

Charateristics of Residue Coal in Thermal Extraction of Coal

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Energy crisis such as oil-price inflating gives rise to the shrinkage of industrial economy recently. Thus new energy technology is severely required for the stable energy supply and demand. In addition to that, reduction in carbon dioxide emission becomes hot issue nowadays. Thermal extraction of coal is one of the clean-fuel technologies. In this study, raw materials were low-rank coal such as Kideko, Roto South and Sunhwa coal which belong to sub-bituminous and lignite coal. The ash concentration of raw coal was in the range of 4-10wt%. NMP was used as solvent, which was recovered finally by solvent recovery equipment. In this study, the calorific value of residue coal could be increased in some case, it might be caused by decrease of moisture contents as well as increase of fixed carbon in comparison with raw coal. The concentration of extracted coal was less than 1.0wt%, and that of residue coal was in the range of 4-20wt%. According to that, it may be possible that residue coal can be used as fuel in pulverized coal-fired power generation plant.