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| Title | A one pot synthesis of 7,11-diaryl-2,4-diazaspiro[5,5]undecane-3-oxo(or thioxo)-1,5,9-triones | | |
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| Abstract |  |
| Spiro compounds 7,11-diaryl-2,4-diazaspiro[5,5]undecane-1,3,5,9-tetraones **3a-d** were prepared by carrying out reactions between diarylideneacetones, (ArCH=CH)2C=O, **2a-d** [Ar= *2*-CH3C6H4, *4*-CH3C6H4, *4*-(CH3)2NC6H4 and *4*-HOC6H4 respectively] and barbituric acid (**1a**) under refluxing condition in aqueous ethanol medium without using any catalyst. Under similar conditions the corresponding 7,11-diaryl-3-thioxo-2,4-diazaspiro[5,5]undecane-1,5,9-triones **3e-g** were synthesized from the reactions of diarylideneacetones **2a, 2d** and **2e** [Ar= *4*-ClC6H4] with 2-thiobarbituric acid (**1b**). The structures of the spiro compounds were established with the help of their UV, IR, 1H NMR, 13C NMR and mass spectral data and elemental analyses. | |