

and the contents of the tube dissolved in water. The substance was very soluble and the least possible quantity of water was used. The solution, on rapid evaporation *in vacuo*, yielded dark red crystals. Considerable difficulty was experienced in obtaining these crystals, owing to the rapidity with which the solution decomposed into chromic hydroxide; consequently the analysis of the crystals obtained by repeated operations had to be made on very small quantities. Analysis of the crystals thus obtained from the compound at a temperature of 15° gave:

	Found. Per cent.	Calculated for $\text{Cr}_2\text{Cl}_6 \cdot 10\text{CH}_3\text{NH}_2$ . Per cent.
Chromium .....	16.25	16.68
Chlorine .....	35.20	33.92
Methylamine.....	48.50	49.6
	99.95	100.00

Crystals produced in a similar manner from the original compound, previously heated to 94°, gave:

	Found. Per cent.	Calculated. Per cent.
Chromium .....	16.55	16.61
Chlorine .....	34.19	33.86
Methylamine.....	48.89	49.53
	99.63	100.00

The composition of these crystals is therefore  $\text{Cr}_2\text{Cl}_6 \cdot 10\text{CH}_3\text{NH}_2$ , corresponding to the similarly constituted chloropurplechromium chloride obtained (Lang and Carson) from anhydrous ammonia and chromic chloride.

On heating to 100° the compound formed by the direct action of methylamine on chromic chloride, analysis showed it to contain 43.26 per cent. of methylamine, which would point to its composition being  $\text{Cr}_2\text{Cl}_6 \cdot 8\text{CH}_3\text{NH}_2$ , the percentage in this latter being 43.8. At 124° C. complete decomposition into  $\text{Cr}_2\text{O}_3$  took place.

The analogy between the crystals thus obtained and the chloropurple compound is evident. The great difficulty of obtaining pure methylamine on the American continent prevented the investigation of these substances being continued further or more accurate analyses being made. Aniline and methylaniline had no action on the violet chromic chloride whether in the cold or when heated together. The effect of heating for any length of time in a sealed tube was not tried.