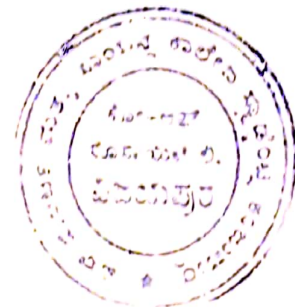


S. B. Arts & K.C.P. Science College, VIJAYAPUR- 586 103.



ASSIGNMENT

For B.A./^MB.Sc.^{II} Semester
2018 - 2019

Name of the Student	<u>Leela. P. Harifan</u>		
Roll No.	<u>05</u>	R.C.U. Seat No.	<u>21182009</u>
Subject	<u>Inorganic chemistry</u>		

Assignment No.	Date	Marks Assigned	Marks Obtained	Name and Signature of Teacher	Remarks
1	<u>22/5/19</u>	<u>02</u>	<u>03</u>	<u>[Signature]</u>	
2					
3					
4					

1) What are alloy? Give example and explain why they are advantageous over pure metals?

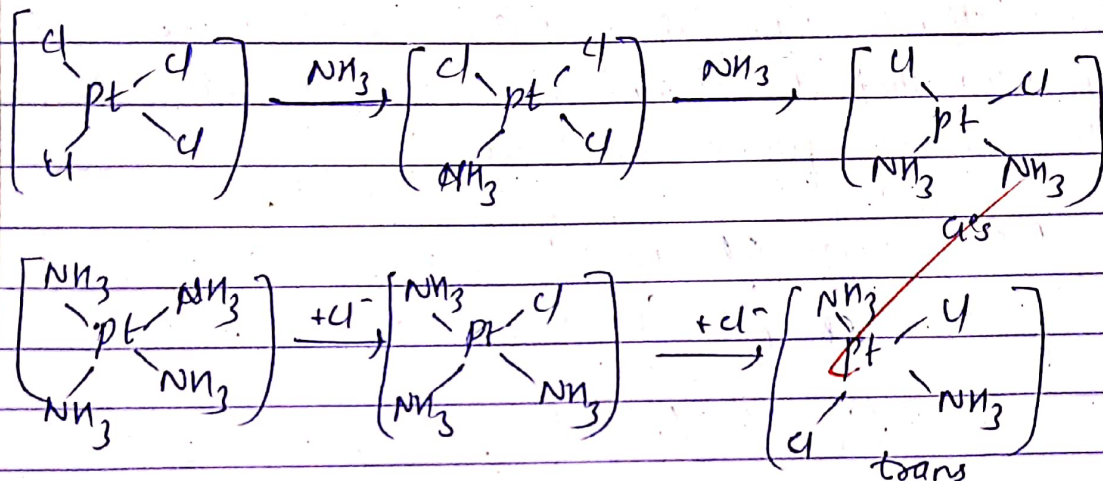
Alloy is mixture of two or more than two metals

Ex - Cu-Ni, etc

It is explained on the basis of phase diagram.

Phase is a physically distinct chemically homogeneous portion, thus has particular chemical composition and structure.

2) Use the trans effect series to suggest synthetic routes to cis and trans $[PtCl_2(NH_3)_2]$ from $[Pt(NH_3)_4]^{2+}$ & $[PtCl_4]^{2-}$



3) What is meant by Normal & Inverse spinels?

Spinel is having general formula AB_2O_4

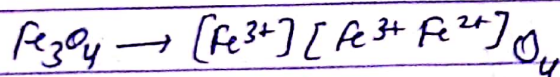
Here A & B are cations but A will occupy tetrahedral and B will occupy octahedral interstitial sites these are called normal spinels

Ex - $[A]^{tet} [B]^{oct}_2 O_4$ - normal

Ex - $MgAl_2O_4$

Another type of the B will occupy tetrahedral site and another half will occupy octahedral site these are called inverse $[B]^{tet} (AB)$

In general $[B]^{tet} [AB]^{oct}_2 O_4$



Here CFSE value Fe is zero so, it will form both Fe^{3+} , Fe^{2+} occupy tet, octahedral.

S. B. Arts & K.C.P. Science College, VIJAYAPUR- 586 103



ASSIGNMENT

For B.A./ B.Sc. II Semester
2018 - 2019.

Name of the Student Akshata. Marab

Roll No. 22 R.C.U. Seat No. CH182002

Subject Inorganic chemistry

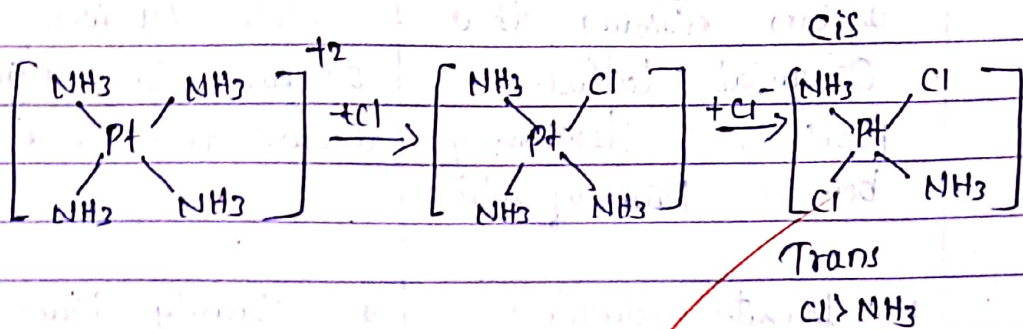
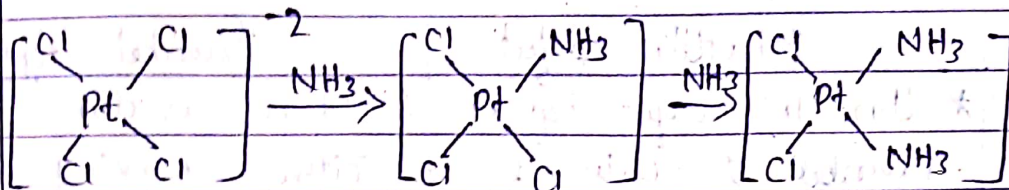
Assignment No.	Date	Marks Assigned	Marks Obtained	Name and Signature of Teacher	Remarks
1	25/5/19	03	03	<u>[Signature]</u>	
2					
3					
4					

1) What are alloy? Give an example

⇒ Alloy is mixture of two or more metals

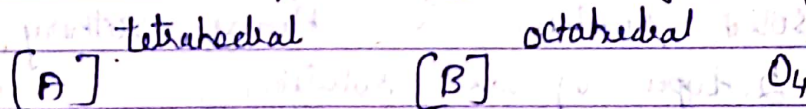
Ex - Cu-Ni alloy

2) Use the trans effect series to suggest synthetic routes to cis & trans $[PtCl_2(NH_3)_2]$ from $[Pt(NH_3)_4]^{2+}$ & $[PtCl_4]^{2-}$



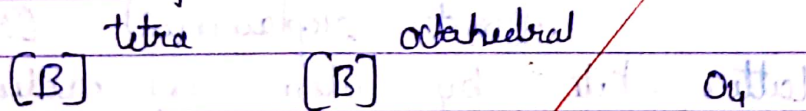
3) What is meant by normal & Inverse Spinels?

⇒ Normal Spinels $[AB_2O_4]$ General formula



Ex - $MgFe_2O_4$

Inverse Spinels



Ex - Fe_3O_4

4) SN_2 path for octahedral complexes is favoured by which drawing ligand entry?

→ SN_2 path for octahedral complexes is favoured by electron withdrawing ligand because it creates extent of back bonding