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A New Type of Photoelectric Colorimeter

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in the gypsum ($CaSO_4 . 2H_2O$) crystal used in the analysis of the M series absorption spectra of the platinum group.

The results contained in the table below support the evidence of Lindh [1] that the limit of sulphur with higher valence is of shorter wave length than that of crystalline sulphur for which Fricke [2] reports 5.0123 Angstroms. However, the values here obtained seem to show a slightly higher value than that presented by Lindh.

RESULTS SULPHUR K ABSORPTION

Plate	Reference Lines	(λ)	Author
105	Pbα — Pbβ	4.9889	R
105	Sα — Pbβ	4.9899	R
115	Sα — Pbβ	4.9919	R
115	Sα — Pbβ	4.9915	R
116	Sα — Pbβ	4.9917	R
116	Pbα — Pbβ	4.9913	R
116	Sα — Pbβ	4.9914	R
118	Pbα — Pbβ	4.9919	R
118	Sα — Biβ	4.9906	R
118	Sα — Biα	4.9903	R
120	Pbα — Biβ	4.9891	R
120	Biα — Biβ	4.9902	R
	Average	4.9907	Rogers
	$CaSO_4$ ($+2H_2O$)	4.9877	Lindh

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A NEW TYPE OF PHOTOELECTRIC COLORIMETER

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(ABSTRACT)

A photoelectric colorimeter has been constructed which is capable of detecting small changes in the color of meat. With this apparatus it was possible to measure the variation in th ecolor of meat as a function of the time of exposure to the air. The effects of temperature upon the color variation were also measured; and some data has been obtained showing the relation between the color and the grade of the meat.

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1 Lindh, Diss., Lund.
2 Fricke, Phys. Rev., Vol. 16, 1920, p. 202.