

liquors. In the analytical work, silver chloride was reduced to silver in a current of hydrogen, and the atomic weight of "ordinary" chlorine compared with that from the meteorite. Had the result shown a difference in atomic weight, then one could have been confident that the chlorine was not of terrestrial origin. But the results were identical within 1 part in 2000, which was not outside the estimated experimental error. They were never published, because of the uncertainty as to the true source of this "meteoritic" chlorine.

It will be of interest to learn how Drs. Harkins and Stone have reassured themselves as to the extra-terrestrial origin of the meteoritic chlorine studied in their careful investigation.

ALAN W. C. MENZIES.

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October 10.

The Spectrum of Si⁺ (Once Ionised Silicon).

PROF. A. FOWLER has recently shown that the spectrum of Si⁺ is similar in constitution to that of Al, that is, consists of doublets having $2p_2, 2p_1$, as the highest terms. A number of lines, ascribed by Fowler to Si⁺, remain, however, well outside his scheme of classification, and some of these can be arranged in a group of quartets.

MULTIPLIET 1.

<i>j</i>	1	2	3
	(0)	(1)	
1	17154·38 .. 116·0 ..	17038·38	
	62·19	62·25	
	(2)	(0)	(1)
2	17216·57 .. 115·94 ..	17100·63 .. 199·89 ..	16900·74
		134·56	134·96
		(1)	(3)
3		17235·19 .. 199·49 ..	17035·70

Interval ratio . . . 116·00 : 199·89 = $\frac{2·9 : 5}{3 : 5}$ observed
 62·20 : 134·76 = $\frac{2·3 : 5}{3 : 5}$ observed
 (Landé) calculated
 (Landé)

This is a pp' -combination.
 The intensity rule is only roughly obeyed.

MULTIPLIET 2.

<i>j</i>	1	2	3
	(1)	(0)	
1	18382·63 .. 116·48 ..	18266·15	
	339·49	339·11	
	(0)	(1)	(2)
2	18043·14 .. 116·10 ..	17927·04 .. 199·86 ..	17727·18

This seems to be an intercombination between doublet P and quartet p -terms. But none of the known doublet P 's has 339 as frequency difference.

The differences occurring in these multiplets occur in other pairs which have not yet been classified, e.g.

$$\begin{aligned} & (0) \quad (0) \\ & 18402·19 - 18286·73 = 115·46 \\ & (0) \quad (2) \\ & 18415·41 - 18280·08 = 135·33 \\ & (1) \quad (1n) \\ & 20573·45 - 20373·87 = 199·58 \end{aligned}$$

The group having the successive differences 199 and 116 correspond to p -terms of a quartet series. Evidently a quartet series is possible for Si⁺, but it is only feebly developed under the usual methods of excitation. Without more data on the spectrum of Si⁺, it is not possible to find out more information on the point.

MEGHNAD SAHA.

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A Slow Process Method of Cyanide Fumigation for the Control of White-Fly in Tomato Houses.

EXPERIMENTS have shown that it is possible to generate hydrocyanic acid gas from a mixture consisting of 3 parts by weight of powdered sodium bicarbonate and 1 part by weight of high grade sodium cyanide (98 per cent. purity) for the purpose of fumigating tomato houses in the control of white-fly (*Trialeurodes vaporariorum*, Westw.).

The mixture is scattered on the dry paths of the houses at the rate of one ounce to every 1000 cubic feet space. The results show that mortality for adult fly is as great as that obtained where the gas is generated quickly from sodium cyanide and sulphuric acid in jars, but the percentage mortality for the scale stages is slightly higher in the latter method.

Economically the slow generation obtains practically as good a control as the quick method, and has great advantages in the saving of labour, and in minimising risk of scorching to plants which are grown soft. Whereas one man is required to each house in jar cyaniding, a large block of houses can be fumigated by one man when using the mixture described. The same precautions are necessary for the plants as in the case of jar cyaniding, but there is greater safety in fumigating by the slow process on windy nights. It is not advisable, however, to fumigate during heavy rain in leaky houses.

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Retrograde Metamorphosis.

UNDER this denomination is understood the step-back from the normal state of an animal to that of a more primitive one. I was undergoing the strong sun-cure in Grado, an island in the Adriatic Sea, where the full sun shines for weeks together, with only slight interruptions, exposing to it the naked skin from morning until evening during the whole day. Belonging to the fair type, my body was only in some parts covered with spare hair. After some time perfectly new, very fine hair was formed on all parts of the body, and after the lapse of five weeks there was a remarkably thick cover of fine, very light hair even on those parts of the body where there was not a trace before, to prevent the body, which became dark red-brown, from being burnt. This observation has been made by me repeatedly for fifteen years, but it is not easy for others to repeat it.

BOHUSLAV BRAUNER.

Charles' (Bohemian) University,
 Prague, October 7.

Prof. Andrew Gray.

DR. ALEXANDER RUSSELL'S memoir of Prof. Andrew Gray, which appeared in NATURE of October 24, will be read with sympathetic interest by Prof. Gray's many friends. I must be one of the oldest of them surviving, for I was Gray's fellow-student in my uncle's natural philosophy class in Glasgow in the session 1874-75, in which he carried off the second prize and I the fifth. From my knowledge of him at that time and since, I am able to appreciate the accuracy of Dr. Russell's notice, with the exception of one small error of date. Prof. Gray succeeded my uncle (Lord Kelvin) on his resignation of the natural philosophy chair in 1899, not after his death in 1907.

JAMES THOMSON.

22 Wentworth Place,
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 October 25.