Nanocomposites and nanomaterials

Synthesis of Some Nano Aminoglyoxime and Their Anti-bacterial Properties

O. ALICI

Selcuk University, Department of Chemistry, Konya Turkey. E-mail: onderkimya@gmail.com

Oximes are very importance for chemistry, biology, engineering and the biological environment. Oxime compounds are used in following areas: many biochemical agent applications, molecular biology, environment and chemical applications by chemists, biologist and engineers. Recently, the increased use of antibiotics worldwide, the resistance to antibiotics has increased the importance of development. For this reason, many scientists working on these issues are to perform. For this purpose various synthetic compounds are synthesized and their effects on the bacteria that cause diseases are being investigated [1-4].

These compounds are available in the derivatives oxime. Oxime compounds included the nitrogen and the hydroxyl group may be show effect on the bacteria. Also, oximes may be derivative with various amine compounds [5]. So, these compounds may be increase effect on bacteria.

In this study, chlorophenylglyoxime and chloroglyoxime were synthesized, respectively. Some nano aminoglyoxime derivatives will synthesize from reaction of 2-aminofluorene with chlorophenylglyoxime and chloroglyoxime. Finally, these nano aminoglyoxime derivatives were investigated effect on various bacteria.

- 1. Katsuji, T., 1994. Mikrobicides Containing Glyoxime Derivatives. Japanese Kokai Tokyo Koho 6, 910.
- 2. Pegram, S.P., 1981. Staphylococcus aureus, antibiotic resistance American Family Physician 24, 165-170.
- Zengin, G., Uysal, A., Gunes, E., Aktumsek, A., 2014. Survey of Phytochemical Composition and Biological Effects of Three Extracts from a Wild Plant (Cotoneaster nummularia Fisch et Mey.): A Potential Source for Functional Food Ingredients and Drug Formulations. Plos One 9.
- 4. Ishige, T., Honda, K., Shimizu, S., 2005. Whole organism biocatalysis. Current Opinion in Chemical Biology 9, 174-180.
- Ozhavzalı, O., 2004. Fenilglioksimin aminokinoliniller ile reaksiyonu ve metal komplekslerinin incelenmesi,. Yüksek Lisans Tezi. Selçuk Üniversitesi Fen Bilimleri Enstitüsü, Konya