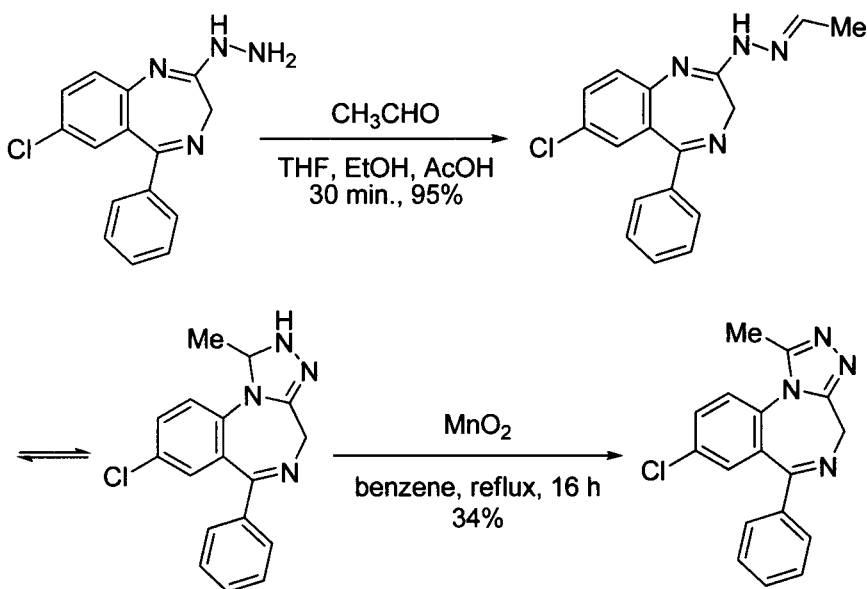


9.3.2 Construction of the 1,2,4-Triazole Ring

As a benzodiazepine-type drug, alprazolam is used to treat anxiety and panic disorders. The synthesis starts with a hydrazine benzodiazepine derivative followed by the imine formation, intramolecular cyclization, and oxidation to obtain alprazolam.³⁶



The Pellizzari reaction is the chemical reaction of an amide and a hydrazide to form a 1,2,4-triazole. Dapiprazole is an alpha-blocker that is used to reverse mydriasis after eye examination. The synthesis of dapiprazole starts with construction of a hydrazide-type structure and then follows by ring opening of piperidinone and condensation with the acylhydrazide moiety to form the final product.³⁷

