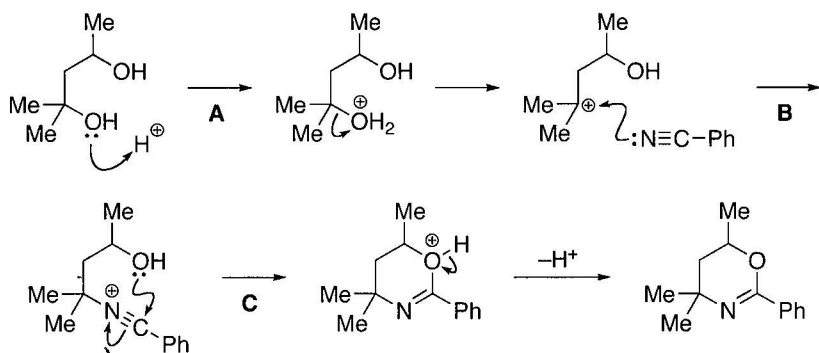


Waring, A. J.; Zaidi, J. H.; Pilkington, J. W. *J. Chem. Soc., Perkin Trans. 1* **1981**, 1454.

Dienone-phenol rearrangement. **A**: Protonation of the ketone. **B**: 1,2-Alkyl shift to form a stable tertiary carbocation. **C**: 1,2-Alkyl shift to form a stable tertiary carbocation. **D**: Aromatization by deprotonation.

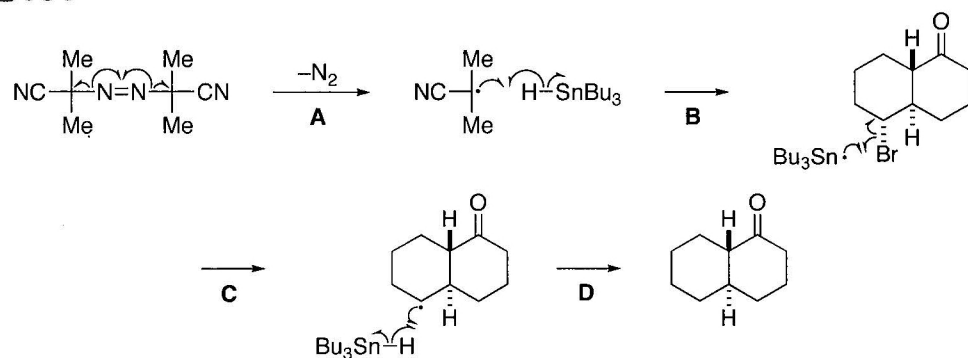
A049



Tillmanns, E.-J.; Ritter, J. J. *J. Org. Chem.* **1957**, 22, 839.

Ritter reaction. **A**: Protonation of the tertiary alcohol followed by elimination of water to form a more stable tertiary carbocation. **B**: Attack of PhCN to the carbocation to form a nitrilium ion. **C**: Intramolecular addition of the hydroxy group to the nitrilium ion.

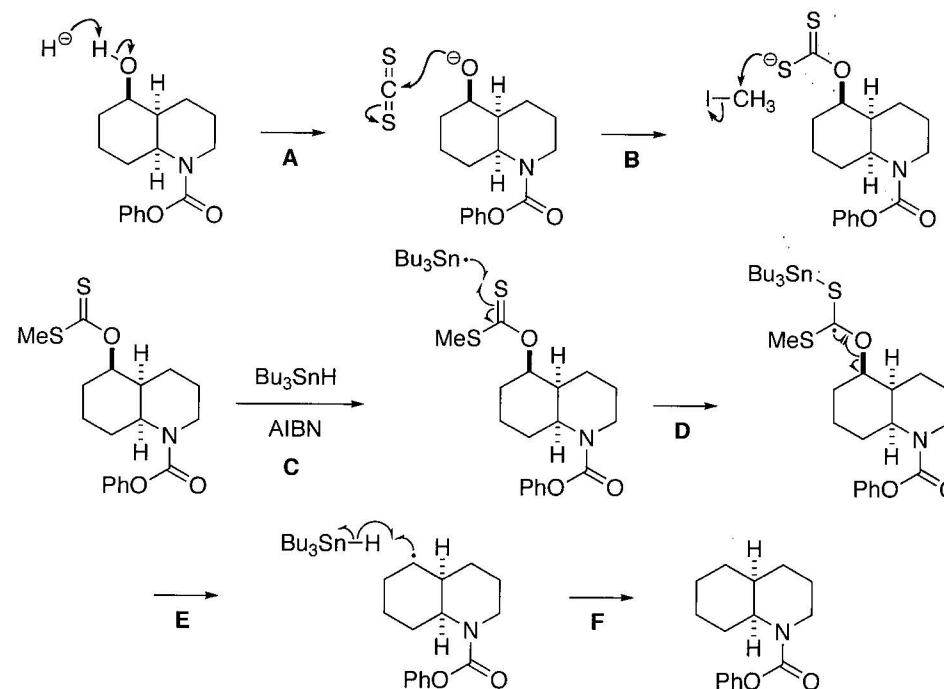
A050



Hamon, D. P. G.; Richards, K. R. *Aust. J. Chem.* **1983**, 36, 2243.

A: Thermal decomposition of AIBN to give the stable tertiary radicals. **B**: Abstraction of a hydrogen atom from Bu₃SnH. **C**: The resulting tin radical reacts with a halide to form a carbon radical. **D**: Abstraction of a hydrogen atom from Bu₃SnH to continue the radical chain reaction.

A051



Comins, D. L.; Abdullah, A. H. *Tetrahedron Lett.* **1985**, 26, 43.

Barton-McCombie deoxygenation. **A**: Deprotonation of an alcohol. **B**: Addition of the alkoxide ion to CS₂ followed by methylation to form a xanthate. **C**: Generation of a tin radical. **D**: Attack of the radical to the sulfur atom of the xanthate to form a stable carbon radical. **E**: Cleavage of the C-O bond to form a secondary carbon radical. **F**: Abstraction of a hydrogen from Bu₃SnH.

A052

