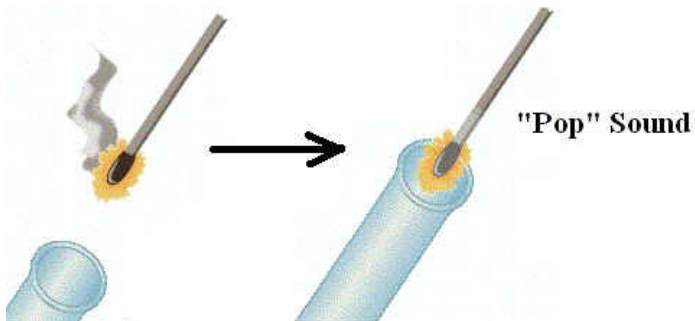


5.3.2 Testing for Gases

Often times a chemical reaction will produce a product that is in the gas state. Identifying if a chemical reaction has occurred may depend on the ability to test for the present of a gas such as H_2 , O_2 , CO_2 , or H_2O .

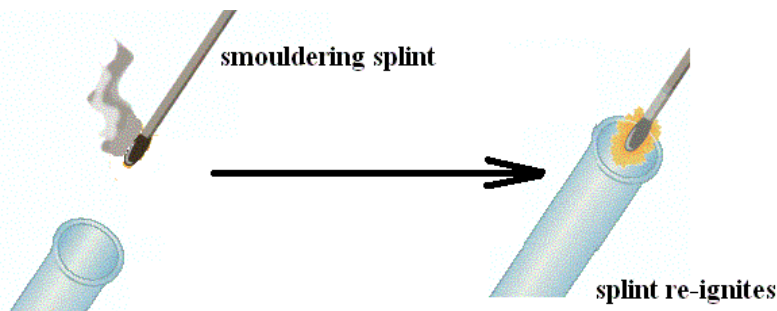
Testing for Hydrogen Gas (H_2):

If a burning splint makes a "popping" sound when it is exposed to the gas you are testing, then it is most likely *hydrogen* gas.



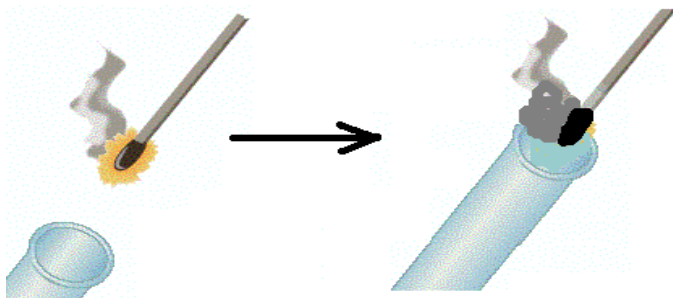
Testing for Oxygen Gas (O_2):

If a smouldering splint re-ignites in the gas you are testing, then it is *oxygen* gas.

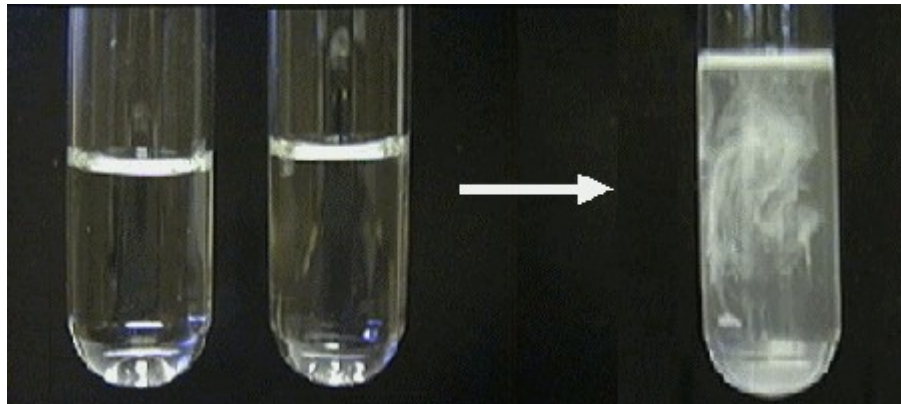


Testing for Carbon Dioxide Gas (CO_2):

If a burning splint "goes out" when exposed to the gas you are testing, then it is most likely *carbon dioxide* gas.



To confirm this gas is *carbon dioxide* gas, place a few drops of lime water (calcium hydroxide) into the sample of gas. And shake it. If the lime water turns "milky" (lime water is no longer clear), the gas is *carbon dioxide* gas.



Testing for Gases

Standard Test For	Description of the Procedure Used to test for it
<p>O₂</p> <p>oxygen gas</p>	<p>If a smouldering splint re-ignites in the gas, then it is <i>oxygen</i> gas.</p>
<p>H₂</p> <p>hydrogen gas</p>	<p>If a burning splint "pops" when exposed to the gas, then it is most likely <i>hydrogen</i> gas.</p>
<p>CO₂</p> <p>carbon dioxide gas</p>	<p>If a burning splint "goes out" when exposed to the gas, then it is most likely <i>carbon dioxide</i> gas.</p> <p>To confirm this gas is <i>carbon dioxide</i> gas, place a few drops of lime water (calcium hydroxide) into the sample of gas. Then shake it. If the lime water turns "milky" (lime water is no longer clear), the gas is <i>carbon dioxide</i> gas.</p>

And lastly.....Test for Water Vapour

If a strip of cobalt chloride paper turns changes from blue to pink then water vapour is present at that source.

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