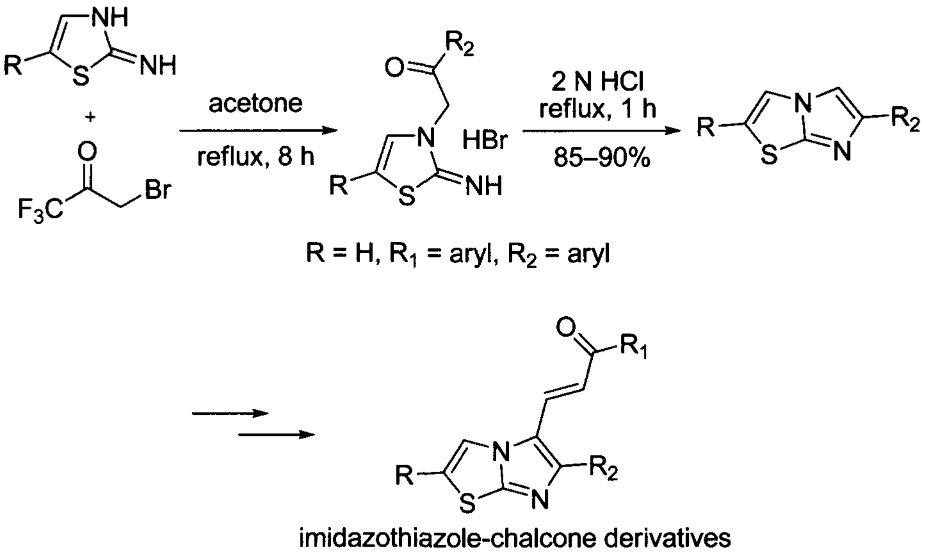
were derived by alkylation of aminothiazoles with α-bromoketones. The *N*-alkylated were directly subjected to cyclization to yield imidazol[2,1-*b*]thiazole which could then be used to prepare the chalcone derivatives.



N-Alkylated thiazolium and benzothiazolium salts also experience base-promoted deprotonation at the 2-position to form ylides. Such compounds, often referred to as *N*-heterocyclic carbene (NHC), are nucleophilic catalysts in benzoin condensation. In 1943, Ugai and co-workers reported that thiazolium salts catalyze self-condensation of benzaldehyde to generate benzoin *via* an umpoulong process.[51] Breslow at Columbia University in 1958 proposed thiazolium ylide as the actual catalyst for this transformation.[52] In this mechanism, the catalytically active species was represented as a thiazolium zwitterion, the resonance structure of an NHC, and the reaction was postulated to ensue *via* the enaminol or the "Breslow intermediate."[53]