CHAPTER 5

CONCLUSION

In the past, pyrazoloquinolone derivatives were studied and found to be active as antibacterial agents. Recently, the discovery of the antianxiety effect of these derivatives has created further interests in the study of this type of organic compounds. This study attempted to synthesize pyrazolo-[4,3-c]-quinolin-3-one-derivatives with expected antianxiety activity through 3 steps: the formation of quinoline ring, 4-chloroquinoline and pyrazolo-[4,3-c]-quinolin-3-one ring, respectively.

Modification of the Claisen method afforded quinoline ring. Hydroxy group attached to the ring was converted to chlorine by thionyl chloride. Nucleophilic substitution reaction of chlorine group of 4-chloroquinoline with hydrazine followed by cyclization reaction gave pyrazoloquinolone ring. Identification of the product in each step was confirmed by IR, NMR and MS data.