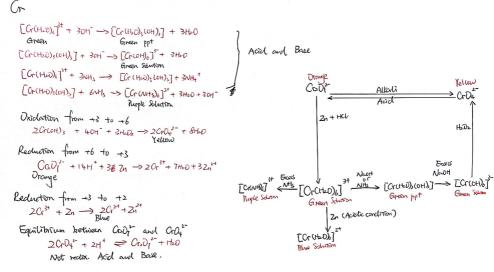
Cm [(m(H2D))]2+ + 20H ->[(m(H2D)+(OH)2] + 2H2D Blue ppt. Acid & Base Reaction. Reversible. Amphoteric Behaviour. [Cn(H2O)6]2+ 2NHs -> [Cn(H2O)4(OH))] + 2NH+ A and B [(n(HbD)4(0H)2]+4NHs -> [(n(NHs)4(HbD)2]2+2HzD+2OH Deep Blue Solution [Cu(4D)6]+ 4Cl = [Cu(14]2+ 6H20 Change in Coordination Number Blue From the to green then yellow [Co(Hea), jt + 20H - > [Co(Hea), coH)] + 2H20 Pink ppt A and B [Co(H2D)6]2+ + 2NH3 -> [Co(H2D)4(OH)2] + 2NH4+ Recipitate will reclissalve in excessive ammonia. [Co (+be) 210+),] + 64+5 -> [Co (4+) 27+4+60+204-[(c(tho))]2++4(1->)[(c(14)2-+6H2) Gradually change from pink to blue. Ligard Erchage 2[(0(NH3))]2+ Hora -> 2[(0(NH3)),]3+ + 20H-Oxidation. Solution becomes clark rol.

Fe [Fe(H=D),] + 20H -> [Fe(H=D),60H),] + 2rb0 Green Green ppt Doxidation 02 [Fe(H2D)]3+ + 30H -> [Fe(H2D)3(OH)3] + 3H2D Ornige [Fe(HLD)]2+ + 2NHs -> [Fe(HLD)4(OH)] + 2NH4" Same for [FecH2D) ] 3+ [Feller] + 0032 -> Fecus (Yellow ppt) 2]Fe+7+3CO32- → 2]Fe(His)3(OH)3] +3Ciù+3His Fest is slightly more acidic than Fezt [FetH20]6]3+ can wee 3H+, and then becomes ppt, while [Feltbox] 21++. [Fe (this)] ] \*+ SON -> [Fe (SON)(His)]; ] + His

Test for Fest. MnDy + 8H++5Fe2+ -> Mm2++4HD+5Fe3+ Cr242+ 14H++6Fe2+ 2Cr3+7H0 +6Fe3+

Ni. (g) + 3 Hu(g)  $\stackrel{\leftarrow}{E}$  2NHs (5)  $S = 203^{2} + 2Fe^{27} \rightarrow 2504^{2} + 2Fe^{17}$   $2Fe^{37} + 2I^{2} \rightarrow 2Fe^{24} + I_{2}$   $S = 203^{2} + 2I^{2} \rightarrow 2504^{2} + I_{2}$ Fe has 2 oxidation states. Positive ions facilitate the collision between 2 regative inn.



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Reduction from +5 to +4
   2VO,+ + 4H++2n -> 2VO2++2n++2HO
Reduction from +4 to +3
  2V2+ +4H+2n -> 2V3+ 212+ 2HD
Reduction from +3 to +2
   2V^{3+} + Z_n \rightarrow 2V^{2+} + Z_n^{2+}
Reduction from +2 to D.
    In is not paverful enough to
   technic V2+ to V.
    +5 VO2+ Purple
        VO2+ Green
                  Blue
```

Yellow

Catalyst. SO2 + 102 V2O5 SO3 \$ 502 + V2O5 -> 505 + V2O4 \( \sqrt{2}\to\_4 + \frac{1}{2}\to\_2 -> \sqrt{1}\to\_5\to\_5