

CHAPTER 5

CONCLUSION

1. The extraction of berberine compound from *C. fenestratum* using precipitation with NaCl after solvent extraction by maceration was collected the specific berberine in chloride form as approximately 70%
2. The saturation of Na ions in bentonite clay made the capability of swelling increased and also change the layer sheet of commercial bentonite.
3. The clay modification with berberine extract and berberine chloride could change the structural of bentonite by expanding the space between bentonite interlayer.
4. The modified organobentonite enhanced the carbaryl adsorption up to 90% with berberine chloride and 80% by extracted. In methomyl and methiocarb adsorption, the hydrolysis of pesticide degradation was caused from reaction. Meaning, two pesticides which easy to occurring the hydrolysis may not suitable for determine adsorption of modified clay.
5. Modified berberine-bentonite could be an ideal adsorbent with regard to low-cost and easy production pesticide clean-up.