

### P 23. SYNTHESIS OF SOME HYDRAZIDE-OXIME AND INVESTIGATION OF THEIR ANTIBACTERIAL PROPERTIES

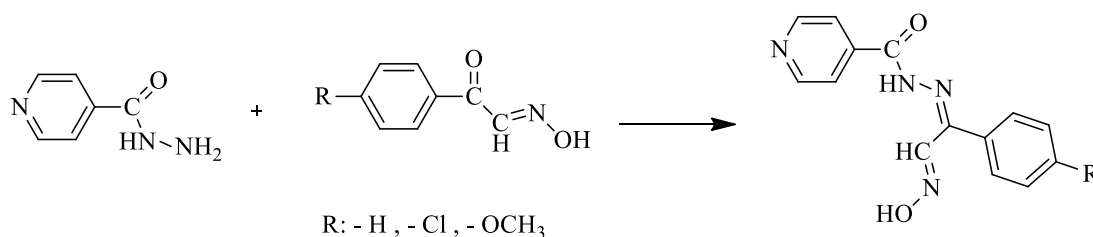
Ghadah Taha Ahmet Altai<sup>1</sup>, İbrahim Karataş<sup>1\*</sup>, Fatih Sevgi<sup>2</sup>

<sup>1</sup>Selcuk University, Faculty of Science, Department of Chemistry, Konya,

<sup>2</sup>Selcuk University, Vocational School of Health Services, Konya

E-mail: [ikaratas@selcuk.edu.tr](mailto:ikaratas@selcuk.edu.tr)

**ABSTRACT:** Oxime compounds and their derivatives are effective on chelate formation, biodegradability, as well as photochemical and biological reactions. Nowadays, studies on the antibacterial properties of oxime and its derivatives and the synthesis of compounds demonstrating new antibacterial properties have gained importance. In this study, the hydrazide compounds known to have antibacterial properties were synthesized by condensation of some oxime compounds with hydrazide-oxime derivatives were synthesized and their effects against some bacteria were investigated. For this purpose, isonitrosoacetophenone (keto oxime) derivatives were synthesized from acetophenone, 4-chloroacetophenone, and 4-methoxyacetophenone. Then, The N-[2-(hydroxyimino)-1-(phenylethylidene)] isonicotiohydrazide and its derivatives were synthesized from their condensation reactions with isonicotinic acid hydrazide. The structures of these compounds have been elucidated using available literature information and FT-IR, <sup>1</sup>H-NMR techniques.



Furthermore, the anti-bacterial effects of synthesized substitute hydrazide-oxime derivatives against *Escherichiacoli* ATCC 25922, *Pseudomonasaeruginosa* ATCC 15442, methicillin-sensitive *Staphylococcus aureus* ATCC 25923 (MSSA), *Klebsiellapneumoniae* ATCC 70603, *Salmonella enteritidis* ATCC 13076 and *Sarcinalutea* ATCC 9341 strains were investigated.

*Keywords: Oxime, Hydrazide-oxime, Antibacterial Properties*