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| **One-Pot Three-Component Reaction Catalyzed by Cerium Ammonium Nitrate (CAN): An efficient and Direct route for Some Novel 1,5-Benzodiazepine Derivatives****Hanan Salah. Abo-Zaid and Mounir A. A. Mohamed** *Chemistry Department, Faculty of Science, Sohag University, 82524 Sohag, Egypt* |
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| An efficient and improved procedure for the synthesis of 1,5-benzodiazepine derivatives *via* the one-pot, three component reaction of 1-acetylnaphthalene, aromatic aldehydes and *o*-phenylenediamine in the presence of ceric ammonium nitrate (CAN) was developed**.** High yields and short reaction times were obtained from this reaction. Our synthetic strategy of 1,5-benzodiazepines1-3 is outlined in Scheme 1. In our preliminary investigations of the three component reaction it was found that this synthetic route is an efficient method for obtaining different derivatives of 1,5-benzodiazepines in good yields. |  | The mechanism of this reaction was assumed to proceed *via* an initial formation of chalcone derivative (I) followed by nucleophilic addition of o-phenylenediamine onto the α,β-unsaturated carbonyl compound (chalcone I) and subsequent air oxidation to give the corresponding benzodiazepine derivates.**Scheme 2** |
| **Scheme 1** |  | References1. P. Minothora, S. S., Julia, A. T Constantinos; *Tetrahedron Lett.* **2002** (43) 1755.2. B. M., Reddy, P. M., Sreekanth; *Tetrahedron Lett.* **2003** (44), 4447.3. B. Kaboudin , K. Navaee; *Heterocycles* **2001**, *55*. 1443. |