

CH1102. ASSIGNMENT - 07

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Expt. No. 07: Synthesis of Molybdenum Blue

Q1. Xanthine Oxidase

Q2. $[\text{Mo}(\text{NMe}_2)_4]$

The O.S. is +4, Coordination No. is 4 and the structure is distorted tetrahedral.

• $[\text{MoCl}_5]$

The O.S. is +5, Coordination no. is 5 and the structure is trigonal bipyramidal.

• $[\text{MoCl}_6]^{2-}$

The O.S. is +4, the coordination no. is 6 and the structure is octahedral.

• $[\text{Mo}(\text{CN})_8]^{3-}$

The O.S. is +5, the coordination no. is 8. The structure is dodecahedral.

• $[\text{Mo}_2\text{Cl}_8]^{4-}$

The O.S. is +2, the coordination no. is 4. The structure is eclipsed D_{4h} .

• $[\text{Mo}(\text{CO})_6]$

The O.S. is 0, the coordination no. is 6. The structure is octahedral.

• $[\text{Mo}_2(\text{CO})_{10}]^{2-}$

The O.S. is $\overset{-1}{\text{Mo}}$, the coordination no. is 5. The structure is nido-pentagonal.

Q3.

