

Methods for measuring the rate of a reaction

Education in Chemistry

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You wish to measure the rate of a reaction that produces a gas, such as carbon dioxide, hydrogen or oxygen. Fill in the information below to assess different methods for doing this.

Method	Diagram of apparatus	How the method works	Pros of the method	Cons of the method
Using a balance				
Collecting the gas over water				
Using a gas syringe				

You wish to measure the rate of a reaction that produces a solid, eg the rate of the reaction of sulfuric acid and sodium thiosulfate that forms sulfur. Fill in the information below to assess the methods for this.

Method	Diagram of apparatus	How the method works	Pros of the method	Cons of the method
Disappearing cross method				

For each of the reactions below, described by an observable change that occurs in the reaction, choose a method for measuring the rate of the reaction, and complete the rest of the table.

Method	Diagram of apparatus	How the method works	Pros of the method	Cons of the method
The reaction involves a sudden colour change, eg the iodine clock reaction.				

The reaction involves a gradual change from one colour to another, eg a metal displacement reaction where the solution changes colour.

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The reaction involves a gradual change in pH, eg from acidic to neutral, or from alkaline to acidic.

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