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New Imidazolidine-dione Derivatives: Synthesis, Characterization and Spectroscopic study

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Abstract: Different N-heterocyclic substituted derivatives of 5,5-dimethylhydantoin have been synthesized. The two nitrogen atoms have been alkylated to form N-carboxymethyl derivatives followed by cyclization reaction to form heterocyclic/substituted aryl group (oxazole, pyrazole and oxadiazole derivatives) and Prepared New Schiff base compounds. Prepared compounds have been identified by using FT-IR and ^1H NMR. λ_{exc} , λ_{em} and the compounds absorption at λ_{exc} have been found. The fluorescence quantum yields of these compounds are calculated.

Keywords: 5,5-substituted imidazolidine-Dione, Hydantoin derivatives, 1,3-Oxazole, pyrazole, Oxadiazole, Schiff base and Fluorescence compounds.

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