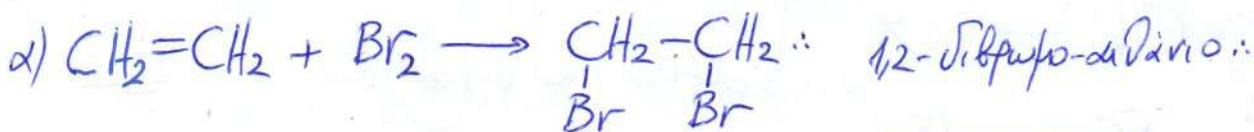


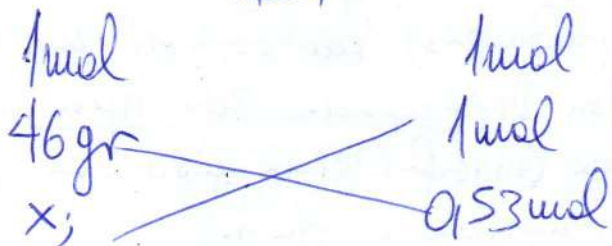
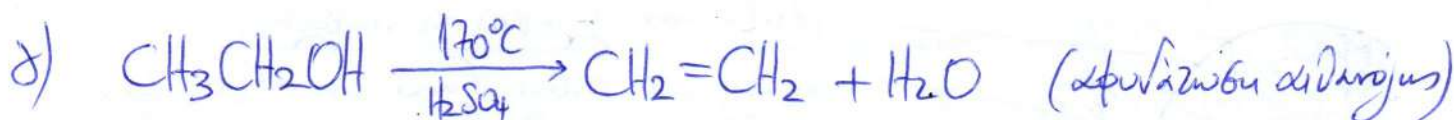
ΑΛΚΗΔΕΙΣ ΣΤΟΙΧΕΙΟΜΕΤΡΙΑΣ

58. ^{65.81}



$$\text{Mr}(\text{CH}_2\text{CH}_2) = 2 \cdot 12 + 4 \cdot 1 + 2 \cdot 80 = 188$$

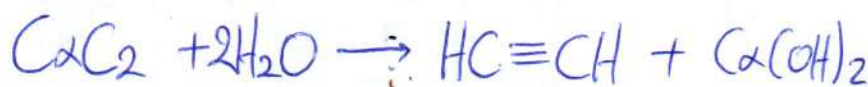
β) $\rightarrow n = \frac{100}{188} = 0,53 \text{ mol CH}_2=\text{CH}_2 \therefore$



$$\text{Mr}(\text{CH}_3\text{CH}_2\text{OH}) = 2 \cdot 12 + 6 \cdot 1 + 1 \cdot 16 = 46$$

$\rightarrow x = 0,53 \cdot 46 = 24,4 \text{ g CH}_3\text{CH}_2\text{OH} \therefore$

59. ^{65.81}



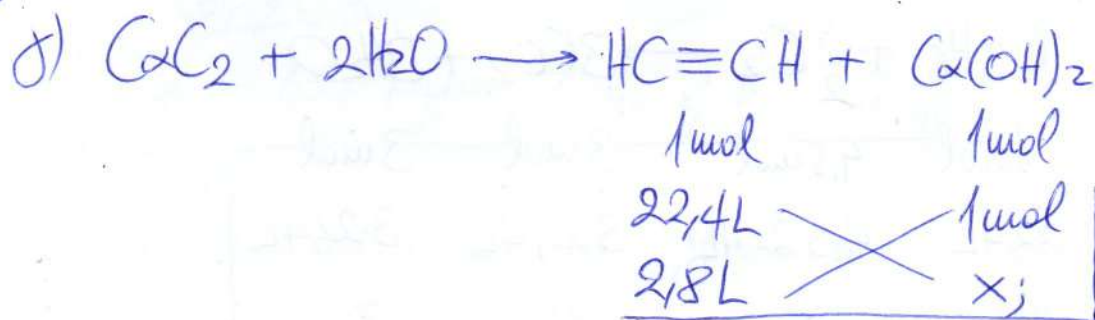
$$\text{Mr}(\text{C}_2\text{H}_2) = 1 \cdot 12 + 2 \cdot 1 = 26$$

$\rightarrow x = 64 \cdot \frac{2,8}{22,4} = 8 \text{ g C}_2\text{H}_2 \therefore$

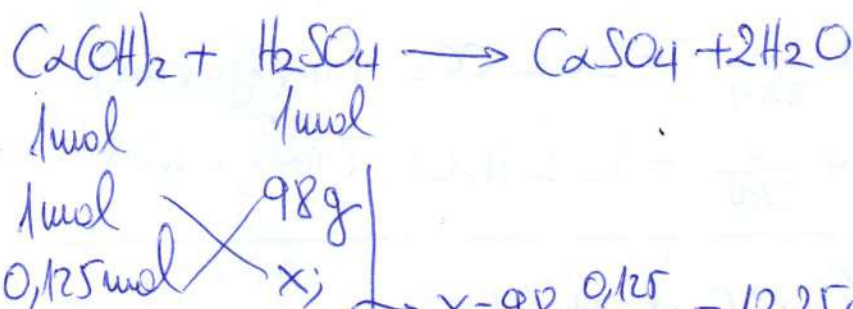


$$\text{Mr}_{\text{Cl}_2} = 2 \cdot 35,5 = 71$$

$\rightarrow \boxed{41} \rightarrow x = \frac{2,8}{22,4} \cdot 2 \cdot 71 = 17,75 \text{ g Cl}_2 \therefore$



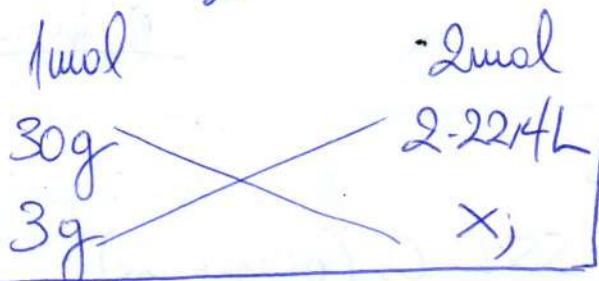
$$\sim x = \frac{2,8}{22,4} \cdot 1 = 0,125 \text{ mol Ca(OH)}_2$$



$$M_r(\text{H}_2\text{SO}_4) = 2 \cdot 1 + 1 \cdot 32 + 4 \cdot 16 = 98$$

$$\rightarrow x = 98 \cdot \frac{0,125}{1} = 12,25 \text{ g H}_2\text{SO}_4$$

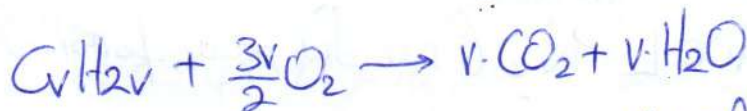
56 $\frac{65 \cdot 80}{\beta}$



$$M_r\text{C}_2\text{H}_6 = 2 \cdot 12 + 6 \cdot 1 = 30$$

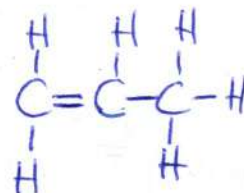
$$\sim 30 \cdot x = 3 \cdot 2 \cdot 22,4 \rightarrow x = 4,48 \text{ L CO}_2$$

62 $\frac{65 \cdot 81}{\alpha}$



$$M_r\text{H}_2\text{O} = 2 \cdot 1 + 1 \cdot 16 = 18$$

$$22,4 \cdot 10,8 = 4,48 \cdot v \cdot 18 \rightarrow \boxed{v=3} \rightarrow \boxed{\text{C}_3\text{H}_6}$$



(62)

b)



1 mol	4,5 mol	3 mol	3 mol
22,4 L	4,5 · 22,4 L	3 · 22,4 L	3 · 22,4 L
10 L	x _j	y _j	z _j

$$x = 4,5 \cdot 22,4 \frac{10}{22,4} = 45 \text{ L O}_2 \text{ (αναζωίνωσις)}$$

$$y = 3 \cdot 22,4 \frac{10}{22,4} = 30 \text{ L CO}_2 \text{ (παραγωγή)}$$

$$z = 3 \cdot 22,4 \frac{10}{22,4} = 30 \text{ L H}_2\text{O} \text{ (παραγωγή)}$$

Μίγμα: 500 L αέρα (20% O₂ ή 80% N₂)

$$V_{\text{O}_2} = 20\% \cdot 500 \text{ L} = 100 \text{ L}$$

$$V_{\text{N}_2} = 80\% \cdot 500 \text{ L} = 400 \text{ L}$$

αφού υπάρχουν 100 L O₂
και αναζωίνωσις 45 L
αέρα το C₃H₆ καίγεται
πλήρως.

Τέλη: 0 L C₃H₆

$$100 - 45 = 55 \text{ L O}_2 \text{ (πλεόνασμα)}$$

$$30 \text{ L CO}_2$$

$$30 \text{ L H}_2\text{O} \rightarrow \text{δίνεται ως υγρό, άρα δεν έχει υπό και σε κατάσταση αερίων.}$$

$$400 \text{ L N}_2 \text{ (να δώσουμε τον όγκο)}$$

62g tiztas C_2H_4 k' H_2 , pe ojo 112 L

zweit: $62 = x \cdot 28 + y \cdot 2 \quad (1)$

$$M_{V_2H_4} = 28$$

$$(1): 14x + y = 31 \rightarrow y = 31 - 14x$$

(2): $x+y = \frac{112}{22,4} \Rightarrow x+y=5 \Rightarrow y=5-x$

$$31 - 14x = 5 - x \Rightarrow$$

$$31 - 5 = 14x - x \Rightarrow$$

$$26 = 13x \Rightarrow \boxed{x=2}$$

$$y = 5 - x = 5 - 2 \Rightarrow \boxed{y = 3}$$

Đp2: $m_{C_2H_2} = x \cdot 28 = 2 \cdot 28 = 56g$

$$m_{H_2} = y \cdot 2 = 3 \cdot 2 = 6 \text{ g}$$

b) 15,5g H₂ + 120g O₂ → 15' H₂O

$$\begin{array}{lcl} \text{Se } 100 \text{ g} & \longrightarrow & 90,32 \text{ g } \text{C}_2\text{H}_2 \\ \text{Se } 15,5 & & x; \end{array}$$

$$x = 14 \text{ g } C_2H_2$$

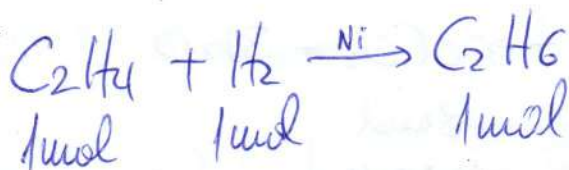
$x = 14 \text{ g C}_2\text{H}_2$
 for 2x unknown $15,5 - 14 = 1,5 \text{ g H}_2$

$$\begin{array}{rcl} \text{LE } 62 \text{ gr} & \longrightarrow & 56 \text{ gr C/Lt} \\ \text{In } 100 & & \times 2 \end{array}$$

$$x = 90,32\% \text{ w/w } \text{C}_2\text{H}_2$$

If 62gr $\rightarrow$ 6gr H₂
Isa 100 J:

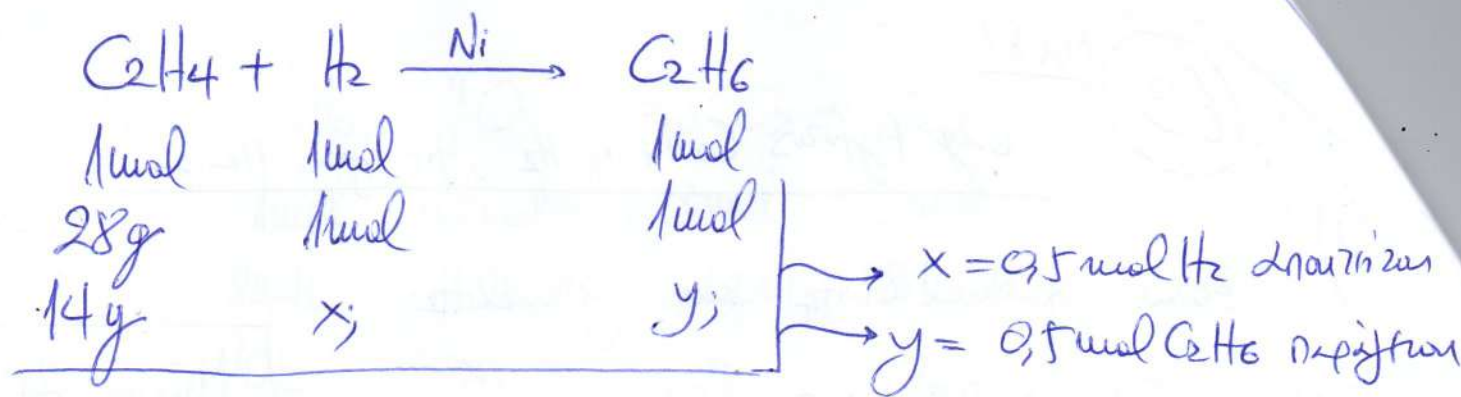
$y = 9,68\%$ w/w H_2



$$\begin{array}{r} 28g \\ 14g \\ \hline \end{array} \quad \begin{array}{r} 2g \\ x; \end{array}$$

$x = 1g \Rightarrow$ za 14g CaH_2 znači za 1g H_2 , kao eksperiment
44 za 2 nepoznate u jednačinu

44



Đáp ứng: $0,5\text{mol C}_2\text{H}_6 = 0,5 \cdot 22,4 = \boxed{11,2\text{L C}_2\text{H}_6 \text{ phản ứng}}$

To u p g i o v o: Giả sử 1,5g khí xenon tương đương 20g (0,5mol)

Đáp ứng: 0,5g H₂

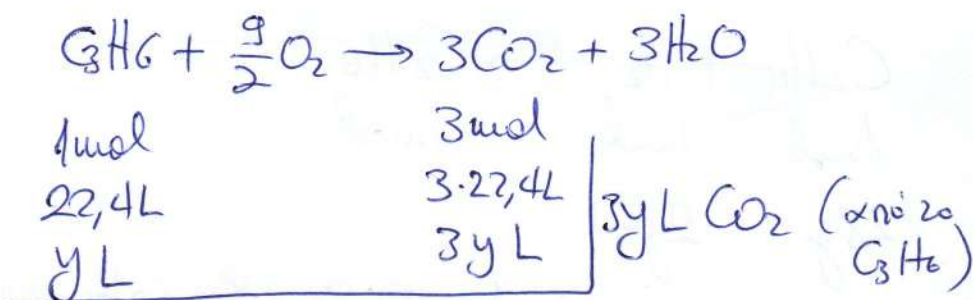
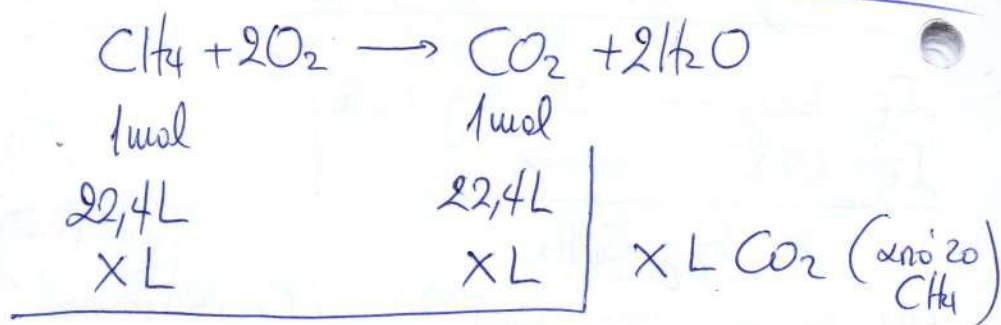
$$n = \frac{m}{M_r} \Rightarrow n = \frac{0,5}{2} = 0,25\text{mol H}_2$$

$$V = n \cdot V_m = 0,25 \cdot 22,4 = \boxed{5,6\text{L H}_2 \text{ phản ứng}}$$

(64) 672.81

hiệu: 15mol (CH₄ + C₃H₆)
+ O₂

35mol CO₂



45

$$\text{Y/A: } x + y = 15 \text{ mL} \rightarrow x = 15 - y$$

$$\text{CO}_2: x + 3y = 35 \text{ mL} \rightarrow 15 - y + 3y = 35 \rightarrow 2y = 20 \Rightarrow y = 10 \text{ mL C}_3\text{H}_8$$

$$\text{for } x = 15 - 10 \Rightarrow x = 5 \text{ mL CH}_4$$

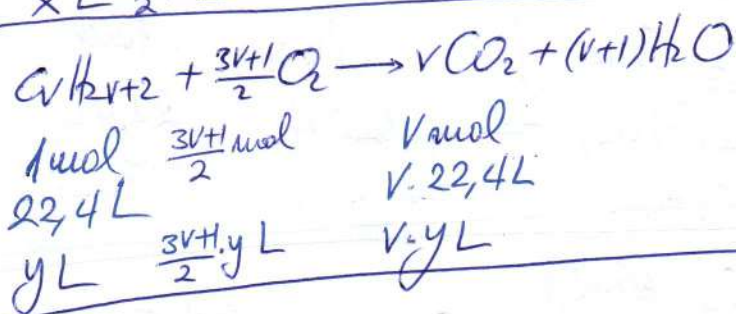
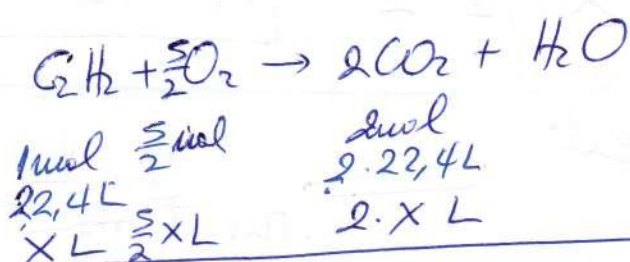
$$\textcircled{m} 33,3\% \text{ v/v CH}_4 \text{ \& \text{ } } 66,6\% \text{ v/v C}_3\text{H}_8$$

65. ~~65.82~~

Hydr: 12 mL (C₂H₂ is' C₂H₄+2)

+
60 mL O₂

αέρια προϊόντα καύσης: 51 mL
και 26 mL CO₂
και 25 mL O₂ που απέμεινε



αέρις απέμεινε 25 mL O₂
Ja αρχικά 60 - 25 = 35 mL O

Hydr: $x + y = 12 \text{ mL}$ ①

CO₂: $2x + v \cdot y = 26 \text{ mL}$ ②

$\frac{5}{2}x + \frac{3v+1}{2}y = 35$ ③

①: $x = 12 - y$ ② $\rightarrow 2(12 - y) + vy = 26 \Rightarrow 24 - 2y + vy = 26 \Rightarrow$
 $\Rightarrow vy - 2y = 2 \Rightarrow y(v - 2) = 2 \Rightarrow y = \frac{2}{v - 2}$ ④

③: (x2): $5x + (3v+1)y = 70 \Rightarrow 5(12 - y) + (3v+1)y = 70 \Rightarrow$
 $\Rightarrow 60 - 5y + 3vy + y = 70 \Rightarrow 3vy - 4y = 10 \Rightarrow y \cdot (3v - 4) = 10 \Rightarrow$

46 ④ $\frac{2}{v - 2} (3v - 4) = 10 \Rightarrow$

$$\Rightarrow 2(3V-4) = 10(V-2) \Rightarrow 3V-4 = 5V-10 \Rightarrow$$

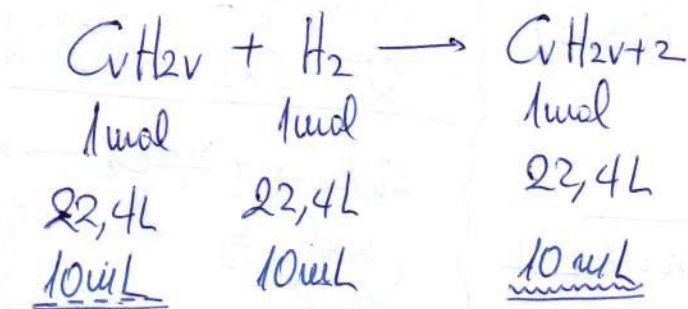
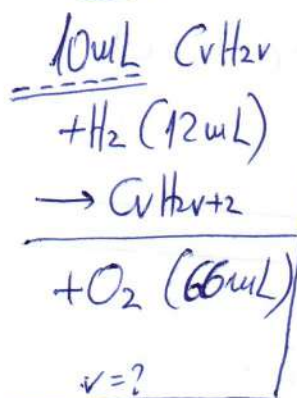
$$\Rightarrow 10-4 = 5V-3V \Rightarrow 2V = 6 \Rightarrow \boxed{V=3}$$

$\sim \boxed{C_3H_8}$ nponfno

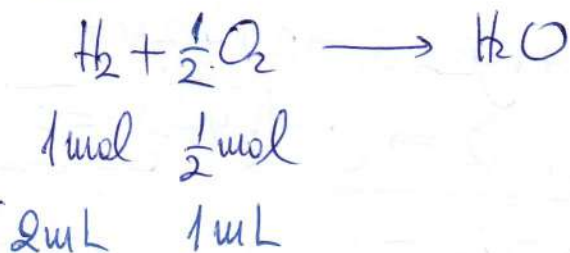
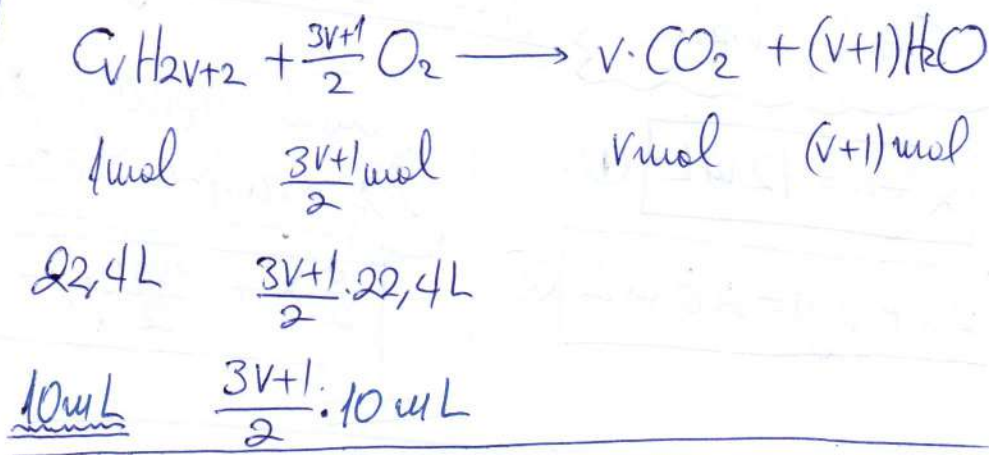
$$\textcircled{4}: y = \frac{2}{3-2} \Rightarrow \boxed{y=2 \text{ mL}} C_3H_8$$

$$\textcircled{1}: x = 12-2 \Rightarrow \boxed{x=10 \text{ mL}} C_2H_6$$

66. ⁶⁷⁸²



22,4 L 12 mL
nH₂ 66 L 2 mL
H₂



20. *grybo* na analizykt:

$$\frac{3V+1}{2} \cdot 10 + 1 = 66 \text{ mL} \Rightarrow \frac{3V+1}{2} \cdot 10 = 65 \Rightarrow$$

$$\Rightarrow (3V+1) \cdot 5 = 65 \Rightarrow 3V+1 = \frac{65}{5} = 13 \Rightarrow 3V = 12 \Rightarrow \boxed{V=4}$$

