

## Synthesis, Characterization and Antibacterial Study of 2 ((E) -Cinnamoyl imino) 4-methyl thiazole with Some Amino Acids

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### Abstract:

New compounds of 2 ((E) -2 (cinnamoyl imino) 4-methyl thiazole with amino acids were prepared by base catalyzed cyclization of (E) -2 (3-cinnamoyl thioureido) derivatives with  $\alpha$ -haloketon in the presence of triethyl amine (Et<sub>3</sub>N).

All new compounds were characterized by IR, <sup>1</sup>HNMR spectroscopic and the antibacterial activity of these compound was determined against some pathogenic bacteria.

### Introduction :

Thiazole, CH<sub>3</sub>H<sub>5</sub>N, first described by Hantzsch Weber in 1887, Is a five member hetrocyclic organic compounds that is a part of vitamin B (Thiamine) structure as well with penicillins [1].

Thiazole compounds are useful in manufacture of Pesticides, drug, dye and other compounds. Some of them exhibits antibacterial [2-4] anti cancer [5] antinflamatory [6], antiemetic [7], anti HIV [8, 9], antifungal[10] and sedative hypnotic[11].

Cinnamic acid derivatives also are important in Pharmaceuticals [12]. Shakir [13] reported some new cinnamoyl thiouredio amino acid derivatives.

In continuation of our work on amino acid derivatives, we report here in synthesis, characterization and antibacterial activity of 2 (E) 2-cinnamoyl imino) 4-methyl thiazole compound, namely 2 ((E) -cinnamoyl imino) 4-methyl thiazole 3 (2H) -3 (4-hydroxy phenyl) propanoic acid (1), 2 ((E) -cinnamoyl imino) 4-methyl thiazole -3 (2H) - (1) pentadioic acid (11), 2 ((E) 2-cinnamoyl imino) 4-methyl thiazole 3 (2H) - y1-3 (H-imadazol-yl) propanoic acid (111). as shown in (Scheme 1) :