CHEM 237 – Organic Chemistry Laboratory I [Majors]
Experiment #3 – Base/Base Extraction
Worksheet

Name: ______________________________________________________________

TA: ________________________________________________________________

**Comparison of Solvent Densities**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Density (g/mL)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ether</td>
<td>_______</td>
<td>Source: __________________</td>
</tr>
<tr>
<td>Water</td>
<td>_______</td>
<td>Source: __________________</td>
</tr>
</tbody>
</table>

**pKa Values of the Conjugate Acids of the Bases Used**

<table>
<thead>
<tr>
<th>Acid</th>
<th>pKa</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂CO₃</td>
<td>_______</td>
<td>Source: __________________</td>
</tr>
<tr>
<td>H₂O</td>
<td>_______</td>
<td>Source: __________________</td>
</tr>
</tbody>
</table>

**Extraction Results – Benzoic Acid**

- Amount present in original sample ________________________________
- Amount isolated ______________________________
- Percent recovery ______________________________
- Appearance of isolated material ________________________________
- Melting point of isolated material ______________________________
- Mass of recrystallized material ________________________________
- Appearance of recrystallized material __________________________
Melting point of recrystallized material ________________________________

Literature melting point ________________________________

Literature source _______________________________________

**Extraction Results – 2-Naphthol**

- Amount present in original sample ________________________________
- Amount isolated ________________________________
- Percent recovery ________________________________
- Appearance of isolated material ________________________________
- Melting point of isolated material ________________________________
- Mass of recrystallized material ________________________________
- Appearance of recrystallized material ________________________________
- Melting point of recrystallized material ________________________________
- Literature melting point ________________________________
- Literature source _______________________________________

**Extraction Results – Naphthalene**

- Amount present in original sample ________________________________
- Amount isolated ________________________________
- Percent recovery ________________________________
- Appearance of isolated material ________________________________
- Melting point of isolated material ________________________________
● Mass of recrystallized material __________________________________________

● Appearance of recrystallized material __________________________________

● Melting point of recrystallized material ________________________________

● Literature melting point _____________________________________________

● Literature source ___________________________________________________

Please copy in your handwriting the following statement and sign in the box below.

“I pledge on my honor that I have not given or received any unauthorized assistance on this laboratory worksheet.”

Statement Box:

Signature _____________________________________________________________

<table>
<thead>
<tr>
<th>Lab Grade</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-lab quiz</td>
<td>Worksheet</td>
</tr>
<tr>
<td>Lab notebook</td>
<td>Post-lab</td>
</tr>
</tbody>
</table>