



THE HABER PROCESS

Temperature used = 450°C

Lower temperature gives higher yield of NH_3 as forward reaction is exothermic

Higher temperature gives faster rate

450°C is compromise between yield and rate

Pressure used = 200 atm

Higher pressure gives higher yield of NH_3 as less gas molecules on right of equation

High pressure is very expensive (high cost of pipes & energy cost to pressurise)

200 atm is compromise between yield and cost

Catalyst = iron

Catalyst increases rate of reaction (but has no effect on position or yield)