

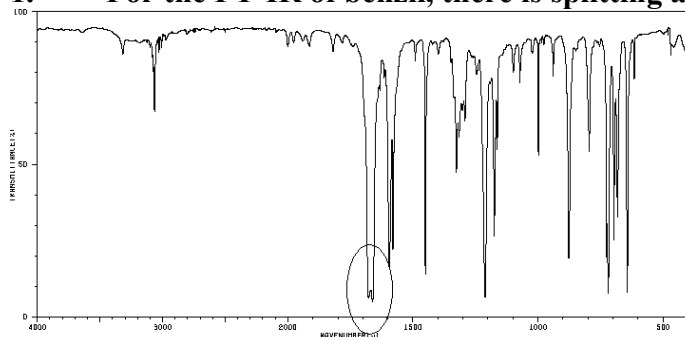
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Section: 1E

### Quiz #3

1. For the FT-IR of benzil, there is splitting at approximately  $1660\text{ cm}^{-1}$ , why? (4pts)



2. Benzoin is oxidized in a phase transfer catalysis (PTC) reaction with bleach to form benzil. What is the catalyst used in today's PTC reaction? (2pts) Draw the reaction scheme showing the starting material and product. (4pts) No mechanism is necessary because it is unknown.
3. Why the reaction called phase transfer catalysis? What are the phases? (4pts)
4. What physical property determines which liquid layer will be on top during the extraction? (2pts)
5. In today's column chromatography, what is the stationary medium? (2pts) Explain briefly the proper procedure for packing your pipette column. (2pts)