

Warm Up

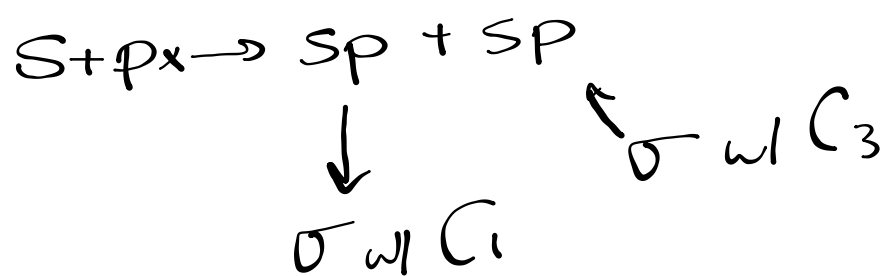
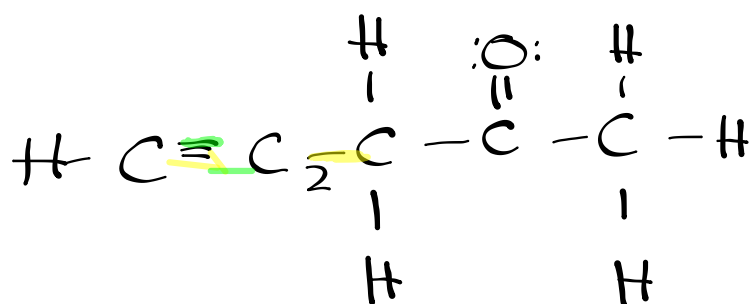
Calculate the mass of 0.905 moles of sodium phosphate.

$$0.905 \text{ mol Na}_3\text{PO}_4 \times \frac{163.94 \text{ g Na}_3\text{PO}_4}{1 \text{ mol Na}_3\text{PO}_4} = \boxed{148 \text{ g Na}_3\text{PO}_4}$$

$$\text{Na}_3\text{PO}_4 \rightarrow (3 \times 22.99) + (1 \times 30.97) + (4 \times 16.00) = 163.94 \text{ g/mol}$$

Determine the number of moles found in 5.98×10^{24} atoms of iron.

$$5.98 \times 10^{24} \text{ atoms Fe} \times \frac{1 \text{ mol Fe}}{6.02 \times 10^{23} \text{ atoms Fe}} = \boxed{9.93 \text{ mol Fe}}$$



Homework

Complete worksheet

Molar calculations worksheet

1. 8.97×10^3 mol
2. 1.49×10^{25} atoms
3. 1.30×10^{26} atoms
4. 46.01 g/mol
5. 14 300 mol
6. 342.34 g/mol
7. 159.70 g/mol
8. 4.24×10^{24} molecules
9. 1.79×10^{25} atoms
10. 643 g
11. 0.266 mol
12. 10 900 g
13. 6.26 mol