

## Chem 002 General Chemistry Lab (FS07): Colorimetry & Spectrophotometry Report Critique

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

Lab Partner Name: \_\_\_\_\_

Section#: \_\_\_\_\_ Desk#: \_\_\_\_\_

You must do your own original work. Duplicate lab reports will be given a zero. Your laboratory report will be graded on the basis of 10 points for participation; 40 points for the laboratory technical work; and, 25 points for the quality of the written report. The grading of the technical aspects of your report will be done using the same criteria as for all earlier reports. The specifics for the grading are listed as follows:

### Technical Grade (40 points total)

**Calculations:** (18 pts) (Graded on formula, example calc, correct answer, and units)

Colorimetry (Unknown blue or red concentrations.) (4.5 pts) CBR \_\_\_\_\_

Colorimetry (Unknown purple concentrations.) (4.5 pts) CP \_\_\_\_\_

Absorbance Calculations (6 pts) A \_\_\_\_\_

Absorbance Ratios & Dye Conc. in Unknowns (3 pts) T(cm) \_\_\_\_\_

**Total Points:** \_\_\_\_\_/18

**Tables:** (9 pts) (Must include title, labels, and units to receive credit)

Data Table for Transmittance (3 pts) T \_\_\_\_\_

Data Table for Absorbance (3 pts) A \_\_\_\_\_

Results Table with conc. in ppm\* of all 5 unknowns (3 pts) R \_\_\_\_\_

[2 Colorimetry (\*purple as a fraction) & 3 Spectrophotometry]

**Total Points:** \_\_\_\_\_/9

**Graphs:** (13 points) (Must include title, axes labels, and units to receive credit)

[Prefer: Scatterplots with datapoints connected by smooth lines.]

Red and Blue Dye Standards (5 pts) R&B \_\_\_\_\_

Red or Blue Unknown (3 pts) R / B \_\_\_\_\_

Purple Unknown (5 pts) P \_\_\_\_\_

**Total Points:** \_\_\_\_\_/13

**Total Points for Technical Grade:**

\_\_\_\_\_/40

### Written Report (25 points total)

**Clarity of Report** (12 points total)

Format (follow expected format, no missing pages, good order, pg. numbers) (2 pts) F \_\_\_\_\_

Neatness (nicely printed, good legibility, good mechanical presentation) (1 pt) N \_\_\_\_\_

Spelling (no spelling errors, no inappropriate capitalization) (2 pts) S \_\_\_\_\_

Punctuation (no missing commas, periods, etc.) (2 pts) P \_\_\_\_\_

Logical presentation (good organization, no illogical sentences) (3 pts) L \_\_\_\_\_

Ease of reading (no excess verbiage or incomplete sentences; gets to point) (2 pts) E \_\_\_\_\_

**Total Points:** \_\_\_\_\_/12

**Report Presentation** (13 points total)

Introduction (2 points) I \_\_\_\_\_

Experimental section (3 points) E \_\_\_\_\_

Results and discussion (4 points) R&D \_\_\_\_\_

Conclusions (needs to be reasonable and supported) (2 points) C \_\_\_\_\_

References (at least 3 listed and in correct format) (2 points) R \_\_\_\_\_

**Total Points:** \_\_\_\_\_/13

**Total Points for Written Report:**

\_\_\_\_\_/25

**Participation** (10 points total) – Attached original datasheets with TA signature

**Total Points:** \_\_\_\_\_/10

(If original datasheets with TA signature are NOT attached, the report will not be graded and you will receive a zero.)

**Total Score:** \_\_\_\_\_/75