

Covalent Bonding

10th Grade

Electrons shared between two non-metals, and the properties that follow.



In a covalent bond, two non-metal atoms share a pair of electrons so that both effectively have a full outer shell.

BETWEEN
non-metal + non-metal

ELECTRONS
shared

- Each shared pair counts for both atoms.
- Single, double and triple bonds share one, two or three pairs.
- Simple molecular substances have low melting points.
- The bonds inside molecules are strong; the forces between them are weak.
- Most do not conduct electricity — there are no free charges.

LOOK FOR IT

Two hydrogen atoms each share one electron, giving both a full first shell.

Melting a covalent substance breaks the weak forces between molecules, not the bonds inside them.