

Making a Cloud Chamber

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Materials:

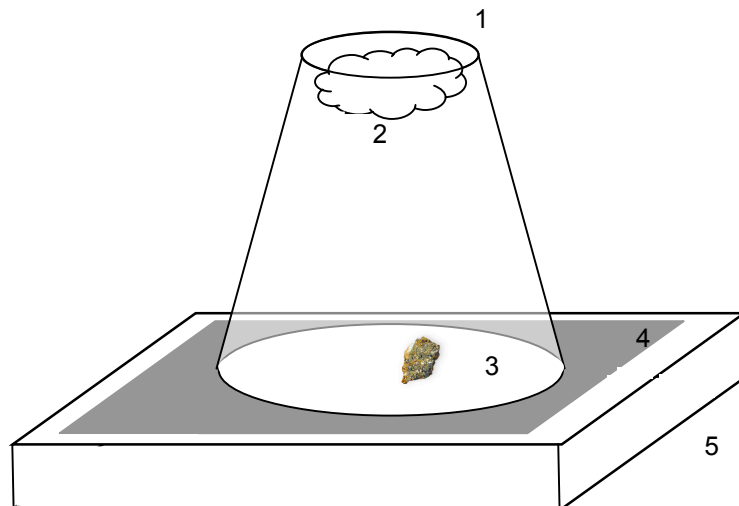
- Dry ice
- Black background
- Clear container
- Absorbent material
- Glue/tape
- Alcohol (95% isopropyl)
- Radioactive source
- Flashlight

Key:

- Saturate container with alcohol vapors
- Maintain good contact between ice and inside of container

Additional Resources:

- Try measuring how far the alpha and beta particles travel in the cloud chamber. Which travels further?
- Hold the north end of a strong magnet near the chamber. Does it appear to have any effect on how the alpha or beta particles move?
- Try wrapping the source (uranium ore or Fiestaware, for example) in a piece of paper. What types of radiation are still visible?
- Try wrapping the source in aluminum foil. How does this affect the types of radiation tracks you can see?



1. Clear (polystyrene) cup
2. Cotton (soaked with 95% Isopropyl Alcohol Solution)
3. Radioactive Source
4. Dark square (black construction paper or black plastic)
5. Dry ice -- $\text{CO}_2(\text{s})$