

Prominences.—The mean daily areas and numbers of calcium prominences, as derived from photographs taken at Kodaikanal are given below :—

	North	South	Total
Areas (sq. minutes)	2.60	1.50	4.10
Numbers	6.39	4.41	10.80

Compared with the values for the previous year, the areas show on the whole very little change, an increase of 24 per cent in the northern hemisphere being compensated by practically the same decrease in the southern hemisphere. The numbers, on the other hand, show a decrease of 13 per cent, the decrease being solely in the southern hemisphere. The distribution of areas in latitude in the northern hemisphere shows a pronounced peak of activity in the zone 25° – 30° ; in the southern hemisphere the distribution is nearly uniform from the equator to latitude 45° . A comparison with the previous year's distribution indicates that the high latitude maxima have completely subsided and that the activity in the northern hemisphere between 25° and 30° has increased considerably, while the region 20° – 35° S. shows little change. The distribution of numbers shows nearly uniform activity from equator to latitude $\pm 45^{\circ}$.

27 metallic prominences were observed with the prominence spectroscope. 19 of these were in the northern hemisphere and 8 in the south. 18 were observed on the east limb and the rest on the west limb.

Doppler displacements of the $H\alpha$ line in prominences were observed on 68 occasions with the prominence spectroscope. In 20 cases the shifts were towards red, in 26 cases towards violet and on the rest of the occasions in both directions. Particulars of a few prominences which showed large Doppler shifts are given below :—

Date	Coordinates of prominences	Doppler displacements observed
January 4	E. limb : 25° S.	5 A. to red and 3 A. to violet
February 7	E. limb : 19° N.	7 to 8 A. to red
October 8	E. limb : 15° N.	7 A. to violet
November 8	W. limb : $18\frac{1}{2}^{\circ}$ N.	12 A. to red

The heights of 228 prominences were measured with the prominence spectroscope in $H\alpha$, D_3 and $H\beta$ lines. These were compared with the heights of corresponding prominences in the K line as obtained from K prominence spectroheliograms. The mean heights were $60''\cdot 0$ in K, $56''\cdot 1$ in $H\alpha$, $52''\cdot 5$ in D_3 and $48''\cdot 3$ in $H\beta$.

Particulars of Doppler displacements in prominences and $H\alpha$ dark markings observed with the spectrohelioscope are given below :—

	Displacements towards			Total
	Red	Violet	Both ways	
Prominences	13	18	26	57
$H\alpha$ dark markings ...	21	11	33	65

The mean daily area of $H\alpha$ absorption markings (without applying foreshortening correction) was 4469 millionths of the Sun's visible hemisphere, representing an increase of 28 per cent as compared with the previous year. The distribution in latitude shows maximum activity at 25° – 30° N. and 20° – 25° S.

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