

عنوان مقاله:

Synthesis, Characterization of Nickel (II) Phthalocynine, and Screening of Its Potential Antibacterial Activity

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خلاصه مقاله:

Nickel (II) Phthalocynine (Ni-Pc) is a class of macro-cyclic compounds that has bivalent, tetradentate, planar, and π -conjugated electron aromatic ring systems. Pcs are composed of four pyrrole units linked to four [aza] ($-\text{N}=\text{C}-$) groups at the α -carbon of [Pyrrole] unit and they have four aza bridges and four (phenylene) rings. This study aims to synthesize Nickel (II) Phthalocynine. The new synthesized product has been characterized by FT-IR and ^1H -NMR spectroscopy. The procedure of this study includes the synthesis of Nickel (II) Phthalocynine (Ni-Pc) by the reaction of (o-cyanobenzamide) with Nickel that was powdered through heating. Different concentrations of Nickel (II) Phthalocynine were studied regarding the effect of antibacterial activity against two species of bacteria *Escherichia coli* and *staphylococcus aureus* by using disk-diffusion methods in Mueller–Hinton agar. The results of synthesis of Nickel (II) Phthalocynine shows a good resistance against the selected bacteria with “the minimum inhibitory (concentration” (MIC) and “the minimum bactericidal concentration” (MBC) of (Ni-Pc).

کلمات کلیدی:

Nickel (II) Phthalocynine, UV-Visible, FTIR and HNMR spectroscopy

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