

## 1-6 Utilization Technology of Ultra-Clean Coal

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UCC (ultra-clean coal) is the new fuel, which Australia (CSIRO) has developed and its ash content was removed almost completely. The Japan-Australia collaboration research was started in 1998 and it will complete in 2002. UCC has the possibility as a fuel for combined cycle power generation by gas turbine with direct combustion, and if this technique puts in practical use, it can expect fast curtailment of CO<sub>2</sub> discharge by improvement in a generating efficiency.

In our research, physical and chemical characteristic of UCC were studied. Combustibility of UCC was evaluated by experimental combustion equipment. Moreover, environmental evaluation was executed, supposing the electric power plant with the direct combustion for gas turbine on 245MW class. By feeding back these examination results to UCC manufacture technique, support for optimum UCC manufacture process construction is performed.

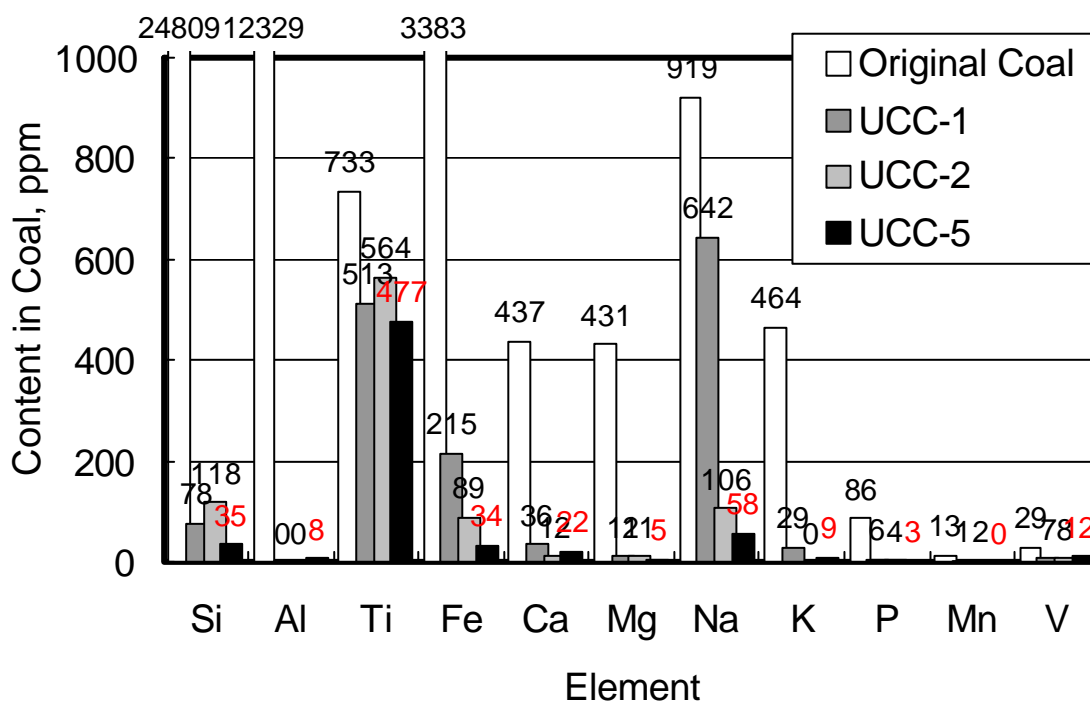


Fig.1 Ash composition of Ultra-clean Coal.