

Original Article

THE METAL COMPLEXES OF 1-(PHENYLAMINO)-4, 4, 6-TRIMETHYL-3,4-DIHYDROPYRIMIDINE-2-(1H)-THIONE: PREPARATION, PHYSICAL, SPECTROSCOPIC STUDIES AND ANTIBACTERIAL PROPERTIES

RAJSHREE KHARE*, POOJA SETHI

Department of Chemistry, Maharishi Markandeshwar University, Mullana, Ambala 133207, Haryana, India
Email: drrajshreekhare@gmail.com

Received: 16 Feb 2015 Revised and Accepted: 21 May 2015

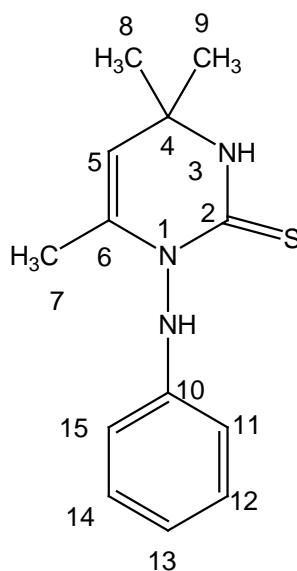


Fig. 1: Structure of Ligand (Hpmpt)

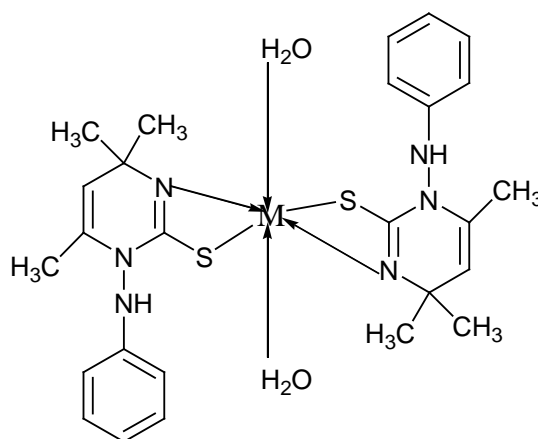


Fig. 2: Structure of [M(pmpt)₂(H₂O)₂] (M(II) = Mn, Co, Ni, Cu)

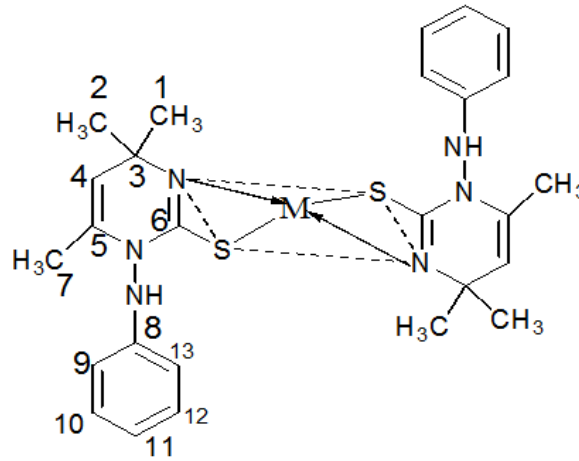


Fig. 3: Structure of [Zn(pmpt)₂], [Pd(pmpt)₂], [Cd(pmpt)₂]

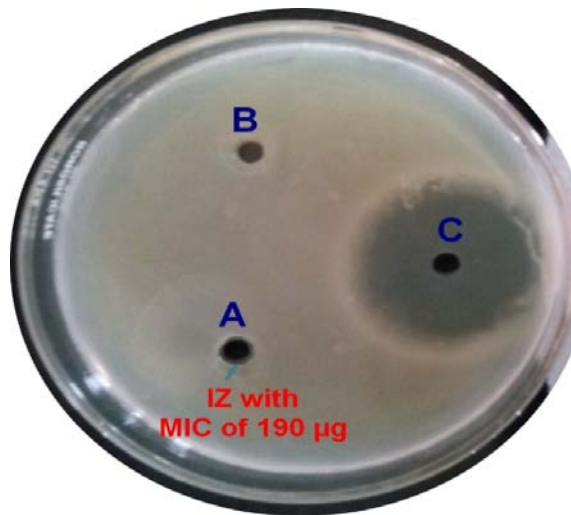
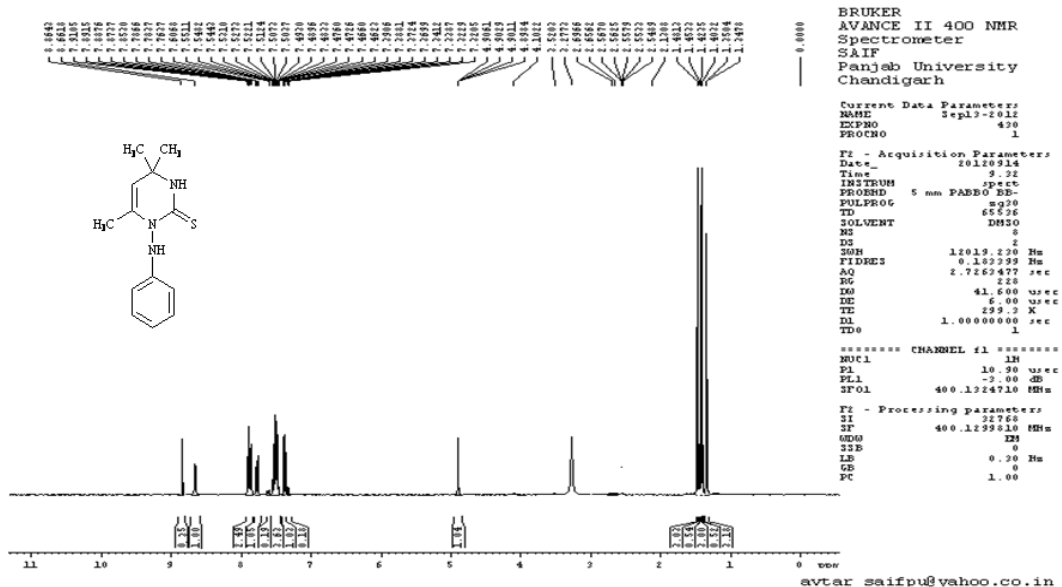


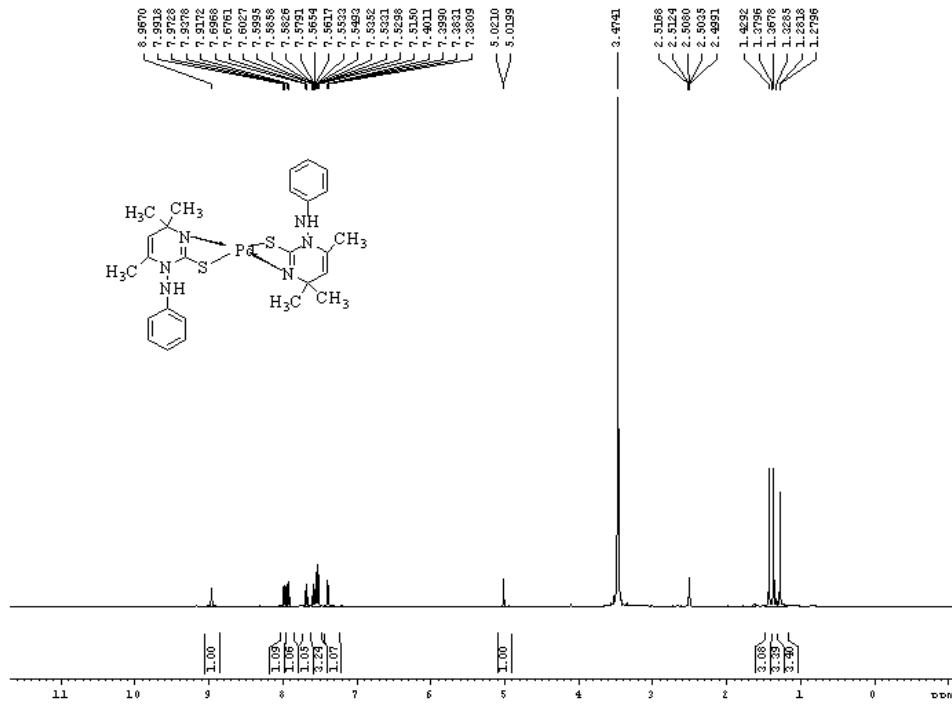
Fig. 2: Agar plate exhibiting the (A) Inhibition zone produced revealing the MIC value of 190µg for the compound, (B) No inhibition zone produced when DMSO alone is poured in the well and (C) Inhibition zone produced when similar quantity i. e. 190µg of chloramphenicol is poured in well

NMR of Ligand



NMR of Pd complex

FHPd-7



BRUKER
AVANCE II 400 NMR
Spectrometer
SAIF
Panjab University
Chandigarh

Current Data Parameters
NAME Aug02-2014
EXPNO 150
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140802
Time 18.16
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183338 Hz
AQ 2.7263477 sec
RG 144
DWB 41.600 usec
DE 6.00 usec
TE 296.3 K
D1 1.0000000 sec
TD0 1

==== CHANNEL f1 =====
NUCL 1H
P1 10.90 usec
PL1 -3.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300000 MHz
WDW EM
SSE 0
LE 0.30 Hz
GB 0
PC 1.00

avtar saifpu@yahoo.co.in

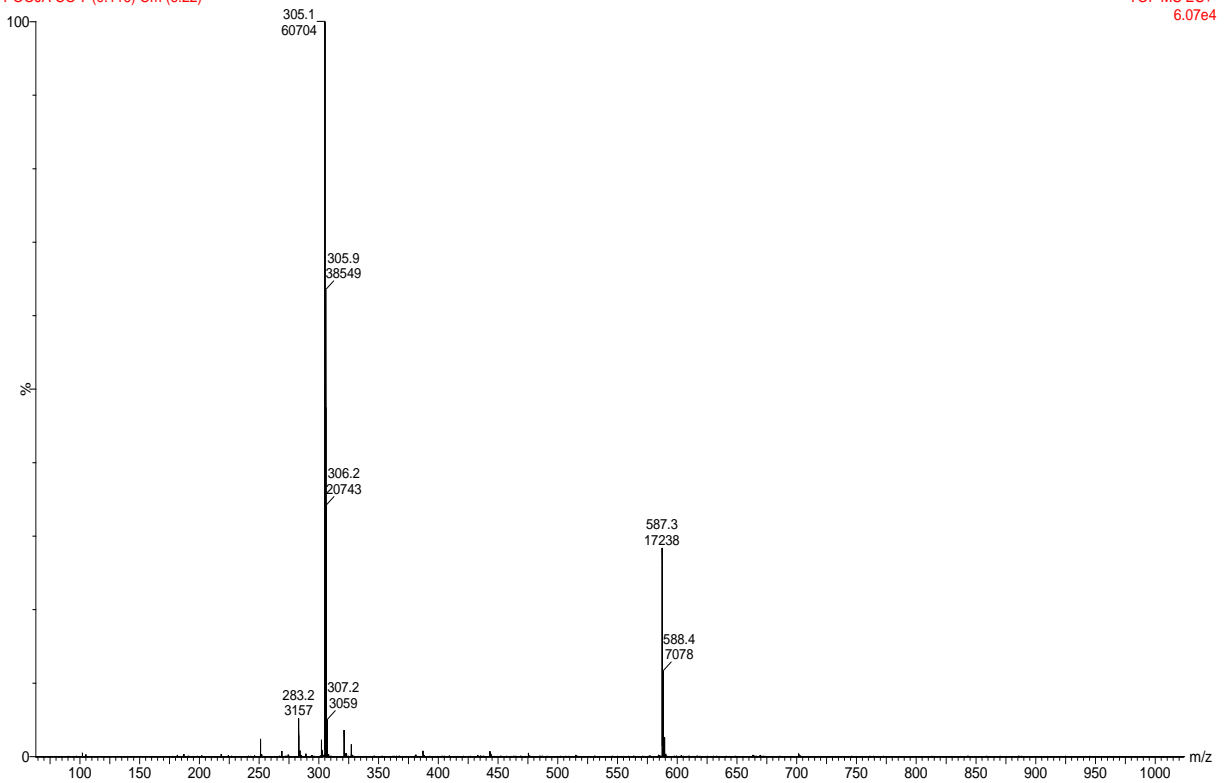
Mass of Co complex

WATERS, Q-TOF MICROMASS (LC-MS)

POOJA CO 7 (0.116) Cm (6:22)

SAIF/CIL, PANJAB UNIVERSITY, CHANDIGARH

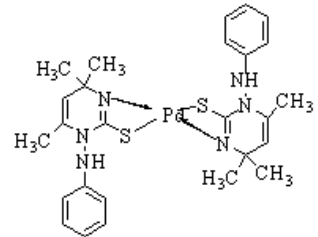
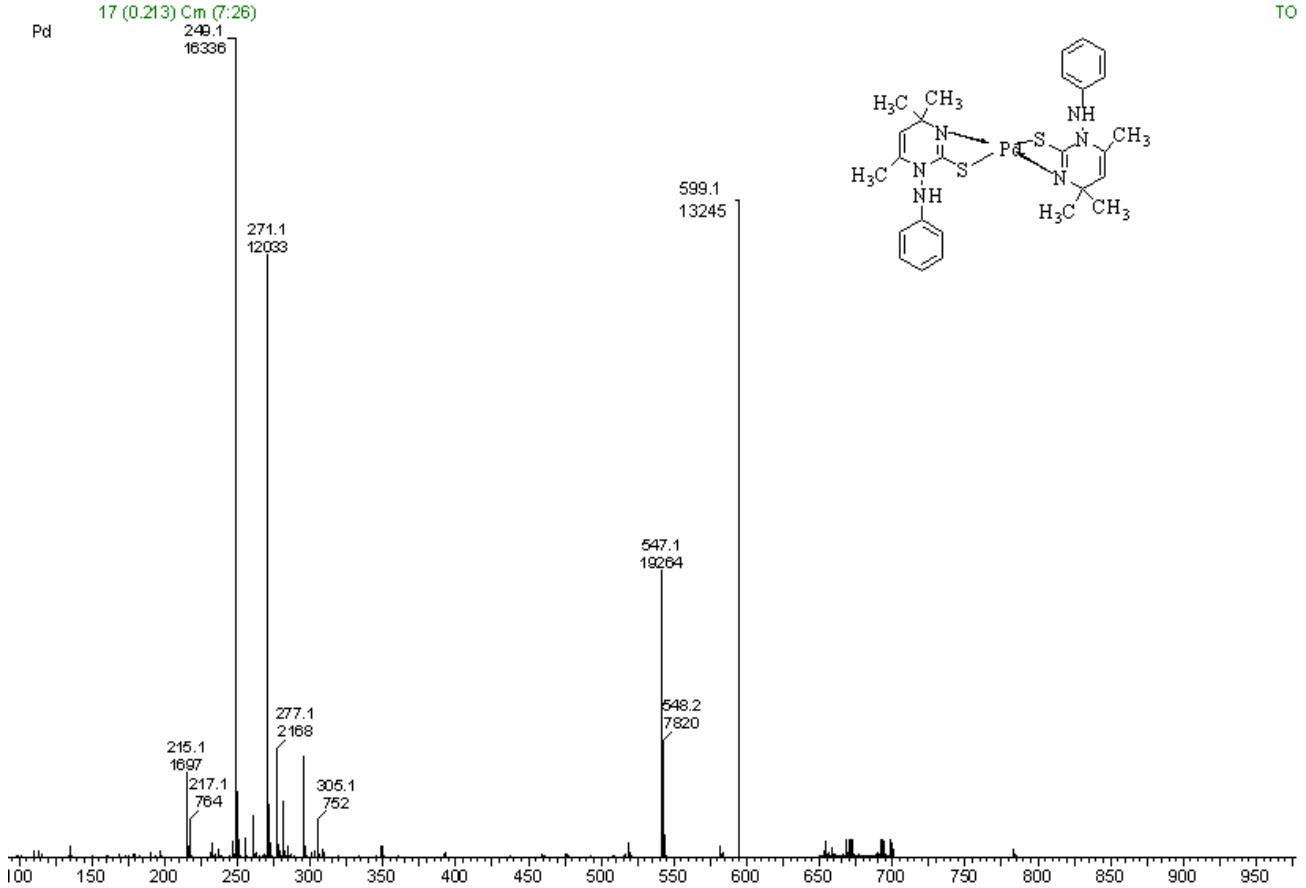
TOF MS ES+
6.07e4



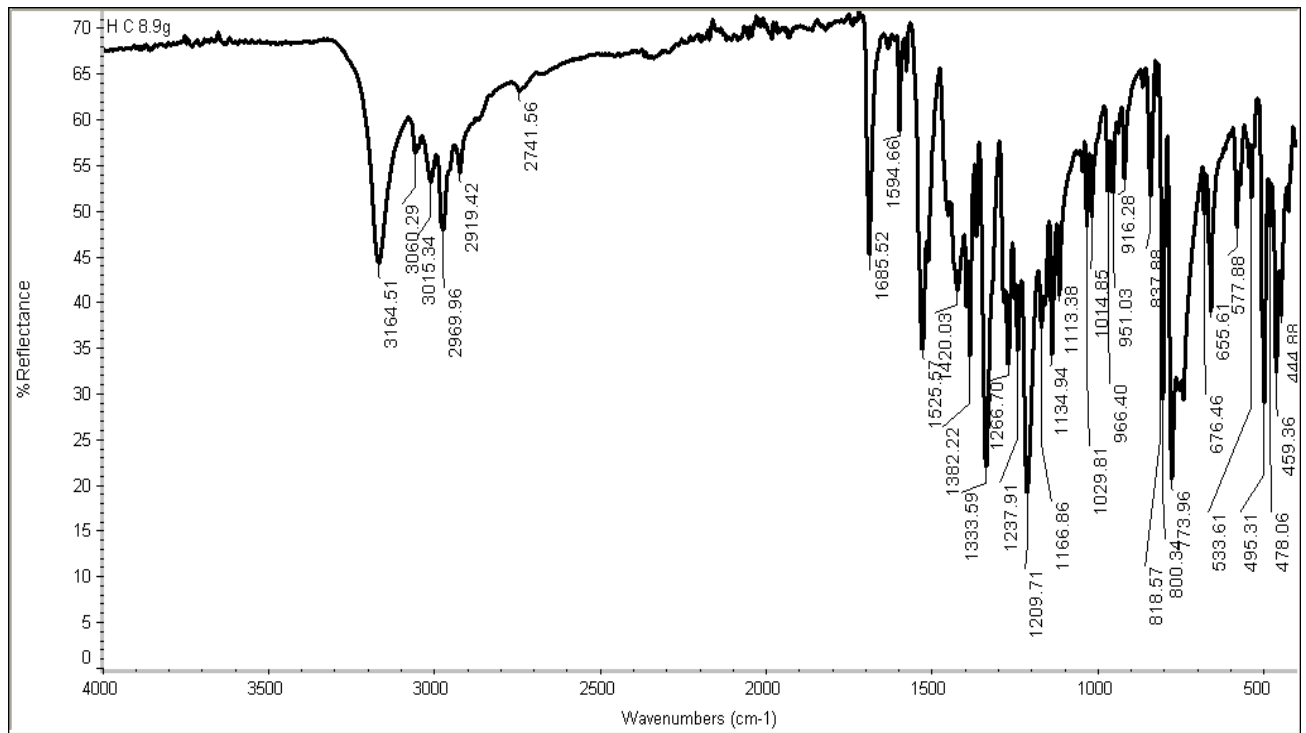
Mass Spectrum of Pd complex

O-TOF MICROMASS (LC-MS)

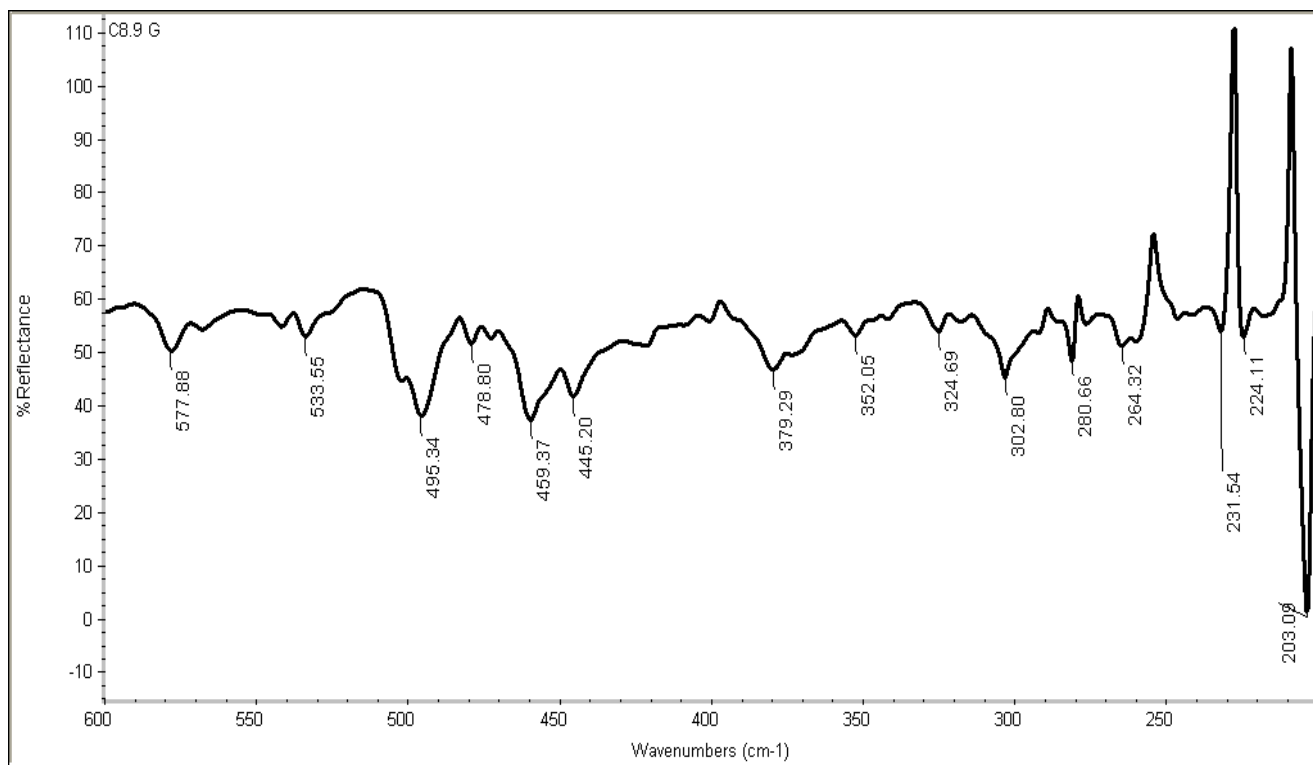
SAIF/CIL,PANJAB UNIVERSITY,CHAI



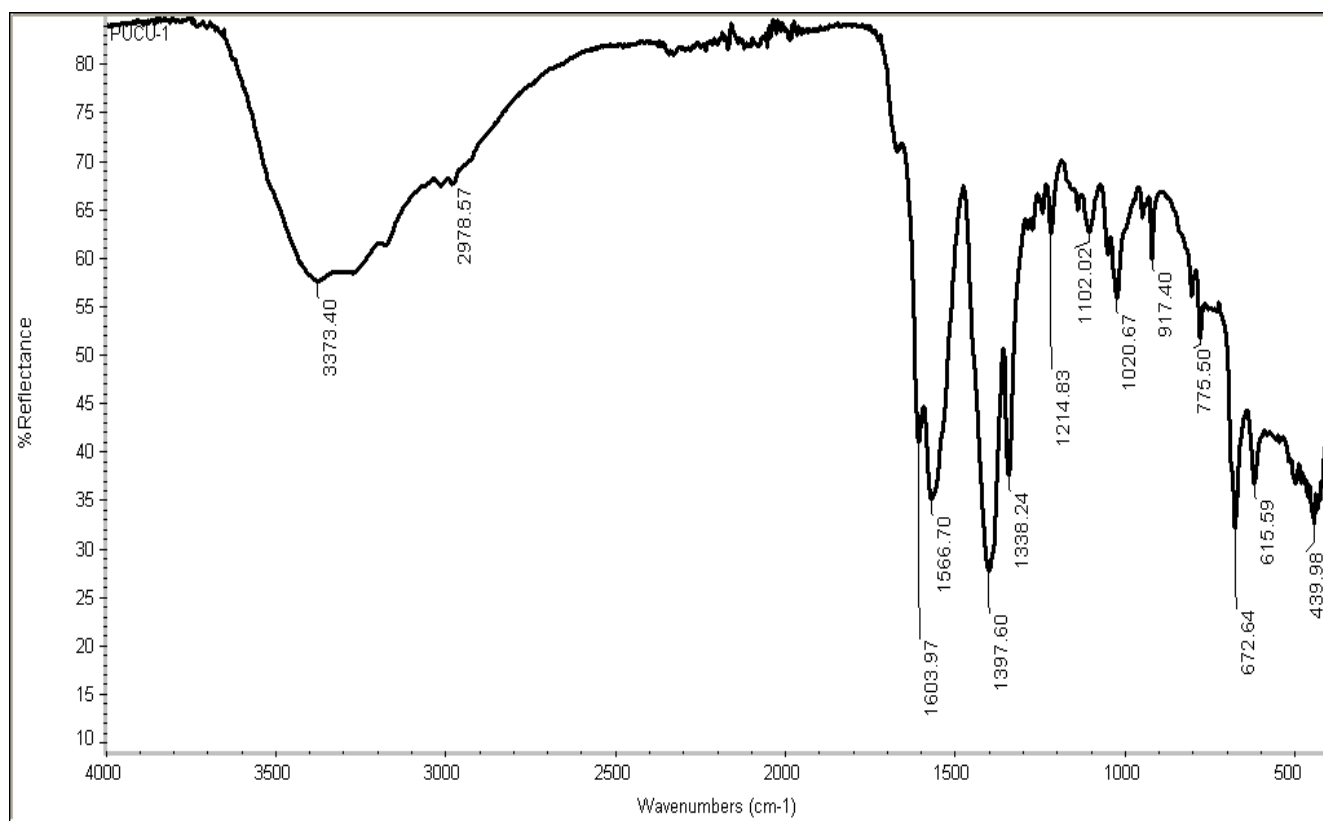
IR of Ligand (upper range)



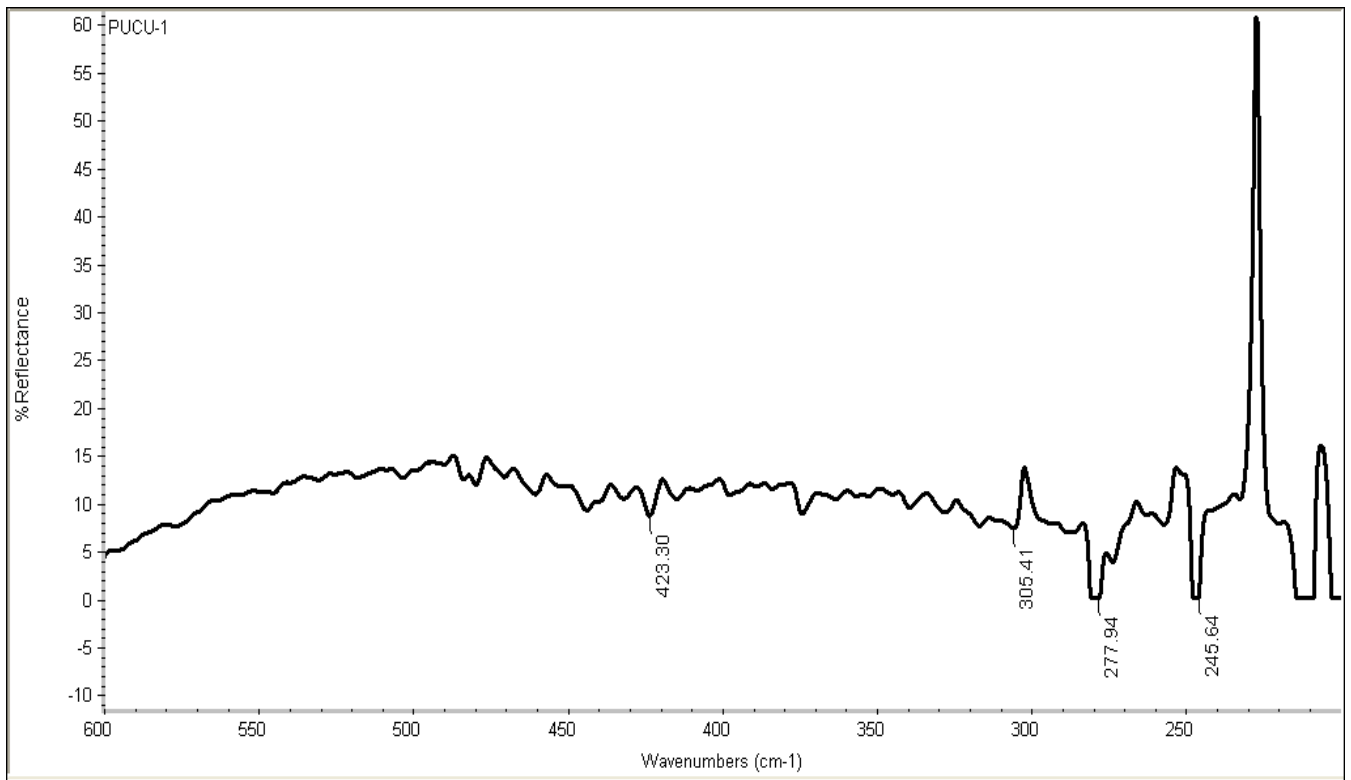
IR of Ligand (low range)



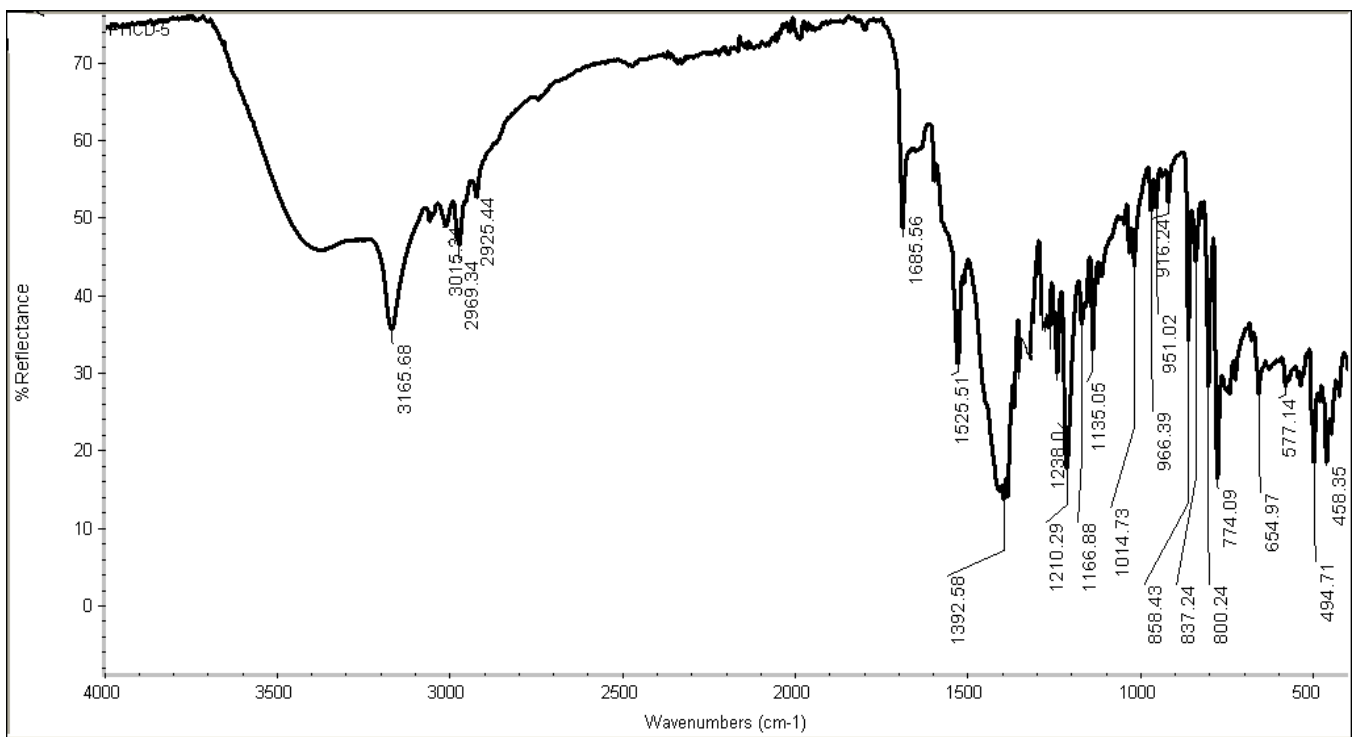
IR of Cu complex (upper range)



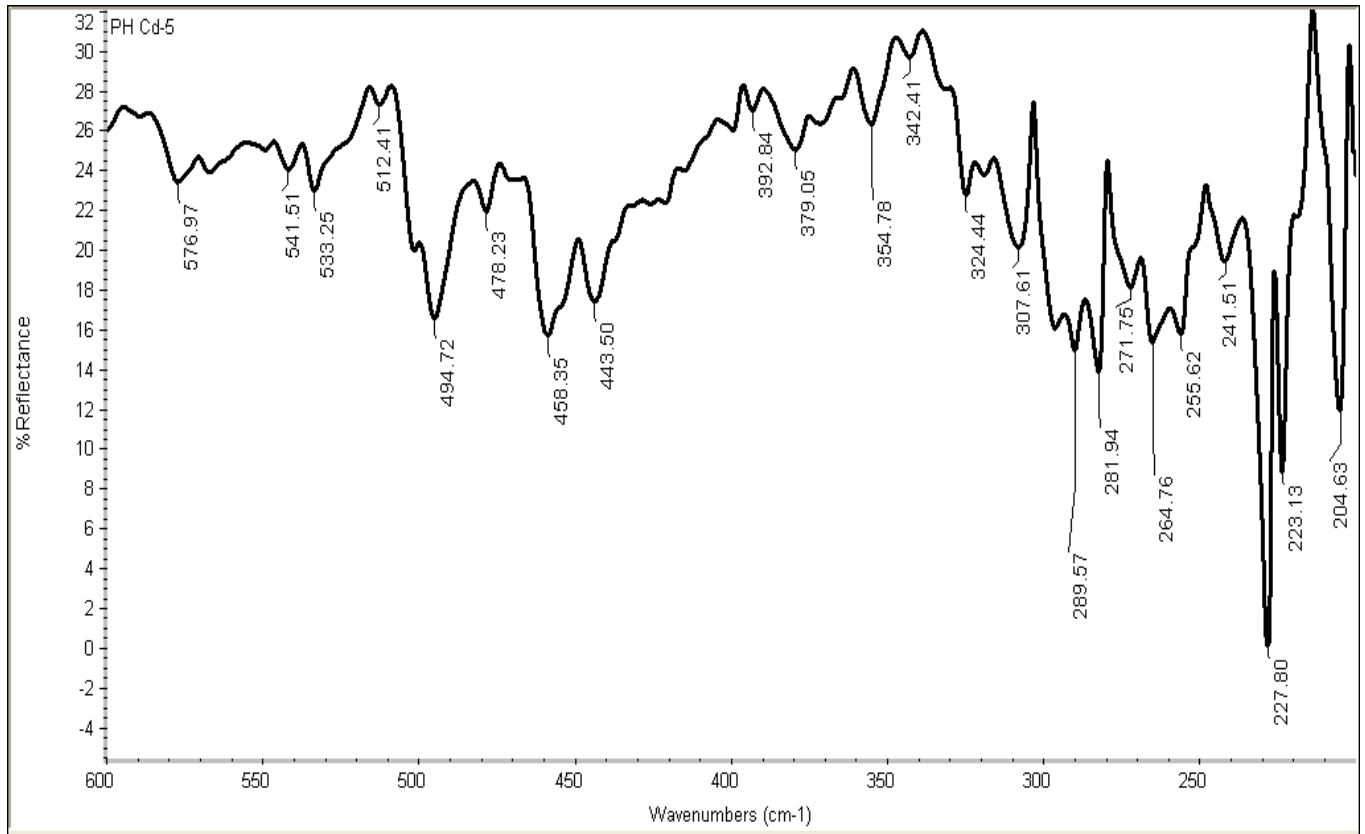
IR of Cu complex (Low range)



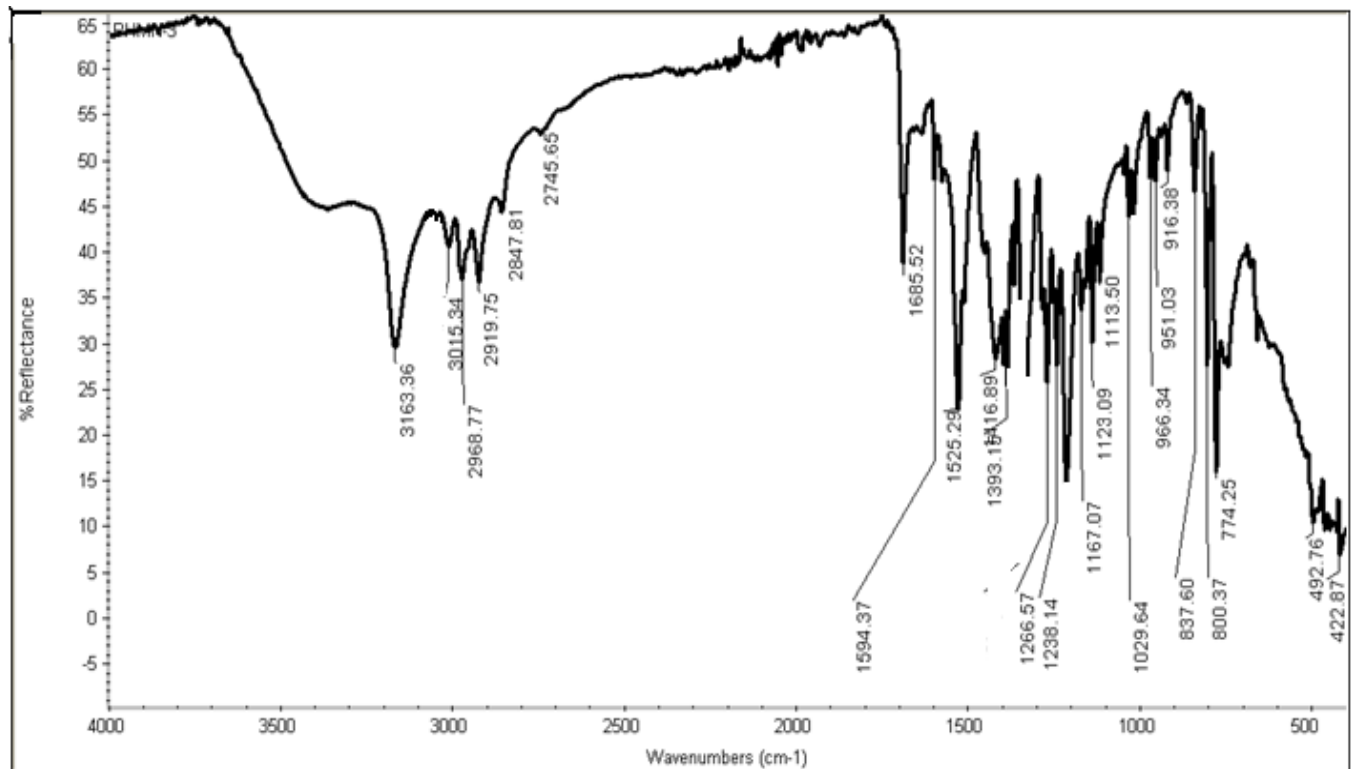
IR of Cd complex



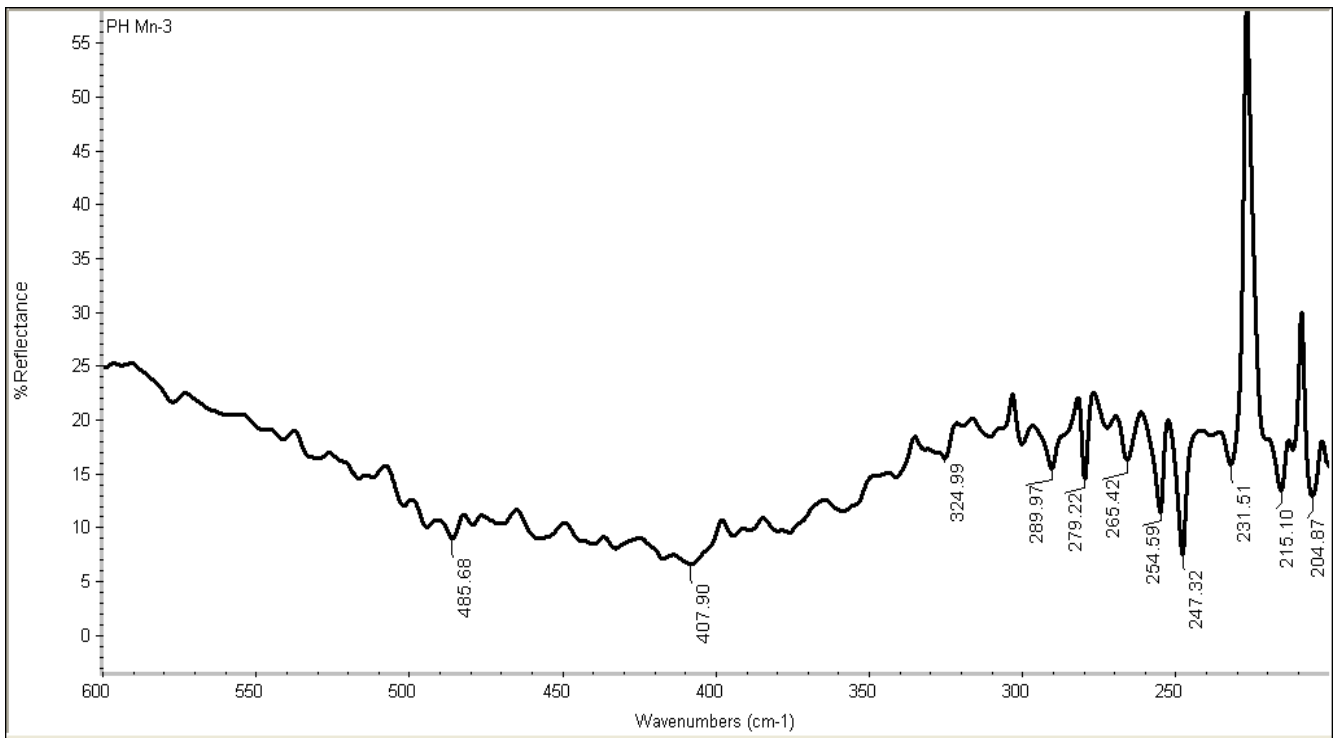
IR of Cd complex (low range)



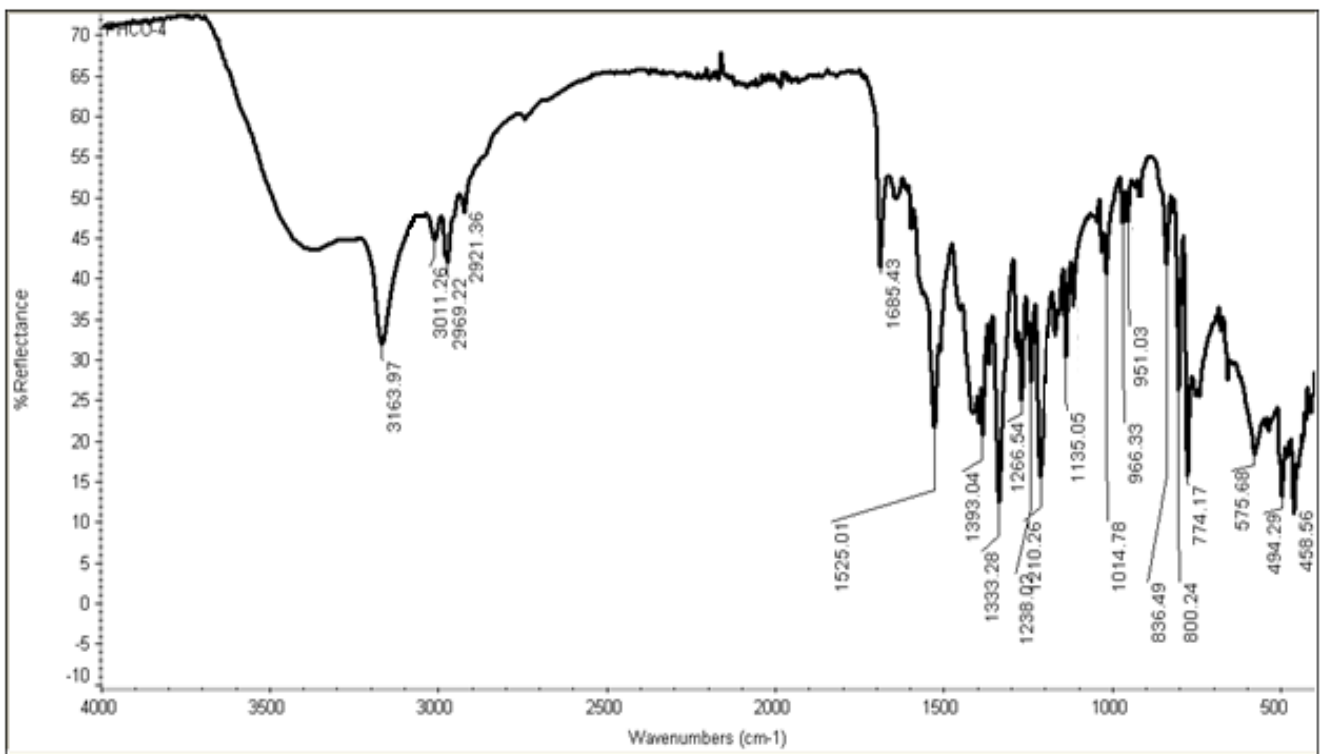
IR of Mn complex (upper range)



IR of Mn complex (Low Range)



IR of Co complex (upper range)



IR of Co complex (Low range)

