J. S. Plaskett :

they lie, and are even shown prominently in the v idened reproduction of plate 486. It seems hardly possi^{1,1} that they can be narrow strips of continuous spectrum left + habsorbed, as their width is generally less than half a tenth-metre. It may be said on the contrary, however, that they have not been identified with any one element, and that the nearest identifications, are of elements which have the most pronounced lines in the absorption spectrum. There is an exception to this statement in the case of four of the lines which fall reasonably close to four lines in the spectrum of Cerium.

The wave-lengths, and the nearest metallic lines are as follows :---

BRIGHT LINES IN THE SPECTRUM OF o CETL.

NORMAL W.-L.

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NEAREST METALLIC LINES.

* 4233.36	4233.76 Fe, 4233.33 Mn Fe	
4229.51	4229.61 Fe, 4229.87 V	
4178'84	4178.54 V, 4179.45 Ce	
4173.58	4173'71 Ti, 4174'00 Fe,	4173-30 Fe
* 4165.84	4165.78 Ce, 4165.71 Cr,	4105.60 Fe
* 4138.53	4138.27 V, 4138.51 Ce,	4138.70 Mo
4119.56	4119.62 V, 4119.99 Ce,	4119.77 Mo, 4119.55 Fe
4102.95	4103·14 Mn	

The three lines marked with a star (*), are those which appear the most sharply defined and separated from the absorption spectrum, and which seem to be almost certainly emissive in character.

The normal wave-lengths, were obtained from the measured wave-lengths by subtracting the displacement equivalent to the velocity of the absorption lines. If the mean value of the velocity due to the bright H lines were applied to the normal wave lengths above given, they would be increased by 0.25 tenth metres. Owing to the distance from the centre of the spectrum and the consequent poor focus, the wave-lengths above given may be uncertain to the extent of one tenth of a tenth-metre, possibly more although the identifications of the absorption lines measured in that region agree to the same limit with the

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