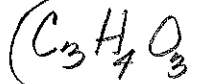


Assig#4 Empirical Formula Key

① C $40.92 \text{ g} \times \frac{1 \text{ mol}}{12.01 \text{ g}} = 3.4 \text{ mol} / 3.4 \text{ mol} = 1 \times 3 = 3$

H $4.58 \text{ g} \times \frac{1 \text{ mol}}{1.01 \text{ g}} = 4.5 \text{ mol} / 3.4 \text{ mol} = 1.3 \times 3 = 3.9 = 4$

O $54.50 \text{ g} \times \frac{1 \text{ mol}}{16.00 \text{ g}} = 3.4 \text{ mol} / 3.4 \text{ mol} = 1 \times 3 = 3$



② C $10.4 \text{ g} \times \frac{1 \text{ mol}}{12.01} = 0.9 \text{ mol} / .9 \text{ mol} = 1$

S $27.8 \text{ g} \times \frac{1 \text{ mol}}{32.07} = 0.9 \text{ mol} / .9 \text{ mol} = 1$

Cl $61.7 \text{ g} \times \frac{1 \text{ mol}}{35.45} = 1.7 \text{ mol} / .9 \text{ mol} = 1.9 = 2$



③ C $21.69 \text{ g} \times \frac{1 \text{ mol}}{12.01} = 1.8 \text{ mol} / .6 \text{ mol} = 3$

O $9.64 \text{ g} \times \frac{1 \text{ mol}}{16.00} = 0.6 \text{ mol} / .6 \text{ mol} = 1$

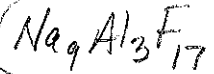
F $68.67 \text{ g} \times \frac{1 \text{ mol}}{19.00} = 3.6 \text{ mol} / .6 \text{ mol} = 6$



④ Na $32.79 \text{ g} \times \frac{1 \text{ mol}}{22.99} = 1.4 \text{ mol} / 0.5 \text{ mol} = 2.8 = 3 \times 3 = 9$

Al $13.02 \text{ g} \times \frac{1 \text{ mol}}{26.98} = 0.5 \text{ mol} / 0.5 \text{ mol} = 1 \times 3 = 3$

F $54.19 \text{ g} \times \frac{1 \text{ mol}}{19.00} = 2.9 \text{ mol} / 0.5 \text{ mol} = 5.7 \times 3 = 17$

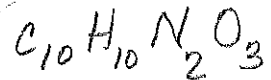


⑤ C $62.1 \text{ g} \times \frac{1 \text{ mol}}{12.01} = 5.2 \text{ mol} / 1 \text{ mol} = 5 \times 2 = 10$

H $5.05 \text{ g} \times \frac{1 \text{ mol}}{1.01} = 5 \text{ mol} / 1 \text{ mol} = 5 \times 2 = 10$

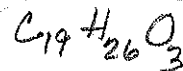
N $14.1 \text{ g} \times \frac{1 \text{ mol}}{14.01} = 1 \text{ mol} / 1 \text{ mol} = 1 \times 2 = 2$

O $24 \text{ g} \times \frac{1 \text{ mol}}{16.00} = 1.5 \text{ mol} / 1 \text{ mol} = 1.5 \times 2 = 3$



Ass 16 #4 EMPIRICAL FORMULA KEY

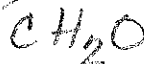
⑥ C $75.69 \text{ g} \times \frac{1 \text{ mol}}{12.01} = 6.3 \text{ mol} / 1 \text{ mol} = 6.3 \times 3 = 18.9 = 19$
 H $8.80 \text{ g} \times \frac{1 \text{ mol}}{1.01} = 8.7 \text{ mol} / 1 \text{ mol} = 8.7 \times 3 = 26.1 = 26$
 O $15.51 \text{ g} \times \frac{1 \text{ mol}}{16.00} = 1 \text{ mol} / 1 \text{ mol} = 1 \times 3 = 3$



⑦ N $87.5 \text{ g} \times \frac{1}{14.01} = 6.2 \text{ mol} / 6.2 \text{ mol} = 1$
 H $12.5 \text{ g} \times \frac{1 \text{ mol}}{1.01} = 12.4 \text{ mol} / 6.2 \text{ mol} = 2$



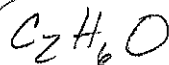
⑧ C $40.0 \text{ g} \times \frac{1 \text{ mol}}{12.01} = 3.3 \text{ mol} / 3.3 \text{ mol} = 1$
 H $6.7 \text{ g} \times \frac{1 \text{ mol}}{1.01} = 6.6 \text{ mol} / 3.3 \text{ mol} = 2$
 O $53.3 \text{ g} \times \frac{1 \text{ mol}}{16.00} = 3.3 \text{ mol} / 3.3 \text{ mol} = 1$



⑨ K $0.104 \text{ mol} / 0.052 \text{ mol} = 2$
 C $0.052 \text{ mol} / 0.052 \text{ mol} = 1$
 O $0.156 \text{ mol} / 0.052 \text{ mol} = 3$



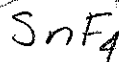
⑩ C $0.013 \text{ mol} / 0.0065 \text{ mol} = 2$
 H $0.039 \text{ mol} / 0.0065 \text{ mol} = 6$
 O $0.0065 \text{ mol} / 0.0065 \text{ mol} = 1$



ASSIGN #4 EMPIRICAL FORMULA KEY

⑪ Sn $6.10\text{g} \times \frac{1\text{mol}}{118.7} = 0.05\text{mol} / .05\text{mol} = 1$

F $3.9\text{g} \times \frac{1\text{mol}}{19.00} = 0.2\text{mol} / .05\text{mol} = 4$



⑫ Fe $11.66\text{g} \times \frac{1\text{mol}}{55.84} = 0.21\text{mol} / .21\text{mol} = 1 \times 2 = 2$

O $5.01\text{g} \times \frac{1\text{mol}}{16.00} = 0.31\text{mol} / .21\text{mol} = 1.5 \times 2 = 3$

