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Report on analysis of salt samples

for Dr. S.H. Sturmfels

by

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REPORT ON ANALYSES OF SALT SAMPLES FOR DR. STURMFELS.

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REFERENCES.

Ca and Mg. Washington: The Chemical Analysis of Rocks. Pp.201-5.

Sulphate, Na and K. Water Supply Paper 596. P.250.

Chloride. Scott's Standard Methods of Chemical Analysis. P.2094.

METHOD.

One gram of sample No. 1 and 2 grams of No. 4 were dissolved in about 100ml. of hot water. After dissolving the soluble portions the solutions were filtered and the undissolved portions dissolved and weighed. This weight subtracted from the original weight of sample gave the amount of soluble salts. The filtrate was diluted to 250 mls. with distilled water, 100 mls. being used for Ca and Mg determination, 100 mls. for sulphate, Na and K, and 50 mls. for chloride determination. Percentages given in the results are of the total sample.

RESULTS.

		%
No. 1	Calcium	2.28.
	Magnesium	1.1
	Sodium	(5.09)
	Chloride	0.6
	Sulphate	18.86
	Total :	27.93
	% soluble	41.00
No. 4	Calcium	0.25
	Magnesium	0.055
	Sodium	0.97
	Chloride	2.0
	Sulphate	0.12
	Total :	3.395
	% soluble	3.70

For sample No. 1 the solution for the Na estimation was upset by a student, so the sodium was estimated by calculating the quantity necessary for the formation of sodium sulphate, using the percentage sulphate remaining after deducting that required for combination with Ca and Mg.

The total percentage and the percent soluble do not agree owing to the presence of varying amounts of water of crystallisation.

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