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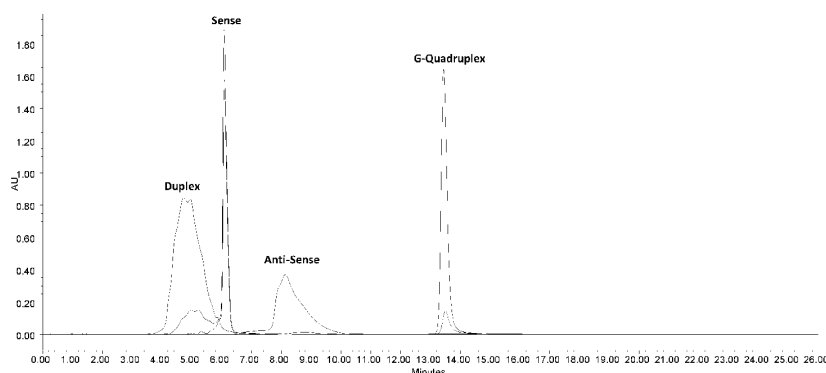
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(54) Title: METHODS FOR SEPARATING MOLECULAR SPECIES OF GUANINE-RICH OLIGONUCLEOTIDES

FIGURE 9A



(57) Abstract: Provided herein are methods of separating molecular species of a guanine-rich oligonucleotide from a mixture of molecular species, wherein at least one molecular species of the mixture is a quadruplex formed from the guanine-rich oligonucleotide. In exemplary embodiments, the methods comprise (a) applying the mixture to a chromatographic matrix comprising a hydrophobic ligand, wherein said hydrophobic ligand comprises C4 to C8 alkyl chains, wherein molecular species bind to the hydrophobic ligand and (b) applying a mobile phase which comprises a gradient of acetate and a gradient of acetonitrile but no cationic ion pairing agent to the chromatographic matrix to elute molecular species of the guanine-rich oligonucleotide. In exemplary aspects, the guanine-rich oligonucleotide elutes in a first set of elution fractions and a quadruplex formed from the guanine-rich oligonucleotide elutes in a second set of elution fractions.

[Continued on next page]

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