

RESEARCH ARTICLE

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ABSTRACT: A new gas clean-up process called "integrated gasification combined cycle (IGCC) and pressurized fluidized bed combustion (PFBC)" was developed on the basis of a layered metal candle filter and a strong flow moving granular bed filter. This is a combination of the surface and deep bed filtering processes. A set of facilities was established and a series of cold model tests were carried out. The dust removal efficiency and the pressure drop of the filter were measured and analyzed. The results show that this process features the advantages of the moving bed for high capacity as well as high dust load and the surface filter for high efficiency. Meanwhile, the granules moving downward cleans the cake on the screen surface, so that the system is operated at steady state.

关键词: 移动床; 表面过滤; 深层过滤

Study on an Integrated Surface-Moving Granular Bed Filter
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Key words: moving bed; surface filter; deep bed filter

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