

## The development of a micro-riser drier for fluidized bed gasification processes

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Since moisture content of low grade coals are generally higher than conventional coals, its moisture should be removed to be used in conventional plants. Until now there are several types of technologies for drying such as rotary tube drier, fluidized bed drier, mechanical thermal dewatering(MTE), hydrothermal dewatering(HTD), solvent dewatering, etc. However these technologies needs space and time. To overcome these disadvantages, flash drying characteristics for fluidized bed gasifiers have been investigated in this study. In a flash dryer, low grade coal with high moisture content is rapidly dried by direct contact with hot area or gases while being transported from silo to gasifier. The effects of drying temperature, pressure, residence time and particle size on drying ratio are investigated in this study.