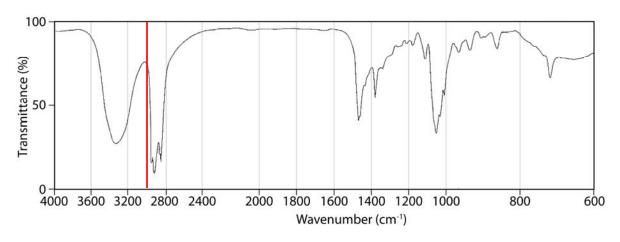
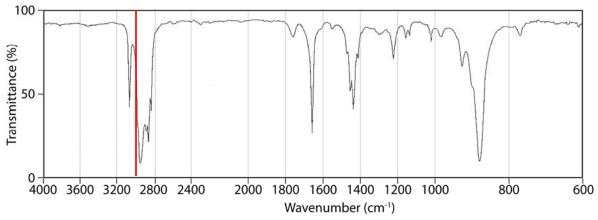
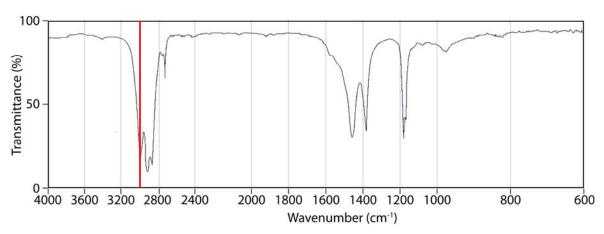
## In-Class Exercise: Interpreting IR Spectra

1. Match each of the IR spectra on this page to one of these three molecules:

$$CH_2$$
  $H_3C$   $CH_3$   $CH_3$   $CH_3$   $CH_3$ 







2. The reaction shown below was performed under conditions that weren't monitored—meaning that it wasn't clear whether the reaction was cold or hot, or acidic, basic or neutral.

$$C \equiv C \longrightarrow KMnO_4$$

The product of the reaction was analyzed by IR spectroscopy, and the product IR is shown below. What is the product?

