Indian Journal of Heterocyclic Chemistry
Vol. 31 - Number 03 (Jul-Sep 2021) 435-441
DocID: https://connectjournals.com/01951.2021.31.435

ISSN (Print) : 0971-1627
ISSN (Online) : 2456-4311

One-step Synthesis of 3-Unsubstituted 4-Hydroxy-2(*1H*)-Quinoline

Sun Qingrong[1], Wang Xingyi[1], Xu Yinan[1,2], Yang Weiqing[2], Ma Menglin[1]*

[1]Department of Chemistry, School of Science, Xihua University, Chengdu, China
[2]Department of Chemical Engineering, College of Chemistry and Chemical Engineering, Southwest Petroleum University, Chengdu, China

ABSTRACT 3-Unsubstituted 4-hydroxy-2(1H)-quinolone (DHQ) derivatives were synthesized from aniline derivatives and diethyl malonate at low temperature using $AlCl_3$ as catalyst and Eaton reagent as acidic environment. A reaction mechanism was proposed and elucidated. Different synthetic intermediates are specially prepared or purified and used to understand the reaction and validation mechanism.

KEYWORDS 4-Hydroxy-2(1*H*)-quinolone, Anhydrous aluminum chloride, Eaton's reagent, Synthesis, Mechanism.

How to cite this article: Qingrong, S., Xingyi, W., Yinan, X., Weiqing, Y., Menglin, M. One-step Synthesis of 3-Unsubstituted 4-Hydroxy-2(*1H*)-Quinoline, *Indian J. Heterocycl. Chem.*, **2021**, *31*, 435–441.
(DocID: https://connectjournals.com/01951.2021.31.435)