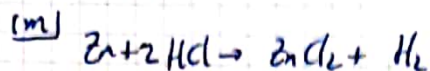
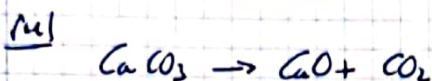


PARTES STR PURCHA

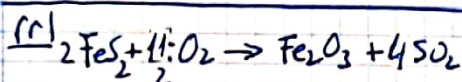


$$22,75g Zn \times \frac{92,75}{100g} \times \frac{1mol Zn}{65,38g} \times \frac{1mol H_2}{1mol Zn} \times \frac{2g}{1mol H_2} = 0,645g$$

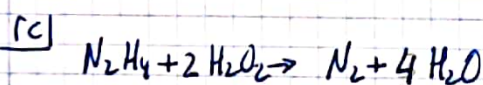
71,25% DE IMPUREZAS \Rightarrow 92,75% PURO



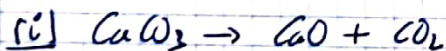
$$250 \cdot 10^3 g \times \frac{90g}{100g} \times \frac{1mol CaCO_3}{100,1g} \times \frac{1mol CaO}{1mol CaCO_3} \times \frac{56,1g}{1mol CaO} = 126098,9g = 126,1 kg$$



$$5 \cdot 10^6 g \times \frac{75,8FeS_2}{100g} \times \frac{1mol FeS_2}{119,9g} \times \frac{1mol Fe_2O_3}{2mol FeS_2} \times \frac{159,8g}{1mol Fe_2O_3} = 2498957,77g = 2498,96kg$$



$$1g N_2H_4 \times \frac{1mol N_2H_4}{32g} \times \frac{2mol H_2O}{1mol N_2H_4} \times \frac{36g}{1mol H_2O} \times \frac{100g}{90g} = 2,36g H_2O$$



15°C = 288K

$$n = \frac{PV}{RT} = \frac{1 \cdot 20}{0,082 \cdot 288} = 0,847 \text{ moles } CO_2$$

$$0,847 \text{ moles } CO_2 \times \frac{1mol CaCO_3}{1mol CO_2} \times \frac{100,1g}{1mol CaCO_3} = 84,78g$$

$$PURCHA = \frac{84,78}{125} \times 100 = 67,82\%$$

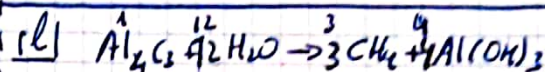
(e)



$$150ml \times \frac{1,17g}{1ml} \times \frac{36,23g HCl}{100} \times \frac{1mol HCl}{36,5g} = 1,82 \text{ mol HCl}$$

$$1,82 \text{ mol HCl} \times \frac{1mol Zn}{2mol HCl} \times \frac{65,38g}{1mol Zn} = 59,5g$$

$$PURCHA = \frac{59,5g}{100g} = 59,5\%$$



25°C = 298K 800 mmHg = 1,05 atm

$$n = \frac{PV}{RT} = \frac{1,05 \cdot 1,25}{0,082 \cdot 298} = 0,054 \text{ moles } CH_4$$

$$0,054 \text{ moles } CH_4 \times \frac{1mol Al_4C_3}{3mol CH_4} \times \frac{144g}{1mol Al_4C_3} = 2,592g Al_4C_3$$

$$PURCHA = \frac{2,592}{3} \times 100 = 86,4\%$$