### Conservation of Mass Virtual Lab

## Setup

- 1. Open the simulation: <a href="http://amrita.olabs.edu.in/?sub=73&brch=2&sim=118&cnt=1">http://amrita.olabs.edu.in/?sub=73&brch=2&sim=118&cnt=1</a>
- 2. Select the tab "Simulator".

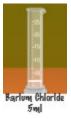


#### **Procedure**

1. Click on the measuring cylinder containing 5 ml sodium sulphate solution to pour it into the conical flask.



2. Click on the measuring cylinder containing 5 ml barium chloride solution to pour it into the 10 ml test tube.



3. Click on the thread to tie the test tube with the thread.



4. Click on the button, "NEXT STEP" to proceed further.



5. Click on the test tube to hang it in the conical flask.



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6. The conical flask is closed with a cork.

Click on the conical flask to place it on the balance to get the mass of everything before the reaction.



- 7. Record the initial mass in the table below.
- 8. Click on the conical flask to tilt it and swirl it to mix both the solutions. Notice that a white precipitate forms. This indicates that a chemical reaction is taking place.



9. Click on the information icon and read the description of the chemical reaction.



10. Click on the conical flask to get the mass of everything after the reaction.



- 11. Record the final mass in the table below.
- 12. Note that the initial mass is equal to the final mass.
- 13. Click on the information icon and read the explanation.



#### **Data Table**

Initial Mass	Final Mass
(g)	(g)

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Conservation of Mass		
Virtual Lab		
Name:		

# **Application**

A student performs an experiment similar to the simulation except she uses baking soda and vinegar. The initial mass was 56.51g. When the two compounds were mixed, the student noticed bubbles being produced. After the reaction was complete the mass was 45.51g

1. Why was the mass different?

2. How could you prove that the law of conservation of mass still holds in this student's experiment?

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