

# Preparatory Problems

**CHEMISTRY FOR A BETTER TOMORROW**

## **Preface**

We are very glad to

**Table of**



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## <sup>13</sup>C NMR Chemical Shifts

## IR Absorption Frequency Table

<b>Functional Group</b>	<b>Type of Vibration</b>	<b>Absorption Frequency Region (cm<sup>-1</sup>)</b>
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**Notes:**

Du2838UR2 Tme1e21.9Qq0.00000912 0 612 thrl exm, st0 GudW\*nts W LLNOW\*T pW\*cF4 led tonBT/F









































Spectroscopic data for intermediates **B** and **C**: **B**:  $^1\text{H NMR}$  = 7.86/7.52 (4H), 4.13 (bs, 000091., ( )] TJETQ









## Hydrovinylation strategy



r

**7.3.** Chemical transformation of bromo-nitrobenzene to corresponding 7-vinylindole **J** includes in Bartoli reaction followed by the vinylation step with vinylstannane. **Draw**

**7.5.** For the hydrovinylation step, **choose** the correct statement(s):



**Naphthalene halides: Key compounds for many applications**

Besides benzene, naphthalene is one of the best-known aromatic hydrocarbons. Therefore, the













The name "porphyrin" derives from the Greek word *porphyrá*, meaning purple. Porphyrins are











1 0 1 0 do191.020 i4 11onph411one

When phosphorus reacts with excess of halogens, it can form five-















Medicinal inorganic chemistry based on metal based drugs is broadly defined as the area of

**14.1. Write**



















52<sup>nd</sup> Internatimistrynynia Istalbul, TURKEY





















For the decomposition of an organic compound obeying first-order reaction kinetics, the following rate constant values are obtained at given temperatures:

$t$ ( $^{\circ}\text{C}$ )	10	30	50	70
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Consider that initially there is only AO in the measuring cell displaying an emission at  $\lambda_{em} = 520 \text{ nm}$ , and finally at equilibrium both AO and AO-DNA complex have emission at the same wavelength.  $\epsilon_S$ , and

**24.7.** Given that

24.8.

Spectrophotometric procedures are simple, rapid, and accurate methods that can be utilized for

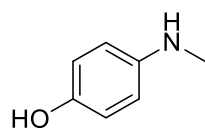






















## **Chemicals**



**4. Attach** a thermometer to the stopper and heat rapidly until the temperature reaches 382 K.













**Figure P4-1.** Refluxre

**9. Drain** the lower layer of 1-bromobutane into a clean flask, clean and dry the separatory funnel, and return the 1-bromobutane to the cleaned separatory funnel.

**10. Then add**

































