



## **Groundnut Shell Powder as Low Cost Natural Adsorbent For Total Chromium in Spent Chrome Liquor**

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Accepted on 22<sup>nd</sup> August 2017, Published online on 27<sup>th</sup> September 2017

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### **ABSTRACT**

*The role of Groundnut Shell Powder (GNSP) to reduce the level of total chromium ( $Cr^{+3}$  and  $Cr^{+6}$ ) in spent chrome liquor has been investigated. The maximum total chromium reduction was achieved by GNSP is 83.90% at pH of 7.70 with metal ion concentration of 100 ppm, adsorbent dose of  $1.5g\ 100\ mL^{-1}$ , contact time of 2 h and mesh size of 36 British standard sieve. GNSP has been successfully used as potential source of reducing load of pollutants in spent chrome liquor and treated effluent is highly suitable for use in various anaerobic reactors for biogas production.*

**Keywords:** Spent chrome liquor, GNSP, Adsorption, BSS, Total chromium.

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