Experiment-5

Experiment - so determine the amount of Fe2+ and Fe3+ ions
By permagaranthy.

Apparatus- Pipette, Gurette, bearer; conical flask, ... burette Stand and damp.

Chemicals - Moha's solt sol, Fo 50, (pH,) 50, 54,0, permagnet (KMn 0,) & Bulphieir out (H, 50,).

Marinal Eyurdians - Mnoit + 8H + 5 Fet = m2+ 5 Fe 3+ +4450

Indicator- K Mady was as self indicator

Obligation - 1. Stondardization of Kmoy Sal".

volume of 0:1N FAS(N,) sol take sol soul tillation

y used Int.
your day

Mean yolume (Vi) = 10.5 ml

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Experiment: - To determine the amount of Fines by permaganometry.	e 2+ 8 Fe 3+
Appointus: Pipetto purette, plakers, conical burette stand & damps	
thenisals: Make's Soult Sol' (Ferrous annohum Feso (NH) so 6420, Purpagorete ( and Sulphuric and M,50,	m supported (K MnO4)
Theory: Mn dridises Fet in wider medium  Itself yets hedward to divount which  Mn 0; + g 11 + 5 Fe = Mn + 5 Fe3+ + 4 H, 0	In Fe 3+ and enium (M2+)
	. 00.114
K Mao, jute as a self indicator of Fest in the original Sal, it can be hedured by	oury
111 & alla white sind alieu In wishin	nadirun
and han be tidented with standard Kin Indpoint in this loss whenspers to present Fer and Fi3+ ing in the Sol!	Ince of both
For and Forth ing in the Soll.	
Procedure: 1. Standardsution of Khay-	
Seurger 10 ml of the Standard 0.1 N phero Seupherts (FAS) but the unlear runned of	us donnolarium
Seupherty (FAS) but the wind of	My Wy
a pipetto.	
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xp

2. Determination of Fe2+

Vol of Given sample tube for each titeation = 10 ml

5.NO Buretle Reading (ml)		ading (ml)	Volum of KM of Bed (m)
	witing	Fire	MAN 2 MAN COLOR DE LA COLOR DE
1	0.	10.3	10.3
1 2 4	1000	10.3	10.3
I A A	Dispose Com	10.3	10.3
13	Let all all all all	Lake West	Charles dies helps

Mean val(V2)=10.3 ml

3. Determination of Fe2+ & Fe3+ (total inon wondent)

golume of fiver sample taken for each tithation = 10 N.

SNO		Burette R	outing (ml)	Vol. of K Mady uselind)
	ilea !	gritial	Final	National Property of the Control of
	1	0	14.3	14.3
	2	0	14.3	14.3
	3.	0	14.3	14.3

Man val ( 43) = 14.3 ml

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	The state of the s
iil	Add 5 ml og 4 N sulphable seid.
iii	Island the sol against K My o Sol taken in a tweete
	Lithate the sol against K Ma o Sol" taken in a butette the wolfer of the Sol" ways from whorless to pink
ivi	Note the solume on the sol wild and heard the
	tithalish at loost 5 times and take the man of closely
	Note the solume of the sol rold and heper the tethers of thosely Related headings (V,)
2.	Determination of Fe2+
	Paratti 1 10 at A. the will a better in
(1)	Pepette out 10 ml of the given substance in a
	1000000 100000 push
ii	Add 5 ml og 4 N sulphulie mid
ling	I Protes Literate ter sol against kan a sol taken
	in burette the word of the substance inanges from
	Is burette the word of the substance inanges from wholess to pink
1	
(14)	Note the galune of the sal used and Supert lee tituation attenst 5 times and take the mon of Musely helided sending (V2)
	titulian words 5 times and the man of
	Musey Island Francis ( )
3.	Determination of Fe2+ and Fe3+ ( John inon where)
i	Pipetti oga dut 10 ml de ay sol" into the lonical
-	
	Teacher's Signature

Colculation: - 1. Normality of KM 04 bol (KMOy) N, V, = N, V2 (FAS) = 0-11 × 10ml Normality of KMO4(N,) = 0.1x10 - 0.1x10 = 5(N) = 0.09711 Determination of Fe24 Val of set tober = 10 m Gol of KMO, Sal ved (v)=10.3ml Mornality of KMno, (N) = 0.097N Normality cy Fe = N= 12 x 5 2 10.3 x 0 0 97 5 0.1 Stanster og Fe = 56xN= 56x0:1=506 gm/L Determination of Fe+3 in a mined Fo2+ & Fe 31 gol of sol taken used = 10 ml

val og sal taken used=10ml
val. og KMo, used (V3) = 14.3 ml
Mahmality og KMh O, (N,)=0.097N

Mornality of hotal Fe = N, x Equet = 0.138 x 56 = 7.728 m/L

Date	
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	STREET, STREET
blask (Ill given salt has already been boiler	1 with
plask (Ill given solt has already been boiler 2-3 y of zinc pieces and 5 m of dilute 1,50, the Fet to Fet ]	to solve
Jil Add 5 ml of 4N M, 504.	
Sithat it with student Kmo sol till the co	lel
throngy prom wolorless to Pint.	
ivi Note the solume of the sol used and report to thatie ut boost 5 times and take the new the closely related reading (V3)	the
tithation ut boost 5 times and take the new	h Of
the closely related reading (V3)	· ·
General Calculation:	
1. Moundity of KMn of Sol"	
Applying the normality sel	
N, V, (KMn0) = N2 V2 (FAS) = 0.1 N x1 U	m
Molishity of Km of N, = 0.1×10.	5 ( )V )
2. Determination of Fe2+	
Vel I Sel tuken = 10 ml.	
UM Off sea Japan - 10 mg.	
Teacher's Signature Ayu	sh.

Stronger of Fe3+ 10th = Kormulty of Ey wet (V3-V2) x8 x56 = 2.1 gm/L Result-

The amount of Fe2+ = 5.6 gm/ The amount of Feb = 2.1 ym2

Mote has solver on the self made and stable

William & May be all worth

The delimina are wight

May Lesson J. W. J. 1845 2 C. 1840 Day

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Vol. of K My on Both used = V, m	A
redundity of KMO = 4N	
Mohndity of For N = V2 x 5	
1 ()	
Stheryn = N, X Ey not = N, X 5	56 gm/L
3. Detelmination of Fe3+ in a mixto	whole Fe 2 and Fe 3+
Volume of sal taken=10ml	
Volum of K mn v, Sula used = V,	, ~ ·
Normality of KMO, = & N	
Normality of total Fe = M = V	3 × §
Sologen of total Fol = N, x Ex	yw = N, x 50 gm/ L
Strengtu of Fest ins = Norm	rulity x Egy wet.
= (V3-1	U2) x S x 56
Robert - The unound of Fe2+ =	5.6 gm/L
The unout of Fe3+= 2	· 1 ym/L

Agush.

Teacher's Signature \_\_