qualitative analysis

Date: 29 / 1 /24

101	Describe th	Describe the use of aqueous sodium hydroxide and/or aqueous ammonia to						
	identify aqueous cations through the formation of precipitates and their							
		subsequent solubility. 1237 +237 281101116						
	HOUS SOLUTION	ers 2. alleration to going and the contracts - allerations by a fully block of strandays.						
	cation	Reaction w NaOH (aq)	Reaction to NH3 (aq)					
	NE CHINE	(strong alkali)	(weak alkali)					
	copper (11)	- Blue precipitate of Cu(OH), forms	- Blue precipitate of (u (OH)2 forms					
	Cu ^{2†}	- Precipitate is insoluble in excess NaOH	- Precipitate dissolves in					
		Georgan + Contain	excess NH3 to give dark blue					
	4 701.717	Palanta ormana i kirantana	solution					
	Iron (II)	- Green precipitate of Fe (OH)2 forms	- Green precipitate of Fe(OH)2					
	Fe ^{2†}	-Precipitate is insoluble in excess NaOH	forms					
	19 (112 m)	etrotingogen glyky p	- Precipitate is insoluble in					
	Jy	onlong at abiyayya	excess NH3					
	Iron (III)	- Red-brown precipitate of Fe(OH)2	- Red-brown precipitate of					
	Fe ^{3†}	forms	Fe(OH)3 forms					
	,	- Precipitate is insoluble in excess	- Precipitate is insoluble in					
	127 - [0] - [Na0H	excess NH3					
b	Calcium	-White precipitate of (a(0H)2 forms	No visible reaction					
	Ca ²⁺	-Precipitate is insoluble in excess NaOH	Main, y Comment of the State of					
	Aluminium	-White precipitate of Al(OH)3 forms	- White precipitate of Al(OH)3					
	AL3+	- Precipitate dissolves in excess NaOH	forms					
	(3)	to give colourless solution	- Precipitate is insoluble in excess					
			NH ₃					
	zinc	-White precipitate of Zn(OH)2 forms	- White precipitate of Zn(OH)2					
	Zn ²⁺	- Precipitate dissolves in excess	forms					
		NaOH to give colourless solution	- Precipitate dissolves in excess					
			NH3 to give colourless solution					
	AMMONIUM	- Upon heating, ammonia						
	NH ₄ +	gas produced turns moist	_					
		red litmus paper blue						
	The same of the sa							
		l l						

Logging off

CS CamScanner

TYPO

	Anion	Test	Observation + ionic equation	
k	carbonate	Add dilute hydrochloric	Effervescence of colourless and	
(CO32-	acid and bubble the	odouriess gas forms. When	
	(Action)	gas through limewater	bubbled through limewater,	
2017-12-140	10° 40' 371. 17	V	a white precipitate of Ca(O3	
A 0	1 towlers the	calcium hydroxide, Ca(OH) ₂	is produced.	
said of	ol oripot,	\$K grajus	$2H^{+}(qq) + (0_{3}^{2}(qq) \rightarrow CO_{2}(q) + H_{2}O(\ell)$	
	Sulfate	Add dilute nitric acid,	A white precipitate of barium	
Liana	S042-	followed by aqueous	sulfate is produced	
		barium nitrate.	$Ba^{2+}(aq) + SO_4^{2-}(aq) \rightarrow BaSO_4(S)$	
l rien	chloride	EM. 2017	A white precipitate of silver	
	Ce-	Add dilute nitric acid,	chloride is produced.	
<u> </u>	Magae agaa a	followed by aqueous	$Ag^{+}(aq) + (1-(aq) \rightarrow Ag(1))$	
	rodide	silver nitrate	A yellow precipitate of silver	
74 T	c I Fores gis	transition of the second	iodide is produced.	
	8	Harana ya	$Aq^{+}(aq) + I^{-}(aq) \rightarrow AgI(S)$	
	Nitrate	Add aqueous sodium	Pungent ammonia gas is produced	
	NO ₃ -	hydroxide, followed by	which turns moist red litmus	
(HD)	A Programma	aluminium foil.	paper blue.	
		navigi i tali sorre	$NH_4^{+} + OH^{-} \rightarrow NH_3 + H_2O$ (aq) (aq) (9) (1)	
290 YS 1 (6 6 11 2 11 21 9	Warm the mixture.	(aq) (aq) (g) (l)	

Today's mood:

Craving coffee 11/10 Logging off

Main character energy BRB overthinking TYPO

LO3 Describe tests to identify gases.

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No.				6
1	Gas	colour and odour	Test	Observation
	carbon	COLOUYTESS,	Bubble the gas through	A white precipitate,
	dioxide CO ₂	odouriess	limewater, Ca(0H) ₂	cacO3, is produced
	Ammonia	colouriess,	Test w a piece of moist	Moist red litmus
	NH ₃	pungent	red litmus paper	paper turns blue
1	Chlorine	yellow-green,	Test w a piece of moist	Blue litmus paper
and a second	Cl ₂	pungent	blue IItmus paper	first turns red and then bleached
101	Hydrogen	colourless,	Place a lighted splint	Gas extinguishes
	H ₂	odouriess	near the gas	lighted spilnt. ѿ a "pop" sound
	Oxygen	colouriess,	Place a glowingsplint	Gas reignites
1	02	odouriess	near the gas	glowing splint
3 -	Sulfur	colourless,	Bubble the gas through	Acidified potassium
	dioxide	pungent	a solution of acidified	dichromate (VI)
	SO ₂		potassium dichromate(v1),	turns from
			K2Cr2O7.	ovange to green.
=			Alternate: Bubble thegas	Acidified polassium
-			through a solution of	manganate (VII)
4			acidified potassium	turns from
3			mangarate (VII),	purple to
			kMnO ₄	colouriess

Today's mood:		To unpack tomorrow:	The state of the s
Craving coffee 11/10	Logging off		
Main character energy BRB ov	verthinking		TYPO