

Synthesis of Des-Methylflunitrazepam using Hexamethelentetramine (hexamine)

Abdollah Javidan^{1*} and M.B.Y.zaamnian , H.Zabarjadan

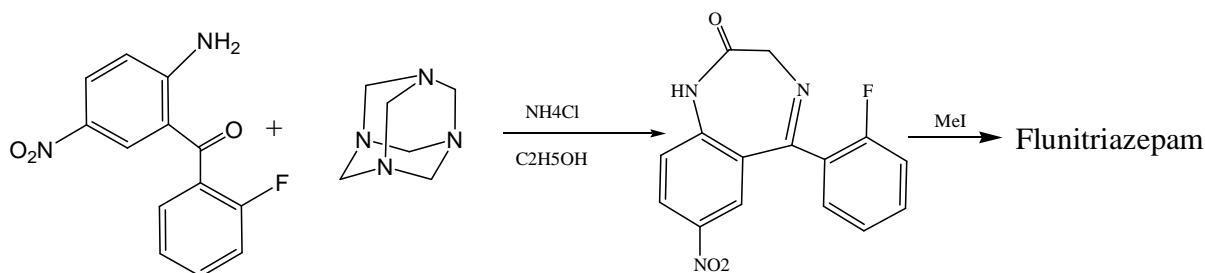
¹ Department of Chemistry, Imam Hossein University, P.O.Box.16575-347, Tehran, I.R.Iran

E-mail:abdollh.javidan@gmail.com

Abstract

7-nitro-1-methyl-5-(2^f-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one (Flunitrazepam) is the drug from family of 7-membered heterocyclic compounds 1,4-benzodiazepinones. Although a number of method synthesis of flunitrazepam have been reported in literature but they suffer because using anhydrous *ammonia* or dry *ammonia* gas. [1-4].

In this research work the new methods for synthesis of flunitrazepam from 2-flouroacetamido benzophenone, hexamethylenetetramine (**hexamine**) and **ammonium chloride in ethanol as solvent to generate ammonia in situ**, will be reported.



The results indicate that the best result obtained when the mole ratio of the components acetamide:NH₄Cl: Hexamine : ethanol in order was as 1.0: 3.5: 2.5 :20-30

The structure of products was evaluated by melting point, ¹H NMR, ¹³C NMR, ¹⁹F NMR, GC-Mass and IR spectroscopy techniques.

Keywords: Flunitrazepam, 1,4-benzodiazepinones, **hexamine**

References:

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