

CHAPTER V

CONCLUSION

Mixture of aliphatic long chain alcohols, mixture of steroids and two aurone glycosides were isolated from entire plant of *Bidens biternata* Merr.& Sherff collected from Loei, Thailand. The mixture of aliphatic long chain alcohols BB-1 and the mixture of steroids BB-2 were identified by gas chromatographic technique comparing with authentic compounds. BB-1 was proposed to be a mixture of hexacosanol (4.8%), octacosanol (68.7%), nonacosanol (2.9%), and triacotanol (23.6%). BB-2 was proposed to be a mixture of stigmasterol (74.2%) and β -sitosterol (25.8%).

The compound BB-3 was a new aurone glycoside, (*Z*)-6-O-(4,6-O-diacetyl- β -D-glucopyranosyl)-6,7,3',4'-tetrahydroaurone. The compound BB-4 was identified as (*Z*)-6-O-(6-O-acetyl- β -D-glucopyranosyl)-6,7,3',4'-tetrahydroaurone, which had been previously found in *Bidens pilosa* Linn. The identification of these two compounds were based on the data from various spectroscopic techniques.

Since this work is one of the first report about phytochemical studies in *Bidens biternata* Merr. & Sherff, the presences of these chemical compounds are available informations for the further studies of chemical constituents in this species and in the genus *Bidens*. According to the indigenous uses of this plant for healing wound and cleansing dimmed eyes, the antibacterial and anti-inflammatory activities investigation should be conducted in the further works.