T1600C

SYNTHESIS OF SOME NEW DIARYL SULFIDES AND SULFONES CONTAINING HETEROCYCLIC MOIETIES.

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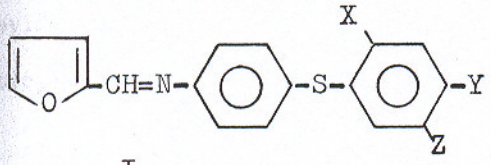
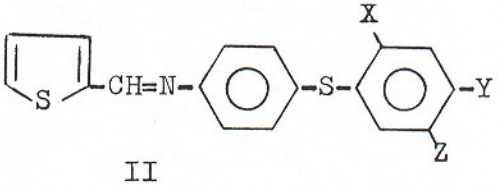
The object of the work was to prepare some new diaryl sulfides and sulfones containing heterocyclic oxygen and sulfur moieties with expected biological activities. Halonitrobenzene derivatives were allowed to react with p-aminothiophenol, the resulting p-aminodiphenyl sulfides were condensed with furfural and thiophene-2-carboxaldehyde to give compounds having the general formula I and II



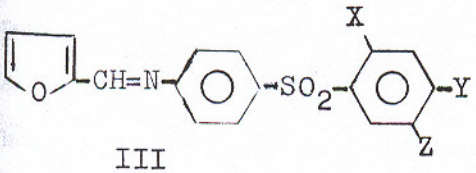
I



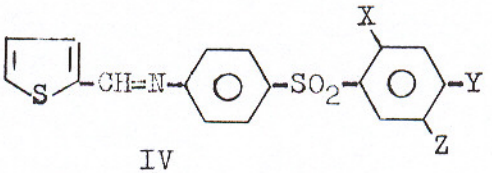
II

Where 1) X=Z=NO_2, Y=H
2) X=NO_2, Z=Cl, Y=H
3) X=NO_2, Z, Br, Y=H
4) X=Z=H, Y=NO_2

Also, furfural and thiophene-2-carboxaldehyde were interacted with p-aminodiphenyl sulfones to give compounds III and IV.



III



IV

The structures of the new compounds were established by analytical and spectroscopic methods.

The prepared compounds were tested in vitro against some spieces of Gram-positive and Gram-negative bacteria at different concentrations. Most of the compounds exhibited high antibacterial activities.