

FIG. 1

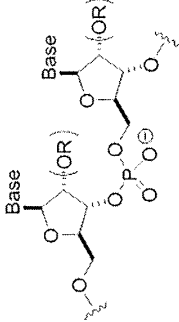
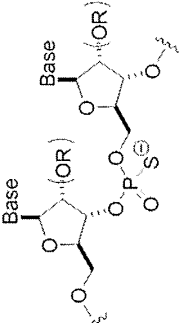
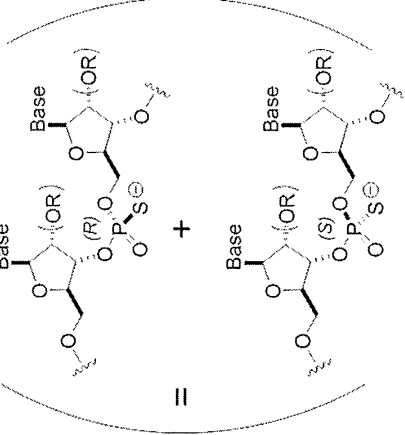
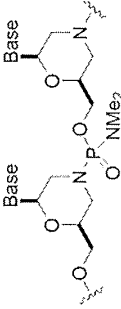
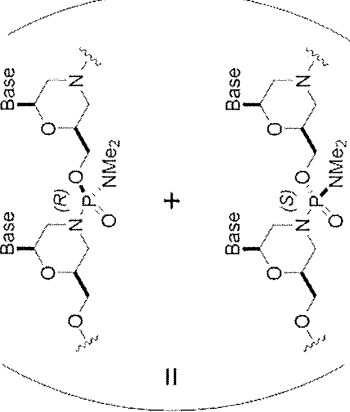
Therapeutic Oligonucleotides		
Phosphodiester Oligomers (DNA, RNA, etc.)	Phosphorothioate (PS) Oligomers	Phosphorodiamidate Morpholino Oligomers (PMOs)
	  =	  =
	achiral phosphorous	chiral phosphorous

FIG. 2

Challenges in Access to Homogeneous (Stereopure) PMOs

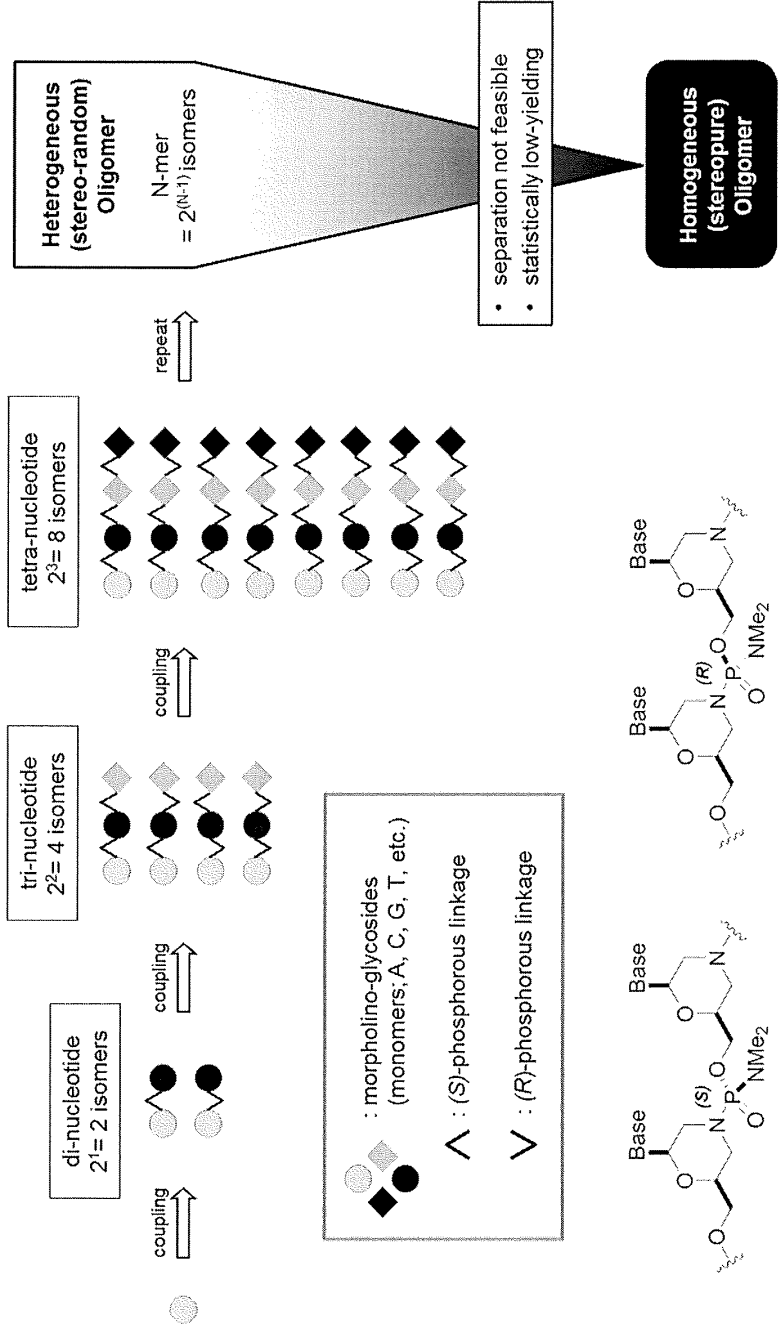
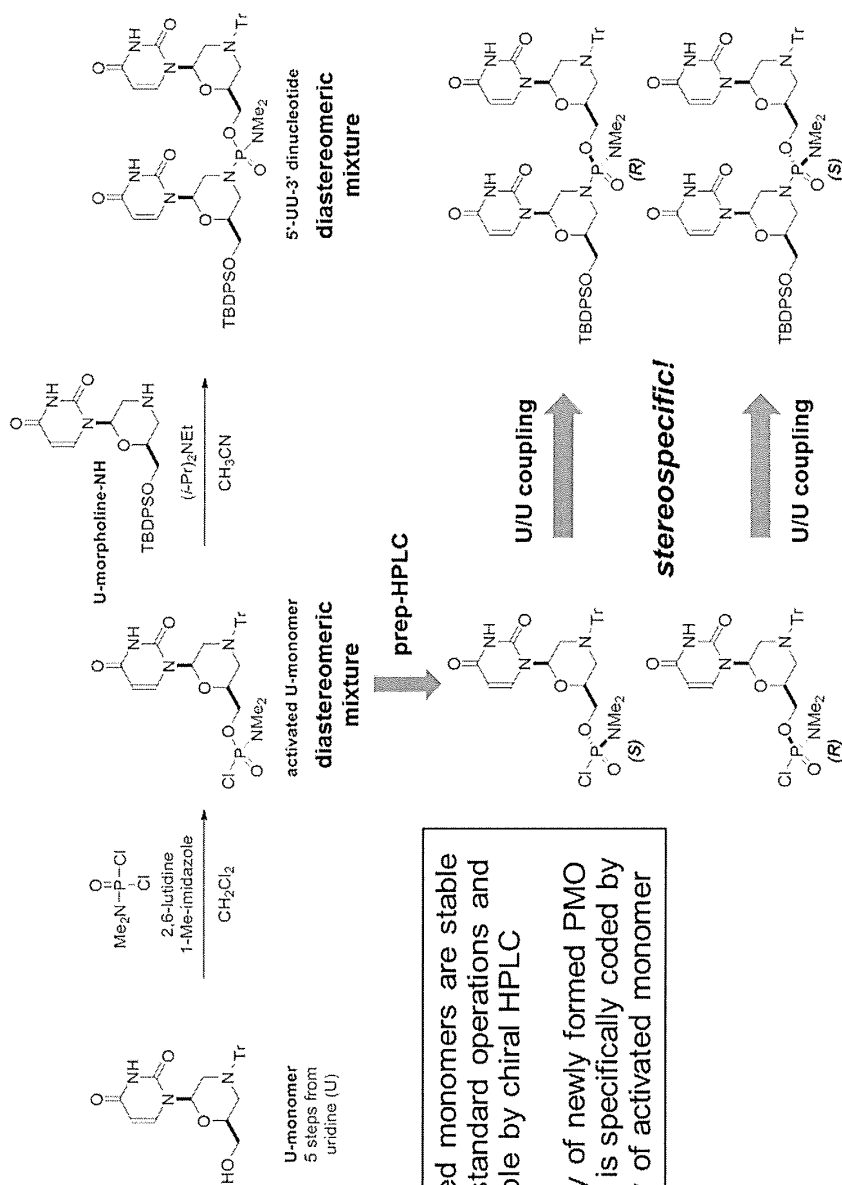


FIG. 3

Resolution of Diastereomers of Activated Monomers and Stereospecific PMO Coupling



- Activated monomers are stable under standard operations and separable by chiral HPLC
- Chirality of newly formed PMO linkage is specifically coded by chirality of activated monomer

FIG. 4A

Ten Key "Reagents" to Construct Homogeneous Oligomers

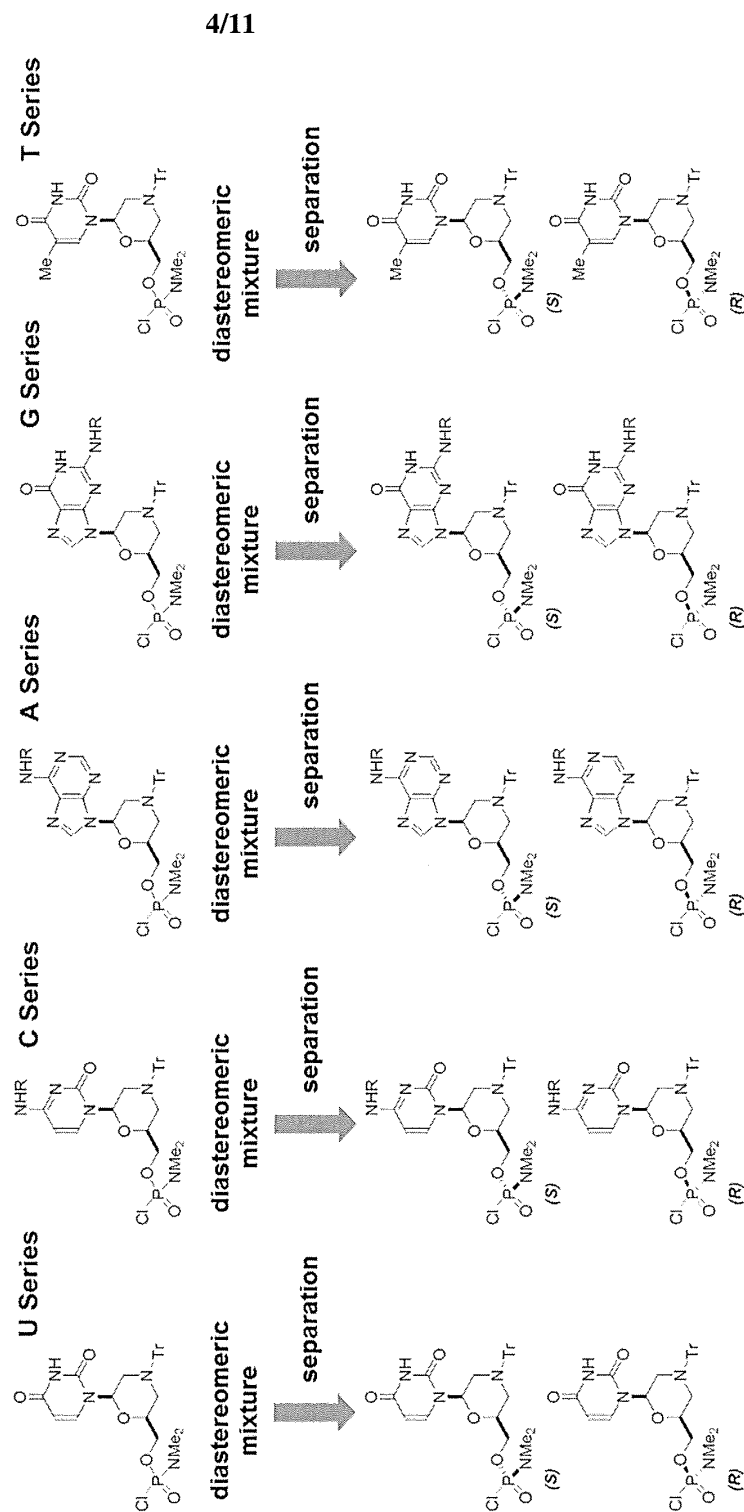


FIG. 4B

Ten Key "Reagents" to Construct Homogeneous Oligomers

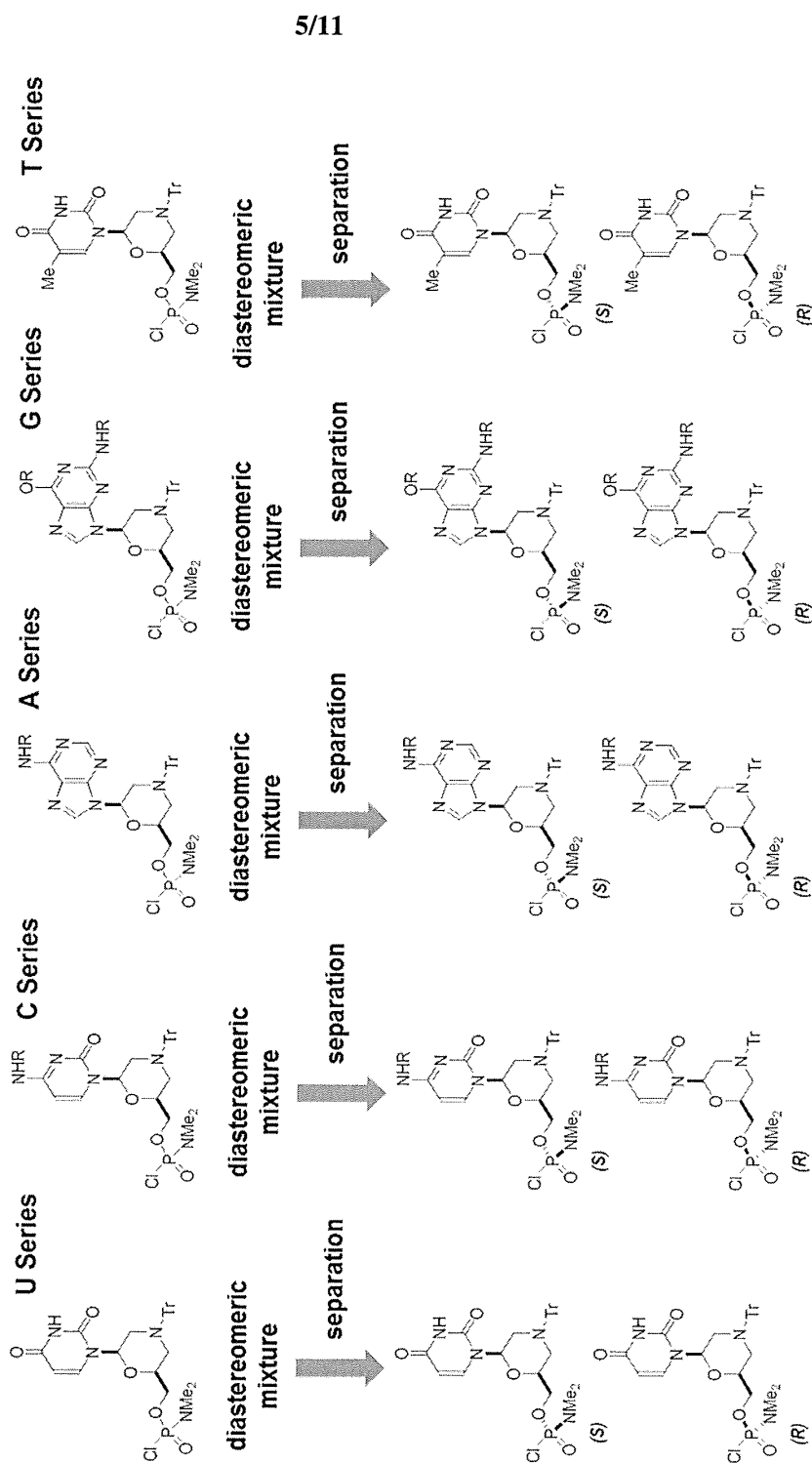


FIG. 5

New Method Provides Direct Access to Stereopure (Homogeneous) PMOs

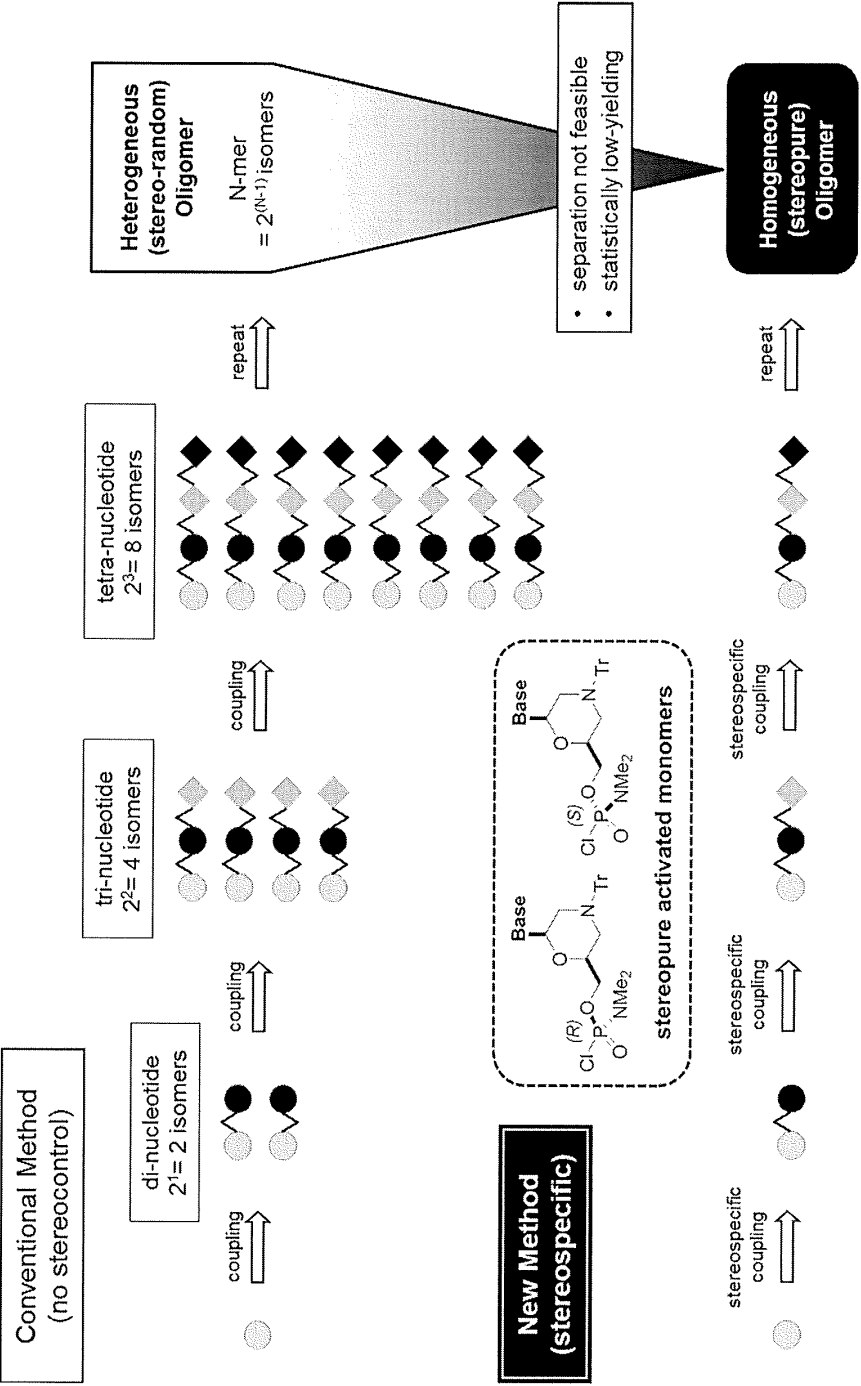


FIG. 6

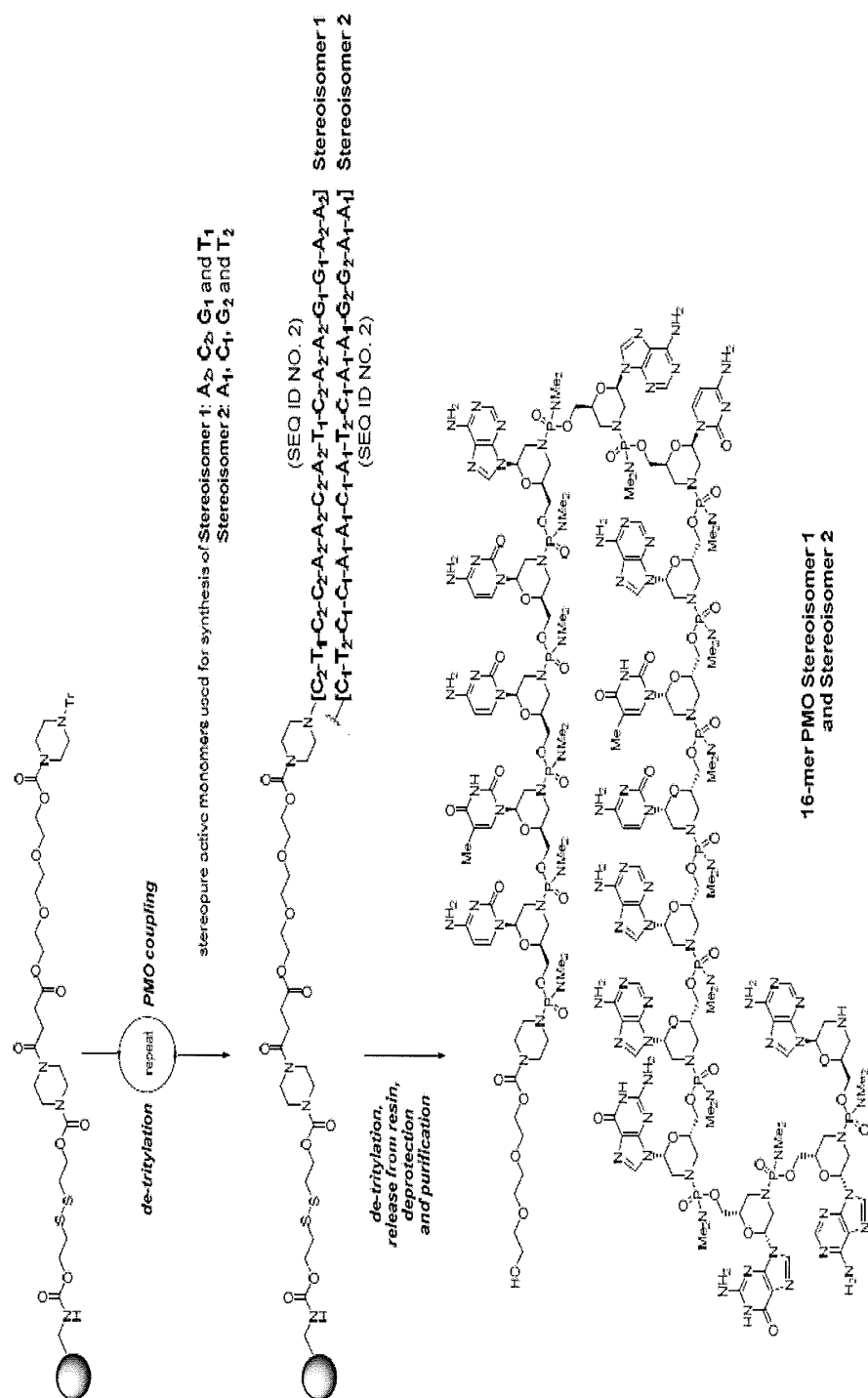


FIG. 7

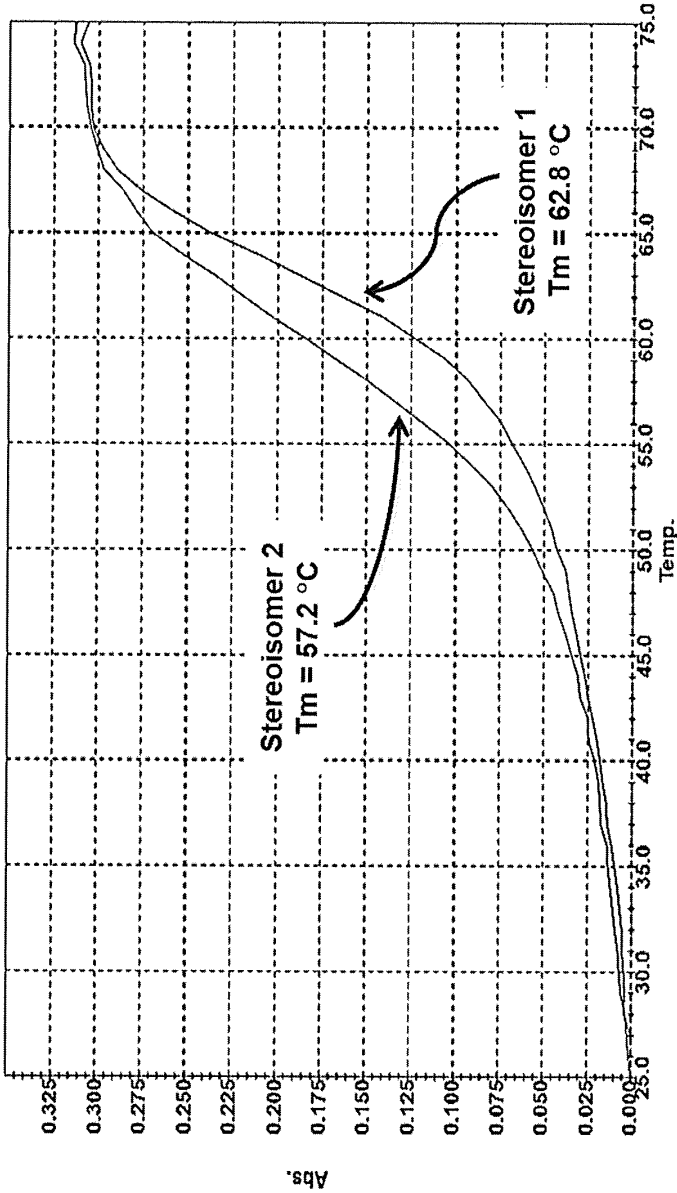
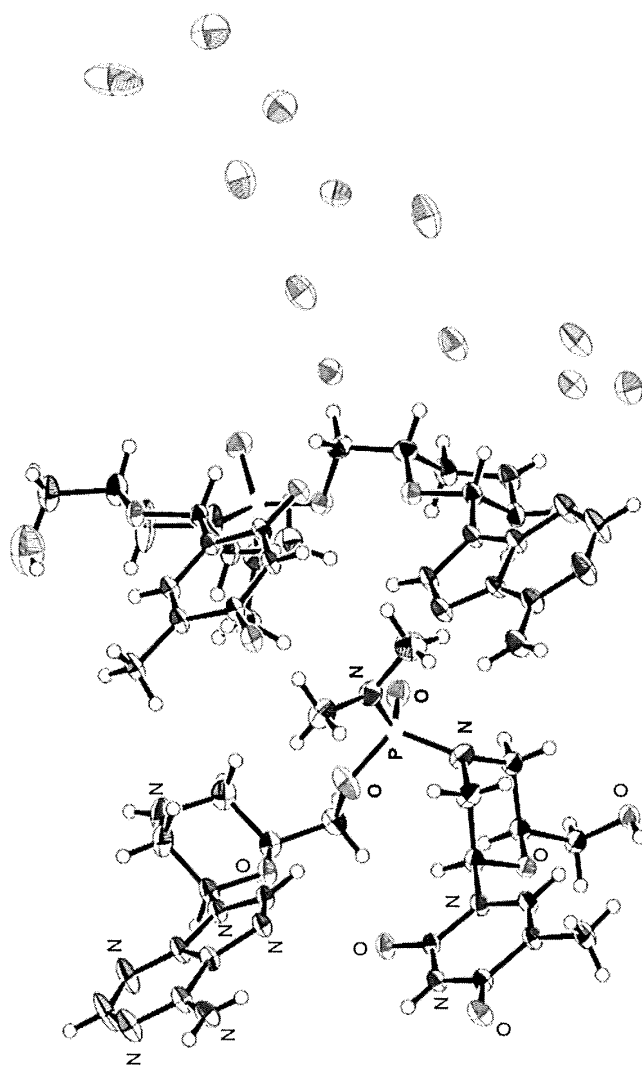


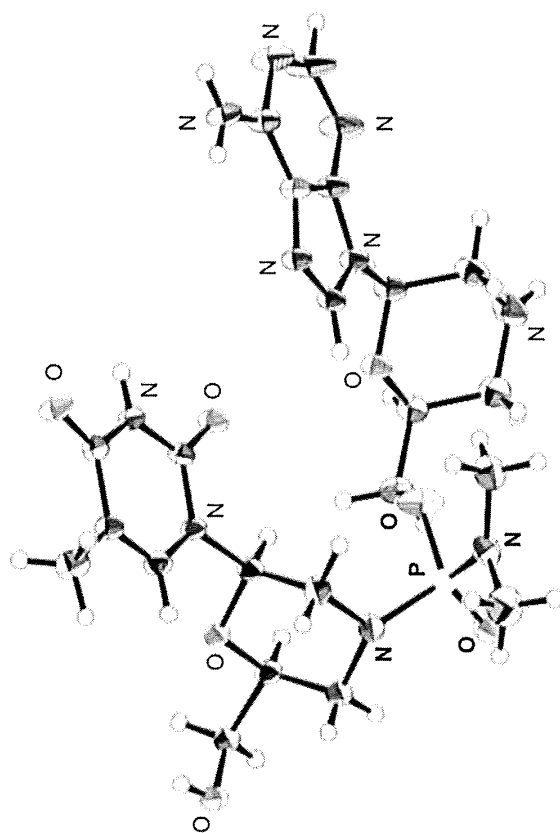
FIG. 8



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FIG. 9A

Fragment 1



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FIG. 9B

Fragment 2

