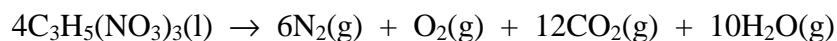


Marks
4

- Nitroglycerine, $C_3H_5(NO_3)_3$, decomposes to form N_2 , O_2 , CO_2 and H_2O according to the following equation.



If 15.6 kJ of energy is evolved by the decomposition of 2.50 g of nitroglycerine at 1 atm and 25 °C, calculate the enthalpy change, ΔH° , for the decomposition of 1.00 mol of this compound under standard conditions.

Answer:

Hence calculate the enthalpy of formation of nitroglycerine under standard conditions.

Data:		$\Delta_f H^\circ$ (kJ mol ⁻¹)
	H ₂ O(g)	-242
	CO ₂ (g)	-394

Answer: