ΤΕΠΑΣ ΣΤΕΦΙΟΜΕΤΡΙΑ

ΜΕΡΟΣ 1 | ΜΑΖΑ - ΜΑΖΑ

(m) $Bi_2S_3 + \frac{9}{2}O_2 \rightarrow Bi_2O_3 + 3SO_2$

$Bi = 209 \quad S = 32 \quad O = 16$

$1000g\ Bi_2S_3 \times \frac{1mol\ Bi_2S_3}{514g} \times \frac{3mol\ SO_2}{1mol\ Bi_2S_3} \times \frac{64g}{1mol\ SO_2} = 373,54g$

(u) $Bi_2S_3 + \frac{9}{2}O_2 \rightarrow Bi_2O_3 + 3SO_2$

$5mol\ Bi_2S_3 \times \frac{4,5mol\ O_2}{1mol\ Bi_2S_3} \times \frac{32g}{1mol\ O_2} =$

$= 720g$

(r) $2NH_3 \rightarrow N_2 + 3H_2$

$68g\ NH_3 \times \frac{1mol\ NH_3}{17g} \times \frac{3mol\ H_2}{2mol\ NH_3} \times \frac{2g}{1mol\ H_2} = 12g$

(c) $2NH_3 \rightarrow N_2 + 3H_2$

$68g\ NH_3 \times \frac{1mol\ NH_3}{17g} \times \frac{3mol\ H_2}{2mol\ NH_3} \times \frac{N_A\ molec}{1mol\ H_2} =$

$= 3,61 \cdot 10^{24}\ molecules$

(i) $C + O_2 \rightarrow CO_2$

$10g\ C \times \frac{1mol\ C}{12g} \times \frac{1mol\ O_2}{1mol\ C} \times \frac{32g}{1mol\ O_2} =$

$26,67g\ O$

(e) $C + O_2 \rightarrow CO_2$

$10g\ C \times \frac{1mol\ C}{12g} \times \frac{1mol\ CO_2}{1mol\ C} \times \frac{44g}{1mol\ CO_2} =$

$= 36,67g$

(l) $C_7H_6O_3 + C_4H_6O_3 \rightarrow C_9H_8O_4 + C_2H_4O_2$

$50g\ C_9H_8O_4 \times \frac{1mol\ C_9H_8O_4}{180g} \times \frac{1mol\ C_7H_6O_3}{1mol\ C_9H_8O_4} \times \frac{138g}{1mol\ C_7H_6O_3} = 38,33g$

(a) $Mg + \frac{1}{2}O_2 \rightarrow MgO$

$200g\ Mg \times \frac{1mol\ Mg}{24,3g} \times \frac{1mol\ MgO}{1mol\ Mg} \times \frac{40,3g}{1mol\ MgO} =$

$= 331,69g\ MgO$

(s) $Mg + \frac{1}{2}O_2 \rightarrow MgO$

$200g\ Mg * \frac{1mol\ Mg}{24,3g} \times \frac{0,5mol\ O_2}{1mol\ Mg} \times \frac{32g}{1mol\ O_2} =$

$= 131,68g$
