



Eastern University, Sri Lanka

Second Year First Semester Examination in Science

2015/2016 (December 2017)

CH 251 Inorganic Chemistry (Practical)

Time: 03 hours

1. Carry out the following experiment and answer the questions below.

Pipette out 10.0 mL of solution A (mixture of I_2 and I^-) into a reagent bottle and titrate against solution B ($0.01\text{ M Na}_2\text{S}_2\text{O}_3$). Add 5 drops of **starch** indicator at the appropriate time and complete the titration. Pipette out 10.0 mL of solution A into another reagent bottle. Add 7.5 mL of Con. **HCl** and 5 mL of **CHCl₃** into the bottle. Titrate the mixture against solution C (0.1 M KIO_3) until the colour change occurs.

- Tabulate all your readings (**Take two readings for each titration**).
 - Write down balanced equations for all the reactions involved in the above Experiments.
 - Determine the strengths of I_2 and I^- in solution A.
 - Why cannot starch be used as an indicator for the second titration?
 - Explain the terms iodometry and iodimetry.
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