

## ABSTRAK

Telah dilakukan sintesis *crosslink* kitosan-tripolifosfat dan aplikasinya dalam penurunan kadar nikel pada air lindi. Sintesis *crosslink* kitosan tripolifosfat dilakukan dengan mereaksikan larutan kitosan dengan natrium tripolifosfat pH 3. *crosslink* kitosan tripolifosfat dikarakterisasi dengan spektroskopi FTIR untuk mengetahui gugus fungsi dari *crosslink* kitosan tripolifosfat dan spektrofotometer *uv-vis* untuk penentuan kadar fosfor. Studi adsorpsi nikel pada air lindi menggunakan *crosslink* kitosan tripolifosfat dilakukan pada variasi waktu kontak dan perbandingan adsorben dan adsorbat. Variasi perbandingan adsorben dan adsorbat pada larutan Ni digunakan untuk kajian adsorpsi isothermal. *Crosslink* kitosan tripolifosfat dapat meurunkan Ni

Kata kunci : adsorpsi, *crosslink* kitosan tripolifosfat, nikel



## ABSTRACT

Synthesis of chitosan-tripolyphosphate crosslink had been done and its application for nickel adsorption in leachate. The synthesis of chitosan-tripolyphosphate crosslink in this research was carried out by reacting a solution of chitosan in acetic acid with sodium tripolyphosphate pH 3. The chitosan and chitosantripolyphosphate crosslink were characterized by FTIR to know the functional groups and using spectroscopy uv *vis* determination of phosphorus. Chitosan-tripolyphosphate was used to adsorb nickel with parameters the influence of contact time variation and the ratio of adsorbent and adsorbate. Variation of the ratio of adsorbent and adsorbate is used to study the adsorption isotherm. Crosslink chitosan tripolyphosphate can adsorb nickel.

Keywords: adsorption, crosslink chitosan tripolyphosphate, nickel

