

RINGKASAN

Dalam percobaan ini, dilakukan isolasi theobromin dari biji tanaman kakao (*Theobroma cacao* L.) jenis lindak. Sebelum isolasi theobromin dilakukan, sampel lebih dulu diekstraksi lemaknya dengan pelarut petroleum benzin.

Tahap awal isolasi dilakukan dengan ekstraksi menggunakan peralatan soklet dengan pelarut kloroform. Dari ekstraksi soklet ini terjadi endapan dalam kloroform. Setelah endapan dipisahkan dengan penyaringan, filtrat yang diperoleh diuapkan sehingga didapat ekstrak kental yang kemudian dipisahkan dengan kromatografi kolom menggunakan adsorben silika gel 60 dan pelarut etil asetat-metanol (9:1). Dari pemisahan ini diperoleh 2 senyawa yang berupa kristal yang kemudian dimurnikan dengan metanol sehingga diperoleh kristal berwarna putih.

Dari hasil KLT, spektrum ultra violet, spektrum infra merah dan spektrum massa yang dibandingkan dengan senyawa standar dan data literatur, diketahui bahwa senyawa hasil isolasi adalah theobromin dan kafein.



SUMMARY

The experiment of theobromine isolation from cocoa beans (*Theobroma cacao* L.) of lindak variety had been done. Before the isolation was done, the fat in the sample (cocoa beans) was extracted first with petroleum benzin.

The initial step of isolation was carried out by extraction used soxhlet apparatus and chloroform as solvent. From the soxhlet extraction, the precipitate was formed in the chloroform phase. After the precipitate was removed by filtration, the filtrate of chloroform was evaporated and therefore concentrated extract was gotten. The concentrated extract was separated by column chromatography with silica gel 60 as the adsorbent and ethyl acetate-methanol (9:1) as solvent. From the separation, two crystalline compounds were separated and those compounds were purified with methanol. The purification resulted were white crystalline compounds.

Finally from results of TLC, ultra violet, infra red and mass spectra compared with standard compound and the literature data, it was known that the compounds were theobromine and caffeine.

