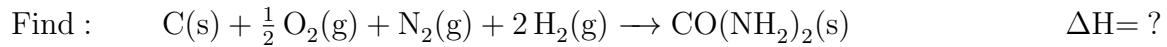


HESS' LAW 2



Given :

(1)	$2NH_3(g) + 3H_2O(l) \rightarrow NH_4NO_3(s) + 4H_2(g)$	$\Delta H = + 583.6 \text{ kJ}$
(2)	$CH_2O(l) \rightarrow CO(g) + H_2(g)$	$\Delta H = - 1.9 \text{ kJ}$
(3)	$CH_2O(l) + 2NH_3(g) \rightarrow CO(NH_2)_2(s) + 2H_2(g)$	$\Delta H = - 133.1 \text{ kJ}$
(4)	$C(s) + \frac{1}{2}O_2(g) \rightarrow CO(g)$	$\Delta H = - 110.5 \text{ kJ}$
(5)	$H_2(g) + \frac{1}{2}O_2(g) \rightarrow H_2O(l)$	$\Delta H = - 285.8 \text{ kJ}$
(6)	$N_2(g) + 2H_2(g) + \frac{3}{2}O_2(g) \rightarrow NH_4NO_3(s)$	$\Delta H = - 583.6 \text{ kJ}$

(3)	$CH_2O(l) + 2NH_3(g) \rightarrow CO(NH_2)_2(s) + 2H_2(g)$	$\Delta H = - 133.1 \text{ kJ}$
rev (2)	$CO(g) + H_2(g) \rightarrow CH_2O(l)$	$\Delta H = + 1.9 \text{ kJ}$
rev (1)	$NH_4NO_3(s) + 4H_2(g) \rightarrow 2NH_3(g) + 3H_2O(l)$	$\Delta H = - 583.6 \text{ kJ}$
(4)	$C(s) + \frac{1}{2}O_2(g) \rightarrow CO(g)$	$\Delta H = - 110.5 \text{ kJ}$
(6)	$N_2(g) + 2H_2(g) + \frac{3}{2}O_2(g) \rightarrow NH_4NO_3(s)$	$\Delta H = - 583.6 \text{ kJ}$
re 3 x (5)	$3H_2O(l) \rightarrow 3H_2(g) + \frac{3}{2}O_2(g)$	$\Delta H = + 857.4 \text{ kJ}$

