(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/08/2024

(21) Application No.202421062284 A

(43) Publication Date : 30/08/2024

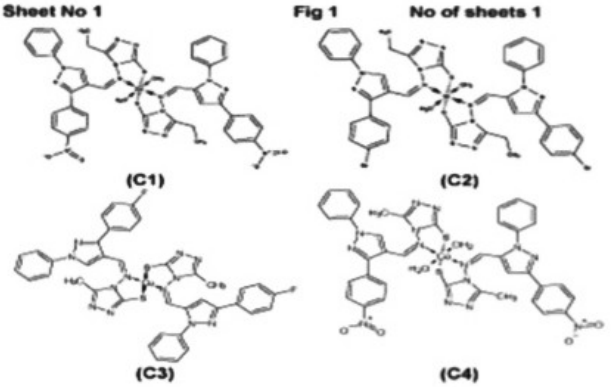
(54) Title of the invention : METHOD OF EVALUATION OF IN VITRO ANTITUBERCULAR AND ANTIOXIDANT DRUGS OF NEWLY SYNTHESIZED TRANSITION METAL COMPLEXES DERIVED FROM SCHIFF BASE LIGANDS

(51) International classification	:A61P0031060000, C07D0405060000, C07F0015000000, A01N0043653000, C08F0010000000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
1)Pratibha Chandrashekhar Dhale
Address of Applicant :Chemistry Research Laboratory, Shri Shivaji Mahavidyalaya, Barshi Pin 413411 ---------- ----------
2)Dr.Panchsheela Ashok Ubale
3)Dr. Shashikant Harishchandra Gaikwad
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Pratibha Chandrashekhar Dhale
Address of Applicant :Chemistry Research Laboratory, Shri Shivaji Mahavidyalaya, Barshi Pin 413411 ---------- ----------
2)Dr.Panchsheela Ashok Ubale
Address of Applicant :144,Pratik Nagar,Old pune naka Siddhivinayak Netra Rugnalay,Solapur Solapur ---------- ----------
3)Dr. Shashikant Harishchandra Gaikwad
Address of Applicant :Chemistry Research Laboratory, Department of Chemistry, Shri Shivaji Mahavidyalaya, Barshi, Dist. Solapur Pin: 413411, Maharashtra, India Solapur ---------- ----------

(57) Abstract :
Unveiled the new method of synthesis of Co(II), Ni(II) and Cu(II) metal complexes of bidentate three different Schiff base ligands derived from the condensation reaction of 4-amino-5-mercapto-1,2,4-triazole with 3-(4-nitrophenyl)-1-phenyl-1H-pyrazole-4-carbaldehyde, 3-(4-nitrophenyl)-1-phenyl-1H-pyrazole-4-carbaldehyde and 3-(4-nitrophenyl)-1-phenyl-1H-pyrazole-4-carbaldehyde. The structural characterizations of synthesized compounds were analyzed on the basis of UV-Visible, 1H-NMR, FT-IR Mass spectroscopy and TGA measurements. The Co(II), Ni(II) and Cu(II) metal complexes were screened for their in vitro antitubercular activity and the outcomes achieved display that the current antitubercular 1,2,4-triazole based complexes have exhibited potential antitubercular activity compared to standard drugs. Further, synthesized complexes have shown excellent antioxidant activity. These studies reveal that the coordination of Co(II), Ni(II) and Cu(II) ions with synthesized ligands play a vital role in the enhancement of the biological potential of the complexes.

15 **Sheet No 1** **Fig 1** **No of sheets 1**



No. of Pages : 29 No. of Claims : 3