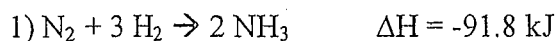


SOLVE THE FOLLOWING PROBLEMS FOR THE GIVEN EQUATIONS

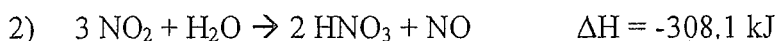


- a. Calculate the heat released (kJ) for the reaction in which 9.07 g of
- NH_3
- is formed.

$$-24.489 \text{ kJ}$$

- b. Calculate the heat released in kJ when using 24.3 grams of
- N_2
- ?

$$-79.67 \text{ kJ}$$

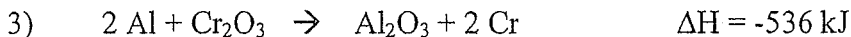


- a. What amount of heat energy (kJ) is released in forming 15.0 g of
- HNO_3
- by the following reaction?

$$-36.68 \text{ kJ}$$

- b. How much energy (kJ) is released when 55.0 g of
- H_2O
- are used?

$$-941.41 \text{ kJ}$$



- a. Aluminum reacts with chromium(III) oxide according to the following equation. How much heat (kJ) is released by the reaction of excess aluminum with 25.0 g of
- Cr_2O_3
- ?

$$-88.16 \text{ kJ}$$

- b. How much heat (kJ) is released when 32.0 g of aluminum are used?

$$-317.63 \text{ kJ}$$