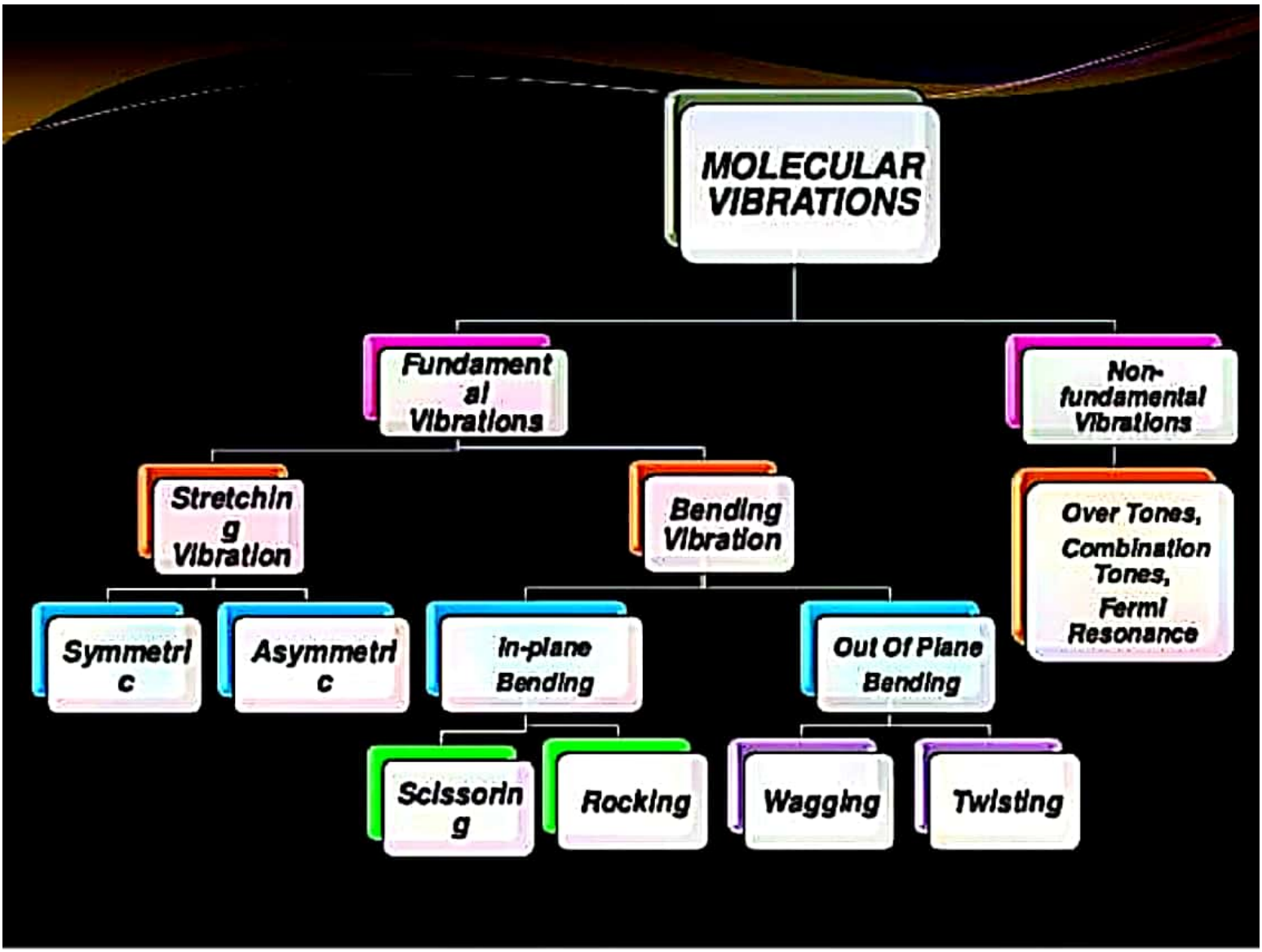


Scanned with CamScanner

FUNDAMENTAL VIBRATIONS

Fundamental vibration is also divided into types:

STRETCHING VIB.

1. Streching vibration involves a continuous change in the inter atomic distance along the axis of the bond b/w 2 atoms.
2. It requires more energy so appear at shorter wavelength.

BENDING VIB.

1. Bending vibrations are characterized by a change in the angle b/w two bonds.
2. It requires less energy so appear at longer wavelength.

Scanned with CamScanner

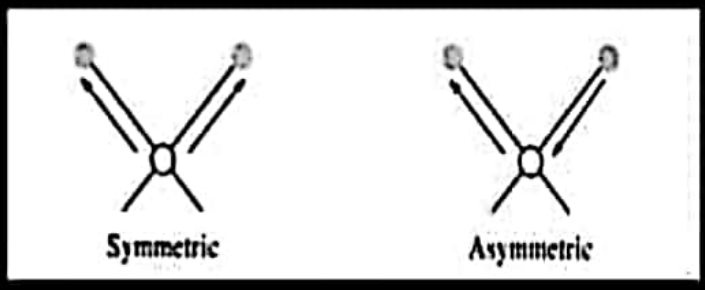
Now, streching vibration is further divided into :

SYMMETRIC VIB.

- Inter atomic distance b/w 2 atoms increases/decreases.

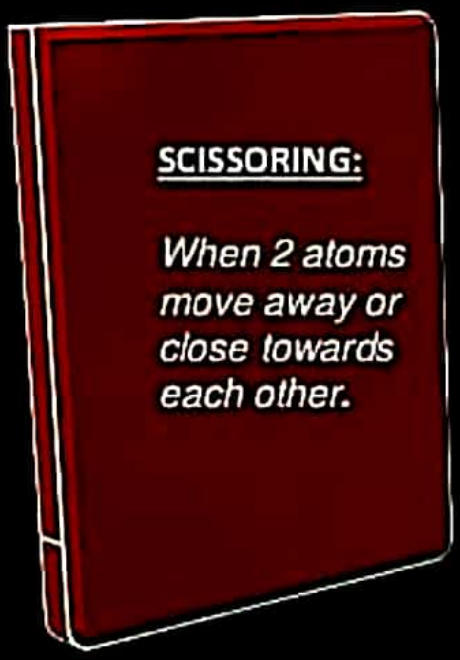
ASYMMETRIC VIB.

- Inter atomic distance b/w 2 atoms is alternate/opposite.



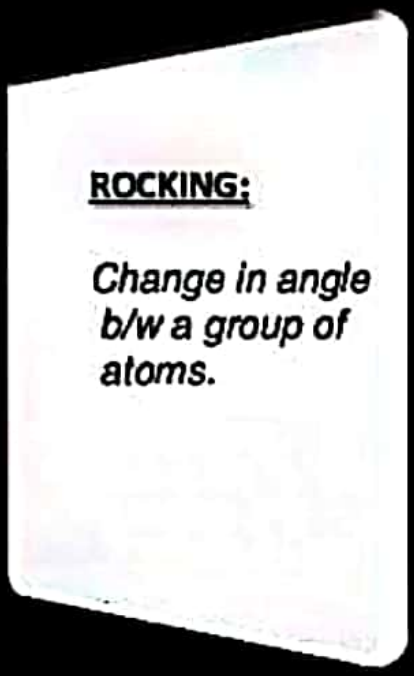
Scanned with CamScanner

In-plane bending further divided into:



SCISSORING:

When 2 atoms move away or close towards each other.



ROCKING:

Change in angle b/w a group of atoms.

Scanned with CamScanner

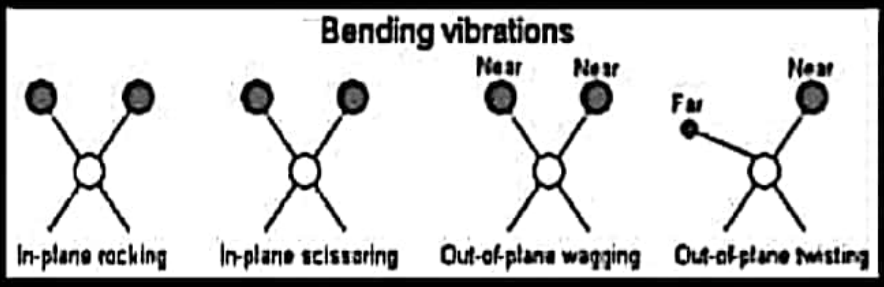
Out plane bending is further divided into:

WAGGING

- Change in angle b/w the plane of a group of atom

TWISTING

- Change in angle b/w the plane of 2 groups of atoms.



Scanned with CamScanner