

Synopsis Seminar

Seminar Title	: Vicinal Diols as C2 Precursor in N & O-Containing Heteroaryl Synthesis
Speaker	: Sujit Maity (Rollno : 518cy1010)
Supervisor	: Prof. Niranjan Panda
Venue	: Seminar Room, Department of Chemistry
Date and Time	: 29 Nov 2024 (11.00 AM)
Abstract	: Vicinal diols possess unique properties, making them valuable in various fields. They're employed as anti-corrosion agents, lubricants, surfactants, and precursors for polyurethanes and epoxy resins. Vicinal diols are extensively used in organic synthesis as a polar solvent and also as a reagent. Vicinal diols are often used as a protecting agent for carbonyl compounds. Oxidative cleavage of vicinal diols gives carbonyl compounds and hence vicinal diols can be used a C1 precursor in organic synthesis. On the other hand, utilization of the consecutive hydroxyl group leads to dioxanes. Further, selective oxidation of diol may forms α -hydroxy carbonyl compounds, which could serve as a C2-precursor in synthesizing various structural motifs. The current thesis describes the utilization of vicinal diols, such as ethylene glycol and propylene glycol as a C2 precursor in the synthesis of various heteroaryls in the presence of oxidants.