Metals and their Compounds Lecture 1.5

(ION sizes - dont need to remember this!)

	Li ⁺	Na⁺	K ⁺	Rb⁺	Cs⁺
Angstroms 10 ⁻⁸ cm	0.6	0.95	1.33	1.48	1.69
	Be ²⁺	Mg ²⁺	Ca ²⁺	Sr ²⁺	Ba ²⁺
	0.31	0.65	0.99	1.13	1.69

Chemistry of active metals is dull.

Ions are usually *spectator ions* - example Lab experiment silver nitrate plus barium chloride

$$2 Ag^{+} NO_{3}^{-} + Ba^{2+} (Cl^{-})_{2} \rightarrow 2 AgCl \downarrow + Ba^{2+} 2(NO_{3}^{-})$$

The Ba²⁺ (and NO₃⁻) ions play *no part* in the reaction - needed as *counterions*. When the above equation is written as $Ag^+ + Cl^- \rightarrow AgCl \downarrow$

it hides this fact.