

Name:

Converting moles of a compound to mass

Class:

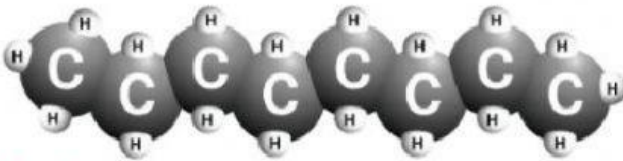
Mole to Mass



First: look at this example

The molar mass of $(C_8H_{18}) = 114.26 \text{ g/mol}$. What is the mass of $5.4 \text{ mol } C_8H_{18}$?

Octane



Solution:

- Molar mass = 114.26 g/mol
- Convert from mole to mass:

$$5.4 \text{ mol} \times \frac{114.26 \text{ g}}{1 \text{ mol}} = 617.004 \text{ g } C_8H_{18}$$

Solve this question

What is the mass of 0.553 mol of Zinc chloride ($ZnCl_2$) ?

- Molar mass = + = g/mol
- Convert from mole to mass.

$$\text{Given mol} \times \frac{\text{molar mass g}}{1 \text{ mol}}$$

$$\text{mol} \times \frac{\text{g}}{\text{mol}} = \text{g}$$