ABSTRAK

Widayanti 2012. *Studi Daya Aktivasi Arang Sekam Padi Pada Proses Adsorpsi Logam Cd*. Skripsi, Jurusan Pendidikan Kimia, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Gorontalo. Pembimbing I Prof. Dr. Ishak Isa M.Si dan Pembimbing II La Ode Aman S.Pd, M.Si.

Penelitian ini bertujuan untuk mengetahui kemampuan arang aktif sekam padi dalam mengadsorpsi logam kadmium (Cd) dalam larutan. Metode yang digunakan dalam penelitian adalah karbonasi dan aktivasi. Karbonasi dilakukan dengan sitem tertutup, sementara aktivasi dengan menggunakan cara kimia. Arang aktif yang dihasilkan diuji daya adsorpsinya terhadap logam kadmium dalam larutan. Hasil penelitian menunjukkan bahwa arang aktif yang dihasilkan mampu menyerap logam kadmium dalam larutan yaitu sebesar 19,03%. Hasil analisis proksimat arang aktif yaitu kadar air, kadar zat volatil, kadar abu dan kadar karbon terikat masing-masing adalah 13,09%, 15,82%, 53,83% dan 30,35%.

Kata kunci: arang aktif, sekam padi, logam kadmium.

ABTRACT

Widayanti 2012. Activation The Study of Rice Husk Charcoal on The Adsorption Prosess of Cadmium Metal. Thesis, Department of Chemistry Education, Faculty of Mathematics and Natural Sciences, Gorontalo State Univercity. Advisor I Prof. Dr. Ishak Isa M.Si and Advisor II La Ode Aman S.Pd, M.Si.

This research aims to find out the ability of activated charcoal rice hurks in the adsorbed metal cadmium in the solvent. The method which is used in this researes are carbonation and activation. The carbonation is doing by close system, while the activation is doing by chemical. Activated charcoal produced is tested the absorption of cadmium metal in the solvent. The results showed that activated charcoal which is produced is able to absorb cadmium metal in the solvent that is equal to 19,03 %. The result of proximated analysis of activated charcoal are the water content, volatile matter content, ash content and carbon content are eachboon 13,09%, 15,82%, 53,83% and 30,35%.

Keywords : activated charcoal, rice hurks, cadmium metal.