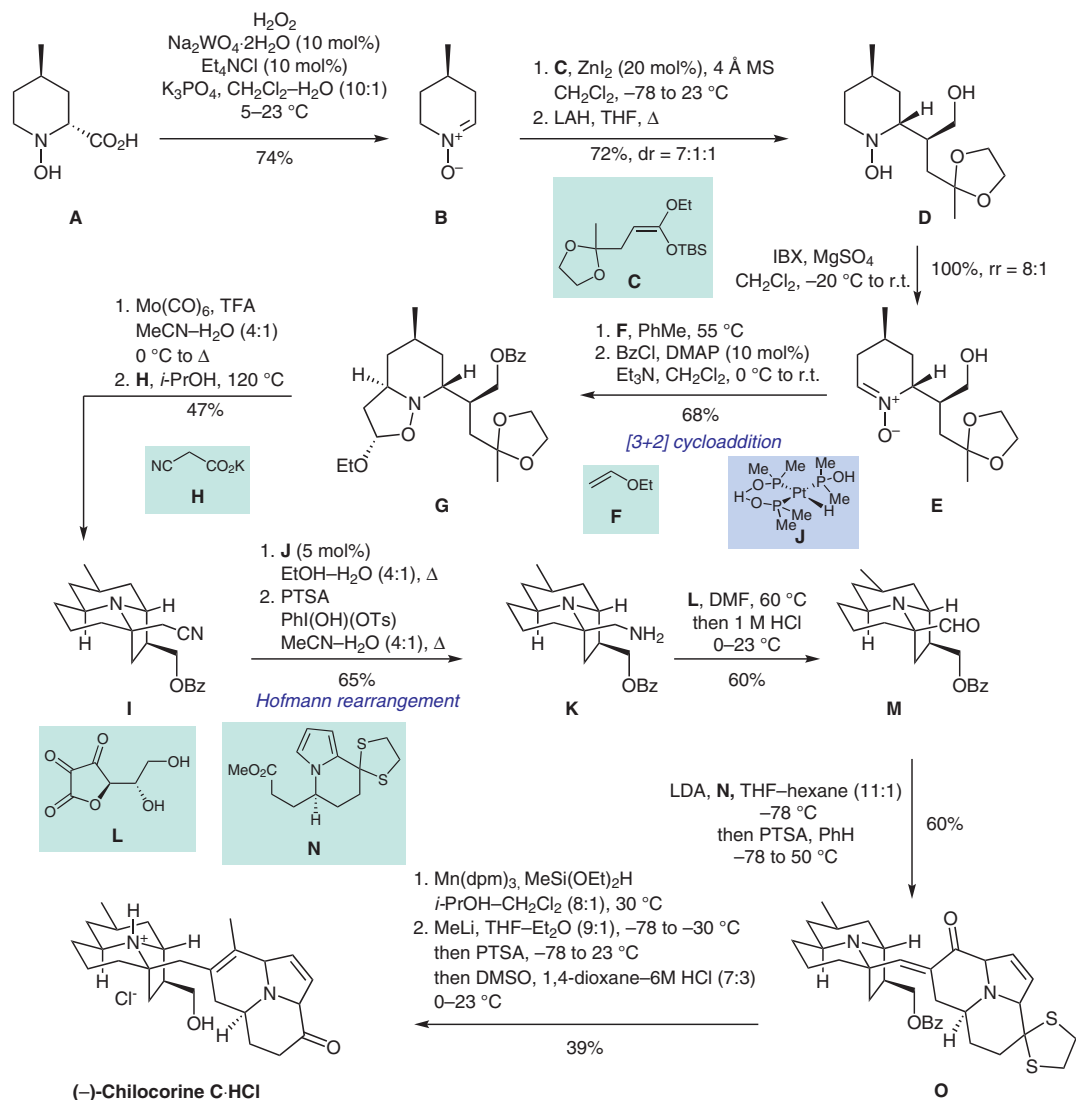


Synthesis of (–)-Chilocorine C



Significance: Snyder and co-workers reported the asymmetric total synthesis of (–)-chilocorine C, a defensive alkaloid isolated from ladybugs. Key to the synthesis was a reductive cyclization/Mannich cascade.

Comment: Advanced intermediate **G**, prepared by a [3+2] cycloaddition, is rapidly converted into **I** containing the tricyclic core of the natural product. Hofmann rearrangement followed by oxidation and aldol condensation leads to **O**, which is transformed into the natural product in two steps.