

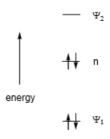
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A carbonyl compound is known to absorb light at two different wavelengths A molecular orbital diagram for this compound is given below. Choose the correct electronic transitions that would be responsible for the long and short wavelength absorptions.



molecular orbital diagram for a C=O group

- \circ (A) The long wavelength absorption = n to Ψ 2 and the short wave absorption = Ψ 1 to Ψ 2.
- \circ **(B)** The long wavelength absorption = $\hat{\Gamma}$ 1 to $\hat{\Gamma}$ 2 and the short wave absorption = n to $\hat{\Gamma}$ 2.
- \circ (C) The long wavelength absorption = n to $\hat{\Gamma}$ 1 And the short wave absorption = $\hat{\Gamma}$ 1 to $\hat{\Gamma}$ 2.
- \circ **(D)** The long wavelength absorption = $\hat{\Gamma}$ 1 to $\hat{\Gamma}$ 2. and the short wave absorption = n to $\hat{\Gamma}$ 2.

VIDEO SOLUTION

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