

ABSTRAK

Modifikasi Bentonit Alam Dan Pengaruhnya Terhadap Pertukaran Ion Dengan Kadmium

Telah dilakukan modifikasi bentonit alam menjadi bentonit natrium dan bentonit kalsium serta dilanjutkan dengan penentuan kapasitas pertukaran-kationnya terhadap ion Cd^{2+} . Modifikasi dilakukan dengan memperlakukan bentonit alam dalam larutan NaCl 1 N pada suhu $70\text{ }^\circ\text{C}$ atau larutan CaCl_2 0,01 N, disertai pengadukan selama satu minggu. Kapasitas pertukaran kation ditentukan dengan cara batch menggunakan larutan CdSO_4 8/3 H_2O dengan variasi waktu pertukaran 1,5 – 48 jam.

Disimpulkan bahwa kapasitas pertukaran kation bentonit adalah:

bentonit natrium > bentonit alam > bentonit kalsium

Meningkatnya konsentrasi adsorbat meningkatkan kapasitas pertukaran , namun prosentase pertukarannya menurun.



ABSTRACT

Modification Natural Bentonit And Its Influence to Cadmium Ion Exchange.

Modification natural bentonit to sodium bentonit and calsium bentonit has been done and followed by determination of its cation exchange capacity to the Cd^{2+} ion. Modification was carried out by treating natural bentonit in NaCl 1 N solution at 70°C or CaCl_2 0,01 N solution, stired for a week. Bentonit's cation exchange capacity was determined by batch method using $\text{CdSO}_4 \cdot 8/3 \text{H}_2\text{O}$ solution in time exchange variation 1.5 – 48 hours.

It was concluded that the cation exchange capacity in order :
sodium bentonit > natural bentonit > calsium bentonit

The higher adsorbat concentration, the greater cation exchange capacity , but in the other hand it will reduce its cation exchange percentage.

