

Turkish Journal of Chemistry

Turkish Journal

Effect of Acid Treatment on Volumetric Swelling Ratios of Coals

of

Chemistry

Nejat MESCI

AKSA, Akrilik Kimya Sanayi, PK.115, Yalova-TURKEY

Akif ŞENELT, Taner TOĞRUL, Aral OLCAY

Ankara University, Science Faculty, Department
of Chemical Engineering,

06100, Tandogan, Ankara-TURKEY

 [Keywords](#)
 [Authors](#)



chem@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)

Abstract: To remove Ca^{2+} ions, six low rank coals and one coking coal were treated with 0.1 and 1.0 N HCl for 24 h. IR spectra and proximate analysis of the lignites indicated that only slight structural changes had occurred during acid treatment. The swelling ratios of parent and acid-treated coal samples showed that removal of Ca^{2+} resulted in an increase in the swelling ratios. Higher swelling ratios were obtained with acid-washed coal samples. While the highest swelling ratios of the parent lignites were obtained in ethylenediamine, those of acid-treated samples were obtained in pyridine and dimethylformamide.

Turk. J. Chem., **25**, (2001), 397-404.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Chem..vol.25.iss.4.](#)