

Adsorption properties of adsorbent prepared from pulp waste black liquor

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The carbonaceous adsorbents were prepared from black liquor of digestion process residue in pulp production. After black liquor was heat treated at 700~900°C in inert atmosphere, residual carbon have large specific surface area without physical activation. The specific surface area of prepared carbonaceous adsorbents were ranged between 800~1600m²/g due to chemical activation mechanism of sodium compounds such as Na₂CO₃ and Na₂SO₄. The pore properties of prepared adsorbents were evaluated with isothermal nitrogen adsorption and relationship between preparation conditions and pore properties was also considered.