Compounds of zinc with rhodanines and their antimicrobial properties

Anca DUMBRAVA^{a*}, Mihaela BOTNARCIUC^b and Erdin FEIZULA^a

^aDepartment of Chemistry, Ovidius University, Constanta, Romania ^bDepartment of Microbiology, Faculty of Medicine, Ovidius University, Constanta, Romania

Abstract. The paper presents the synthesis and analysis of two zinc compounds with rhodanine derivatives, (o-methoxi-benzyliden)-rhodanine (L_2H) and furfural-rhodanine (L_3H). The complexes $Zn_2(L_2H)(CH_3COO)_4$ (1) and $Zn(L_3)(CH_3COO)(H_2O)_2$ (2) were characterized by chemical analysis and IR spectra. The microbiological activity was tested on *Proteus vulgaris*, *Staphylococcus aureus* and *Candida albicans*. The antimicrobial tests proved that both tested compounds have antifungal activity on *Candida albicans* and antibacterial activity on *Staphylococcus aureus*, but only zinc compound with (o-methoxi-benzyliden) - rhodanine (1) has activity on *Proteus vulgaris*.

Keywords: rhodanine derivatives, zinc compounds, antimicrobial activity, antifungal activity.