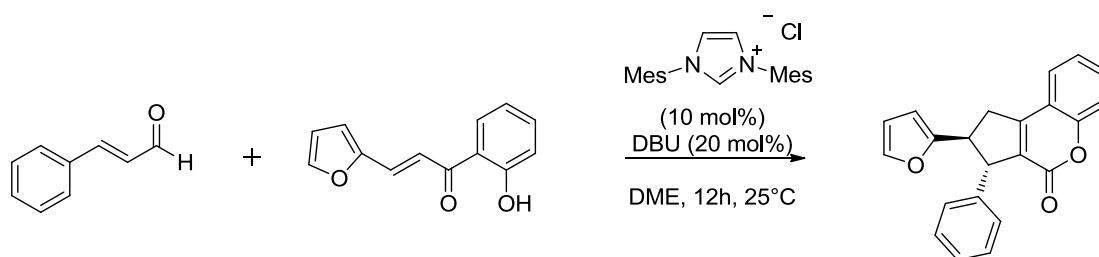


**??-Catalyzed Reaction of Enals with Hydroxy Chalcones:
Diastereoselective Synthesis of Functionalized Coumarins**

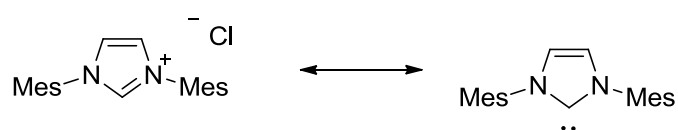
Problem:



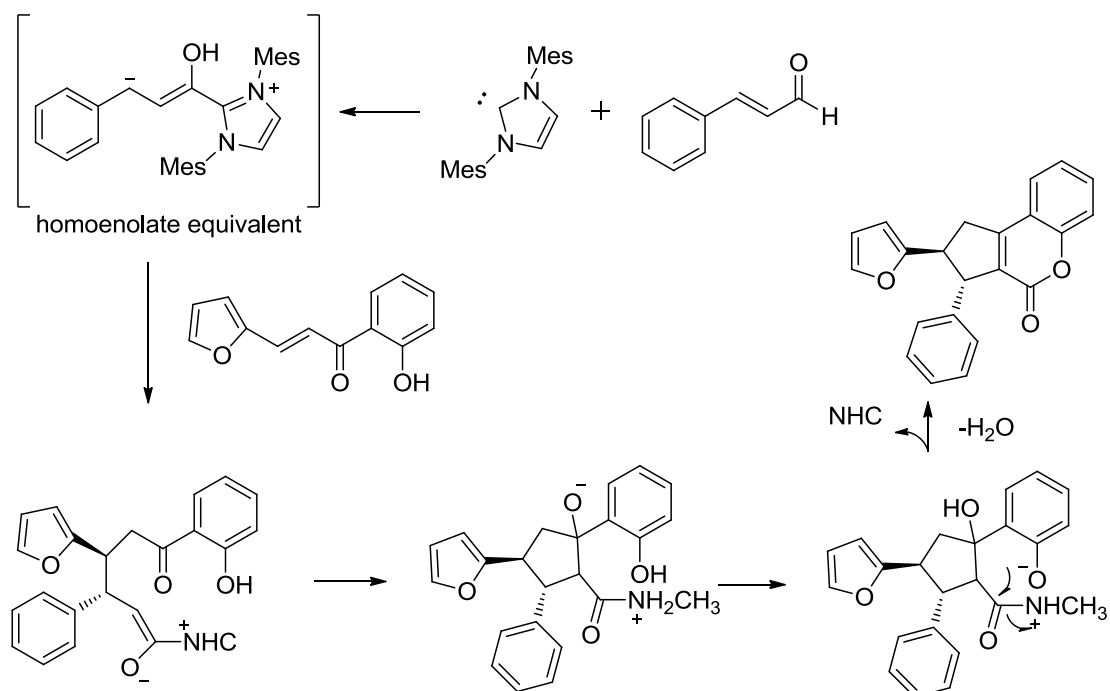
1. What class does the catalyst belong to?
2. Provide a mechanism for the cyclisation

Solution:

NHC catalyst



Proposed reaction mechanism:



References:

- A. Bhunia, A. Patra, V.G. Puranik, A.T. Biju *Org. Lett.* **2013**, *15*, 1756

Keywords:

Diastereoselective NHC-catalysis; synthesis of coumarins