List of papers published and communicated, the reprints of the published papers have been attached at the end of the thesis.

1. Polarographic studies of azo dyes in aqueous medium.

2. The application of solochrome fast navy 2RS as an indicator for complexometric titrations.

3. Determination of dissociation constants of azo dyes.

4. Hammett substituent effects and correlation between $E_1$ and $pK$ values of azo dyes.

5. Polarographic behaviour of Co$^{2+}$ and Ni$^{2+}$ complexes of azo dyes.
   Indian J. Chem. accepted for publication.

6. Calculations of 'Overall' and 'Stepwise' stability constants of metal ions with azo dyes.

7. Correlation between stability constants of metal-azo dye complexes with the dissociation constants of ligands.

   Communicated to J. Electrochem. Soc. on August 8th, 1980.