

(#6-2)  
Chemistry  
Stoichiometry  
Particles, Limiting and Excess #1

Review

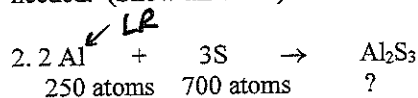


I. 500	excess	0	0
S. -500	-2000	+500	+2000
E. 0			

$$500 \text{ PbS} \cdot \frac{4 \text{ H}_2\text{O}_2}{1 \text{ PbS}} = -2000 \text{ H}_2\text{O}_2$$

$$500 \text{ PbS} \cdot \frac{1}{1} = 500 \text{ PbSO}_4$$

For the following problems determine the "?", limiting and excess. Balance and determine products as needed. (Show all work)



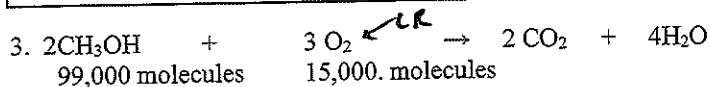
I. 250	700	0
S. -250	-375	
E. 0	+325	+125

S

$$250 \text{ Al} \cdot \frac{3 \text{ S}}{2 \text{ Al}} = 375 \text{ S need}$$

Al  $\rightarrow$   $\text{Al}_2\text{S}_3$

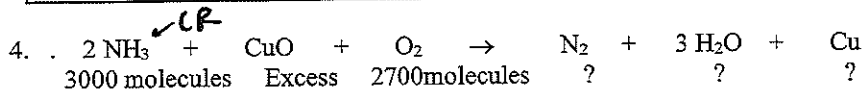
$$250 \cdot \frac{1 \text{ Al}_2\text{S}_3}{2 \text{ Al}} = 125$$



I. 99000	15000		
S. -10000	-15000	+10000	+20000
E. +89000	0		

$$15000 \text{ O}_2 \cdot \frac{2 \text{ CH}_3\text{OH}}{3 \text{ O}_2} = 10000$$

$$15000 \cdot \frac{4}{3} = 20000$$

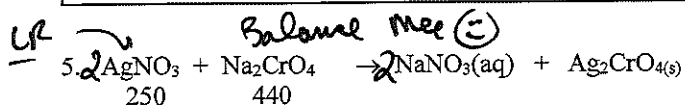


I. 3000	excess	2700			
S. -3000	-1500	-1500	+1500	+4500	+1500
E. 0		1200			

NH<sub>3</sub>  $\rightarrow$   $\text{N}_2$

$$3000 \text{ NH}_3 \cdot \frac{1 \text{ N}_2}{2 \text{ NH}_3} = 1500$$

$$3000 \cdot \frac{3}{2} = 4500$$



I. 250	440		
S. -250	-125	+250	+125
E. 0	315		

$$250 \cdot \frac{1}{2} = 125$$