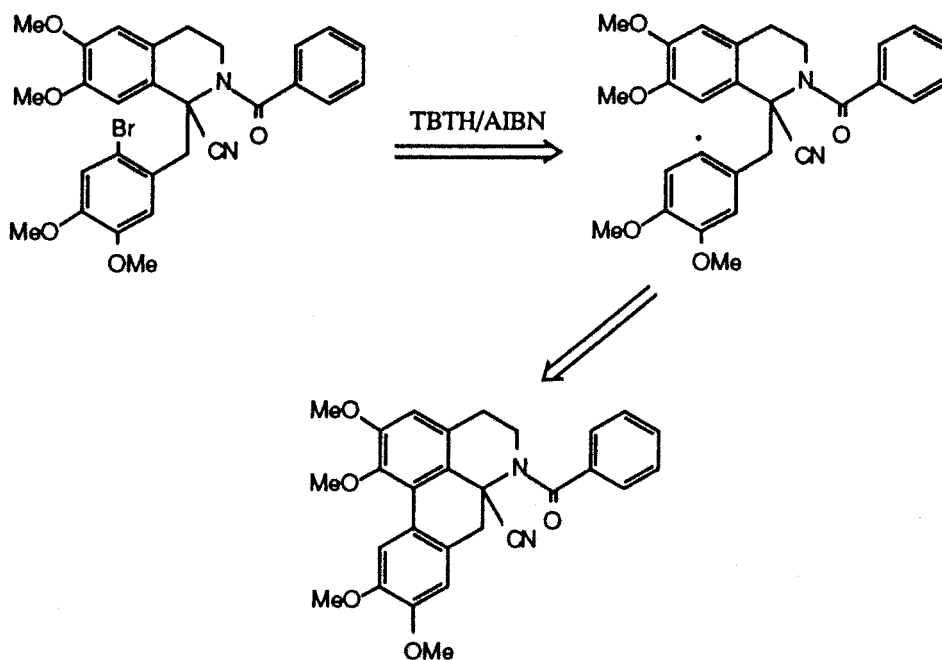


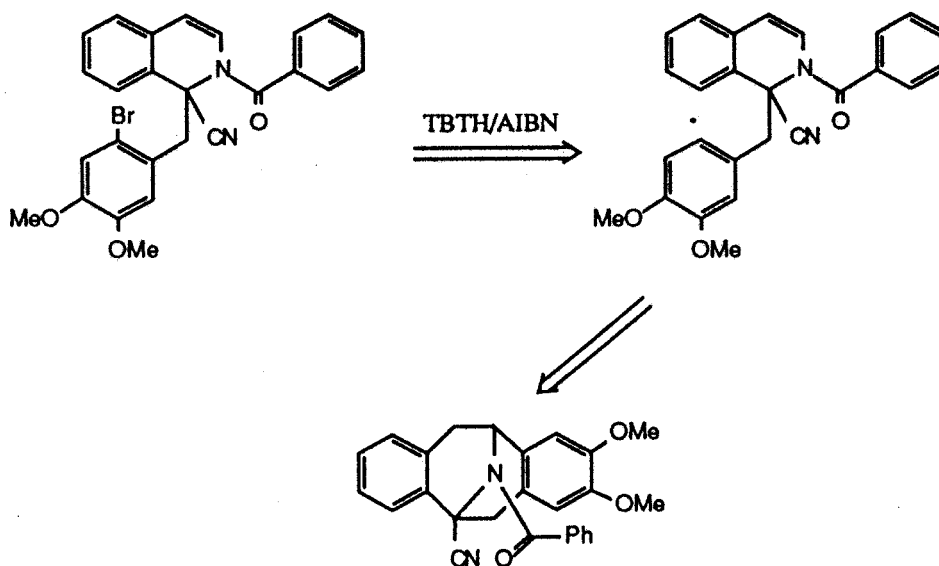
Thesis Title	Synthetic Studies on the Synthesis of Aporphine Alkaloids
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ABSTRACT

The synthetic methods to produce aporphine alkaloids were described. In the first route, the key step of the reaction involved tributyltin hydride-induced intramolecular radical cyclization of bromobenzylisoquinoline derivatives. On treatment of 1-(2-bromo-4,5-dimethoxybenzyl)-2-benzoyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinaldonitrile with tributyltin hydride and 2,2'-azobisisobutyronitrile in benzene, aporphine alkaloid was obtained (Scheme A), whereas treatment of 1-(2-bromo-4,5-dimethoxybenzyl)-2-benzoyl-1,2-dihydroisoquinaldonitrile by the same procedure led to the pavine alkaloid (Scheme B).



Scheme A



In the second route, α -hydroxybenzylisoquinoline derivatives were used as the key substrate in the study of the possible cyclization triggered by the carbonium ion at benzylic position (Scheme C).

