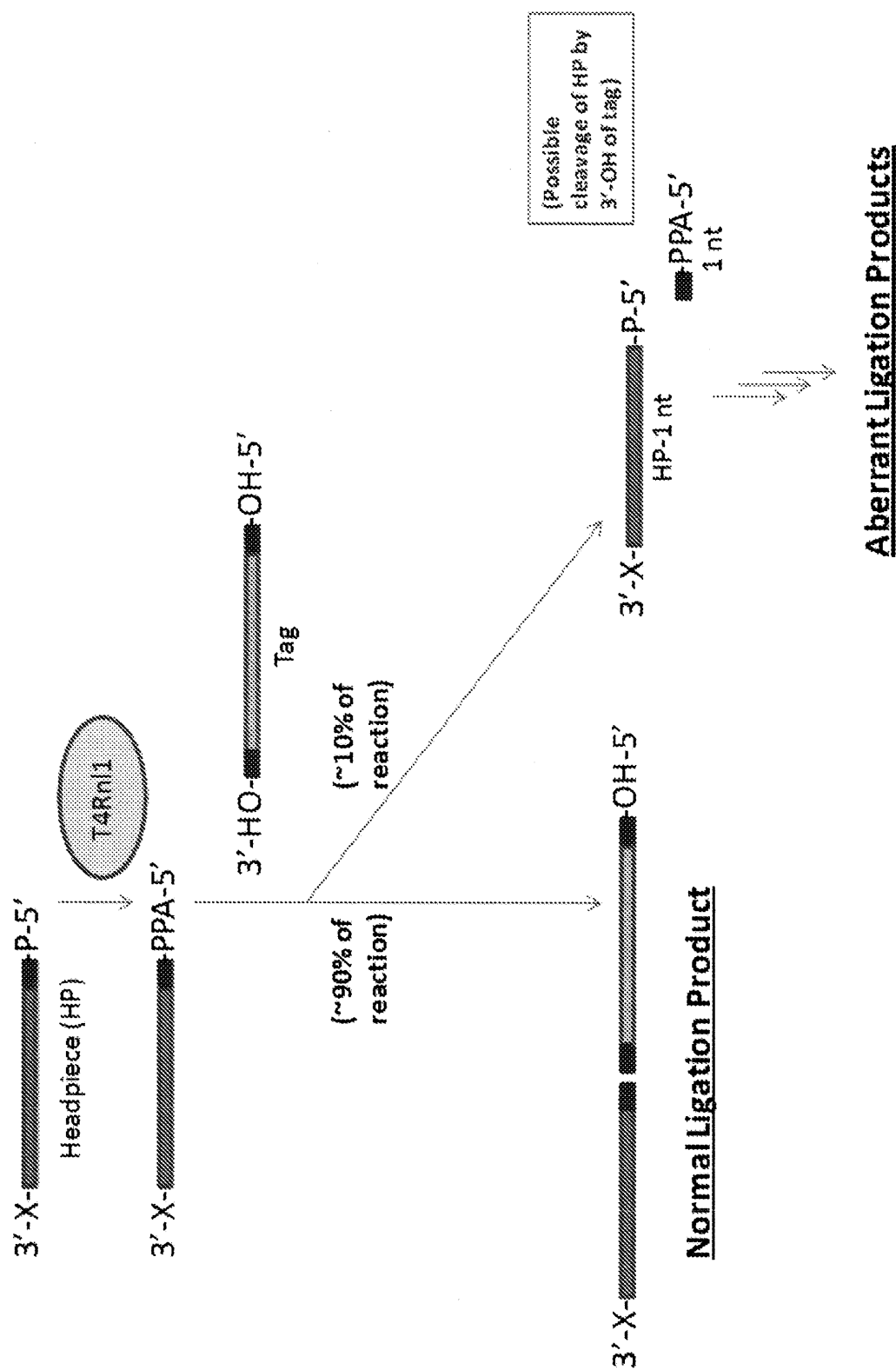


Figure 13B-1

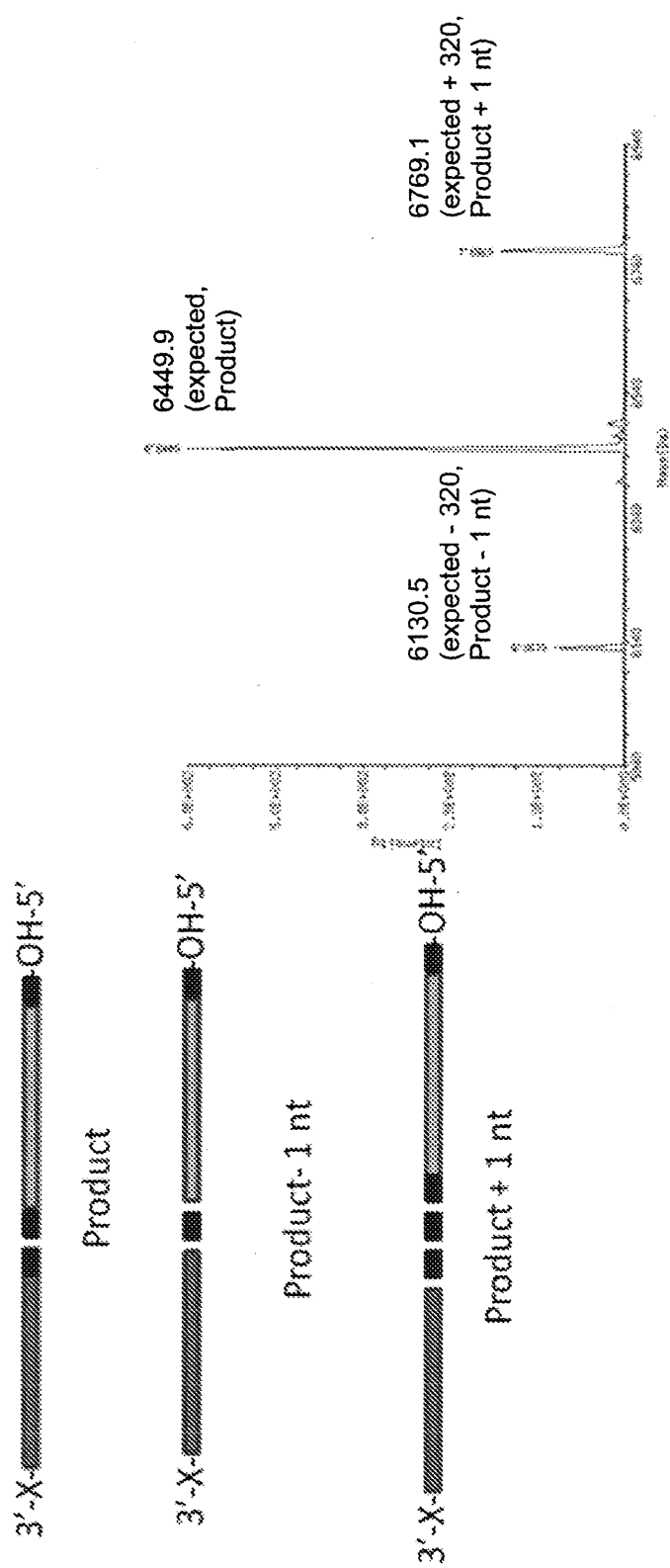
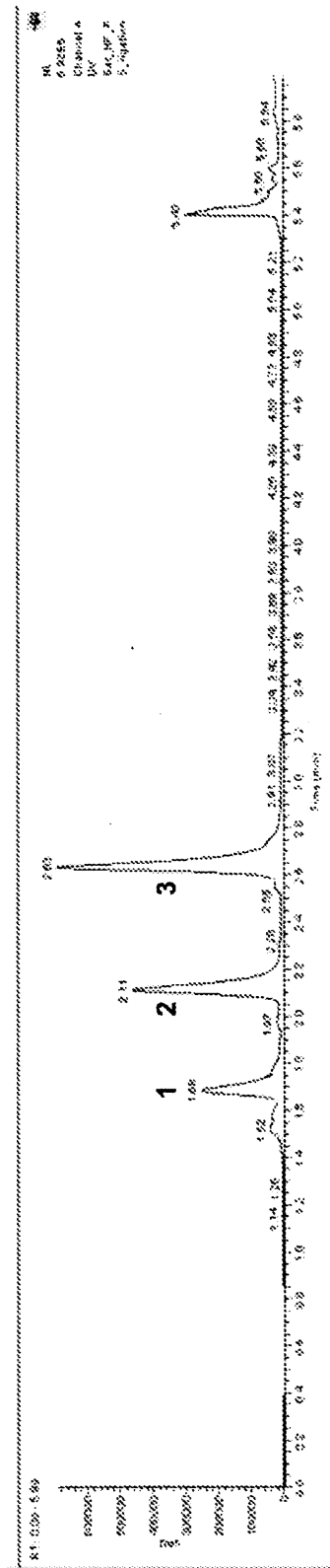


Figure 13B-3



(Peak 1 - tag, peak 2- adenylated HP)

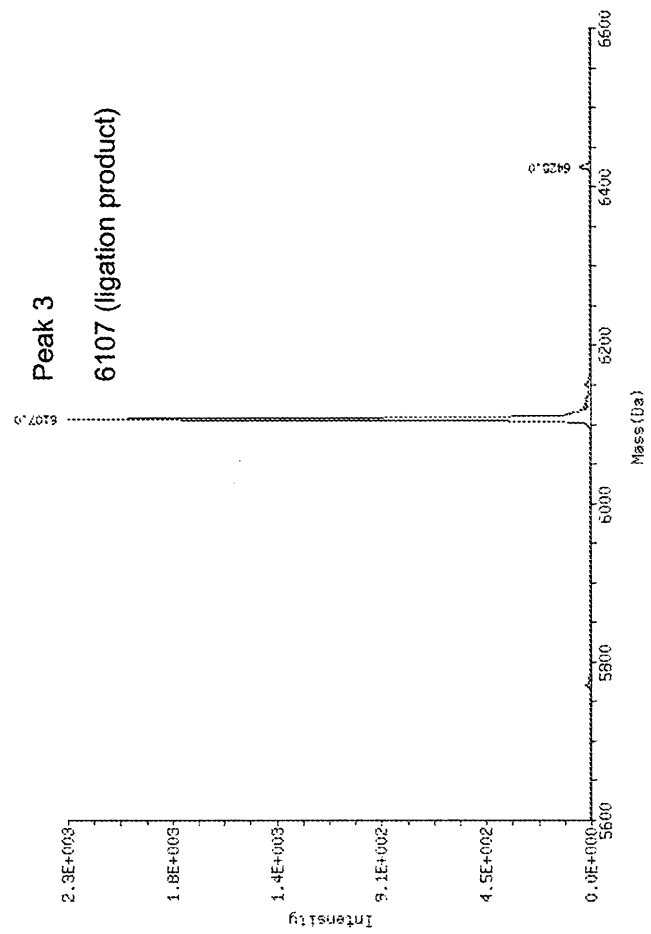


Figure 13C

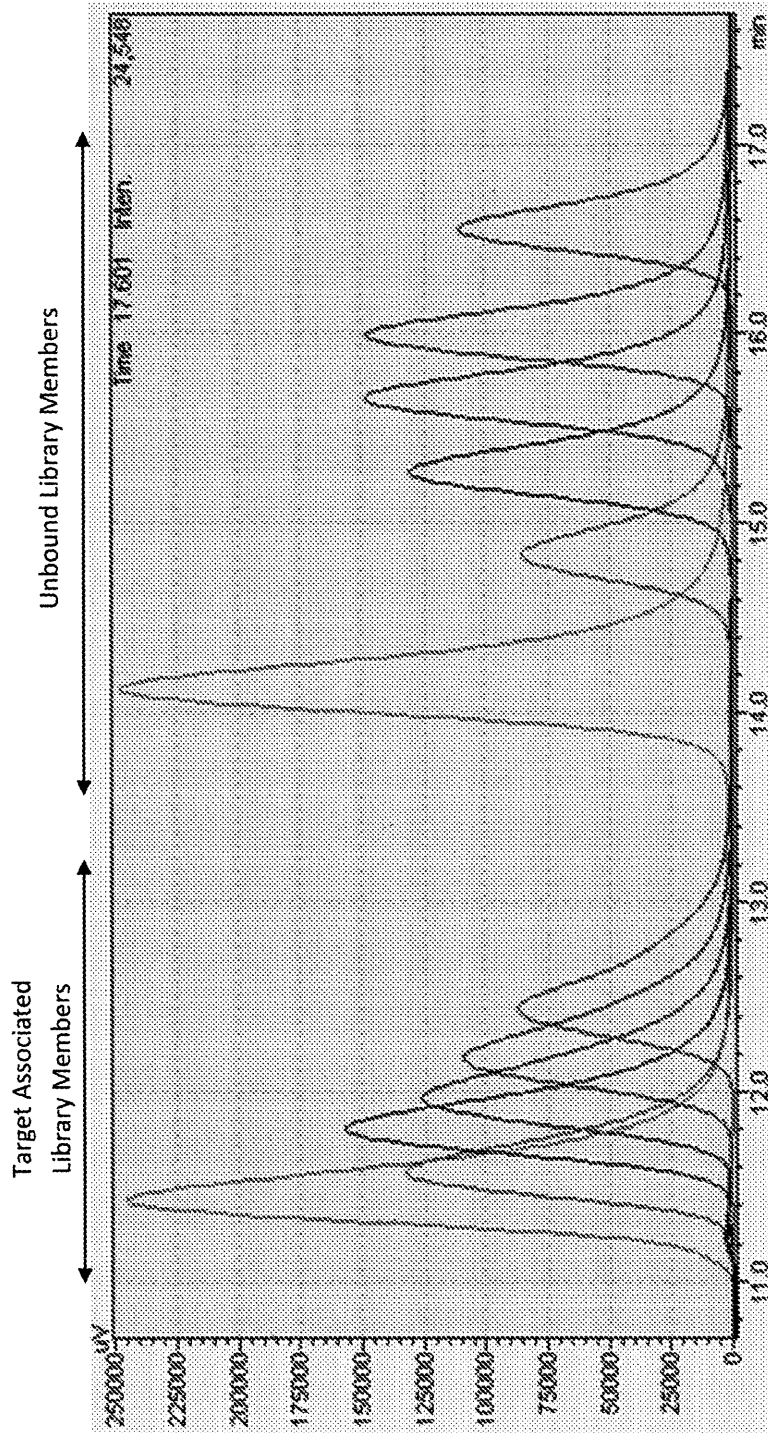


Figure 14

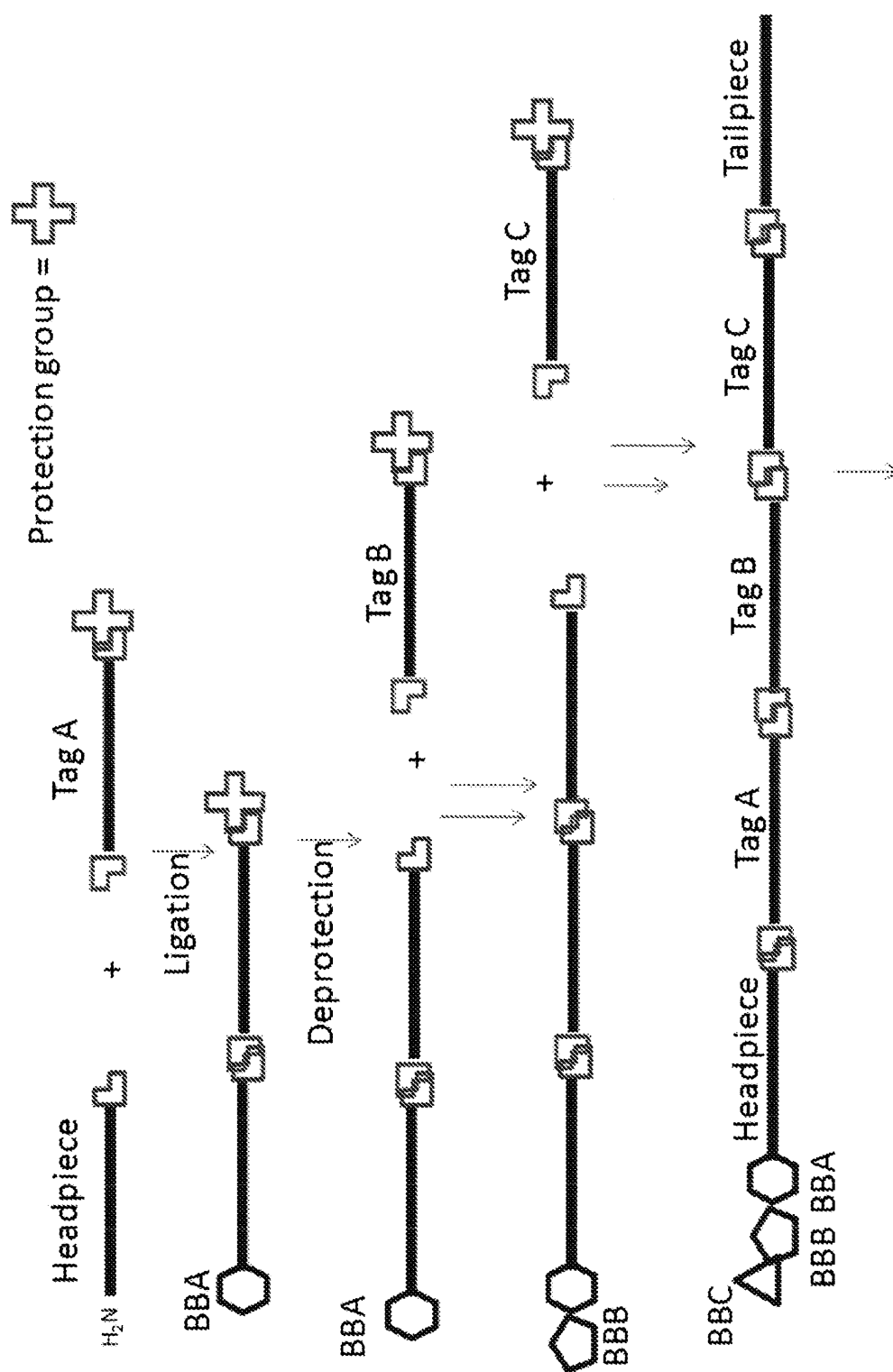


Figure 15A

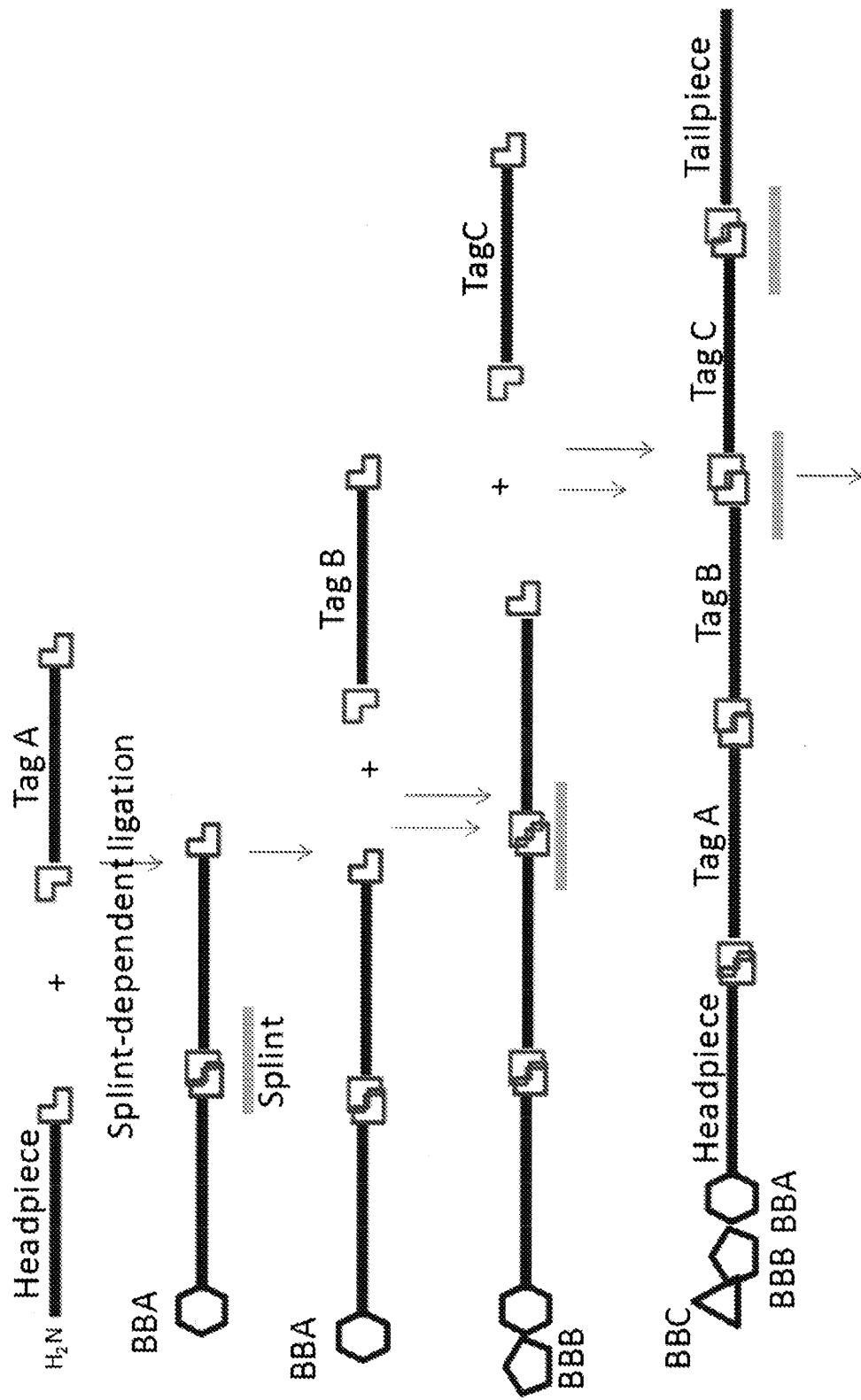


Figure 15B

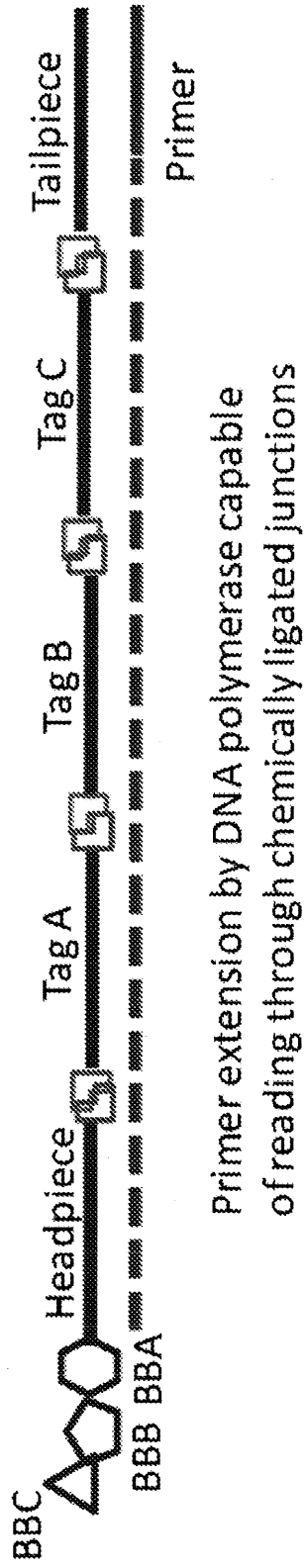


Figure 15C

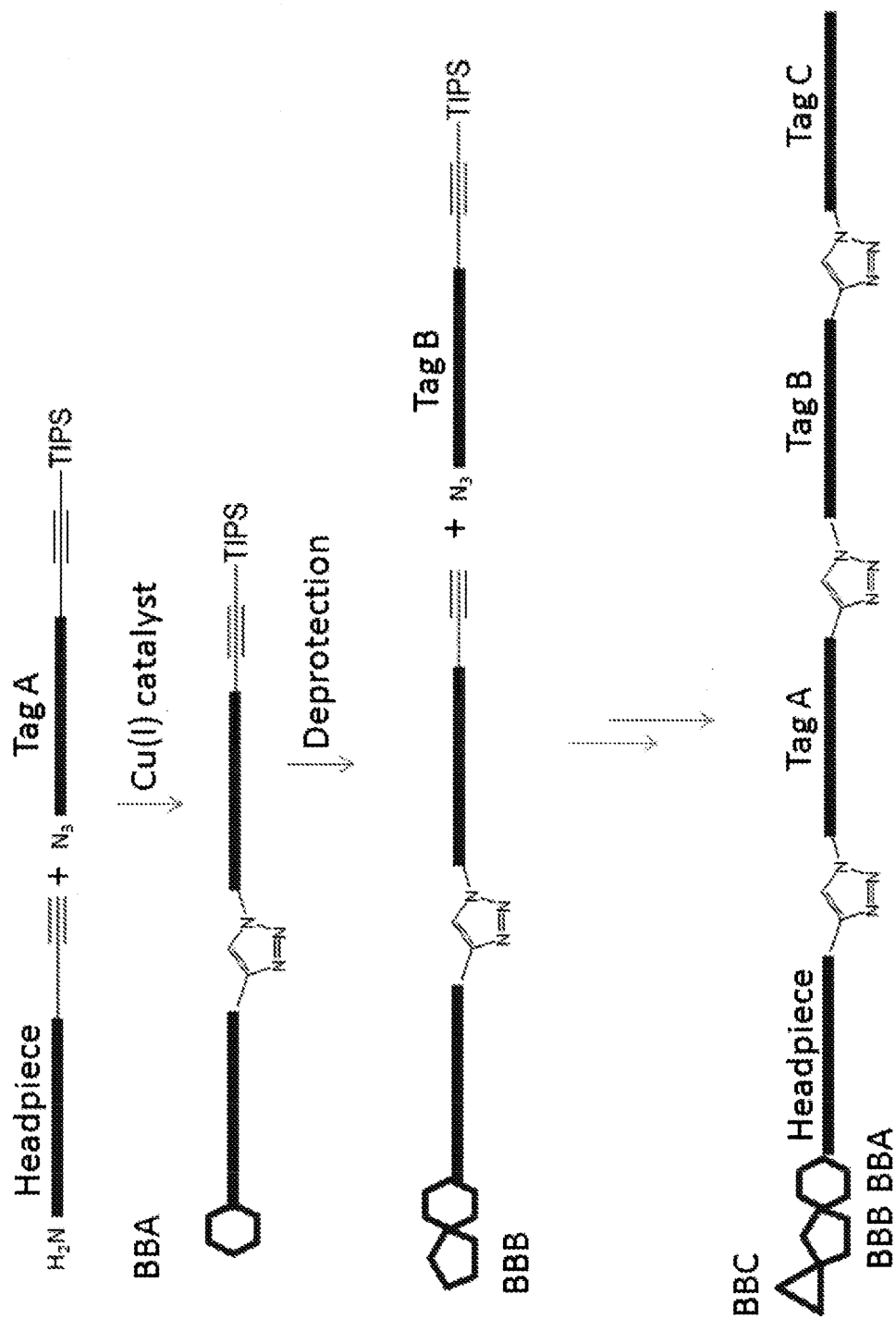


Figure 16A

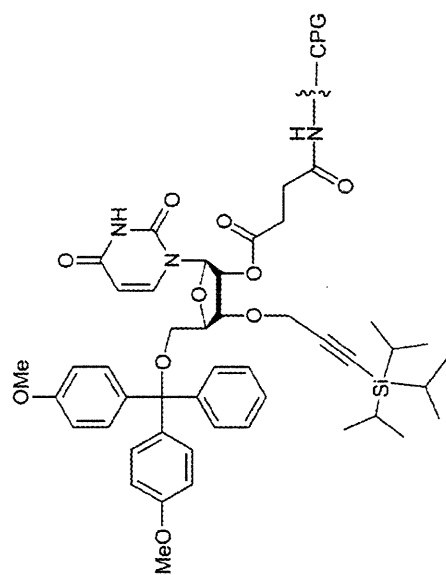
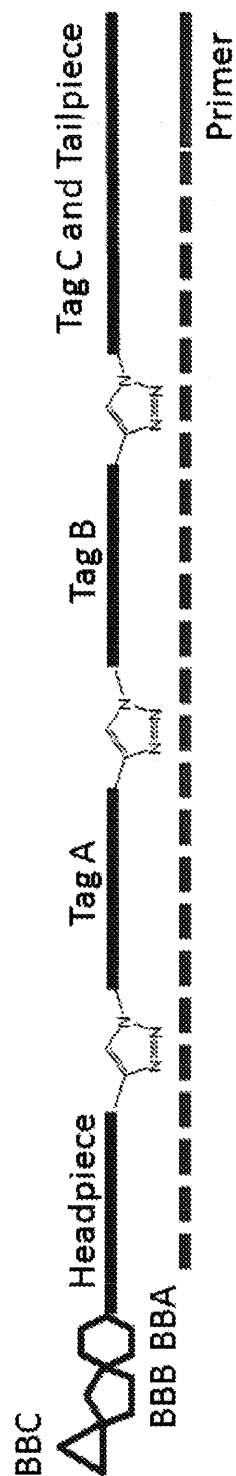


Figure 16B



Primer extension by DNA polymerase capable
of reading through click-ligated junctions

Figure 16C

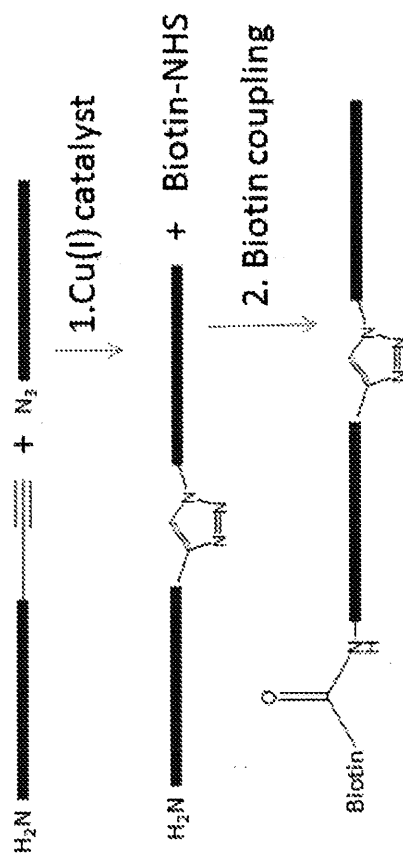


Figure 17A

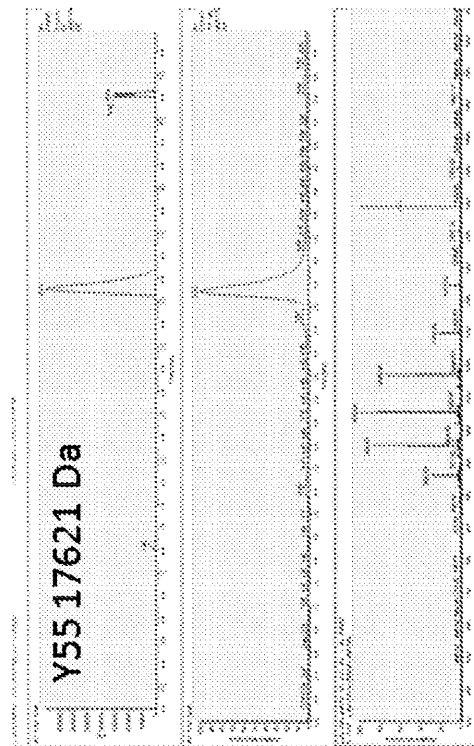


Figure 17B

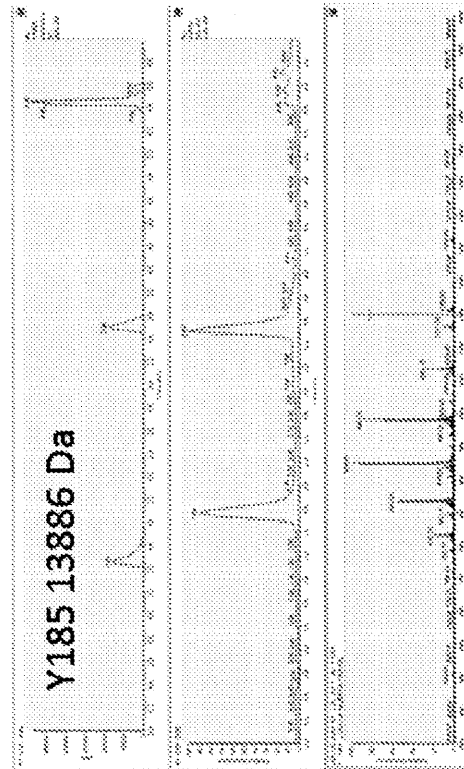


Figure 17C

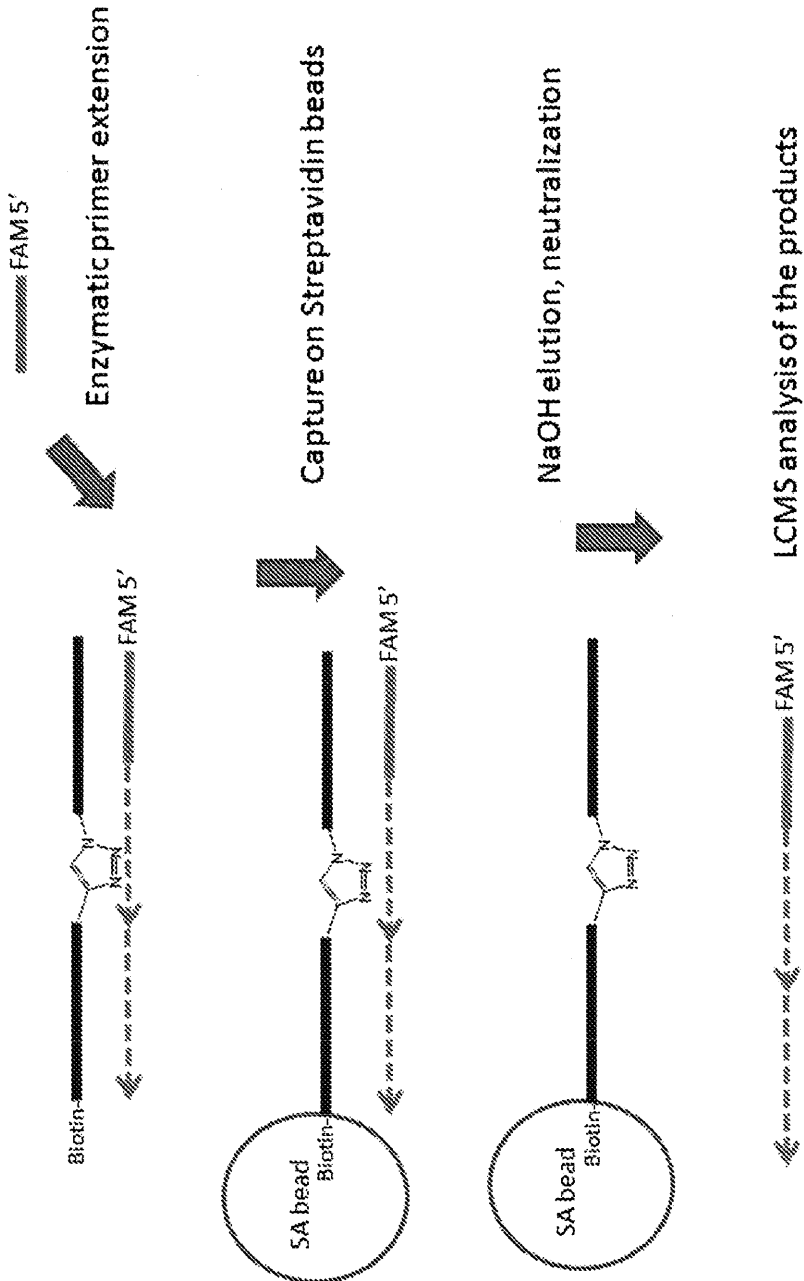


Figure 18A

LCMS analysis of the products

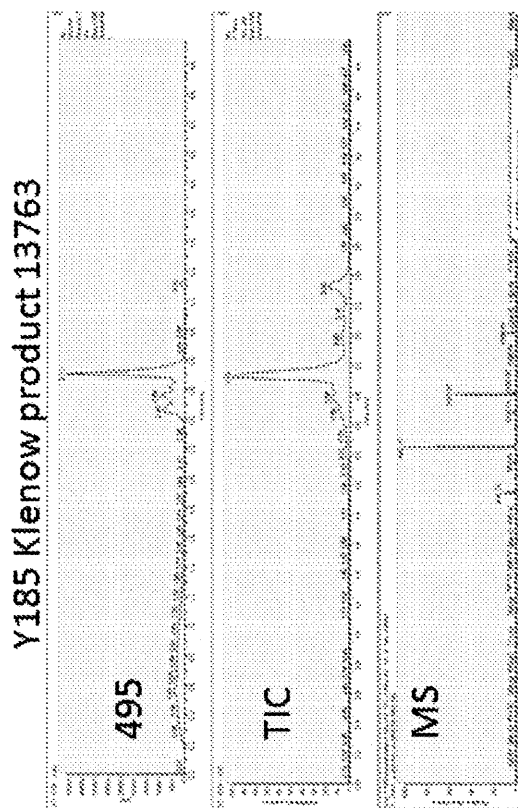


Figure 18C

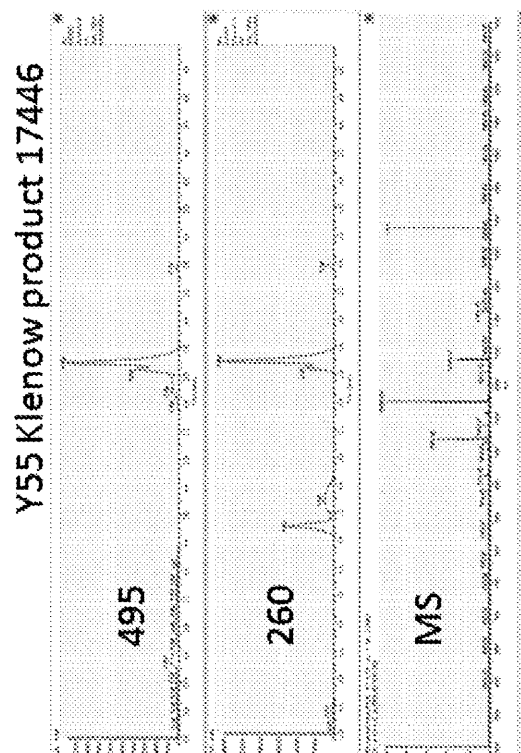


Figure 18B

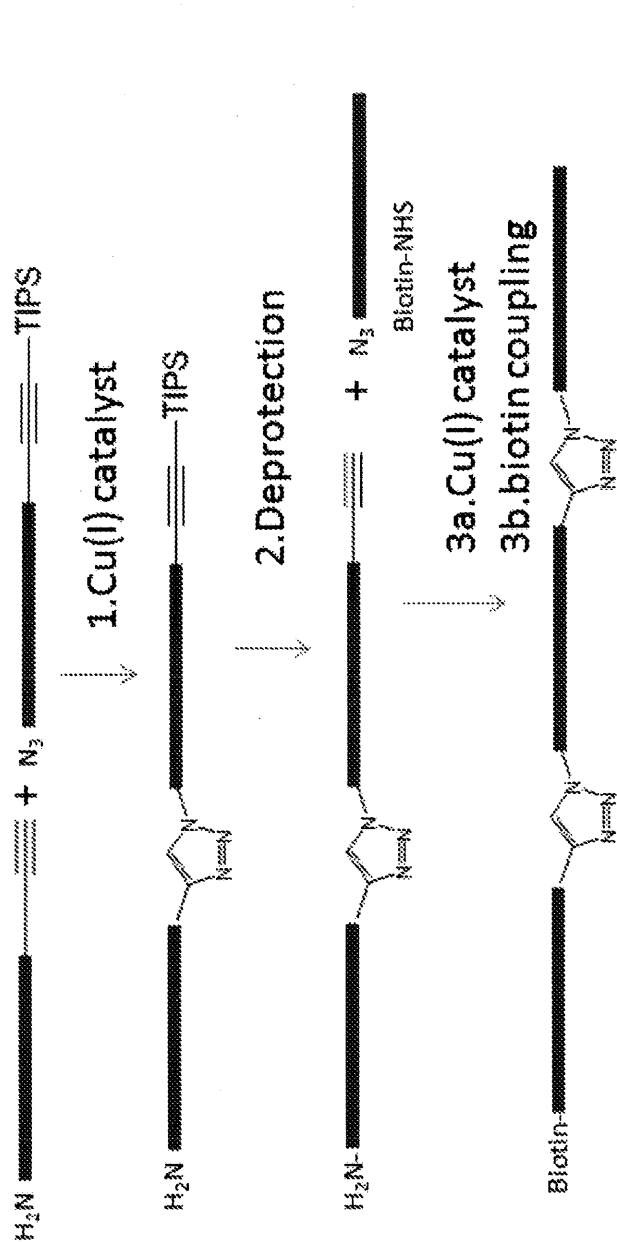


Figure 19A

Steps 2 and 3a repeated twice



Figure 19B

YDC template

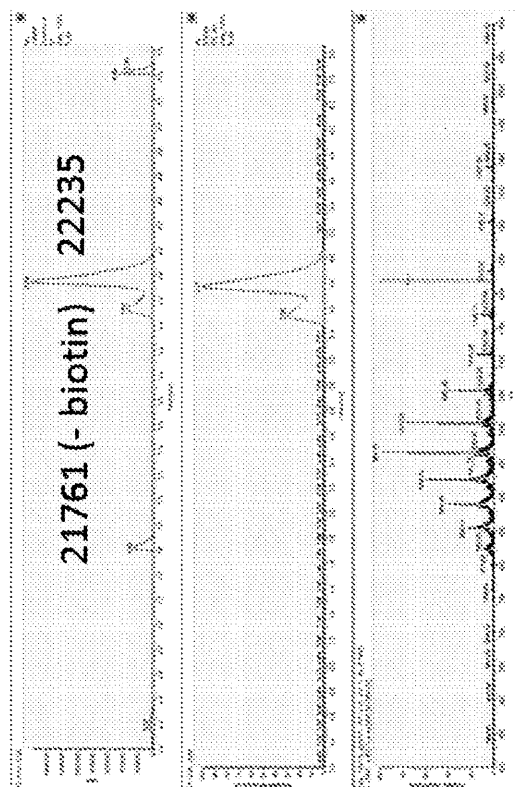


Figure 19C

YTC template

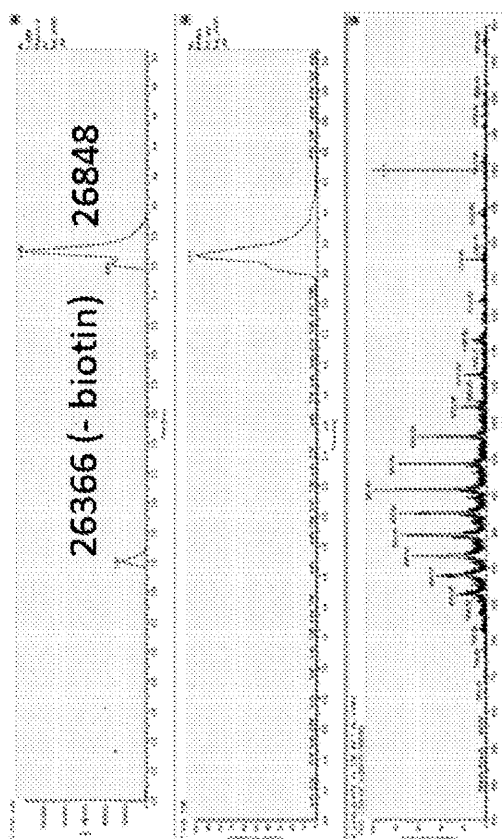


Figure 19D

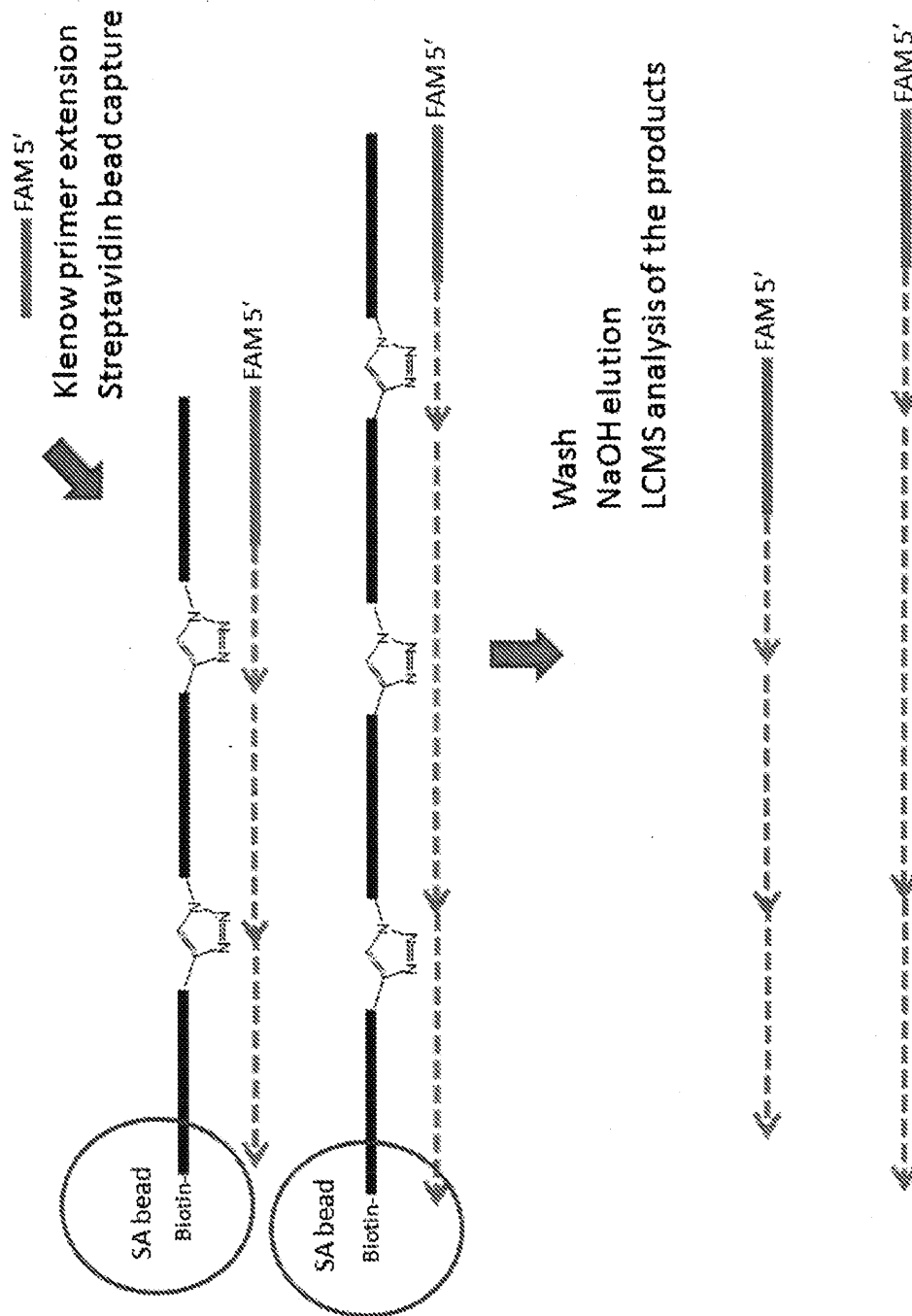


Figure 20A

YDC Klenow product 27197

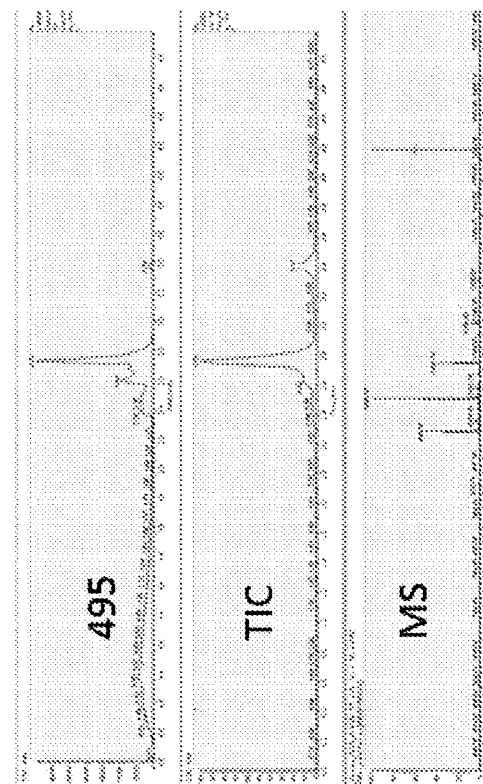


Figure 20B

YTCKlenow product 26146

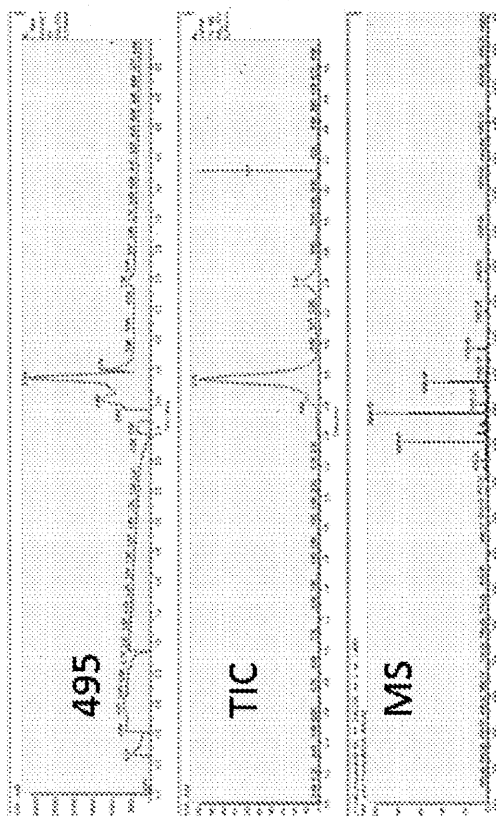


Figure 20C

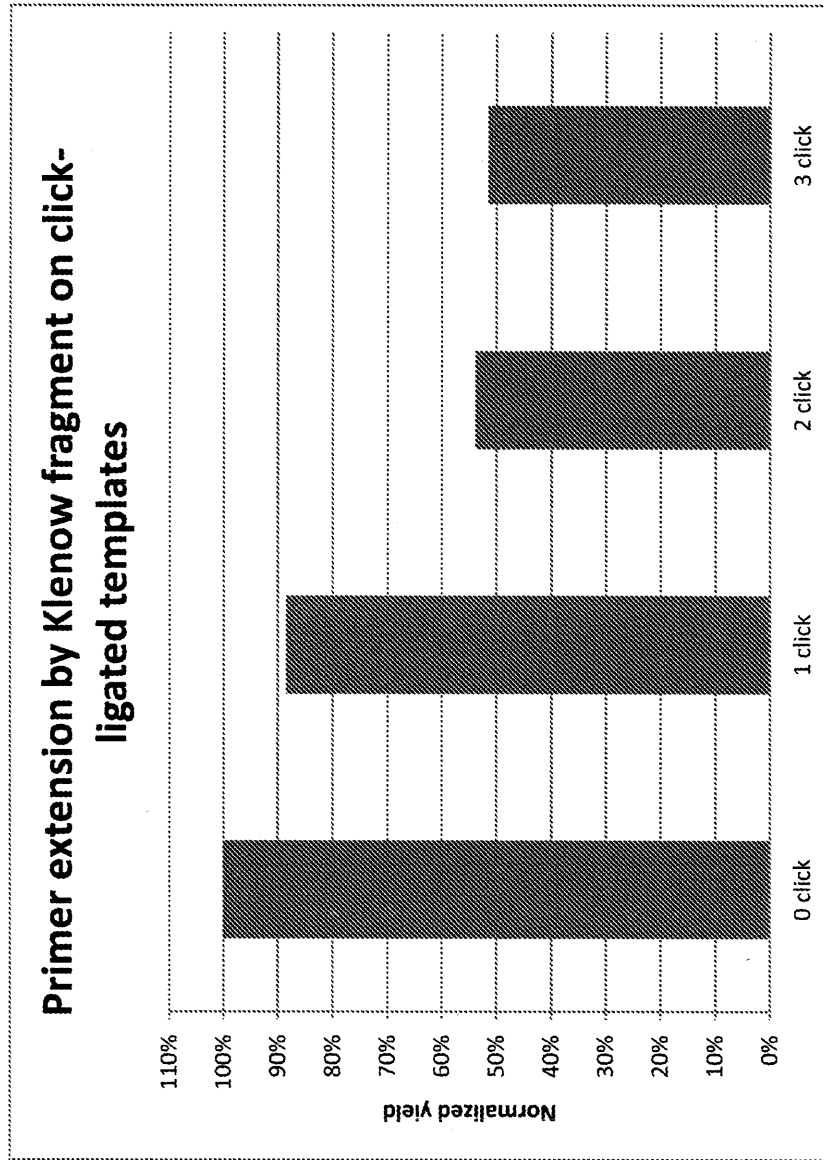


Figure 21

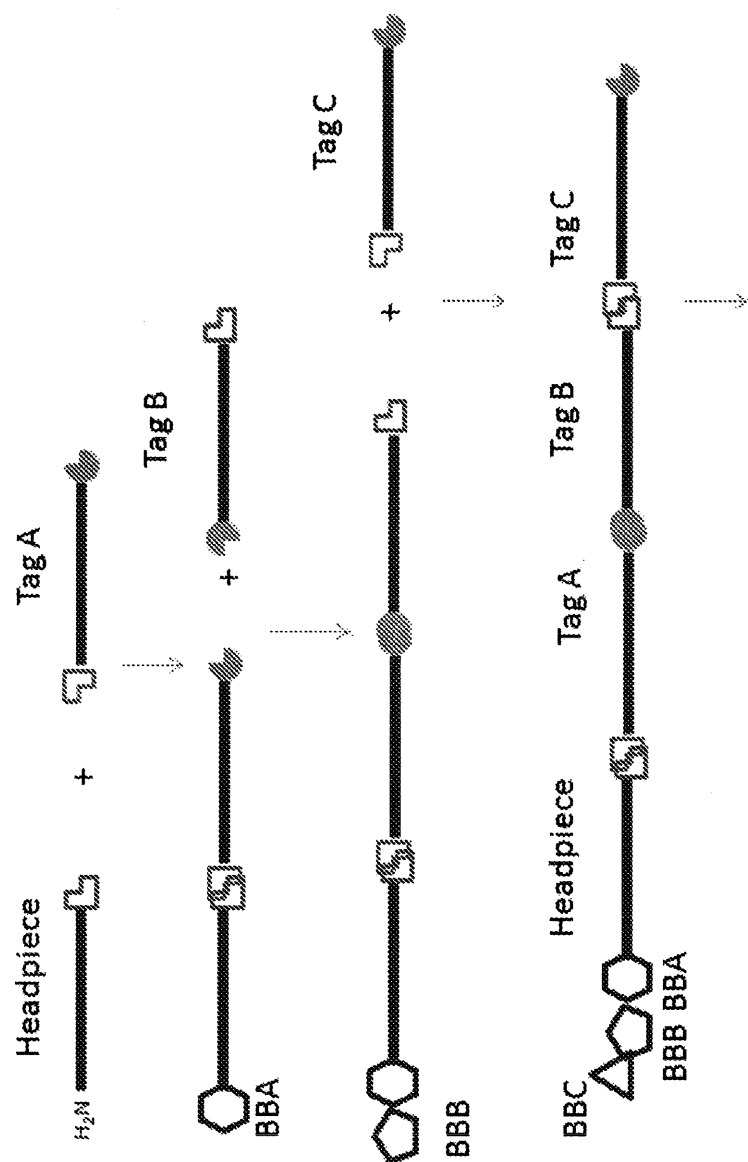


Figure 22A

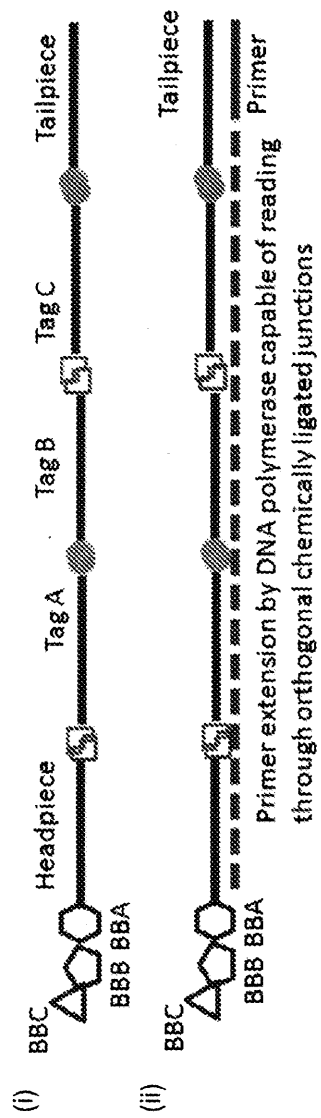


Figure 22B

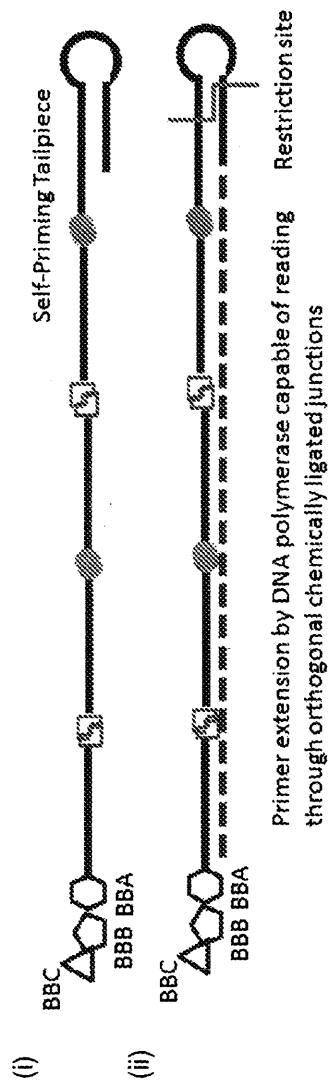


Figure 22C

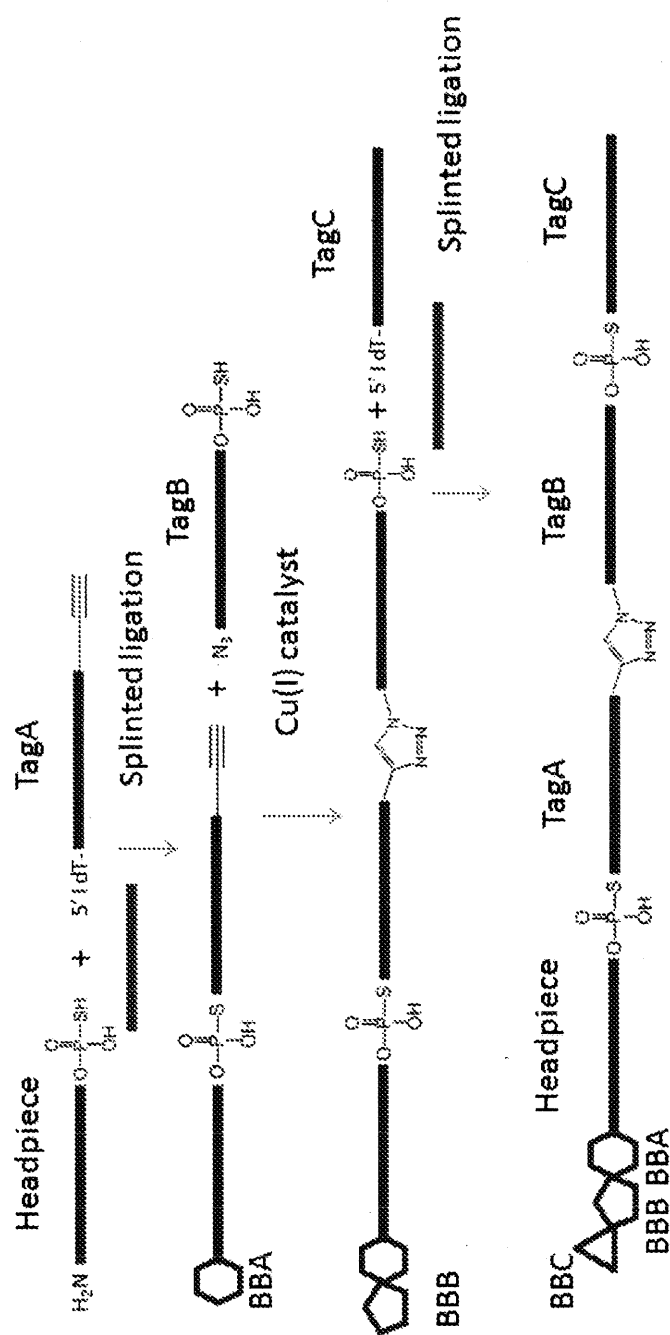


Figure 23

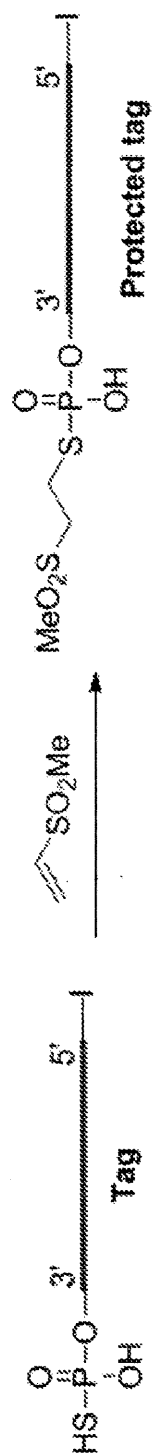


Figure 24A

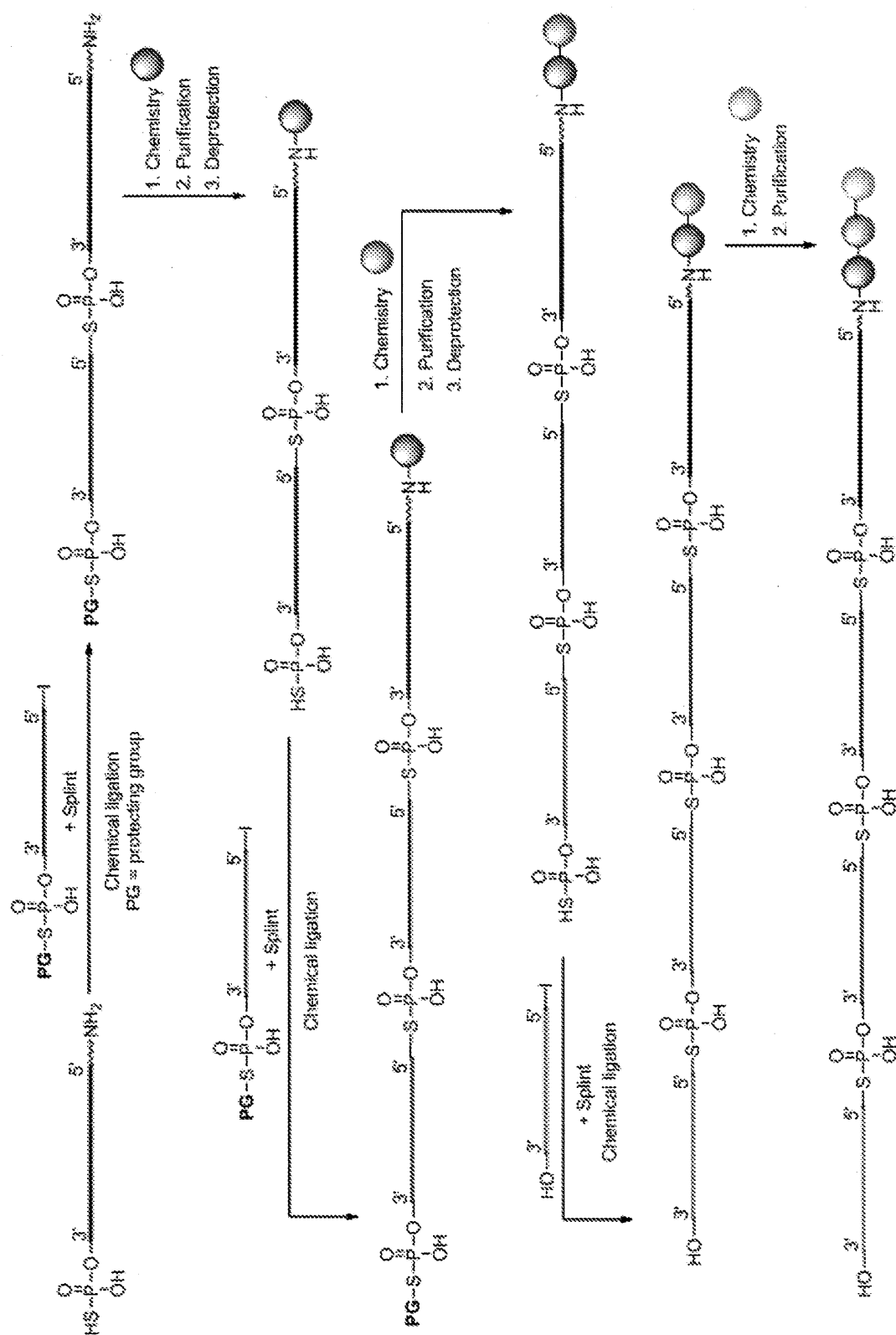


Figure 24B

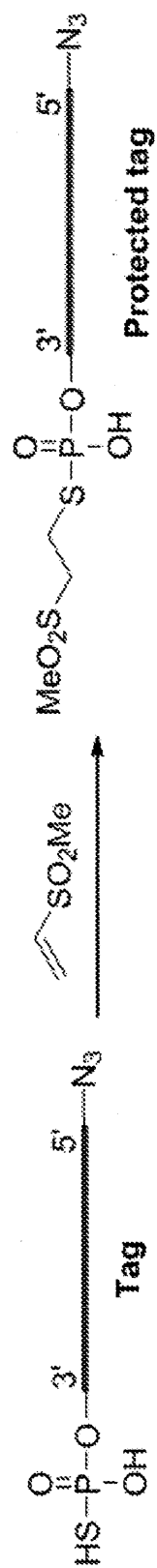


Figure 25A

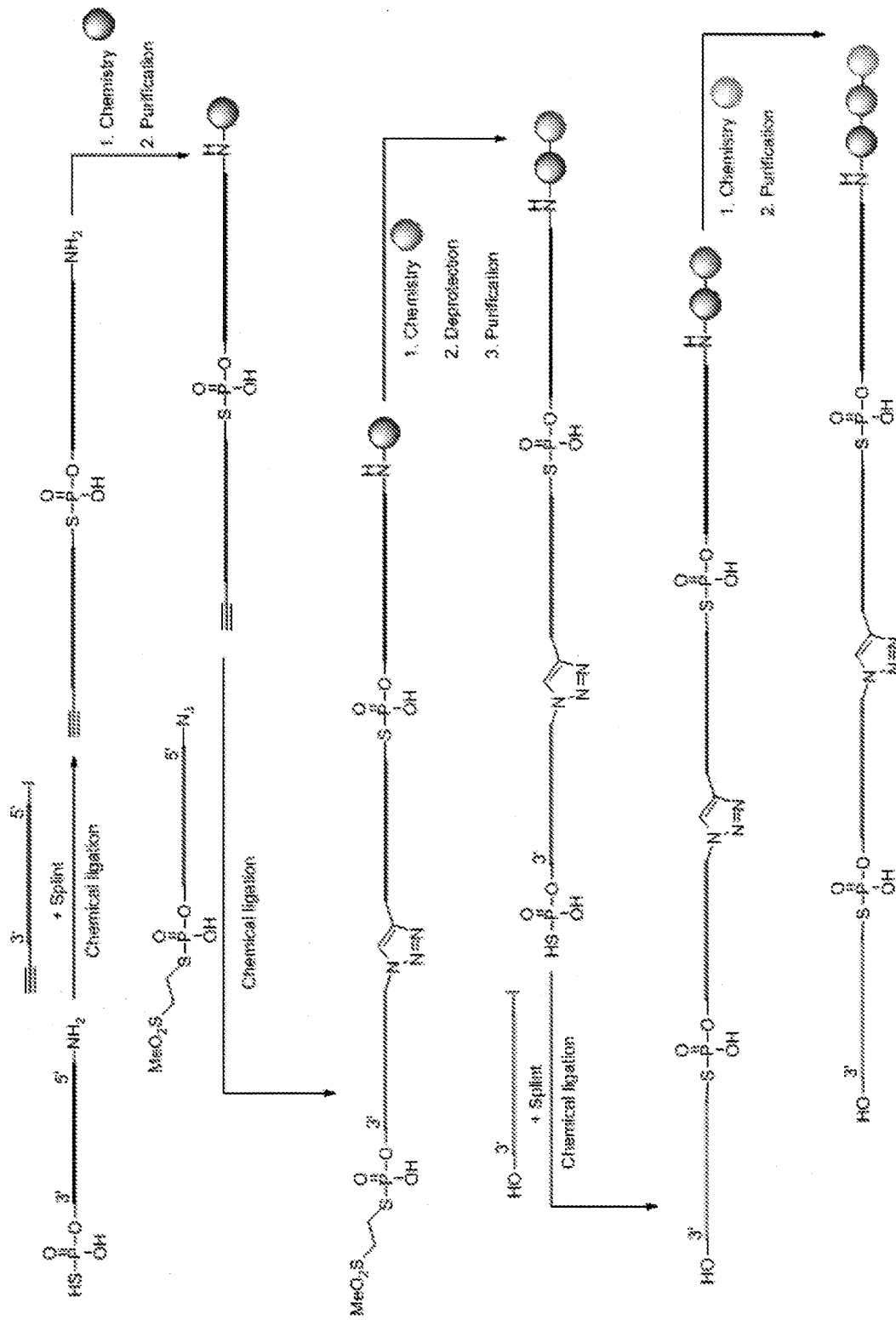


Figure 25B