

wherein R^{1a-3a} , Y^{1a} and m are as defined for and are each the same as R^{1-3} , Y^1 and n of Formula I, respectively, and LG is a sulfonate leaving group;

- (ii) reacting said precursor compound of Formula Ia with a suitable source of $[^{18}F]$ -fluoride;
- (iii) purifying the reaction mixture obtained in step (ii), wherein said purifying step comprises:
 - (a) providing one or more solid-phase extraction (SPE) cartridges wherein the sorbent comprises particles having a diameter between 10-120 μ m and bonded hydrocarbons;
 - (b) conditioning said one or more SPE cartridges;
 - (c) loading the reaction mixture onto said one or more conditioned SPE cartridges;
 - (d) washing said one or more SPE cartridges onto which said mixture is loaded using a first solvent system comprising a ratio of water:water-miscible organic solvent in the range 100:0-0:100; and,
 - (e) eluting said one or more SPE cartridges following said washing step using a second solvent system comprising a ratio of water:water-miscible organic solvent in the range 70:30-0:100;

with the proviso that in said purification step, HPLC is specifically excluded.

- (2) The method as defined in Claim 1 wherein each of R^1 and R^{1a} is C_{1-3} alkoxy.
- (3) The method as defined in Claim 2 wherein each of R^1 and R^{1a} is methoxy.
- (4) The method as defined in any one of Claims 1-3 wherein each of R^2 , R^3 , R^{2a} and R^{3a} is either methyl or ethyl.
- (5) The method as defined in Claim 4 wherein each of R^2 , R^3 , R^{2a} and R^{3a} is ethyl.
- (6) The method as defined in any one of Claims 1-5 wherein each of Y^1 and Y^{1a} is CH_2 -