are bona fide PMS stars with circumstellar disks and constitute our science sample. The *Spitzer* and alternative names names, 2MASS and *Spitzer* fluxes, and the USNO-B1 R-band magnitudes for all our 34 targets are listed in Table 1.

3. Observations

3.1. Millimeter Wavelength Photometry

Two of our 34 targets, #14 and 17, have already been detected at millimeter wavelength (Andrews & Williams, 2007), while stringent upper limits exist for 3 others, #12, 13, and 27 (Cieza et al. 2008). We have observed 24 of the 29 remaining objects with the Submillimeter Array (SMA; Ho et al. 2004), and 5 of them with Bolocam at the Caltech Submillimeter Observatory (CSO). In § 4.2, we use the millimeter wavelength photometry to constrain the masses of our transition disks.

3.1.1. Submillimeter Array Observations

Millimeter interferometric observations of 24 of our targets were conducted in service mode with the SMA, on Mauna Kea, Hawaii, during the Spring and Summer of 2009 (April 6^{th} through July 16^{th}) in the compact-north configuration and with the 230 GHz/1300 μm receiver. Both the upper and lower sideband data were used, resulting in a total bandwidth of 4 GHz.

Typical zenith opacities during our observations were $\tau_{225\,\mathrm{GHz}}$ ~0.15–0.25. For each target, the observations cycled between the target and two gain calibrators, 1625-254 and 1626-298, with 20-30 minutes on target and 7.5 minutes on each calibrator. The