



## Synthesis, characterization and study biological activity of some new pyrimidine and 1,2,3,4-tetrazole derivatives based on sulfadiazine

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**Abstract:** New 1,2,3,4-Tetrazole derivatives[S<sub>1a</sub>-S<sub>5c</sub>] were prepared by 1,3-diolarycyclo addition reaction of compound [2-azido-N-(4-(N-(pyrimidin-2-yl)sulfamoyl)phenyl)acetamide] with Schiff base derivatives[AaS<sub>1</sub>-EcS<sub>5</sub>], which prepared from a condensation of some aromatic aldehyde with 3- amino acetophenone derivative. The first step include synthesized of chalcone by Claisen –Schmidt condensation of 3-amino acetophenone with (4-Chloro, 2,4-Dichloro, 4-Bromo, 4-N,N-dimethyl amino and 2-Hydroxy-4-methoxy)benzaldehyde . Then cyclization with urea, thiourea and guanidine to produce pyrimidine derivatives[Aa-Ec], which will use to synthesized Schiff bases derivatives mentioned above . some of the prepared compounds were study biological activity, all the prepared compound were characterized by melting point, FT-IR, H<sup>1</sup> NMR and mass spectroscopy.

**Keywords:** Chalcone, Schiff base, Tetrazole, Sulfadiazine and pyrimidine.

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