

ABSTRACT

AMMONIA DECOMPOSITION SYSTEM

An ammonia decomposition system includes: a reactor filled with a catalyst for a
5 decomposition reaction where ammonia which is a raw material is decomposed into hydrogen
and nitrogen; and a diluent gas supply line for supplying a diluent gas having a lower ammonia
concentration than the raw material, such that the diluent gas is mixed with the raw material
before the raw material flows into the catalyst. The reactor has an inner surface covered with
a refractory material, and the catalyst is filled on a side opposite to the inner surface across the
10 refractory material. The diluent gas supply line is provided with a temperature raising device
for raising a temperature of the diluent gas.

(FIG. 1)