

AP Chemistry Daily Videos

4.4 Physical and Chemical Changes

Daily Video #1

1. What are the characteristics of a physical process?
2. What is a chemical reaction?
3. Can chemical bonds be broken in a physical change? Give an example.
4. Pause the video at 4:48 and attempt the problem, then evaluate how you did and identify any errors.

A student sands the surface of a 6 cm strip of Mg metal and places it into a crucible. The crucible and Mg are massed, placed over a Bunsen burner, and heated strongly in air for 10 minutes. After cooling, the final mass of the crucible and combustion product are taken. The following data are collected:

Mass of crucible and Mg before heating	35.6439 g
Mass of crucible and combustion product after heating	37.8901 g

What experimental evidence would best help the student confirm that a new compound had been made and that a chemical change occurred?

5. What are the takeaways?