

ANTIMICROBIAL EFFECT OF SOME NEW SALICYLAMIDE DERIVATIVES

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Abstract

New 5-chloro-2-hydroxy-benzamide derivatives, esters, hydrazides, hydrazones, were obtained in good yields (60-93%), using conventional heating synthesis. The obtaining pathways of the synthesized compounds are presented in figure 1.

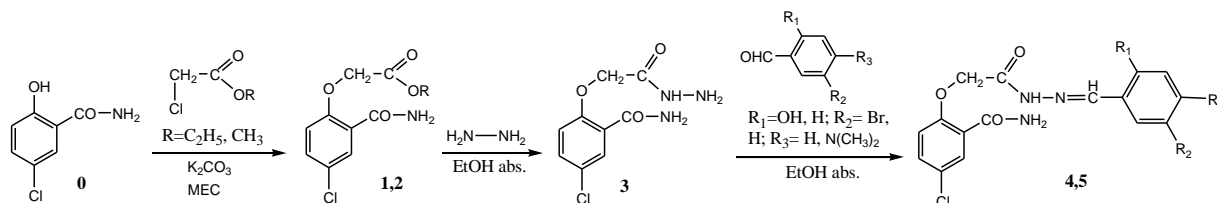


Figure 1. The obtaining pathways of the synthesized compounds

The synthesized compounds were characterized using modern physico-chemical methods (FTIR, ¹H- and ¹³C-NMR), the obtained results demonstrated the compounds identity.

The antimicrobial activity of the compounds was tested against some bacterial strains, *Staphylococcus aureus*, *Streptococcus pyogenes*, *Streptococcus mutans*, *Escherichia coli*, by measuring the optical density at 540 nm. The most effective compound was 5-chloro-2-hydrazinocarbonylmethoxybenzamide and the most sensitive strain to the action of the tested compounds was *Staphylococcus aureus*. The tested compounds presented no inhibitory effect on *Escherichia coli*.

Acknowledgements

This work is part of the project PN 19 22 03 01 / 2019 “Supramolecular inclusion complexes of some natural and synthetic compounds with health applications”, carried out under NUCLEU Program funded by National Authority for Scientific Research (Romania).

References

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