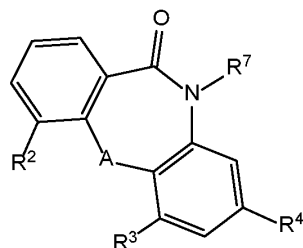


WHAT IS CLAIMED IS:

1. A method of synthesizing a farnesyl dibenzodiazepinone of Formula I and salts thereof:

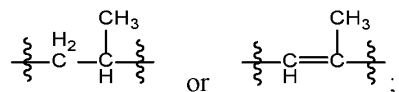


Formula I

wherein,

A is $-\text{NH}-$;

R^7 is $-\text{CH}_3$, $-(\text{CH}_2)_x\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{W}^1\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{W}^1\text{CH}_2\text{CH}_2\text{W}^2\text{CH}_3$ or $-\text{CH}_2\text{W}^1\text{CH}_2\text{CH}_2\text{W}^2\text{CH}_2\text{CH}_2\text{W}^3\text{CH}_3$, where x is an integer of from 1 to 11, and where each of W^1 , W^2 and W^3 is independently

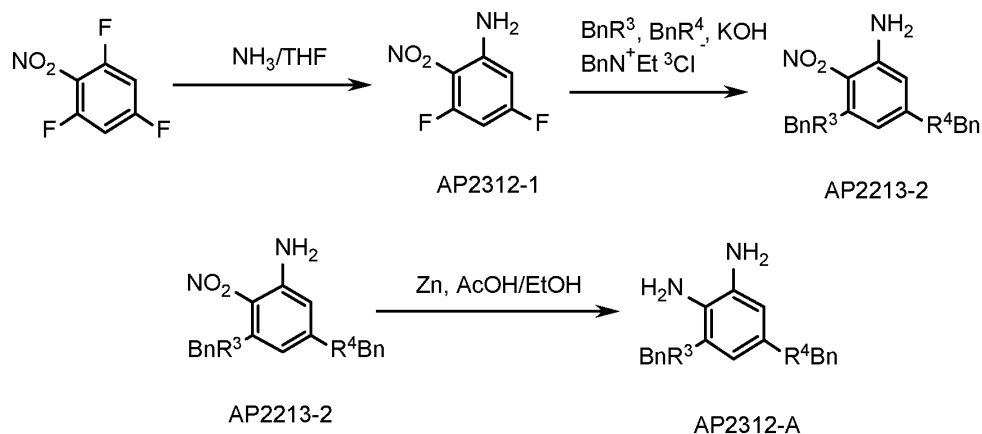


R^2 is $-\text{H}$, $-\text{OH}$, $-\text{OCH}_3$ or $-\text{OP}=\text{O}(\text{OR}^8)$, where R^8 is $-\text{Na}$, $-\text{CH}_3$ or $-\text{CH}_2\text{CH}_3$; and

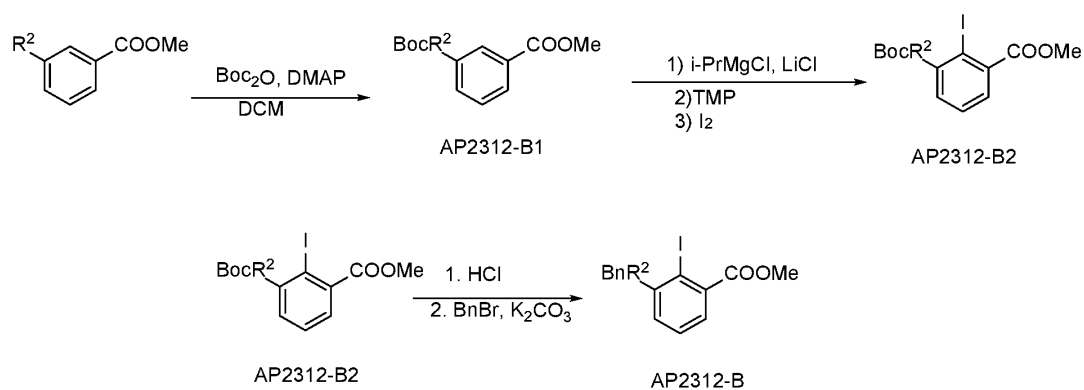
R^3 and R^4 are the same and selected from $-\text{H}$, $-\text{OH}$, $-\text{OCH}_3$ or $-\text{OP}=\text{O}(\text{OR}^8)$, where R^8 is $-\text{Na}$, $-\text{CH}_3$ or $-\text{CH}_2\text{CH}_3$,

said method comprising:

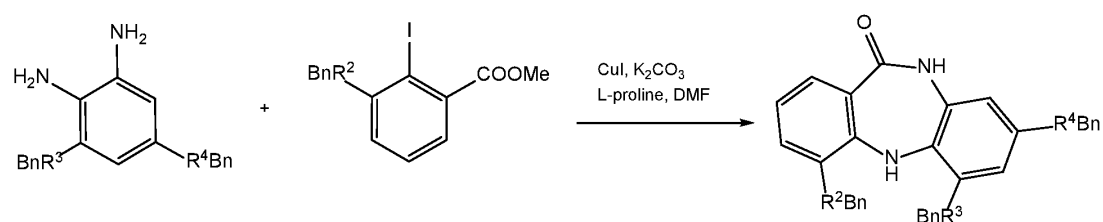
- (a) preparing AP2312-A;



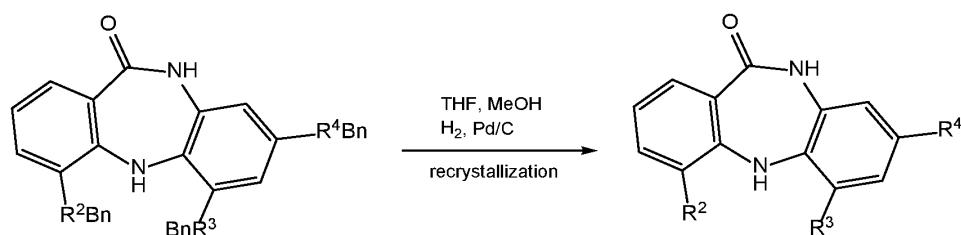
- (b) preparing AP2312-B;



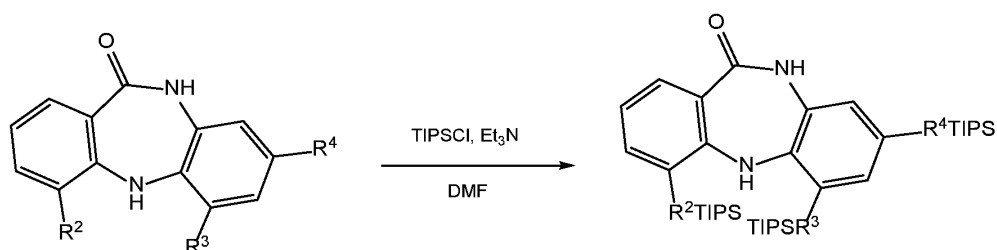
(c) performing Ullmann coupling;



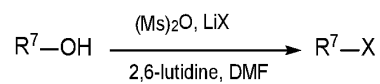
(d) performing de-benzylation;



(e) performing silylation;

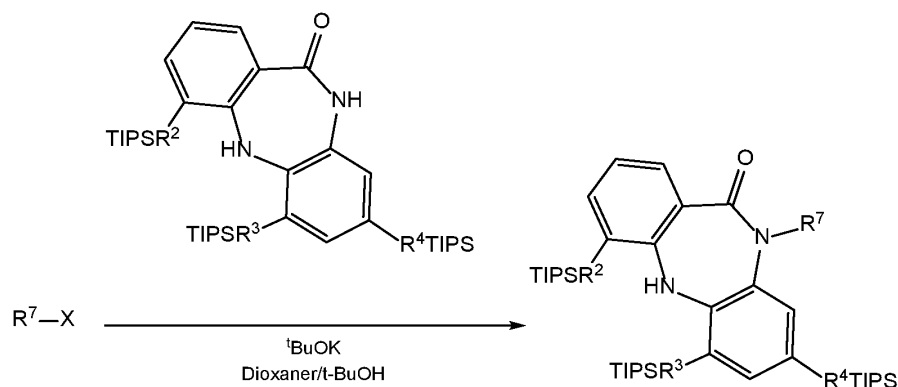


(f) preparing R^7 ;

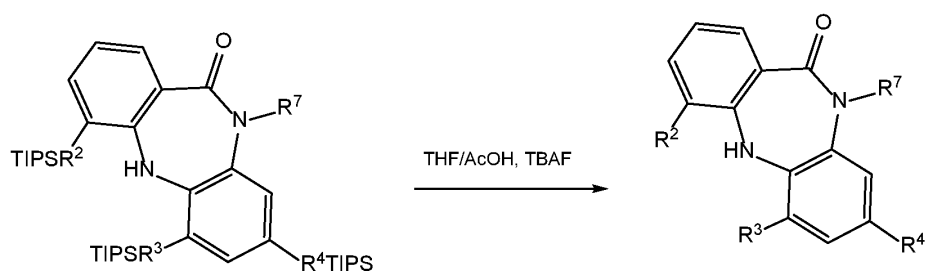


wherein X is Br, I, or Cl

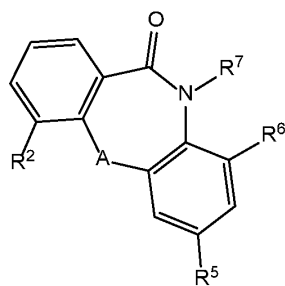
(g) performing farnesylation; and



(h) performing de-silylation



2. A method of synthesizing a farnesyl dibenzodiazepinone of Formula II and salts thereof:

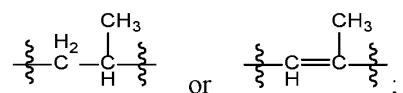


Formula II

wherein,

A is -NH-;

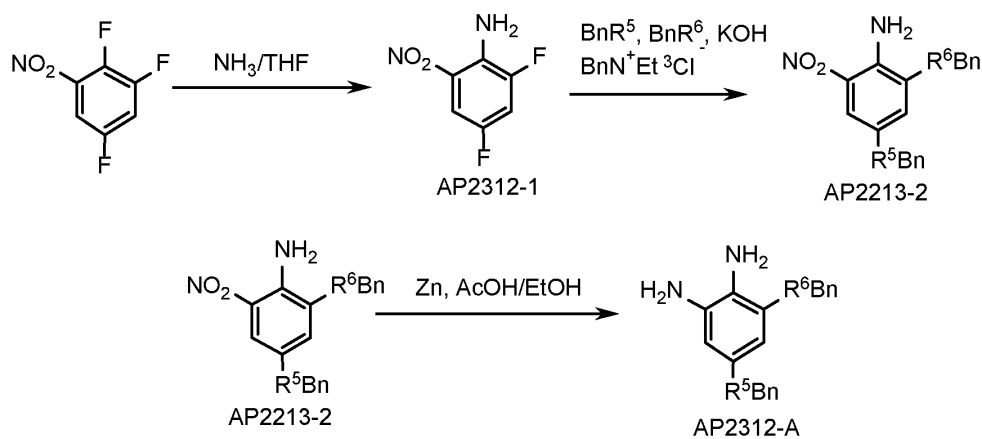
R^7 is $-\text{CH}_3$, $-(\text{CH}_2)_x\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{W}^1\text{CH}_3$, $-\text{CH}_2\text{CH}_2\text{W}^1\text{CH}_2\text{CH}_2\text{W}^2\text{CH}_3$ or $-\text{CH}_2\text{W}^1\text{CH}_2\text{CH}_2\text{W}^2\text{CH}_2\text{CH}_2\text{W}^3\text{CH}_3$, where x is an integer of from 1 to 11, and where each of W^1 , W^2 and W^3 is independently



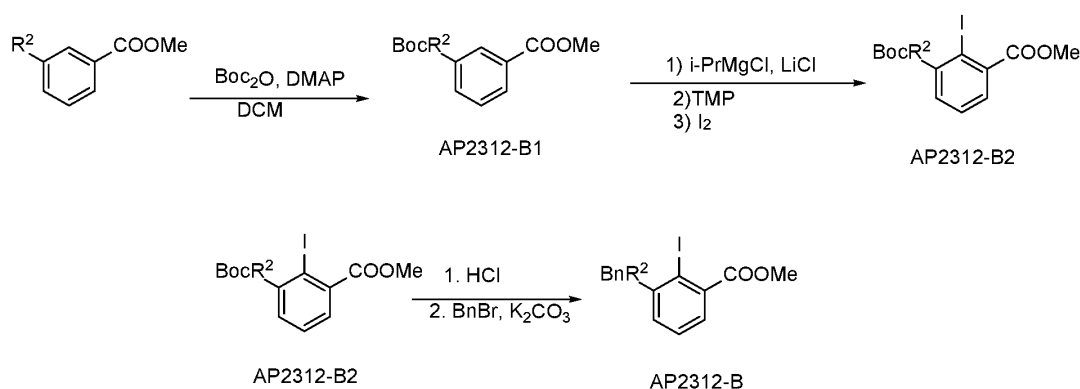
R^2 is $-\text{H}$, $-\text{OH}$, $-\text{OCH}_3$ or $-\text{OP}=\text{O}(\text{OR}^8)$, where R^8 is $-\text{Na}$, $-\text{CH}_3$ or $-\text{CH}_2\text{CH}_3$; and R^5 and R^6 are the same and selected from $-\text{H}$, $-\text{OH}$, $-\text{OCH}_3$ or $-\text{OP}=\text{O}(\text{OR}^8)$, where R^8 is $-\text{Na}$, $-\text{CH}_3$ or $-\text{CH}_2\text{CH}_3$,

said method comprising:

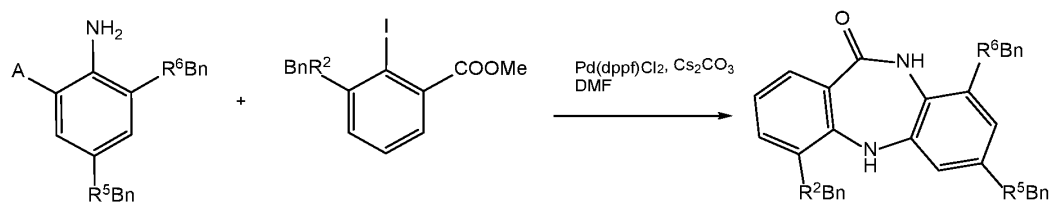
(a) preparing AP2312-A;



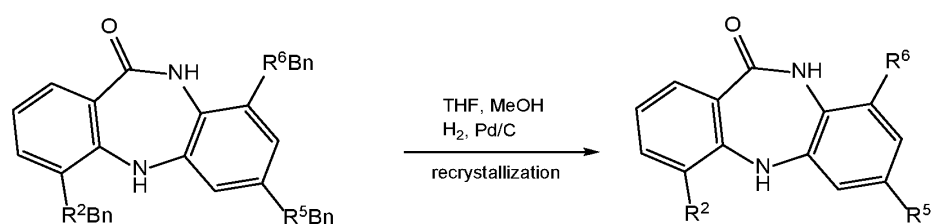
(b) preparing AP2312-B;



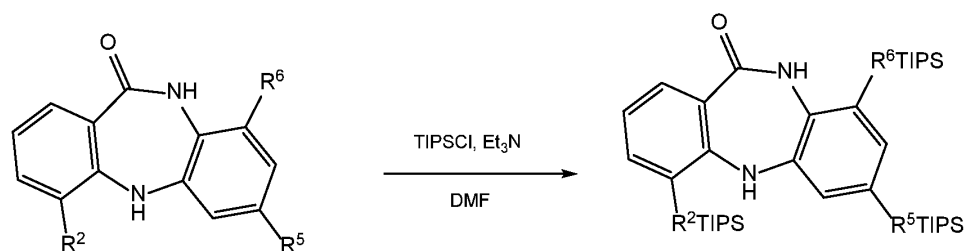
(c) performing Buchwald coupling;



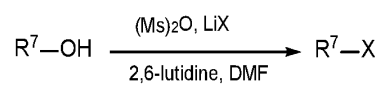
(d) performing de-benzylation;



(e) performing silylation;

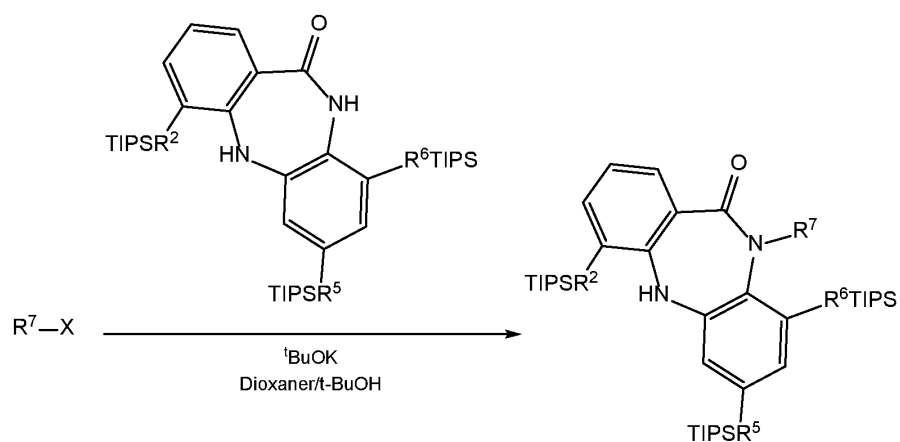


(f) preparing R⁷;

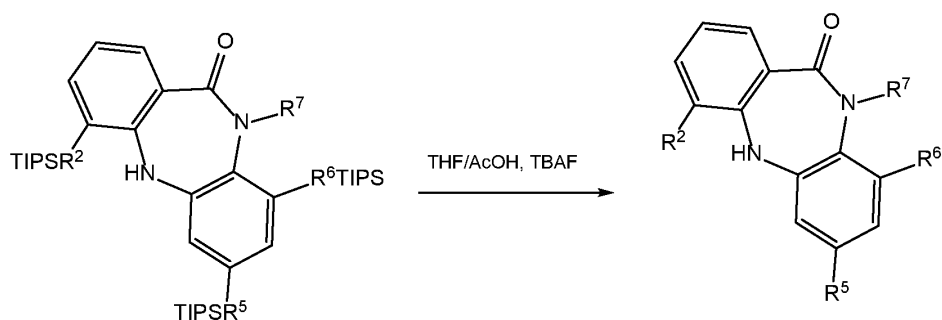


wherein X is Br, I, or Cl

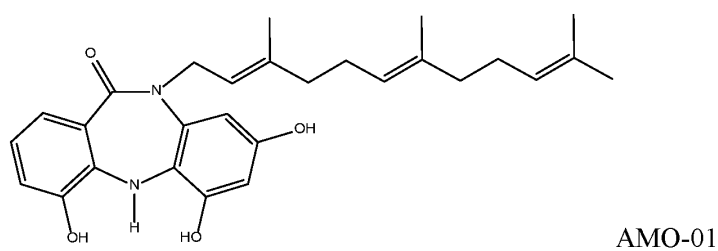
(g) performing farnesylation; and



(h) performing de-silylation

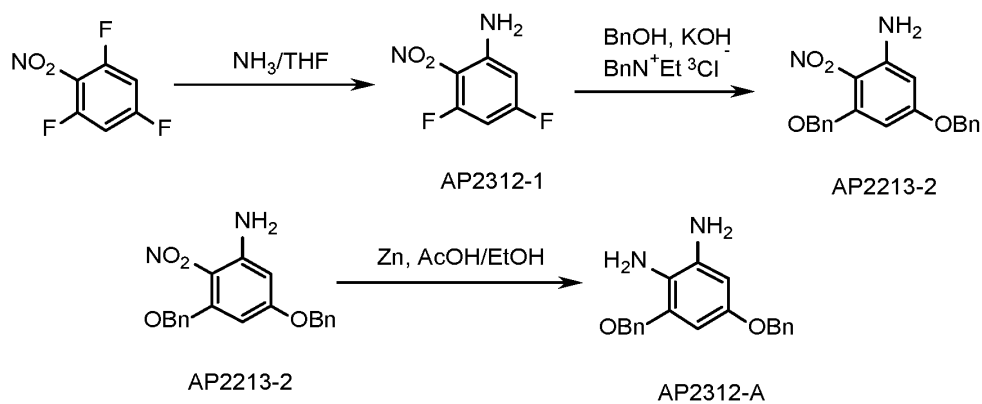


3. A method of synthesizing the farnesyl dibenzodiazepinone AMO-01 (10-farnesyl-4,6,8-trihydroxy-dibenzodiazepin-11-one),

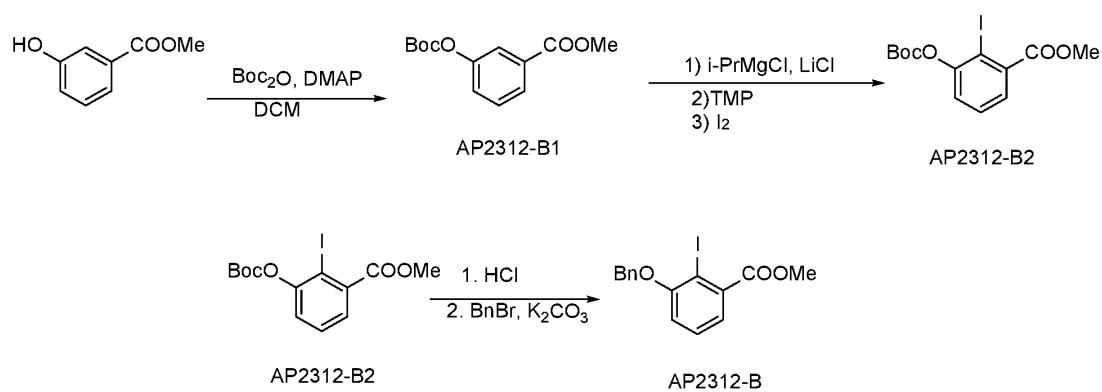


said method comprising:

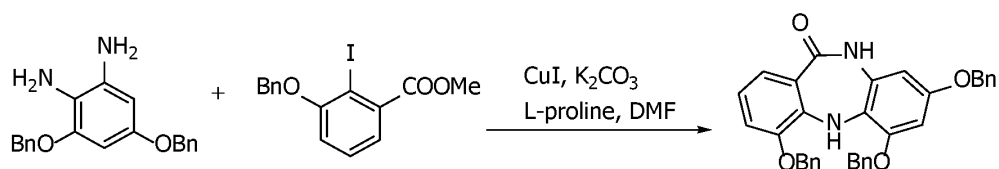
(a) preparing AP2312-A;



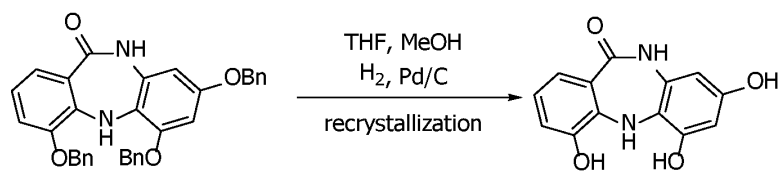
(b) preparing AP2312-B;



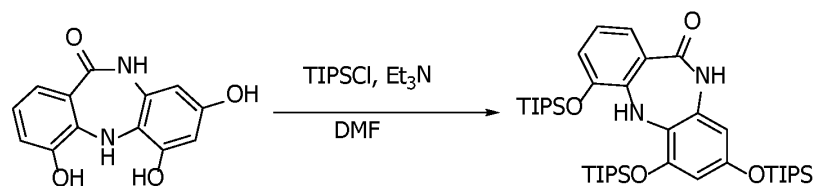
(c) performing Ullmann coupling;



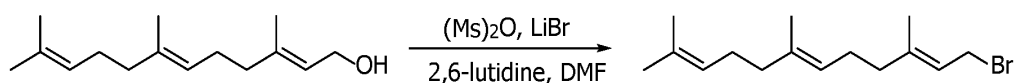
(d) performing de-benzylation;



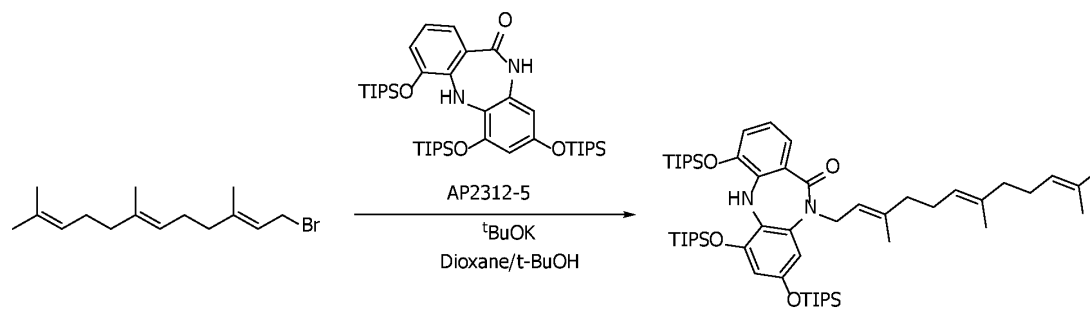
(e) performing silylation;



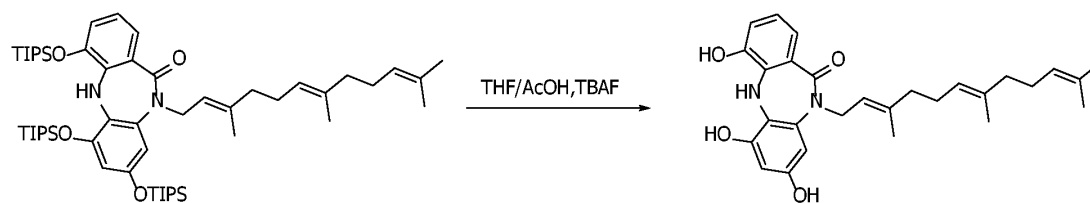
(f) preparing farnesyl bromide;



(g) performing farnesylation; and

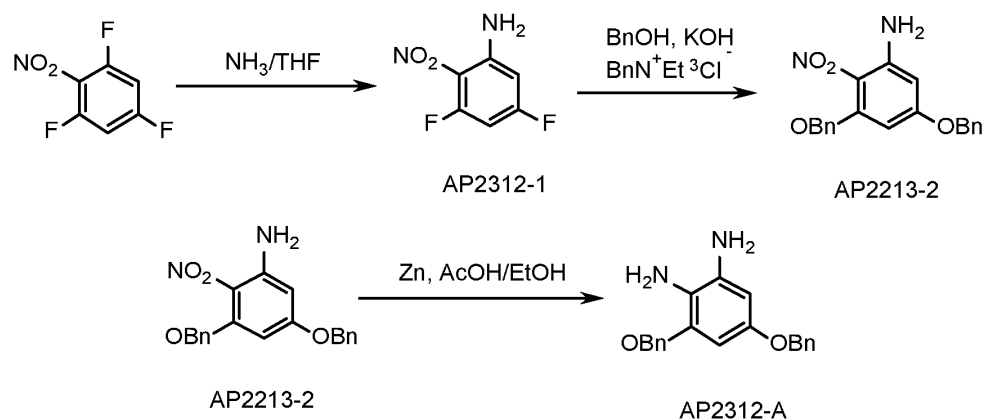


(h) performing de-silylation

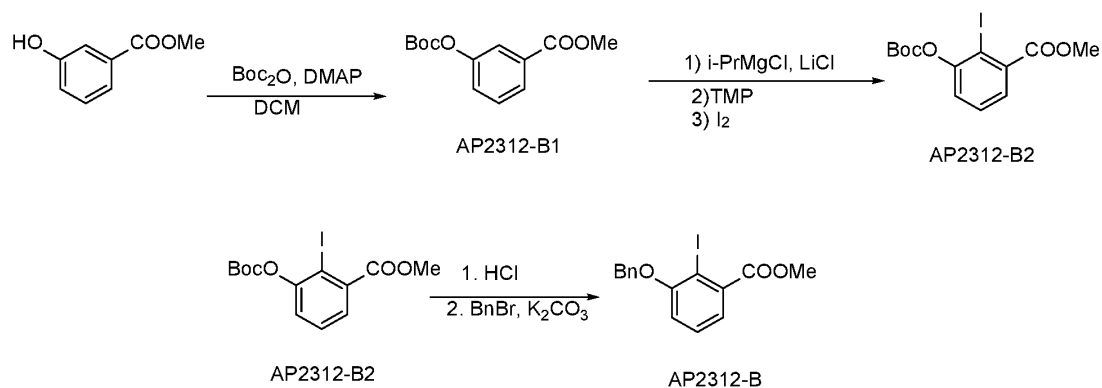


4. A method of synthesizing the farnesyl dibenzodiazepinone AMO-01, said method comprising:

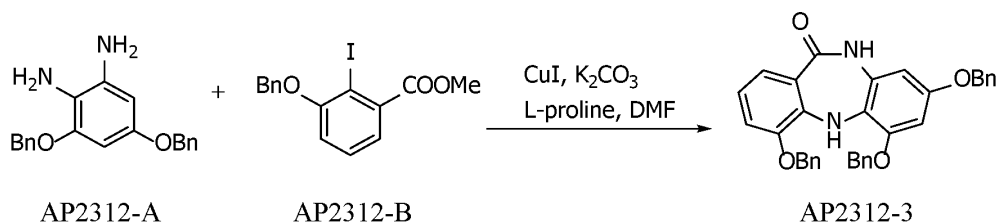
(a) preparing AP2312-A;



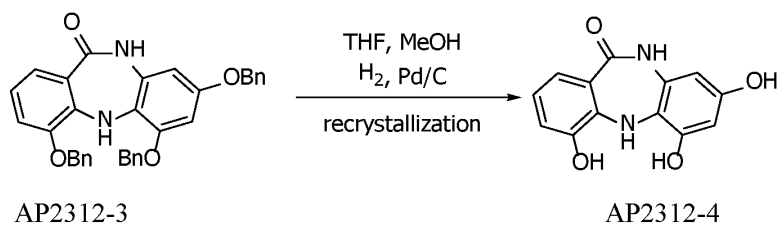
(b) preparing AP2312-B;



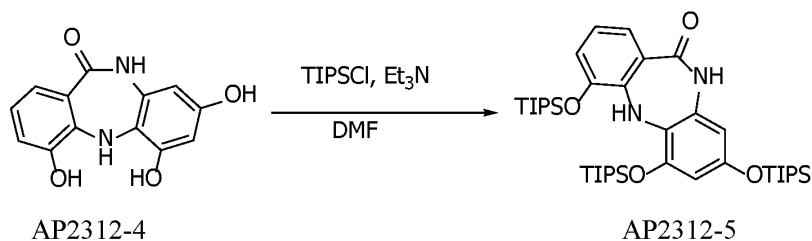
(c) performing Ullmann coupling by reacting molecular equivalent amounts of AP2312-A and AP2312-B in the presence of CuI (0.0525 eq), K₂CO₃ (2.0 eq), L-proline (0.1 eq) and DMF to yield AP2312-3;



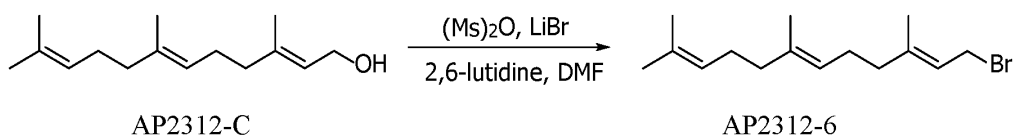
(d) performing de-benzoylation of AP2312-3 in the presence of THF, MeOH and Pd/C under H₂ to yield AP2312-4;



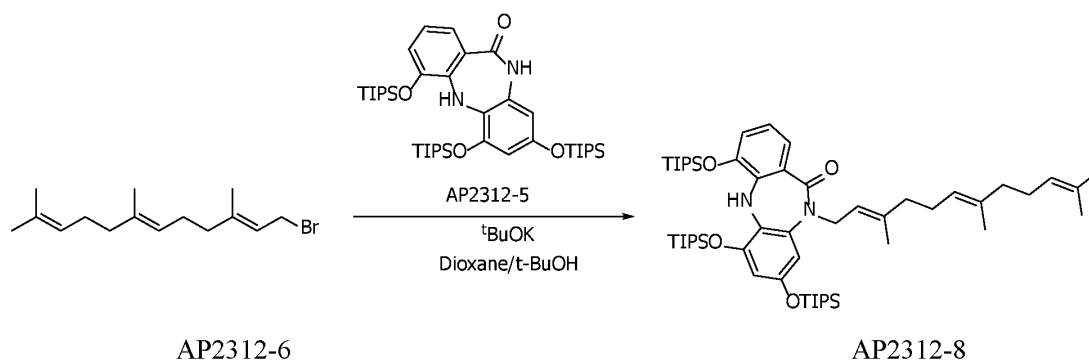
(e) performing silylation of AP2312-4 in the presence of TIPSCl (4.0 eq) Et₃N (5.0 eq) and DMF to yield AP2312-5;



(f) reacting AP2312-C in the presence of Ms₂O, LiBr (1.6 eq), 2,6-lutidine (1.6 eq) and DMF to yield AP2312-6;



(g) performing farnesylation of AP2312-5 with AP2312-6 in the presence of dioxane, ^tBuOH and ^tBuOK (1.15 eq) to yield AP2312-8; and



(h) performing de-silylation of AP2312-8 in the presence of THF (1.0 eq), AcOH (8.0 eq) and TBAF (4.0 eq) to yield AMO-01

