

location.

The mass of isotopes in the universe are universal! However, the average mass of an element may vary throughout the universe since the abundances (%) of each isotope may vary from location to location.

⑧ Avg Mass = (mass₁)(%) + (mass₂)(%) + ...

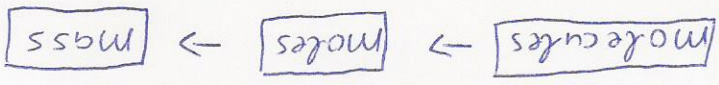
$\boxed{= 450g}$

$m = n \times M = 7.4g \text{ mol} \times 60.09g \text{ /mol}$

$\frac{60.09g \text{ /mol}}{+2(16.00g \text{ /mol})}$

$\bar{M}: 28.09g \text{ /mol}$

$n = \frac{N}{N_A} = \frac{4.5 \times 10^{24} \text{ molecules}}{6.02 \times 10^{23} \text{ molecules/mol}} = 7.48 \text{ mol}$



$\boxed{\text{mass SrO} > \text{mass K}_2\text{S}}$

$\boxed{= 20.4g}$

$m = n \times M \rightarrow 0.185 \text{ mol} \times 110.27g \text{ /mol} = 20.4g$

$\bar{M}: \text{K}_2\text{S}$

$\boxed{= 28.5g}$

$m = n \times M \rightarrow 0.275 \text{ mol} \times 103.62g \text{ /mol} = 28.5g$

$\bar{M}: \text{SrO}$

6. $m = n \times M$

5. $n = \frac{W}{M}$
 a) $50.00g / 53.50g \text{ /mol} = 0.9346 \text{ mol}$
 b) $50.00g / 310.18g \text{ /mol} = 0.1612 \text{ mol}$

b) $3 \times (40.08g \text{ /mol}) + 2 \times (30.97g \text{ /mol}) + 8 \times (16.00g \text{ /mol}) = 310.18g \text{ /mol}$