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### Biological Evaluation of Some Synthesized N-Substituted 1,3,4 Thiadiazole derivatives by using In-Vitro Model

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**Abstract :** 1,3,4-Thiadiazole and its derivatives continue to be of great interest to a large number of researchers. 1,3,4-thiadiazole is one of the most potent heterocyclic containing carbonic anhydrase and antibacterial inhibitor from the natural and synthetic origin. At present many 1,3,4-thiadiazole nucleus containing drugs are available in the market such as acetazolamide, methazolamide, megalol. In the present investigation we have synthesized 1,3,4 thiadiazoles and tested for brian shrimp lethality assay, possibly due to the presence of =N-C-S moiety. All the synthesized compounds were tested for toxicity by using brian shrimp model. The compound 3d, 3k, 3i, 3n having highest cytotoxic effect according standard drug 5-Fluorouracil.

**Key-words :** 1,3,4-Thiadiazole, toxicity study, Brian shrimp, 5-Fluorouracil..

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