

## 40.2: Introduction

Most of the substances you see around you are a combination of elements; they are compounds. Many compounds contain similar elements, and 90% of compounds contain carbon. When energy is added to a substance, the compounds can be broken into new substances which are the products of the chemical reaction. As a candle ( $C_{25}H_{52}$ ) burns in the oxygen ( $O_2$ ) provided by air, new substances will result. When sugar ( $C_{12}H_{22}O_{11}$ ) is heated, the molecule will split into three substances. Both wax and sugar decompose into the same products.

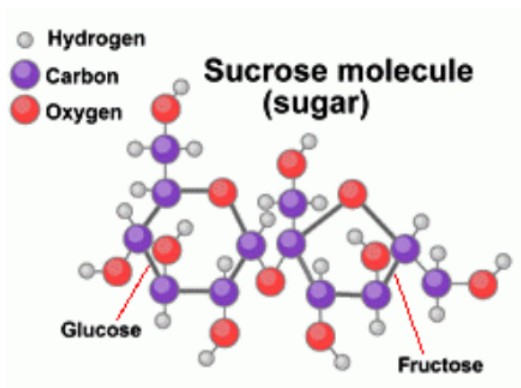
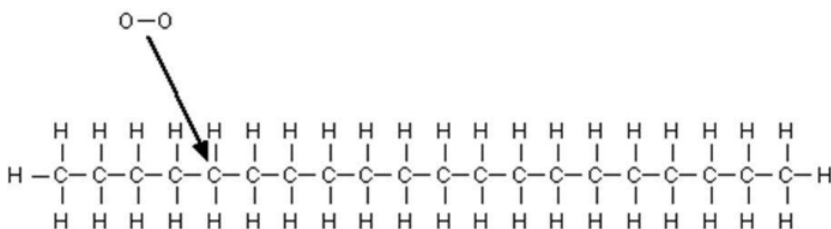


Figure 40.2.1: An oxygen molecule collides with the Paraffin molecule and reacts with that portion of the molecule.

### Contributors and Attributions

- Template:ContribCCPhySc101L

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