



## CHAPTER V

### CONCLUSION

Isothiazolopyrimidine derivatives were synthesized here by starting from the synthesis of isothiazole ring. Then, isothiazole were reacted with isothiocyanate to produce four derivatives of 5-substituted-3-(substituted) aminoisothiazolo [3,4-d] pyrimidine-4-one-6(7H)-thiones. Derivatization were carried out via methylation under alkali medium to produce four 5-substituted-6-methylthio -3-(substituted) aminoisothiazolo [3,4-d] pyrimidine-4-ones. N-methylation were also occurred and separated to obtain three products of 7-methyl-5-substituted-3-(substituted) aminoisothiazolo [3,4-d] pyrimidine-4-one-6-thione. The methylsulphide intermediates were hydrolyzed under acid condition to obtain four 5-substituted-3-(substituted) amino-6-hydroxyisothiazolo [3,4-d] pyrimidine-4-one. When treating 5-methyl-6-methylthio-3-methylamino isothiazolo [3,4-d] pyrimidine-4-one with piperidine the expected 5-methyl-3-methylamino-6-(1'-piperidino)isothiazolo [3,4-d]pyrimidine-4-one was obtained.