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Synthesis of Structural Isomer from 4-Substituted Phenylenediamine and Acetone equivalent

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Diazepam and nitrazepam are anticonvulsants and flurazepam is both an antianxiety agent and a potent hypnotic. Treatment of o-phenylenediamine with acetonedicarboxylic acid afforded 2,4,4-trimethyl-3H-5-hydro-1,5-benzodiazepine in excellent yield. In view of this interesting result, we report the synthesis of structural isomer as 7-substituted 1H-benzo[b][1,4] diazepine and 8-substituted 1H-benzo[b][1,4] diazepine.

$$\begin{array}{c|c}
H & CH_3 \\
N & CH_3
\end{array}$$

$$R & N & CH_3 \\
N & CH_3$$

$$R & N & CH_3 \\
N & CH_3$$