

- Instruments:**
- 2-chambered Petri dish (2/2)
 - tweezers
 - Pasteur pipette
 - a white piece of paper (for better color contrast)

- Chemicals:**
- lime water, Ca(OH)₂
 - marble, CaCO₃
 - 1M hydrochloric acid, HCl

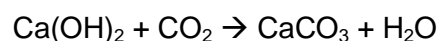
- Experiment:**
- Place fresh lime water in the first chamber.
 - Put a piece of marble in the second chamber.
 - Pour dilute hydrochloric acid over the piece of marble.
 - Place a cover on the Petri dish.

Observations: The marble dissolves. In the other chamber, a milky residue becomes visible.

Results: Two reactions take place, which are tied together by a gas, carbon dioxide. In the first reaction (in chamber 2) carbon dioxide is the reaction product. The gas can reach chamber one once the lid is placed on the Petri dish and takes part in the second reaction. This second reaction in chamber 1 can be used as an indicator reaction for the presence of carbon dioxide.

chamber 2: production of CO₂

chamber 1: indicator for CO₂



Disposal: no dangerous substances