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Synthesis of novel spiro heterocyclic compounds contain thiohydantoin

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The majority of pharmaceutical products that mimic natural products with biological activity are heterocycles. Most of the synthetic heterocyclic compounds act as a drug and are used as antineoplastic, anticonvulsants, hypnotics, antihistaminic, antiseptics, antiviral, and anti-tumoretc. The size and type of ring structures, together with the effective substituent groups of the mother scaffold, showed strongly their physicochemical properties. Most of the significant advances against disease have been made by designing and testing new structures, which are often heteroaromatic derivatives. In addition, a number of pesticides, antibiotics, alkaloids, and cardiac glycosides are heterocyclic natural products of immense significance to human and animal health. Therefore, researchers are in continuous pursuit to design and produce better pharmaceuticals, pesticides, insecticides, rodenticides, and weed killers following natural models. These compounds play a major part in biochemical processes and are the side groups of the most typical and essential constituents of living cells. So, the novel Spiro heterocyclic compounds

containing 5, 5-diarylthiohydantoins were synthesized.

Recent Publications

1. Sachdeva H, Dwivedi D, Bhattacharjee RR, Khaturia S, Saroj R. NiO nanoparticles: an efficient catalyst for the multicomponent one-pot synthesis of novel spiro and condensed indole derivatives. *Journal of Chemistry*. 2013 Jan 1;2013.
2. Mandal S, Pramanik A. Facile synthesis of phthalidyl fused spiro thiohydantoins through silica sulfuric acid induced oxidative rearrangement of ninhydrin adducts of thioureas. *Tetrahedron*. 2020 Jan 10;76(2):130817.

Biography

Mohammad Mehdi Ghanbari completed his Ph.D. at the age of 33 years from Islamic Azad University, Science and Research Branch, Tehran, Iran. He is a professor at Islamic Azad University, Sarvestan Branch, Iran. He has over 50 publications that have been cited over 200 times, and his publication H-index is 17 and has been serving as an editorial board member of reputed Journals.

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