

Apparatus list

The equipment available to investigate the effect of different powders (catalysts) on the decomposition of hydrogen peroxide

- Eye protection
- 50 cm³ burette (which will be inverted)
- 250 cm³ conical flask with sidearm and bung fitted
- 100 cm³ measuring cylinder
- Funnel
- Small test tube(s) or sample tube(s)
- Trough (or shallow container to act as a trough)
- Rubber tubing to connect the sidearm to the bottom of the upturned burette
- Retort stand, boss and clamp
- Stopwatch or timing device
- Cotton thread
- Access to a balance weighing to 0.01 g

Chemicals list

- About 75 cm³ of 20 volume hydrogen peroxide per test (IRRITANT)
- A range of powders (potential catalysts) could be tested, such as:
 - Iron(III) oxide
 - Copper(II) oxide (HARMFUL)
 - Zinc oxide
 - Manganese(IV) oxide (HARMFUL)
 - Powdered zinc
 - Powdered iron
 - Powdered copper

Use 0.3–0.5 g per compound or metal.