Paschen[1] that if the vapour pressure in his lamp was increased, the relative intensity of the line $1 \cdot 014\mu$ came out still higher, while with a low vapour-pressure the intensity of the two lines was about equal. This may explain the values of the intensities found for these lines in the present investigation.

Table II.

Wave-length.	Frequency	Difference.
First subordinate triplet series. r = 2, p—m, d. m = 3.		
3663·05 A°. U.	27292·06	
		4630·92
3131·66 " "	31922·98	
		1767·36
2967·37 " "	33690·34	
Second subordinate triplet series. = 2, p—m, s. m = 1·5.		
5460·97 A°. U.	18306·73	
		4631·31
4358·66 " "	22937·04	
		1767·19
4046·78 " "	24707·23	
Triplet $1 \cdot 038\mu$ $1 \cdot 270\mu$ $3 \cdot 02\mu$.		
30200 A°.U.	3310·3	
		4561·5
12700 " "	7871·8	
		1759·6
10380 " "	9631·4	
Suggested triplet $1 \cdot 09\mu$ $1 \cdot 367\mu$ $3 \cdot 70\mu$		
37000 A°. U.	2702·7	
		4608·6
13670 " "	7311·3	
		1860·4
10900 " "	9171·7	

In looking for series relationships among the lines given in the first column of Table I., it was seen that the frequency differences for the lines $1 \cdot 038\mu$, $1 \cdot 27\mu$ and $3 \cdot 02\mu$ are practically the same as those which characterise the subordinate series triplets in the mercury spectrum given by $\gamma = 2$, p—m, d and $\gamma = 2$, p—m, s. This will be evident from the numbers given in Table II. It will be noted, too, that the frequency difference between the line given in our list at $1 \cdot 09\mu$ and the one given by Paschen at 1·367 is equal to 1860·4, which approximates, as the table shows, to the frequency difference between the second and third numbers of the triplets of the two subordinate series mentioned above. If these two lines should turn out to be the second and third numbers of a triplet similar to the one

[1]Paschen, Ann. d. Phys. 27. 13. p. 559, 1908.