

CATION AND MINERAL DENSITY

The samples you have are two pairs of isomorphous minerals:

Aragonite CaCO_3

Cerussite PbCO_3

Barite BaSO_4

Gypsum CaSO_4

The atomic weights of the cations are:

Calcium 40

Barium 137

Lead 207

Use the acid to find which of the 4 minerals is a carbonate.

Then work out which is the densest carbonate and non-carbonate.

You should now be able to tell which sample is which.