

Investigation on H₂S removal factors of activated carbons derived from waste palm trunk

Abstract:

Critical factors for H₂S removal of activated carbons prepared from a waste palm trunk were investigated. Two kinds of activated carbons were prepared by different methods, steam and KOH activations. Regardless of high specific surface area and oxygen content of the KOH-activated carbon, the steam-activated showed more than 11 times higher H₂S removal performance, which was even higher than a commercial activated carbon fiber. It was suggested that minerals contained in the steam-activated carbon acted effectively to remove H₂S. The results suggest a potential utilization of waste palm trunks as an available cheap precursor for the H₂S removal adsorbent.