

C O N T E N T S

CHAPTER	TITLE	PAGE No.
	Certificate of Guide	
	Acknowledgement.	
	Synopsis.	
I	INTRODUCTION	
	- Introduction of Thiosemicarbazones.	1-16
	- Analytical Aspects of Thiosemi-carbazones.	
	- References.	
II	INTRODUCTION TO SYNTHESIS AND CHARACTERISATION	17-25
	- Ligand, Material, Methods and proposed plan of work.	
III	PHOTOMETRIC DETERMINATION OF COPPER (II):	26-48
	- Determination of Copper (II)	
	- References.	
IV	PHOTOMETRIC DETERMINATION OF COBALT (II)	49-75
	- Determination of Cobalt (II).	
	- References.	
V	PHOTOMETRIC DETERMINATION OF NICKEL (II):	76-98
	- Determination of Nickel (II).	
	- References.	

THE PHOTOMETRIC DETERMINATION OF COPPER (II), COBALT (II), NICKEL (II)
WITH 6-METHOXY 2-CHLOROQUINOLINE 3-CARBALDEHYDE THIOSEMICARBAZONE:

Reagent	Metal ion studied	pH	Composition of complex	max	Molar absorptivity	Sandell Sensitivity	Interference
6-Methoxy, 2-Chloroquinoline 3-Carbalddehyde thiosemi- carbazone	Cu (II)	6	1:1	380 nm	$0.4382 \times 10^3 \text{ L Mole}^{-1} \text{ cm}^{-1}$	$0.8158 \mu\text{g cm}^{-2}$	Zn(II) Tartrate ion interfer strongly.
	Co (II)	6	1:1	390 nm	$0.3056 \times 10^3 \text{ L Mole}^{-1} \text{ cm}^{-1}$	$1.154 \mu\text{g cm}^{-2}$	Mn(II) -Pb(II), Citrate ion interfer strongly
	Ni (II)	4	1:1	380 nm	$0.4880 \times 10^3 \text{ L Mole}^{-1} \text{ cm}^{-1}$	$0.7124 \mu\text{g cm}^{-2}$	Pb (II) tartrate ions interfer strongly.