

**Paper #KE-28****Co-combustion Characteristics of Low-rank Coal and Palm Shell In Fluidized Bed Combustor**Khairil<sup>1</sup>, Mahidin<sup>2</sup> and Adisalamun<sup>2</sup><sup>1</sup>Combustion Laboratory, Syiah Kuala University, INDONESIA<sup>2</sup>Laboratory of Resources and Energy, Syiah Kuala University, INDONESIA

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Phone: +62 651 7428420, E-mail: [khairil@msn.com](mailto:khairil@msn.com)**Abstract**

*Co-combustion characteristic of Aceh low-rank coal and palm shell in Fluidized Bed Combustion (FBC) was studied experimentally by using small scale combustor. In the experiment, the effects of air fuel ratio and particle size on reaction behaviors are evaluated. The flame temperature of coal and/or palm shell during combustion was continuously measured by using thermocouples. Gasses released were measured by using portable gas tester. The experimental result shows that the flame temperature of coal and/or palm shell combustion was increased with the particle size. The air fuel ratio was affect to gases release during combustion process.*

**Keyword:** *low-rank coal, palm shell, combustion, fluidized bed combustor.*