

## Warm Dust Around Main-Sequence Stars Discovered With 2MASS

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We report results of ground-based mid-infrared photometry of main-sequence stars with warm circumstellar dust. We originally discovered these dust systems through IRAS 12  $\mu\text{m}$  excess emission with respect to 2MASS  $J$ ,  $H$ , and  $K_s$  photospheric emission. These excesses probably arise from dust at “terrestrial material” temperatures,  $\sim 200\text{--}500$  K, located at  $\sim 1\text{--}10$  AU from the stars. We measured the sources with the MIRLIN camera at the 200-inch Hale telescope at Palomar Observatory, and with the OSCIR camera at the 8.2-m Gemini North telescope (as part of the QuickStart program). We observed with the N (10.8  $\mu\text{m}$ ) broadband filter, and the 8–13  $\mu\text{m}$  “silicate” filters. Through these measurements we eliminated cases of spurious 12  $\mu\text{m}$  excesses from neighboring background sources. We possibly confirmed circumstellar 10  $\mu\text{m}$  excess emission from HIP 21377 (A1m V) and SAO 42588 (G5 V), among others. We comment on the possibility of silicate emission from these sources. It is possible that some of these systems lack colder dust, more distant from the stars (in Kuiper Belt-like regions). Longer-wavelength observations, such as 20  $\mu\text{m}$  ground-based and SIRTF MIPS photometry, will elucidate the questions on the presence of cold dust.

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