

Curiosity: One Molecule, More Than One Drawing

Curiosity Reading | CheAI Research Inc.

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Connection: visual models

Reading time: 4 minutes

Resonance drawings are not competing photographs of a molecule. They are bookkeeping contributors that help represent electron distribution when one single Lewis drawing is incomplete. A resonance hybrid is the model-based blend, not a molecule flipping between cartoon structures. Lewis structures also omit 3-D shape, bond length, and electron probability.

Think like a chemist

1. What must formal-charge totals equal?
2. Why can nitrate have several contributor drawings?
3. What does a Lewis drawing omit?

Word	Meaning	Packet
lone pair	nonbonding electron pair	4–6
formal charge	Lewis bookkeeping value	8–12, 20
resonance	several contributing drawings	15–18