

## RINGKASAN

Telah dilakukan destruksi bijih emas jenis native dengan ukuran 325 mesh, menggunakan campuran reagen kalium permanganat ( $\text{KMnO}_4$ )-asam klorida ( $\text{HCl}$ ) pada suhu kamar. Destruksi dilakukan dengan cara sampel direndam dalam larutan  $\text{KMnO}_4$  pada daerah kisaran konsentrasi antara 3 sampai 7% b/v dan penambahan  $\text{HCl}$  (1:4) v/v. Perendaman sampel dilakukan pada kisaran waktu antara 90 sampai 210 menit. Emas yang terlarut diekstraksi dengan metilisobutilketon, selanjutnya diukur menggunakan spektrofotometer serapan atom.

Kondisi optimum pelarutan emas tercapai pada konsentrasi  $\text{KMnO}_4$  4% b/v dan waktu perendaman 180 menit.

Disimpulkan bahwa campuran reagen kalium permanganat - asam klorida dapat digunakan untuk mendestruksi emas dari bijihnya dan mampu melarutkannya sebanyak 0,0164 mgram tiap gram sampel.



## SUMMARY

Distruction of native gold ore 325 mesh by using potassium permanganate ( $\text{KMnO}_4$ ) - hydrochloric acid (HCl) had been studied. Distruction was done by soaking the sample in the mixture of ( $\text{KMnO}_4$ ) - (HCl) at room temperature. The range concentration of  $\text{KMnO}_4$  was 3 up to 7 % w/v, (HCl) concentration (1 : 4) v/v and the range of solubility time was 90 up to 210 minutes. The soluble gold was extracted by using methylisobutylketone and then determinated by using atomic absorption spectrophotometer.

The maximum solubility of native gold ore was reached at the concentration of  $\text{KMnO}_4$  4 % w/v and soaking time 180 minutes.

It was concluded that the mixture of  $\text{KMnO}_4$  - HCl could be used to destruct of gold ore, the solubility of gold was 0,0164 mgram pergram sample.

