

ABSTRACT

The invention concerns a process and apparatus for cracking ammonia in which heated ammonia gas at super-atmospheric pressure is partially cracked catalytically in an adiabatic reaction unit to produce partially cracked ammonia gas which is heated and fed to catalyst-containing reactor tubes in a furnace to cause cracking of further ammonia and produce a cracked gas comprising hydrogen gas, nitrogen gas and residual ammonia gas. At least some, preferably all, of the duty required to heat the partially cracked ammonia gas is provided by heat exchange with the cracked gas, enabling more efficient heat integration within the process.

10

15

20

25

(Abstract to be published with Fig. 1)