

Synthesis of 2-Mercapto Substituted Quinazolin-4(3*H*)-One Derivatives using β -Cyclodextrin in Aqueous Medium

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Abstract: *An expedient, mild and highly efficient green synthesis of 3-mercapto Quinazolinone derivatives were synthesized using β -cyclodextrin as a phase transfer catalyst in the aqueous medium. 3-mercapto Quinazolinones employed with halo-acyl/halo-alkyl groups in β -cyclodextrin/water medium obtained thioethers. The resulting compounds anti-bacterial studies were carried out against Gram-ve and Gram+ve bacteria.*

Keywords: 3-Mercapto Quinazolinone, Halo Alkyl, β -Cyclodextrin, Anti Bacterial

REFERENCES

- [1]. Habib, O. M., Hassan, H. M., & El-Mekabaty, A. (2013). Medicinal Chemistry Research, 22(2), 507-519.
- [2]. El-Hashash, M. A. E. A., Azab, M. E., Faty, R. A. E. A., & Amr, A. E. G. E. (2016). Chemical and Pharmaceutical Bulletin, c15-00904.
- [3]. Dinari, M., Gharahi, F., & Asadi, P. (2018). Journal of Molecular Structure, 1156, 43-50.
- [4]. Patel, D. R., & Patel, K. C. (2011). Dyes and Pigments, 90(1), 1-10.
- [5]. Alaa, A. M., Abou-Zeid, L. A., ElTahir, K. E. H., Mohamed, M. A., El-Enin, M. A. A., & El-Azab, A. S. (2016). Bioorganic & medicinal chemistry, 24(16), 3818-3828.
- [6]. Kung, P. P., Casper, M. D., Cook, K. L., Wilson-Lingardo, L., Risen, L. M., Vickers, T. A., ... & Ecker, D. J. (1999). Journal of medicinal chemistry, 42(22), 4705-4713.
- [7]. Gatadi, S., Lakshmi, T. V., & Nanduri, S. (2019). European journal of medicinal chemistry, 170, 157-172.
- [8]. Le-Nhat-Thuy, G., Thi, N. N., Pham-The, H., Thi, T. A. D., Thi, H. N., Thi, T. H. N., ... & Van Nguyen, T. (2020). Bioorganic & Medicinal Chemistry Letters, 30(18), 127404.
- [9]. Rakesh, K. P., Kumara, H. K., Manukumar, H. M., & Gowda, D. C. (2019). Bioorganic chemistry, 87, 252-264.
- [10]. El-Sayed, S., Metwally, K., El-Shanawani, A. A., Abdel-Aziz, L. M., Pratsinis, H., & Kletsas, D. (2017). Chemistry Central Journal, 11(1), 1-10.
- [11]. Priya, M. G. R., Girija, K., & Ravichandran, N. (2011). Rasayan J Chem, 4(2), 418-424.
- [12]. Wei, M., Chai, W. M., Wang, R., Yang, Q., Deng, Z., & Peng, Y. (2017). Bioorganic & medicinal chemistry, 25(4), 1303-1308.
- [13]. Das, A. K., Sepay, N., Nandy, S., Ghatak, A., & Bhar, S. (2020). Tetrahedron Letters, 61(37), 152231.
- [14]. Surendra, K., Krishnaveni, N. S., Reddy, M. A., Nageswar, Y. V. D., & Rao, K. R. (2003). The Journal of organic chemistry, 68(23), 9119-9121.
- [15]. Reddy, G. R., Reddy, T. R., Chary, R. G., Joseph, S. C., Mukherjee, S., & Pal, M. (2013). Tetrahedron Letters, 54(49), 6744-6746.