SYMPOSIUM
&
CONFERENCE
ATTENDED
SYMPOSIUM/CONFERENCE/SEMINAR ATTENDED:

RESEARCH PAPER PRESENTATION: I

Oral presentation of the following research paper at XXIX Annual Conference organized by Indian Council of Chemist at Department of Chemistry, Panjab University, Chandigarh, on 19-21st December 2010.

2, 4 Dihydroxy 5-Bromo[2’-Methyl]Propiophenone Oxime [DHBMPO] as an analytical reagent: Studies on Co(II) chelate

Nirav H. Parekh and N.B.Patel
Shree Jayendrapuri Arts & Science college, Bharuch.

2, 4-Dihydroxy-5-bromo[2’-methyl]propiophenone oxime has been used as an analytical reagent for gravimetric and spectrophotometric determination of Co(II) at pH 7.0. The Beer law is obeyed up to 11.79 ppm of Co(II) ion at 440nm. The molar absorptivity of complex at 440nm is found to be $2.125 \times 10^3$ lit mol$^{-1}$cm$^{-1}$ and Sandell’s sensitivity is found to be 0.02773 µg/cm$^2$. Job’s method of continuous variation and Yoe and Jones mole ratio method had reveal the metal:ligand ratio in the complex to be 1:2. The stability constant determined spectrophotometrically and Gibb’s free energy change for complex formation reaction is also been calculated and found to be $1.23 \times 10^{10}$ and -13.85 k cal/mol respectively. From TGA studies, the energy of activation for the decomposition step has been calculated using Broido method. The reagent has been characterized on the basis of elemental, IR, UV and NMR spectral studies. The reagent has been successfully applied to the determination of Co(II) in cobalt metal sample.
**RESEARCH PAPER PRESENTATION: II**

Oral presentation of the following research paper at 30\textsuperscript{th} Annual Conference organized by Indian Council of Chemist at Department of Chemistry, Osmania University, Hyderabad, on 28-30\textsuperscript{th} December 2011.

**2, 4 Dihydroxy-5-Bromo[2’-Methyl]Propiophenone Oxime [DHBMPO] as an analytical reagent: Studies on Cu(II) chelate**

Nitinkumar B. Patel and Nirav H. Parekh
_Shree Jayendrapuri Arts & Science college, Bharuch-392002_

2, 4-Dihydroxy-5-bromo[2’-methyl]propiophenone oxime has been used as an analytical reagent for gravimetric and spectrophotometric determination of Cu(II) at pH 4.0. The Beer law is obeyed upto 25.42 ppm of Cu(II) ion at 410nm. The molar absorptivity of complex at 410nm is found to be $2.7 \times 10^3$ lit mol$^{-1}$ cm$^{-1}$ and Sandell’s sensitivity is found to be 0.0234 µg/cm$^2$. Job’s method of continuous variation and Yoe and Jones mole ratio method had reveal the metal:ligand ratio of the complex to be 1:2. The stability constant determined spectrophotometrically and Gibb’s free energy change for complex formation reaction is also been calculated and found to be $1.85 \times 10^{10}$ and -14.0934 k cal/mol respectively. From TGA studies, the energy of activation for the decomposition step has been calculated using Broido method. The reagent has been characterized on the basis of elemental, IR, UV and NMR spectral studies. The reagent has been successfully applied to the determination of Cu(II) in drain micro etch solution.
Poster presentation of the following research paper at 31st Annual Conference organized by Indian Council of Chemist at Department of Chemistry, Saurashtra University, Rajkot, on 26-28th December 2012.

2, 4 Dihydroxy-5-Bromo [2’-Methyl] Propiophenone Oxime [DHBMPO] as an Analytical Reagent : Studies on Pd(II) chelate

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2, 4 Dihydroxy-5-Bromo [2’-Methyl] Propiophenone Oxime has been used as an analytical reagent for gravimetric and spectrophotometric determination of Pd(II) at pH 2.0. The Beer law is obeyed upto 12.77 ppm of Pd(II) ion at 440nm. The molar absorptivity and Sandell’s sensitivity of the complex were also been calculated. Job’s method of continuous variation and Yoe and Jones moles ratio method had reveal the M:L ratio of the complex to be 1:2. Stability constant determined spectrophotometrically and Gibb’s free energy change for complex formation reaction were also calculated. From TGA studies, the energy of activation for the decomposition step has been calculated using Broido method. The reagent has been characterized on the basis of Elemental, IR, UV and NMR spectral studies. The reagent has been successfully applied for the determination of Pd(II) in the sample of Palladised carbon.
WORKSHOP ATTENDED

Seminar
1. UGC-SAP Programme-“Polymer and Their Applications” Dept. of Chemistry, VNSGU, Surat on 28\textsuperscript{th} March 2011
2. GUJCOST, Gandhinagar Sponsored Regional Seminar On CHROMATOGRAPHIC TECHNIQUES on February 8, 2014 organized by Navyug Science College, Rander Road, Surat.

Workshop
1. UGC sponsored “National Workshop On Combined Application Of Spectroscopy” Depart. of Chemistry, S.P. University, V.V. Nagar, 2011
2. “Maintenance Of Opto-Analytical Instrument” jointly organized by WRIC-Mumbai and Department of Chemistry, UKA Tarsadia University, Malibea Campus, 2013