

Solutions

Each answer shows the steps, then the **result**.

2.1

- UV

2.2

- Infrared

2.3

- It increases

3.1 C

- UV-visible light drives electron transitions

3.2

(a)

- Bond vibration

(b)

- The molecule takes in a photon whose energy exactly matches an allowed transition, raising it to a higher-energy state

3.3

- microwave < infrared < visible < X-ray