XXXVI.—*Note on Nitro-erythroglucin.* $C_8H_6(NO_4)'O_8$.

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IN the analysis of this compound, which I published in the Phil. Trans. for 1849 (page 399), the carbon was found to be more than half per cent. too high, and the nitrogen a little too low. I have recently prepared a new quantity of the substance, and re-examined it with the following results. Pulverised erythroglucin added by small portions to fuming nitric acid, which is to be kept cool, dissolves, with considerable rise of temperature, and if the solution be mixed with a quantity of oil of vitriol equal in weight to the nitric acid, or rather more, the whole forms, in half-an-hour, a

crystalline magma, which is collected on a funnel plugged with asbestos, washed with cold water, pressed between paper, and recrystallised from hot alcohol.

Eight grammes of erythroglucin and two ounces of fuming nitric acid gave 14.5 grammes of purified nitro-compound.

I. .3965 gramme substance ignited with oxide of copper gave .2330 gramme of carbonic acid and .075 water.

II. .5150 gramme gave .3000 gramme of carbonic acid and .0986 gramme water.

III. .2725 gramme substance gave, by Dumas' method, 43.5 c.c. of nitrogen at 10°C. Bar. corrected to 0° = 742.4 millim. Tension of water-vapour at 10° = 9.1 mil. Corrected pressure = 733.3 m.m.

43.5 c.c. nitrogen at 10°C. and 733.3 m.m. = 40.51 c.c. at 760 m.m., and 0°C. = .05064 gramme.

.2725 gramme yielded therefore .05064 gramme of nitrogen or 18.59 per cent.

	Theory.	I.	II.	III.
C ₈ = 48	15.90	16.03	15.89	—
H ₆ = 6	1.98	2.11	2.12	—
N ₄ = 56	18.55	—	—	18.59
O ₂₄ = 192	63.57	—	—	—
	<hr/> 302	<hr/> 100.00		
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The erythroglucin was reproduced from the nitro-compound by dissolving it in alcohol nearly saturated with ammonia, and passing sulphuretted hydrogen through the solution for some time. After allowing it to stand for about twenty-four hours, the treatment with sulphuretted hydrogen was repeated; a large quantity of sulphur deposited, and after standing some time, the alcohol was removed by distillation, the residue completely extracted by boiling water, and the solution filtered. The filtrate was treated with animal charcoal, and then allowed to evaporate spontaneously. The crystals obtained were pressed between folds of bibulous paper and dissolved in a small quantity of water. After some weeks, large well-characterized crystals of erythroglucin were deposited, together with a few tufts of needles.