

# Periodic Trends

(Frequently done)

## **Purpose:**

To show periodic trends.

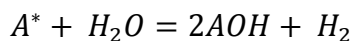
## **Required Materials:**

Lithium Metal    Magnesium Ribbon    6, 4L Erlenmeyer Flasks    Forceps  
Phenolphthalien Indicator    Sodium Metal    Calcium Metal    Distilled Water  
Knife and Spatula    Potassium Metal    Barium Metal    2 – Evaporation Dishes

## **Procedure:**

Place 2L of distilled water in 6, 4L Erlenmeyer flasks, and place 5 drops of Phenolphthalien indicator to show all these metals in water form Hydroxides(OH). Place small strips of Magnesium in the water. All other metals should be cut into small pieces(about 0.5 grams), picked up with forceps and placed in distilled water. Use an Evaporation dish on the mouth of the 4L flasks with Sodium and Potassium. Trend shows metals are more reactive going down a group and less reactive going across a group on the Periodic Table. (Picture below of Sodium reacting with water).

## **Reaction:**



Metals: (Li, Na, K, Mg, Ca, Sr, and Ba)

## **Waste:**

All contents of each Erlenmeyer flask were placed in a labeled waste container and placed in the waste laboratory for shipment out.

