Indian Journal of Ecology (2019) 46(4): 751-754

Manuscript Number: 2912
NAAS Rating: 4.96

Preparation of Activated Charcoal from Wood Sawdust

Ali Omairi Mohammed

Collage of Science, Department of Chemistry, University of Tikrit, Tikrit, Iraq
E-mail: ali.omairi1969@gmail.com

Abstract: The research included the production of activated charcoal from sawdust containing a large amount of phenolic and lignin compounds, where wood sawdust is available locally. The constant amounts of the sawdust is mixed with different amounts of the carbonizing agent (NaOH), the material was carbonized by smelting without adding water. The produced activated charcoal after drying was studied for its physical and adsorption specifications. The increase in the percentage of carbonized material leads to an increase in the moisture content of the resulting samples, the density showed decreasing and fluctuating sometimes and there has been a marked increase in iodine adsorption from it's aqueous solution with the increase in the percentage of carbonized material, as well as for the adsorption of the methylene blue-dye. This is comparable to quality imported from known international companies and the resulting material is acceptable both scientifically and commercially.

Keywords: Sawdust, Charcoal, Adsorption