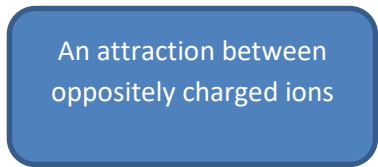
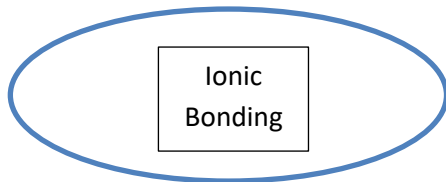


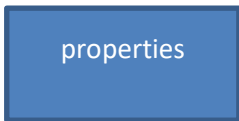
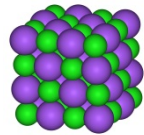
Attractive Forces between atoms, molecules and ions



Anions = -ve charged

Cations = +ve charged

Ionic lattice



May be soluble in polar solvents e.g. water

Ionic lattice does not conduct electricity

Ionic lattice is brittle

High melting and boiling points

Solution will conduct electricity – ions (charge carriers) are free to move and carry charge.

Ions (charge carriers are unable to move) – strongly held in place by electrostatic force of attraction.

A force will align ions of same charge alongside each other and then repulsion forces crystal planes to part.

Energy is required to separate charged ions from lattice.

Molten ionic compounds conduct electricity as ions are free to move and carry charge.

1	H	2	He																																		
3	Li	4	Be	5	B	6	C	7	N	8	O	9	F	10	Ne																						
11	Na	12	Mg	13	Al	14	Si	15	P	16	S	17	Cl	18	Ar																						
19	K	20	Ca	21	Sc	22	Ti	23	V	24	Cr	25	Mn	26	Fe	27	Co	28	Ni	29	Cu	30	Zn	31	Ga	32	Ge	33	As	34	Se	35	Br	36	Kr		
37	Rb	38	Sr	39	Y	40	Zr	41	Nb	42	Mo	43	Tc	44	Ru	45	Rh	46	Pd	47	Ag	48	Cd	49	In	50	Sn	51	Sb	52	Te	53	I	54	Xe		
55	Cs	56	Ba	57-70	Lu	71	Hf	72	Ta	73	W	74	Re	75	Os	76	Ir	77	Pt	78	Au	79	Hg	80	Tl	81	Pb	82	Bi	83	Po	84	At	85	Rn		
87	Fr	88	Ra	89-102	Lr	103	Rf	104	Db	105	Sg	106	Bh	107	Hs	108	Mt	109	Uun	110	Uuu	111	Uub	112	Uuq	113	Uuq	114	Uuq	115	Uuq	116	Uuq	117	Uuq	118	Uuq
*Lanthanide series				57	La	58	Ce	59	Pr	60	Nd	61	Pm	62	Sm	63	Eu	64	Gd	65	Tb	66	Dy	67	Ho	68	Er	69	Tm	70	Yb						
** Actinide series				89	Ac	90	Th	91	Pa	92	U	93	Np	94	Pu	95	Am	96	Cm	97	Bk	98	Cf	99	Es	100	Fm	101	Md	102	No						