

Carbonyl-Containing Functional Group	Absorbance Range
Alkyl Ketone	1725-1705 cm ⁻¹
Acid Chloride	1815-1785 cm ⁻¹
α,β-Unsaturated ketone	1685-1666 cm ⁻¹
Aromatic ketone	1700-1680 cm ⁻¹
cyclohexanones	1725-1705 cm ⁻¹
β-diketone	1640-1540 cm ⁻¹
Alkyl aldehydes	1740-1720 cm ⁻¹
α,β-Unsaturated aldehydes	1705-1685 cm ⁻¹
Aromatic aldehydes	1715-1695 cm ⁻¹
Alkyl carboxylic acids	1725-1700 cm ⁻¹
α,β-Unsaturated acids	1700-1680 cm ⁻¹
Aromatic acids	1700-1680 cm ⁻¹
Alkyl esters	1740 cm ⁻¹
α,β-Unsaturated esters	1730-1715 cm ⁻¹
Aromatic esters	1730-1715 cm ⁻¹
Formate esters	1730-1715 cm ⁻¹
Vinyl and phenyl acetate	1776 cm ⁻¹
Acyclic anhydrides (2 peaks)	1840-1800 cm ⁻¹ 1780-1740 cm ⁻¹
Primary amides	1694-1650 cm ⁻¹
Secondary Amides	1700-1670 cm ⁻¹
Tertiary Amides	1670-1630 cm ⁻¹