Table 2. Characteristic reactions of anions of Group II

	Cl^-	Br^-	I^-	SCN^-	$Fe(CN)_6^{4-}$	$Fe(CN)_6^{3-}$
$AgNO_3$	AgCl white precipitate	AgBr cream-colored (yellow) precipitate	AgI yellow precipitate	AgSCN white precipitate	$Ag_4[Fe(CN)_6]$ white precipitate	-
$PbNO_3$	$PbCl_2$ white precipitate	$PbBr_2$ white precipitate	PbI_2 yellow precipitate	-	-	-
H_2SO_4 concentrated	characteristic smell	characteristic smell, brown solution	violet smoke after heating	-	-	-
H_2SO_4 concentrated + NH_3 aq concentrated	white precipitate	white precipitate				
$KMnO_4 + H_2SO_4$	discoloration after heating	discoloration, characteristic smell, brown solution	discoloration , I_2 liberated	discoloration	-	discoloration
$Cu^{2+} + H_2SO_4$				green solution/black precipitate		
$Co^{2+} + H_2SO_4$				blue solution		
Fe^{3+}				red solution		brown solution ($+CuCl_2$ – blue solution)
$KI + H_2SO_4$ + starch (skrobia)						blue solution
			$+ HgCl_2 \rightarrow$ red precipiation	$+ Fe^{3+}$ blood-red solution	$+Fe^{3+} \rightarrow$ dark blue precipitate	$+Fe^{3+} \rightarrow$ dark brown solution

Table 3. Characteristic reactions of anions of Group III

	NO_3^-	NO_2^-	CH_3COO^-
$AgNO_3$	No precipitate	White precipitate	White precipitate
Diluted H_2SO_4			the smell of vinegar after heating
$H_2SO_4 + FeSO_4$	brown wedding band (add concentrated acid)	brown wedding band (add dilute acid)	
$KI + H_2SO_4$ + starch (skrobia)		blue solution	
			$C_2H_5OH + H_2SO_4 \rightarrow$ fruity smell after heating