

## Pengaruh konsentrasi karbon aktif terhadap peningkatan kadar logam emas pada pelindian limbah printed circuit board dalam media asam klorida = Effect of concentration of activated carbon to gold metal recovery of printed circuit board leaching in hydrochloric acid

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### Abstrak

Perkembangan teknologi serta penggunaannya yang pesat membuat meningkatnya jumlah limbah elektronik global, salah satunya adalah limbah printed circuit board PCB . Limbah PCB dipersiapkan dengan mengominsu hingga ukuran partikel 1-2 cm<sup>2</sup>. Limbah yang telah dikominsu dilindi dengan menggunakan campuran asam klorida 0,5 M dan hidrogen peroksida 0,4 M sebagai pelarut dan hasilnya diuji Atomic Absorption Spectrophotometer AAS.

Hasil analisis pelindian menunjukkan peningkatan kadar emas mencapai 33,24 dan tembaga mencapai 24,60 . Hasil pelindian diadsorpsi dengan karbon aktif dengan variasi konsentrasi 10, 20, 25, 30, dan 50 g/L. Hasil adsorpsi dianalisis dengan AAS dan menunjukkan peningkatan kadar emas mencapai 99,1 pada konsentrasi karbon aktif 50 g/L.

*Advancement in technology and the increasing of its demand increase the amount of electronic waste especially printed circuit board PCB . Waste PCB was comminuted to particle size of 1 2 cm<sup>2</sup>. Comminuted waste PCB was leached in the mixture of 0,5 M hydrochloric acid and 0,4 M hydrogen peroxide as lixivants and the result was tested using Atomic Absorption Spectrophotometer AAS. The result showed that the gold recovery is 33.24 and copper 24.60 . Adsorption was done using activated carbon with the concentration of 10, 20, 25, 30, and 50 g L. The filtrate then was tested using AAS and showed that 99.1 of gold was recovered in the adsorption using 50 g L activated carbon.*