

**Synthesis and Characterization of 2-(2-hydroxy-phenyl)-3-(6-R-benzothiazol-2-yl)-2,3-dihydro-[1,3]oxazepine-4,7-dione and 2-(2-hydroxy-phenyl)-6-methyl-3-(6-R-benzothiazol-2-yl)-2,3-dihydro-[1,3]oxazepine-4,7-dione .[1]**

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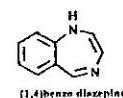
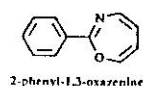
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### ABSTRACT

2-[(6-R-benzothiazol-2-ylimino)-methyl]-phenols (*Schiff bases*) were prepared by condensation of 6-R-2-amino benzothiazol with Salicyldehyde. These Schiff bases were found to react with maleic anhydride and citraconic anhydride to give 2-(2-hydroxy-phenyl)-3-(6-R-benzothiazol-2-yl)-2,3-dihydro-[1,3]oxazepine-4,7-dione and 2-(2-hydroxy-phenyl)-6-methyl-3-(6-R-benzothiazol-2-yl)-2,3-dihydro-[1,3]oxazepine-4,7-dione. which were reacted with pyrrolidine to give anilid-pyrrolidine derivatives of maleic and citraconic

### INTRODUCTION

The synthesis of 2-phenyl-1,3-oxazepine <sup>(1)</sup> and the discovery of the central nervous system (CNS) activity of 1,4-benzodiazepine <sup>(2)</sup> by irradiation of 4-phenyl-2-oxa-3-aza bicyclo [3.2.0] hepta-3,6- dione, encouraged the chemists to look for other ways to build up the 7-membered heterocyclic ring system. One of these ways which was discovered recently , involves direct addition of maleic anhydride to the (N=C) double bond of Schiff bases . a number of 2,3-diaryl -2,3-dihydro-1,3-oxazepine-4,7-dione and 2-aryl-3-(1,5-dimethyl-2-phenyl pyrazolonyl)-2,3-dihydro-1,3-oxazepine-4,7-diones were prepared and characterized <sup>(3,4)</sup>.



### EXPERIMENTAL

Melting points were recorded with Gallenkamp Melting point Apparatus and were uncorrected. Elemental analysis were carried out with Perkin-Elmer, 2400; CHN Elemental Analyzer. IR spectra were recorded with PYE UNICAM sp-300 Infrared spectrophotometer in KBr. Their <sup>1</sup>H-NMR spectra were recorded with BRUKER-AC-200MHZ FT-NMR in Mutha University. UV-Visible spectra were re-

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