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Formazio-entalpiak: ariketak

Ondoko erreakzioen entalpia-aldaketa estandarrak kalkulatu:

a) $2\ SO_2\ (g) + O_2\ (g) \rightarrow 2\ SO_3\ (g)$

b) $Mg(OH)_2\ (s) \rightarrow MgO\ (s) + H_2O\ (l)$

c) $4\ FeO\ (s) + O_2\ (g) \rightarrow 2\ Fe_2O_3\ (s)$

Formazio-entalpiak:

$\Delta H_f^0\ [SO_2\ (g)] = -296.9$ kJ/mol; $\Delta H_f^0\ [SO_3\ (g)] = -395.2$ kJ/mol;

$\Delta H_f^0\ [Mg(OH)_2\ (s)] = -924.7$ kJ/mol; $\Delta H_f^0\ [MgO\ (s)] = -601.8$ kJ/mol

$\Delta H_f^0\ [FeO\ (s)] = -271.9$ kJ/mol; $\Delta H_f^0\ [Fe_2O_3\ (s)] = -822.2$ kJ/mol

$\Delta H_f^0\ [H_2O\ (l)] = -285.8$ kJ/mol

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1 mol azetona, C_3H_6O, guztiz erretzen denean 1790 kJ askatzen ditu:

$$C_3H_6O\,(l) + 4\,O_2\,(g) \rightarrow 3\,CO_2\,(g) + 3\,H_2O\,(l)$$

Kalkulatu azetonaren formazio-entalpia.

Entalpia-aldaketak: $\Delta H_f^0\,[CO_2\,(g)] = -393.5\ kJ/mol;$

$\Delta H_f^0\,[H_2O\,(l)] = -285.8\ kJ/mol;$

Kalkulatu diborano gaseosoaren, B_2H_6, formazio-entalpia, ondoko informazio termokimikoa kontuan hartuz:

$$4\,B\,(s) + 3\,O_2\,(g) \rightarrow 2\,B_2O_3\,(s) \qquad \Delta H^0 = -2509.1\ kJ$$

$$2\,H_2\,(g) + O_2\,(g) \rightarrow 2\,H_2O\,(l) \qquad \Delta H^0 = -571.7\ kJ$$

$$B_2H_6\,(g) + 3\,O_2\,(g) \rightarrow B_2O_3\,(s) + 3\,H_2O\,(l) \qquad \Delta H^0 = -2147.5\ kJ$$