

ABSTRACT

COMBUSTION DEVICE, BOILER, COMBUSTION METHOD

A circulating fluidized bed boiler (CFB boiler) that supplies a fuel into a furnace 11 in which a fluid material is fluidized and that combusts the fuel includes carbon-free fuel supply units 16A to 16D that supply ammonia or hydrogen which is a carbon-free fuel, which does not contain carbon, into the furnace 11. The carbon-free fuel supply unit 16A supplies the carbon-free fuel to an air box 122, the carbon-free fuel supply unit 16B supplies the carbon-free fuel to a fluidized layer A, the carbon-free fuel supply unit 16C supplies the carbon-free fuel to a surface of the fluidized layer A, and the carbon-free fuel supply unit 16D supplies the carbon-free fuel to a free board B.

Figure 1