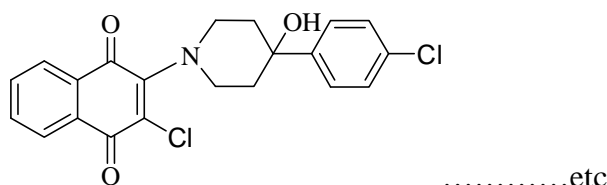


Synthesis of novel N-substituted naphthoquinone compounds as potent antibacterial and antifungal agents

Nucleophilic addition reactions of 2,3-dichloro-1,4-naphthoquinone structure have been widely studied in synthetic chemistry because of their important biological properties. Recently, many studies have demonstrated that naphthoquinone derivatives substituted with a sulfur or nitrogen atom show a particularly marked activity against fungi. The the novel substituted 1,4-naphthoquinone compounds were characterized spectral methods such as micro analysis, FT-IR, $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, MS and CV.



References :

1. Kim, B.H.; Yoo, J.; Park, S.-H.; Jung, J.-K; Cho, H.; Chung, Y. J *Archiv. of Pharm. Res.* **2006**, 29, 123-130.
2. Ibis, C.; Tuyun, AF.; Bahar, H.; Sahinler Ayla, S.; Stasevych, MV.; Musyanovych, RY.; Komarovska-Porokhnyavets, O.; Novikov, V. "Synthesis of Novel 1,4-Naphthoquinone Derivatives: Antibacterial and Antifungal Agents", *Med Chem Res* (2013) 22:2879–2888.