Course Title: Organic and Inorganic Chemistry Lab

Instructor: Prof.Jayanta Haldar and Prof. Sebastian C Peter

Course No: JNC 203 (Aug) 0:3

1) To prepare zinc sulphide microspheres by hydrothermal synthesis.
2) Preparation of the inorganic compounds.
   i) $Cu(acac)_2$ ii) $Fe(acac)_3$iiii) $Mn(acac)_3$ iv) $Fe(acac)_2$
3) a) Characterization of UV-Visible spectra due to charge transfer and d-d transition.
   b) Determination of amount of Mnand Cr in a mixture of $KMnO_4$ and $K_2Cr_2O_7$.
   c) Determination of indicator constant by spectrophotometer.
4) Synthesis and characterisation of the MnAndersonpolyoxometallate (POM) complex with ligandTris $(TBA)_3[(MnMo_6O_{18})[(OCH_2)_3CNH_2)_2]$.
5) To synthesis MoS_2/RGO as advanced catalyst for the hydrogen evolution reaction.
6) To extract caffeine from tea leaves.
7) To synthesize anthracenemalic anhydride adduct using Diels Alder reaction .
8) Synthesis of Aspirin.
9) Acetylation of ferrocene and its purification by column chromatography.