



The Spitzer Atlas of Stellar Spectra

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We present the Spitzer Atlas of Stellar Spectra (SASS), which includes 159 stellar spectra (5 to 32 mic; $R \sim 100$) taken with the Infrared Spectrograph on the Spitzer Space Telescope. This Atlas gathers representative spectra of a broad section of the Hertzsprung-Russell diagram, intended to serve as a general stellar spectral reference in the mid-infrared. It includes stars from all luminosity classes, as well as Wolf-Rayet (WR) objects. Furthermore, it includes some objects of intrinsic interest, like blue stragglers and certain pulsating variables. All the spectra have been uniformly reduced, and all are available online. For dwarfs and giants, the spectra of early-type objects are relatively featureless, dominated by Hydrogen lines around A spectral types. Besides these, the most noticeable photospheric features correspond to water vapor and silicon monoxide in late-type objects and methane and ammonia features at the latest spectral types. Most supergiant spectra in the Atlas present evidence of circumstellar gas. The sample includes five M supergiant spectra, which show strong dust excesses and in some cases PAH features. Sequences of WR stars present the well-known pattern of lines of HeI and HeII, as well as forbidden lines of ionized metals. The characteristic flat-top shape of the [Ne III] line is evident even at these low spectral resolutions. Several Luminous Blue Variables and other transition stars are present in the Atlas and show very diverse spectra, dominated by circumstellar gas and dust features. We show that the [8]-[24] Spitzer colors (IRAC and MIPS) are poor predictors of spectral type for most luminosity classes.

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