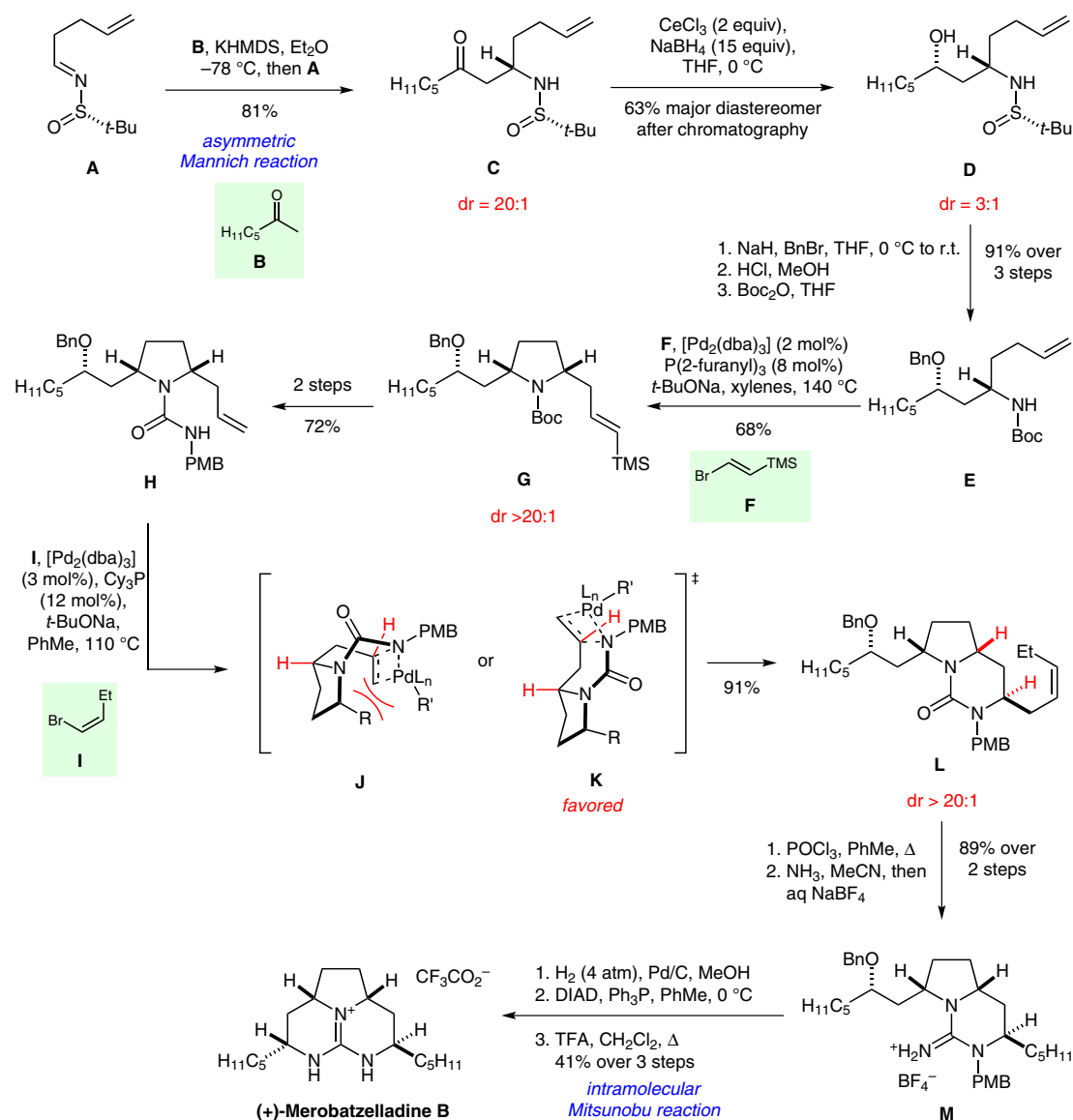


Synthesis of (+)-Merobatzelladine B



Significance: Merobatzelladine B was isolated in 2009 from the marine sponge *Monanchora sp.* by Matsunaga and co-workers. It exhibits moderate antimicrobial activity and inhibitory effects against a strain of *Plasmodium falciparum*. It possesses a fused tricyclic guanidine core and two *n*-pentyl chains that are positioned *anti* to one another.

Comment: This synthesis utilizes iterative stereo- and regioselective palladium-catalyzed carboamination reactions to build two of the three fused heterocycles in good yield and excellent diastereoselectivity. The selectivity of the second carboamination step is attributed to the preferred boat-like transition structure **K**, which minimizes steric hindrance with the previously formed pyrrolidine ring and the metal center.

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