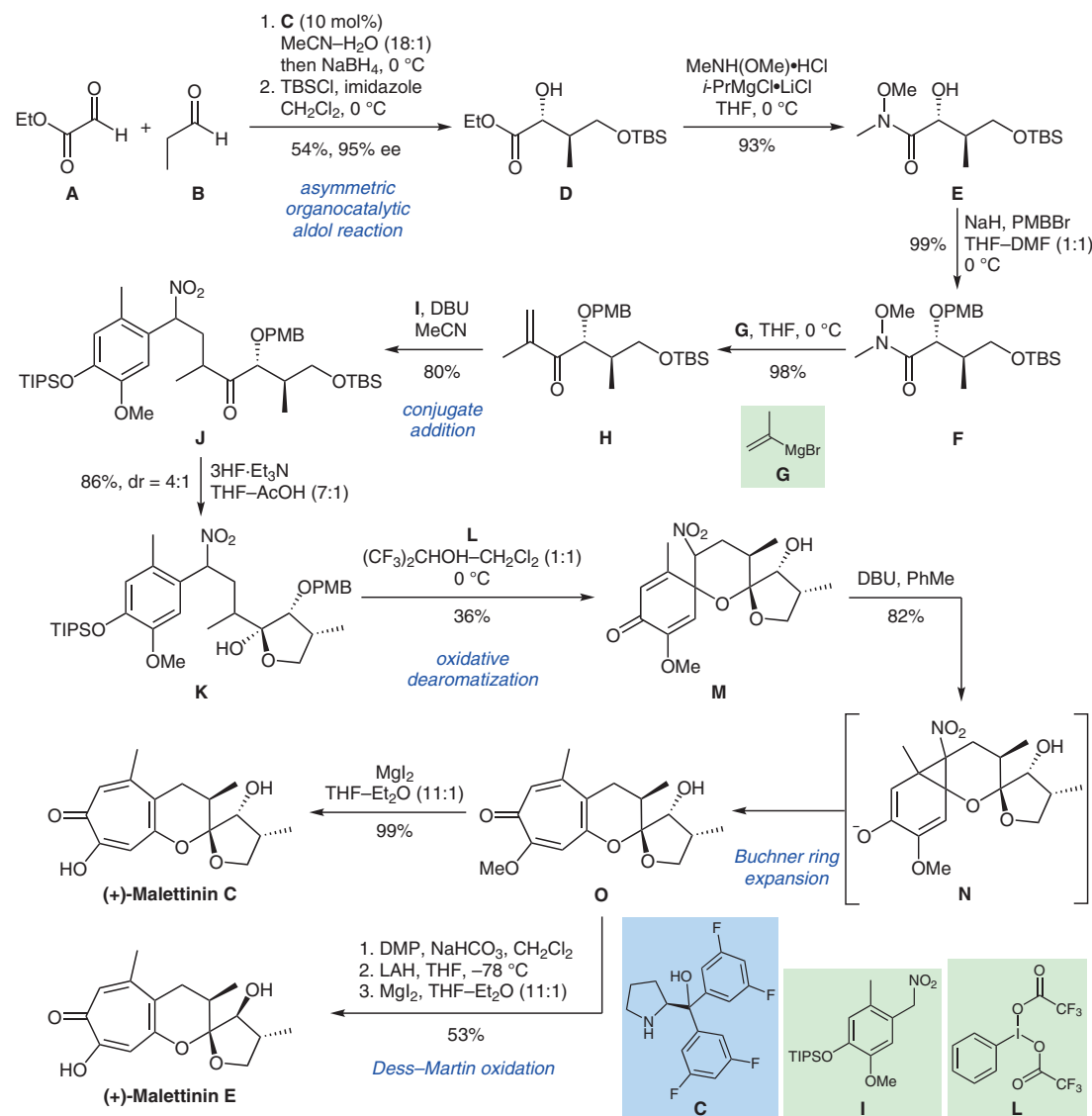


Synthesis of (+)-Malettinin C and (+)-Malettinin E



Significance: Yokoshima and Umekubo report the synthesis of two tropolone-containing natural products, namely (+)-malettinin C and (+)-malettinin E. These compounds possess high binding affinities to metal ions and therefore serve as inhibitors to a range of metalloenzymes.

Comment: Synthetic endeavors started with an organocatalytic asymmetric aldol reaction. PIFA-mediated oxidative dearomatization of phenol **K** led to spirocycle **M**, which was converted to tropolone **O** in a base-mediated ring expansion, paving the way to malettinins C and E. Moreover, the authors showcased an improved cyclization sequence by replacing the nitro group in **J** by a sulfonyl group.