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Space Velocities of Weak CN Giants. KENNETH M. YOSS, *Mt. Holyoke College*.—University of Michigan Curtis Schmidt objective prism plates have been searched for late-type giants with weak CN absorption. The spectra were obtained with the combined prisms, dispersion 110 Å/mm at *H*-gamma. With this dispersion, luminosity classification, based on the strength of the *SrII* line at 4077, can be estimated to within one luminosity class. The strength of CN absorption is based on the break in the continuum at the 4215 bandhead.

Approximately 10% of 900 stars brighter than photographic magnitude 9.5, which were classified within the spectral range G5 to K3 and luminosity range II–III to IV, were found to have weak CN absorption.

Slit spectrograms for a representative sample of 30 stars were obtained with the Mt. Wilson 60-inch reflector. Radial velocities were measured, and ab-

solute magnitudes were obtained from microphotometer tracings. Forty standard stars, approximately half of which are high-velocity stars, were used for establishing an absolute magnitude calibration curve.

The Mt. Wilson absolute magnitudes, which have an internal mean error of ± 0.4 mag., are systematically 0.8 mag. fainter than the absolute magnitudes derived from the Schmidt luminosity classes.

Proper motions from the Yale Observatory Proper Motion Catalogues have been used with the Mt. Wilson radial velocities and absolute magnitudes to compute space velocities, corrected for solar motion. The mean space velocity for the thirty stars is 57 km/sec. If the Schmidt absolute magnitudes are used, the mean space velocity is 82 km/sec in closer agreement with the mean space velocity of Miss Roman's "weak CN" giants, 96 km/sec.

Relative to the Mt. Wilson absolute magnitudes, the stars either have normal or only mildly weak CN absorption. The fact that these stars represent the weakest CN giants found on the Schmidt plates suggests that the Mt. Wilson absolute magnitudes are systematically too faint.