## Which of the following might

 represent the term on the $y$-axis?1. Atomic radius
2. Ionization energy
3. Electron affinity ${ }^{\text {Ho }}$
4. Electronegativity
5. 1 or 2
6. 2, 3, or 4


Which of the following might represent the term on the $y$-axis?

## $7 \%$ 1. Atomic radius

53\% O. Ionization energy
$3 \%$ 3. Electron affinity ${ }^{\text {Ho }}$
3\% 4. Electronegativity
$7 \% \quad 5$, 1 or 2
$28 \%$ 6. 2, 3, or 4

## Which is correct?

1. Struct \#1 Struct \#2

$$
\begin{aligned}
& \mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=0 \\
& \mathrm{FC}_{\mathrm{OB}}=+1 \mathrm{FC}_{\mathrm{OB}}=+1 \\
& \mathrm{FC}_{\mathrm{OC}}=-1 \quad \mathrm{FC}_{\mathrm{OC}}=-1
\end{aligned}
$$

3. Struct \#1 Struct \#2

$$
\begin{array}{ll}
\mathrm{FC}_{\mathrm{OA}}=-2 & \mathrm{FC}_{\mathrm{OA}}=-2 \\
\mathrm{FC}_{\mathrm{OB}}=0 & \mathrm{FC}_{\mathrm{OB}}=0 \\
\mathrm{FC}_{\mathrm{OC}}=-2 & \mathrm{FC}_{\mathrm{OC}}=-2
\end{array}
$$

1. 
2. 
3. 
4. 
5. Struct \#1 Struct \#2
$\mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=-1$
$\mathrm{FC}_{\mathrm{OB}}=+1 \mathrm{FC}_{\mathrm{OB}}=+1$
$\mathrm{FC}_{\text {oc }}=-1 \quad \mathrm{FC}_{\mathrm{oc}}=0$
6. Struct \#1 Struct \#2

$$
\begin{aligned}
& \mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=1 \\
& \mathrm{FC}_{\mathrm{OB}}=-1 \quad \mathrm{FC}_{\mathrm{OB}}=-1 \\
& \mathrm{FC}_{\mathrm{OC}}=1 \quad \mathrm{FC}
\end{aligned}
$$

## Which is correct?

1. Struct \#1 Struct \#2

$$
\begin{aligned}
& \mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=0 \\
& \mathrm{FC}_{\mathrm{OB}}=+1 \mathrm{FC}_{\mathrm{OB}}=+1 \\
& \mathrm{FC}_{\mathrm{OC}}=-1 \quad \mathrm{FC}_{\mathrm{OC}}=-1
\end{aligned}
$$

3. Struct \#1 Struct \#2

$$
\begin{array}{ll}
\mathrm{FC}_{\mathrm{OA}}=-2 & \mathrm{FC}_{\mathrm{OA}}=-2 \\
\mathrm{FC}_{\mathrm{OB}}=0 & \mathrm{FC}_{\mathrm{OB}}=0 \\
\mathrm{FC}_{\mathrm{OC}}=-2 & \mathrm{FC}_{\mathrm{OC}}=-2
\end{array}
$$

2. Struct \#1 Struct \#2

$$
\begin{aligned}
& \mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=-1 \\
& \mathrm{FC}_{\mathrm{OB}}=+1 \mathrm{FC}_{\mathrm{OB}}=+1 \\
& \mathrm{FC}_{\mathrm{OC}}=-1 \quad \mathrm{FC}_{\mathrm{OC}}=0
\end{aligned}
$$

4. Struct \#1 Struct \#2

$$
\begin{aligned}
& \mathrm{FC}_{\mathrm{OA}}=0 \quad \mathrm{FC}_{\mathrm{OA}}=1 \\
& \mathrm{FC}_{\mathrm{OB}}=-1 \quad \mathrm{FC}_{\mathrm{OB}}=-1 \\
& \mathrm{FC}_{\mathrm{OC}}=1 \quad \mathrm{FC}
\end{aligned}
$$

## 10\% 1.

69\% 2.
$9 \% \quad 3$.

## Which molecule is nitric oxide?

1. NO
2. $\mathrm{N}_{2} \mathrm{O}$
3. $\mathrm{HNO}_{2}$


## Which molecule is nitric oxide?

| $85 \%$ | 1. NO |
| :--- | :--- |
| $8 \%$ | 2. $\mathrm{N}_{2} \mathrm{O}$ |
| $7 \%$ | 3. $\mathrm{HNO}_{2}$ |



# Determine the FC for the doubled-bonded F atom in our $\mathrm{BF}_{3}$ Lewis Structure 

1. +1
2. +2
3. 0
4. -1
5. -2


## Determine the FC for the doubled-bonded F atom in our $\mathrm{BF}_{3}$ Lewis Structure

|  |  |
| :--- | :--- |
| $74 \%$ | el. +1 |
| $14 \%$ | $2 .+2$ |
| $5 \%$ | 3. 0 |
| $5 \%$ | $4 .-1$ |
| $2 \%$ | $5 .-2$ |



How many additional resonance structures are there for $\mathrm{CrO}_{4}{ }^{2-}$ ?

1. One
2. Two
3. Three
4. Four
5. Five
6. Six
7. Seven
8. Eight
9. Zero

# How many additional resonance structures are there for $\mathrm{CrO}_{4}{ }^{2-}$ ? 

| $3 \%$ | 1. One |
| :--- | :--- |
| $8 \%$ | 2. Two |
| $6 \%$ | 3. Three |

## 70\% (3). Four

5. Five
6. Six

0\% 7. Seven
1\% 8. Eight
$3 \%$
9. Zero

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### 5.111 Principles of Chemical Science

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