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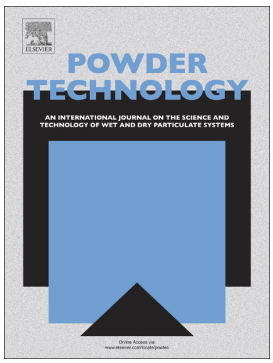

Pilot-scale produced super activated carbon with a nanoporous texture as an excellent adsorbent for the efficient removal of metanil yellow

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Pilot-scale produced super activated carbon with a nanoporous texture as an excellent adsorbent for the efficient removal of metanil yellow

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Abstract

Super activated carbon (SAC) with a high surface area and pore volume of 3095 m^2/g and 2.11 cm^3/g, respectively, was produced from raw petroleum coke using a chemical activation method on a pilot-scale basis and assessed as an adsorbent for the removal of metanil yellow. A detailed study, including the influence of pH, contact time, temperature, amount of SAC, and concentration of metanil yellow, was carried out to optimize the operating conditions. The results showed that the SAC obtained had a maximum adsorption capacity for metanil yellow of 937

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