probably present: *Ov*, *FII*, *NaII*, *AlIII*, *SiIII*, *PI*, *v*
SIV, *KII*, *CaIII*.

possibly present: *BIII*, *Nv*, *OII*, *OVI*, *FIII*, *Pv*,
CHII, *AIV*.

searched for and not found: *LiII*, *BeII*, *NII*, *SII*,
SII, *CHII*, *AII*, *AlIII*, *TiIII*.

The radial velocity of 9 Sagittae has varied irregularly with a range of some 30 km/sec during the period 1950–1957. The line *SIV* $\lambda 4116$ is unsuitable for radial velocity work, for it is blended with *FeIII* and *KII* and always gives negative residuals.

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Vandervort, Gordon Lee. The magnitudes, colors, and motions of stars of the spectral class R.

Visual magnitudes and colors of 98 stars of spectral class R have been observed with a photoelectric photometer and reduced to the system of Johnson and Morgan (1953). The average probable error of one magnitude amounted to ± 0.055 mag. and that of the color, ± 0.039 mag. The variation of the color with spectral class is shown in the following table.

Subclass	No. stars	Av. color	p.e. 1
R0	19	1.22	± 0.13
R2	28	1.33	0.13
R5	23	1.57	0.16
R8	7	2.10	0.08
Var.	21	2.46	0.46

Proper motions of 57 stars were obtained from various sources; those of the remaining 41 stars were derived from comparison of the positions given in the astrographic catalogues with those measured on plates taken with the 26-inch McCormick refractor. Radial velocities were found for 66 stars, mostly from the list of Sanford (1944) or Wilson (1953). Seven so-called *CH* stars were rejected in our discussion, since their velocities are extremely large and their distribution on the sky is limited to one side of the celestial sphere. The position of the solar apex and the solar velocity derived from the radial velocities were found to be R.A. = 297° , Dec. = $+38^\circ$, and $V_0 = 33.7 \pm 5.2$ km/sec.

Statistical parallaxes were derived by means of the parallactic motion as well as by the use of the τ -components compared with the peculiar components of the radial velocities. After correcting the apparent magnitudes for the interstellar absorption, the average absolute magnitudes were derived for the two groups of stars as shown in the second table.

Group	No. stars	$\bar{M}$
R0 and R2	43	$+0.44 \pm 0.29$
R5 and R8	42	-1.10 ± 0.49

Johnson, H. L. and Morgan, W. W. 1953, *Ap. J.* **117**, 313.
Sanford, R. R. 1944, *Ap. J.* **99**, 145.

Wilson, R. E. 1953, *General Catalogue of Stellar Radial Velocities* (Carnegie Inst. of Wash. Pub. **601**), Washington, D. C.

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Weston, Edwin B. Some observations of T Tauri stars for polarization effects.

The pairs of photographic plates used in the measurement of the polarization of NGC 6729 (Whitney and Weston 1948) and NGC 7023 (Weston 1952) have been surveyed for stars exhibiting abnormal polarization and/or variability in brightness. Both regions contain variable and emission-line stars which are involved in diffuse nebulosity, and probably a large percentage of these stars belong to the T Tauri class. All of the exposures were made at the prime focus of the 82-inch reflector of the McDonald Observatory and were of 120 min. duration on panchromatic plates behind Polaroid and aesculine filters, which eliminated the violet and ultraviolet light. The plates are well suited for comparison, and it is estimated that polarizations as small as 2 per cent could have been detected for stars with optimum orientation of the electric vector.

No stars showed a difference in brightness on the pair of plates, taken on a single night, centered on NGC 6729; eleven stars showed a difference on the pair centered on NGC 7023, taken 22 days apart. These eleven stars in the region of NGC 7023 are variable in light, and there is no reason to believe they exhibited abnormal polarizations. The knot in NGC 6729 for which a large polarization was measured is not star-like. Polarization observations of the regions of NGC 7023, 2264, and other areas made with the Curtis telescope of the University of Michigan, although not as suitable for stellar photometry, do support the conclusions already reached.

We may conclude that the large polarizations suggested for T Tauri stars either do not occur or are rare, measurable only in ultra-violet light, and are not of a permanent nature.

Weston, E. B. 1952, *A. J.* **57**, 28.

Whitney, W. T. and Weston, E. B. 1948, *Ap. J.* **107**, 371.

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