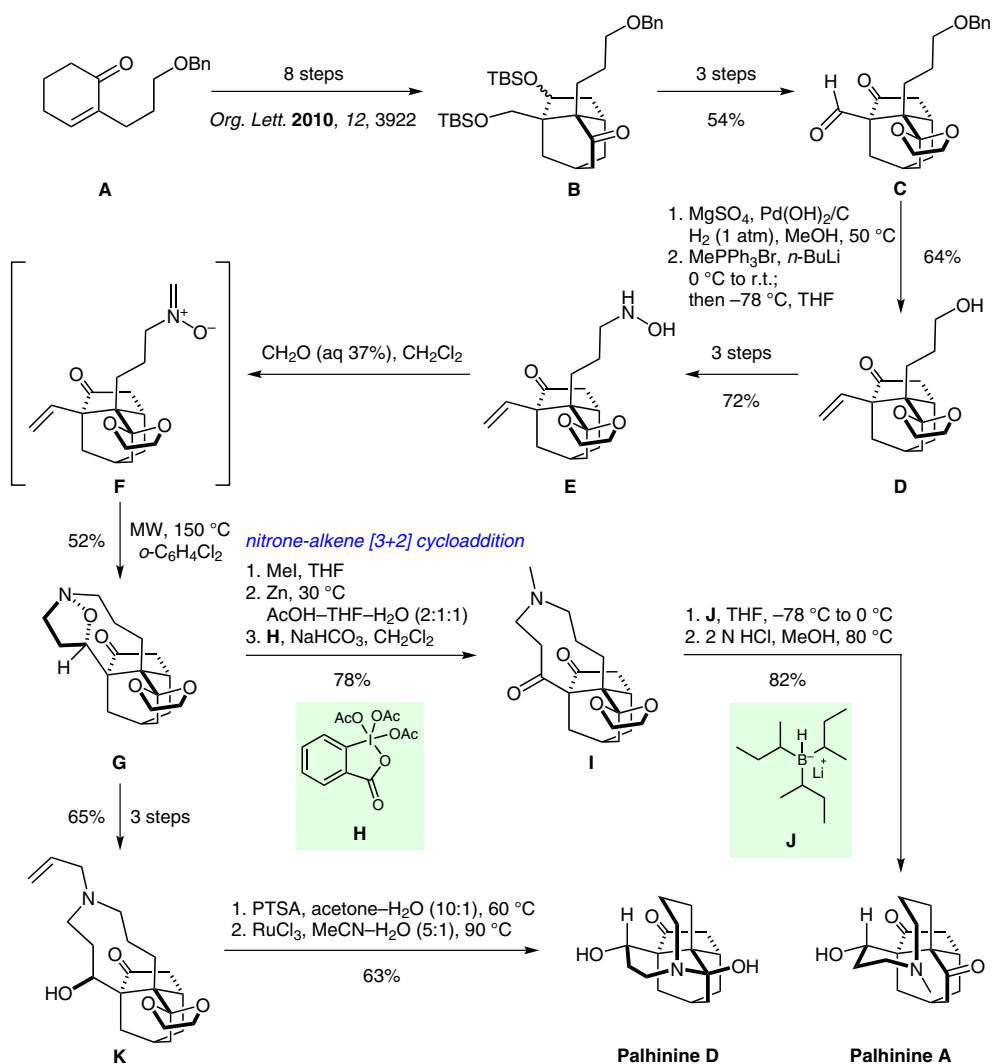


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 Total Synthesis of *Lycopodium* Alkaloids Palhinine A and Palhinine D  
*J. Am. Chem. Soc.* **2017**, *139*, 4282–4285.

## Synthesis of Palhinine A and D



**Significance:** Palhinine A and D are members of the *Lycopodium* alkaloid family isolated from the whole plant of *Palhinhaea cernua* L. Fan and co-workers describe the first total syntheses relying on a microwave-assisted regio- and stereoselective nitron-alkene [3+2] cycloaddition as the key step to access the nine-membered azanone ring system.

**Comment:** Treatment of hydroxylamine **E** with formalin in  $\text{CH}_2\text{Cl}_2$  resulted in the formation of nitron **F**, which underwent an intramolecular 1,3-dipolar cycloaddition to give isoxazolidine **G**. N-Alkylation followed by reductive N–O cleavage gave access to the challenging azanone ring system, key structural motif of palhinine A and D.

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