SYNT 717 – The Diels-Alder Reaction

Final Report Sheet

Name:_____________________________ Section:_________ Date:_________

Diels-Alder reaction

\[ \text{g} \quad \text{mol} \]

amount of anthracene used \hspace{2cm} \hspace{2cm} \\
amount of maleic anhydride used \hspace{2cm} \hspace{2cm} \\
amount of crude product obtained \hspace{2cm} \hspace{2cm} \\
amount of purified product obtained \hspace{2cm} \hspace{2cm} \\
recrystallization recovery, % \hspace{2cm} \\
product theoretical yield \hspace{2cm} \hspace{2cm} \\
crude product yield, % \hspace{2cm} \\
purified product yield, % \hspace{2cm} \\

Write the equation for the overall reaction:

Product Characterization

\begin{tabular}{|c|c|}
\hline
melting range, °C & \text{crude product} & \text{purified product} \\
\hline
\end{tabular}

The product will be characterized by IR. Please label the pertinent absorbances on the spectrum of your product, as well as the provided spectrum of the starting materials, anthracene and maleic anhydride.

Post-Laboratory Questions: On a separate sheet (preferably typed) complete the post-laboratory questions in your laboratory manual. Answers for questions 1 and 2 are included in the worksheet, but calculations must be shown. Show all calculations!