

MORID MAHMOUDI MAJD: Derivatives of Rhodanine as Potential Antifungal and Antimycobacterial Drugs". Diploma Thesis, Department of Pharmaceutical Chemistry and Drug Control, Charles University in Prague, Faculty of Pharmacy in Hradec Králové, 2007

Abstract

In the theoretical part of my diploma thesis some issues concerning tuberculosis and mycoses are discussed. Experimental part focused on the preparation of the following compounds

- 5-(2-methoxybenzylidene]-2-thioxo-1,3-thiazolidin-4-one
- 5-(3-methoxybenzylidene]-2-thioxo-1,3-thiazolidin-4-one
- 5-(4-methoxybenzylidene]-2-thioxo-1,3-thiazolidin-4-one
- 5-(4-bromobenzylidene]-2-thioxo-1,3-thiazolidin-4-one
- 5-pyridin-2-ylmethyliden-2-thioxo-1,3-thiazolidin-4-one.

The compounds were prepared by the condensation of rhodanine with aromatic aldehydes in ethanol using a mixture $\text{NH}_4\text{OH}/\text{NH}_4\text{Cl}$ as the catalyst. Their purity was checked by the elemental analysis and HPLC. The products were characterized by IR and NMR spectra.

The susceptibility of 8 pathogenic fungal strains (*Candida albicans* ATCC 44859, *Candida tropicalis* 156, *Candida krusei* E 28, *Candida glabrata* 20/I, *Trichosporon asahii* 1188, *Aspergillus fumigatus* 231, *Absidia corymbifera* 272 and *Trichophyton mentagrophytes* 445) to these substances was determined by the microdilution broth method. No interesting activity was found. The compounds will further be tested for antimycobacterial effects.