Biomass and coal co-combustion behavior

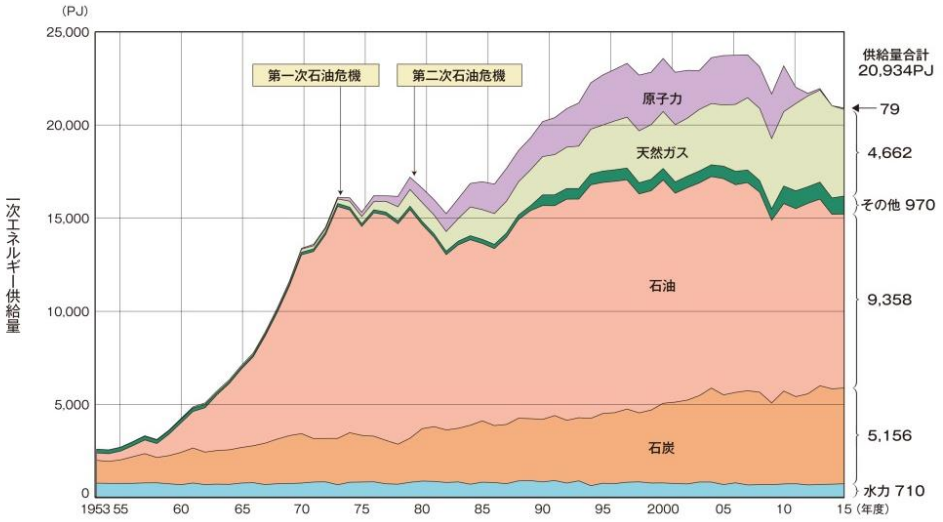
Background

Reliance of fossil fuel is very high

- Fossil fuel is limited
- High CO_2 emission

In thermal power generation, movement toward reducing CO_2 emission is progressing

Primary energy supply in Japan



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Expectation of biomass co-combustion in coal fired power generation

Biomass

- Organic matter derived from animals and plants excluding fossil resources and can be used as energy source
- Biomass energy don't emit CO_2 and it is effective as measures against global warming

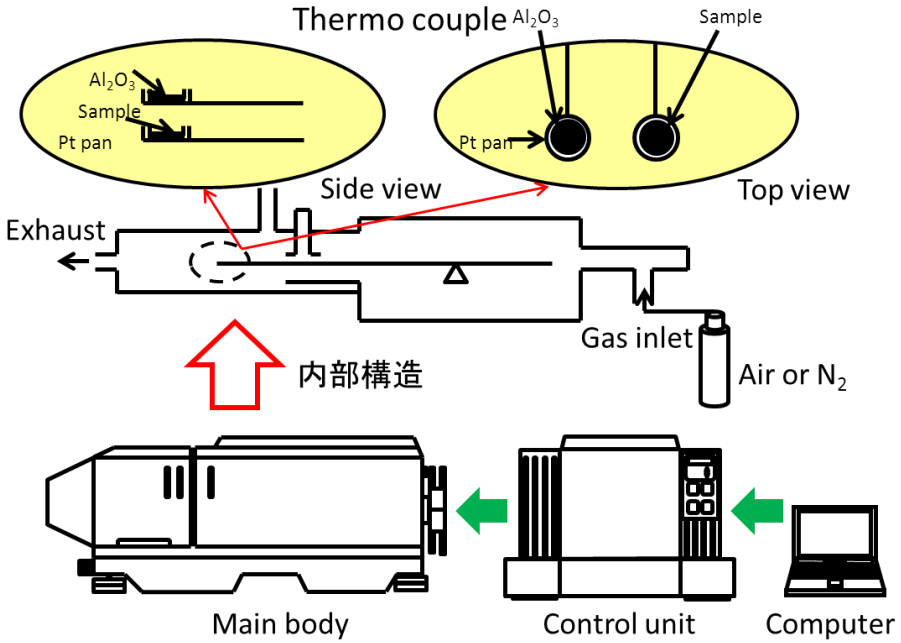
Biomass and coal co-combustion behavior

Objective

- Biomass co-combustion in pulverized coal combustion field
- Elucidation of the influence of biomass fuel co-combustion rate and fuel type on flammability and ash properties

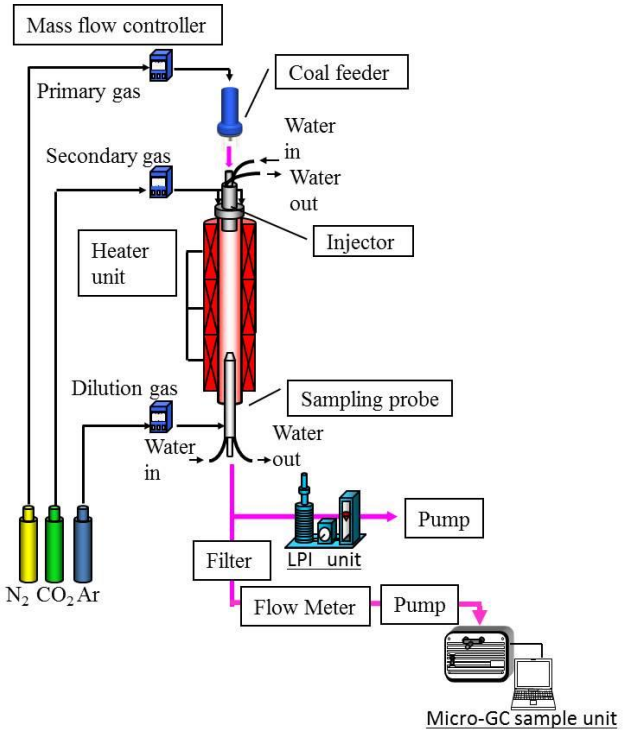
Research content

- Evaluation by thermogravimetric analysis



Schematic of thermogravimetric analysis

- Evaluation of co-combustion behavior by drop tube electric furnace



Schematic of drop tube electric furnace