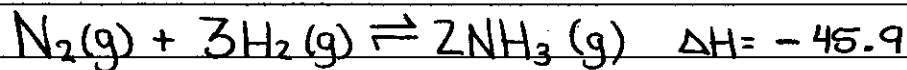


Haber's Process - Reverse LCP Problem



Play With Temp.

D: shift to right

H: exothermic reaction *

R: $\uparrow Q$

S: $\downarrow Q$ ∴ as low a temp. as you can get away with

Goal was to make more

NH_3

(i.e. shift left)

Play With Volume / Pressure

D: shift to right

H: \downarrow moles of gas *

R: $\downarrow P$

S: $\uparrow P$ ∴ lower temp. (+ catalyst) + higher pressure \Rightarrow more NH_3

#10 on work sheet

How?

- * temp \Rightarrow endothermic / exothermic reaction
- press \Rightarrow make more / less moles of gas
- conc. \Rightarrow use / ~~consume~~ a particular substance
make