**Rubric for grading Diels-Alder Reaction Minor Lab Notebook write up \_\_\_/30**

**Due no later than Tuesday 7 March**

\_\_\_/3 Purpose

\_\_\_Reaction is written out and at least one English sentence used to explain what is done

Mention explicitly that this a 1,3-cycloaddition known also as a Diels-Alder addition

\_\_\_ /12 Procedure

\_\_\_ moles as well as practical measures (g, mL) listed

\_\_\_pictures of key equipment and setups

\_\_\_ pertinent descriptions of colors, appearance and behavior of reaction as it proceeds

\_\_\_/4 IR

\_\_ (must have major expected vs, sharp band near 1700 cm‑1 (C=O and/or C=C) and weak multiplet at and a bit above 3000 cm-1) C-H stretches , CH2 bend near 1450 but little evidence of 1380 (no CH3)

\_\_IR is annotated (labeled with run conditions, date, workers, instrument and sample ID)

\_\_\_/ 4 Pertinent material property table present (from CRC: maleic anhydride, 1,3 butadiene, xylene (o,m or p) ; use data provided in Exp. 5 lab document (on-line) for dicarboxylic acid

\_\_\_/7 results

\_\_\_mp (> 135🡪 165)

\_\_yield (>30%)

\_\_IR match (see attached reference)

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