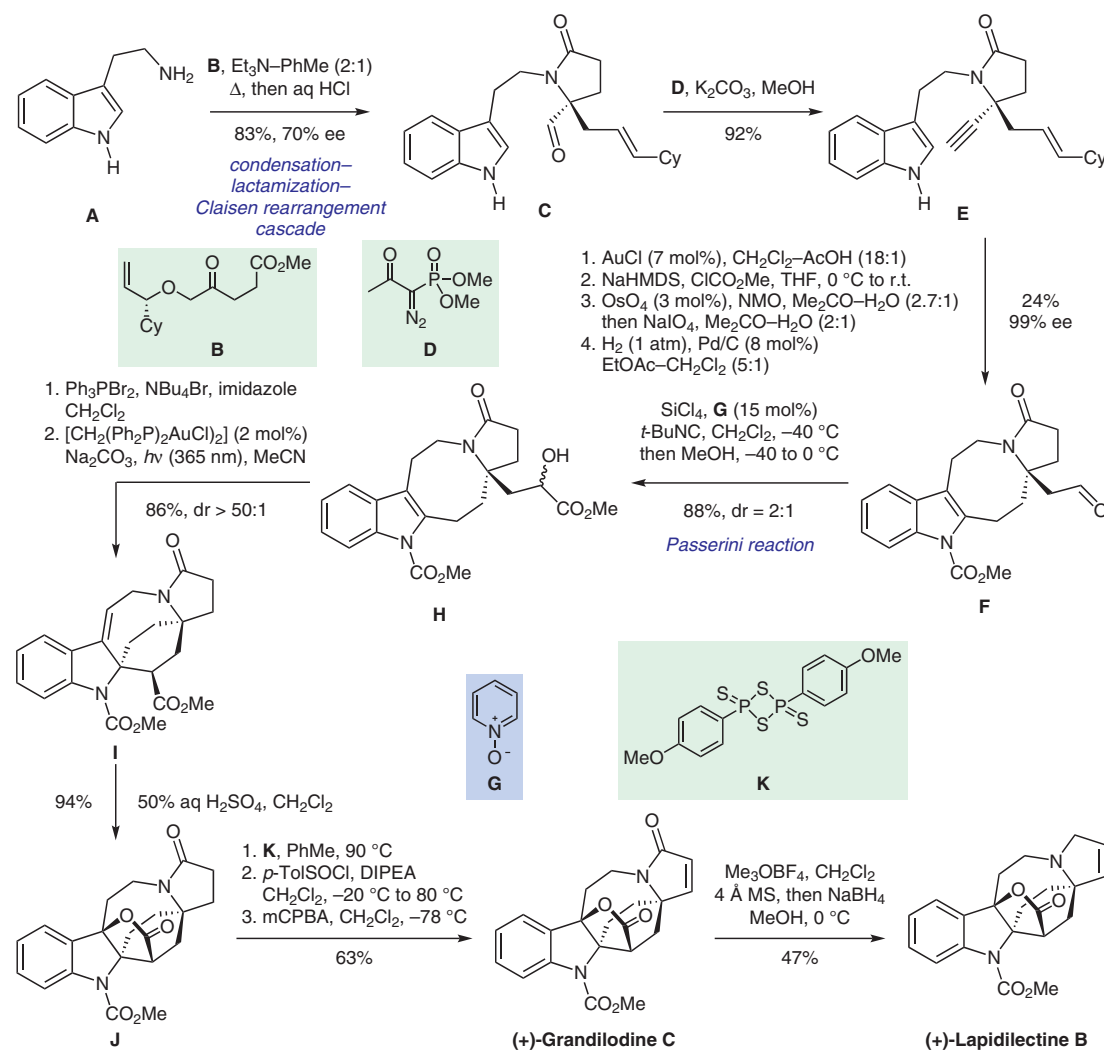


Total Synthesis of Seven Indole Alkaloids



Significance: A set of seven indole alkaloids were synthesized by the Echavarren group through common precursor **I**. The alkaloids all contain a pyrroloazocine core and were shown to reverse multidrug resistance in cancer cells. Further experiments provided insights into a biosynthetic mechanism.

Comment: The use of an imine formation–lactamization–rearrangement cascade provides rapid access to **C**. A set of homologations and gold cyclizations led to the desired carbon framework in **I**. Functional group manipulations then led to a collection of related natural products.