

Diagonal relationship: Certain members of second period (specially Li, Be and B) reveal not only reveal similarities with the members of their own groups but show similarities with the elements placed diagonally in the higher groups, (i.e. the members of 3rd ~~group~~ period). Thus Li resembles Mg, Be resembles Al and B resembles Si. This resemblance is termed as diagonal relationship.

Group	I	II	III	IV
2nd Period	Li	Be	B	C
3rd Period	Na	Mg	Al	Si

The diagonal relationship is due to the reason that these pairs of elements have almost identical ionic radii and polarizing power (i.e. charge/size · ratio). Elements of III period, i.e. Mg, Al and Si are known as bridge elements.