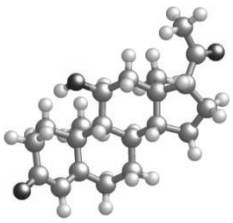

Chem!stry

Name: …… **( )**

Class: ……

Date: …… **/** …… **/** ……

Qualitative Analysis Word Search

C A L C I U M Z K B D Z D B
A M M O N I U M N G M E X R
S X K L G N Y H K F C C H R
K O C L F R I R D U N E Y E
I O D I D E E T D R T L D A
C Y S I T G C E R A C I R L
O T U R U N R O N A R Q O U
P M L M I M T O X O T T G M
P M P Z R T B H L Y G E E I
E F H B L R T H X F G F N N
R H A F A Q C Q M N Q E V I
T Y T C N J B T F R L B N U
W G E O X I D I S E D N P M
O I R O N T H R E E K B R K

● Answer the following questions to help you solve the qualitative analysis word search:

1.	This metal cation produces a white precipitate with aqueous ammonia. The precipitate is insoluble in excess reagent.	**9.**	This anion is oxidised to produce a brown solution which produces a blue-black colour upon the addition of starch indicator.
2.	This cation, when warmed with a hydroxide, produces a gas that turns moist red litmus paper blue.	**10.**	This metal cation produces a reddish-brown precipitate with aqueous sodium hydroxide. The precipitate is insoluble in excess reagent.
3.	This metal cation produces a white precipitate with aqueous sodium hydroxide. The precipitate is insoluble in excess reagent.	**11.**	This anion is reduced to form an alkaline gas when warmed with sodium hydroxide and Devarda's alloy.
4.	When an acid is added to this anion, a colourless gas is produced. The gas gives a white precipitate when bubbled through lime water.	**12.**	In the following ionic equation, the bromide is...? $2Br^-_{(aq)} + Cl_{2(aq)} \rightarrow Br_{2(aq)} + 2Cl^-_{(aq)}$
5.	This anion produces a white precipitate with aqueous silver nitrate. The precipitate is soluble in aqueous ammonia.	**13.**	This colourless gas, which relights a glowing splint, is produced when a metal nitrate undergoes thermal decomposition.
6.	This metal cation produces a blue precipitate with aqueous sodium hydroxide. The precipitate is insoluble in excess reagent.	**14.**	In the following ionic half-equation, the manganese is...? $MnO_4^-{}_{(aq)} + 8H^+_{(aq)} + 5e^- \rightarrow Mn^{2+}_{(aq)} + 4H_2O_{(l)}$
7.	Acidified potassium dichromate(VI) changes to this colour when functioning as an oxidising agent.	**15.**	Compounds of this Group I metal produce a characteristic orange flame colour.
8.	This highly flammable gas is produced when a metal reacts with an acid.	**16.**	This anion produces a white precipitate with aqueous barium nitrate. The precipitate is insoluble in nitric acid.
		17.	This metal cation produces a white precipitate with aqueous ammonia. The precipitate is soluble in excess reagent.

- Scan the QR code below for the answers to this word search.

http://www.chemist.sg/qualitative_analysis/qa_word_search_ans.pdf