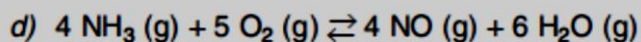
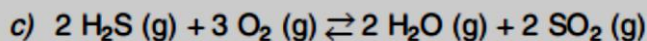
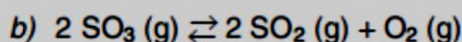
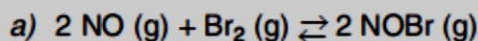


## OREKAREN KONSTANTEAREN ADIERAZPENA . ADIBIDEAK

Formula ezazu orekan dauden erreazio itzulgarri hauen  $K_C$ -ren adierazpena:



$$a) K_C = \frac{[\text{NOBr}]^2}{[\text{NO}]^2 \cdot [\text{Br}_2]}$$

$$b) K_C = \frac{[\text{SO}_2]^2 \cdot [\text{O}_2]}{[\text{SO}_3]^2}$$

$$c) K_C = \frac{[\text{H}_2\text{O}]^2 \cdot [\text{SO}_2]^2}{[\text{H}_2\text{S}]^2 \cdot [\text{O}_2]^3}$$

$$d) K_C = \frac{[\text{NO}]^4 \cdot [\text{H}_2\text{O}]^6}{[\text{NH}_3]^4 \cdot [\text{O}_2]^5}$$

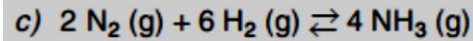
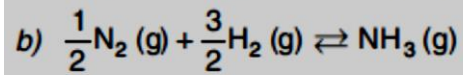
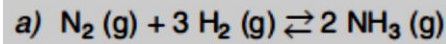
Erreakzio honen kasua ikus dezagun:  $\text{H}_2 \text{ (g)} + \text{I}_2 \text{ (g)} \rightleftharpoons 2 \text{ HI (g)}$

$$K_C (229 \text{ }^\circ\text{C}) = \frac{[\text{HI}]^2}{[\text{H}_2][\text{I}_2]} = 50$$

Kofiziente estekiometrikoen eragina	Bi atalen ordenaren eragina
<p>Erreakzioaren kofizienteak bider <math>\frac{1}{2}</math> egiten baditugu:</p> $\frac{1}{2} \text{ H}_2 \text{ (g)} + \frac{1}{2} \text{ I}_2 \text{ (g)} \rightleftharpoons \text{ HI (g)}$ $K'_C = \frac{[\text{HI}]}{[\text{H}_2]^{\frac{1}{2}} [\text{I}_2]^{\frac{1}{2}}} = K_C^{\frac{1}{2}} = 50^{\frac{1}{2}} = 7,07$ <p><i>Baldin erreakzio itzulgarri baten kofizienteak n zenbaki batez <b>biderkatzen</b> badira, agertzen den konstante berriaren balioa aurrekoaren balioaren berdina da, baina n berretzailera berretuta.</i></p>	<p>Erreakzioa alderantzizko eran idazten badugu:</p> $2 \text{ HI (g)} \rightleftharpoons \text{ H}_2 \text{ (g)} + \text{ I}_2 \text{ (g)}$ $K''_C = \frac{[\text{H}_2][\text{I}_2]}{[\text{HI}]^2} = \frac{1}{K_C} = \frac{1}{50} = 0,02$ <p><i>Baldin erreakzio itzulgarri batean <b>erreaktiboen eta produktuen ordena alderantzizkatzen bada</b>, oreka-konstante berria aurreko oreka-konstantearen <b>alderantzizko balioaren</b> berdina da.</i></p>

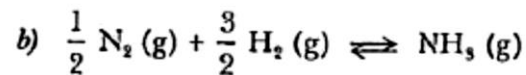
## OREKAREN KONSTANTEAREN ADIERAZPENA . ADIBIDEAK

Amoniakoaren sintesi-erreakzioa era askotara adieraz daiteke, adibidez:

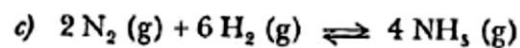


Idatzi ekuazio bakoitzaren oreka-konstantea. Bila ezazu lehen ekuazioaren oreka-konstantearen eta *b* eta *c* ekuazioen oreka-konstanteen artean dagoen erlazioa.

$$K_{C(a)} = \frac{[\text{NH}_3]^2}{[\text{N}_2] \cdot [\text{H}_2]^3}$$



$$K_{C(b)} = \frac{[\text{NH}_3]}{[\text{N}_2]^{1/2} \cdot [\text{H}_2]^{3/2}}$$



$$K_{C(c)} = \frac{[\text{NH}_3]^4}{[\text{N}_2]^2 \cdot [\text{H}_2]^6}$$

$$K_{C(b)} = K_{C(a)}^{1/2}$$

$$K_{C(c)} = K_{C(a)}^2$$