Temperatures of Peculiar G–Type Stars from Narrow-Band Near-Infrared Photometry

ROBERT F. WING¹, ROBERT F. GARRISON², and TUBA KOKTAY^{2,3}

¹ Ohio State University, Columbus OH, U.S.A.

 ² David Dunlap Observatory, University of Toronto Richmond Hill, Ontario, Canada
³ i.t., b.l. ütermitteri, i.t., b.l. Türkim

³ İstanbul Üniversitesi, İstanbul, Türkiye

Photometric observations in 6 of the filters of Wing's 8-color narrow-band near-infrared system have been obtained for 16 of the carbon-peculiar stars found by Olsen, Garrison, & Koktay. The observations provide a continuum color index that is free from atomic and molecular blanketing, as well as an explicit measure of CN strength. The continuum color can be calibrated in terms of effective temperature for unreddened stars, as most stars of this sample are believed to be, and these temperatures will be used in a spectroscopic analysis of these stars by Koktay. Approximately half of these stars have abnormally strong CN for G-type main-sequence stars; the remainder show little if any CN.