

Abstract Submitted  
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**Near-Infrared Properties of Luminous Blue Galaxies** M. MCDERMOTT, M. FANELLI, TCU — In an effort to better understand galactic evolution, we present an investigation into the star formation history of luminous blue galaxies using near-infrared photometry in the J ( $1.3\mu$ ), H ( $1.8\mu$ ), and  $K_s$  ( $2.2\mu$ ) bands. A sample of 154 Markarian galaxies was selected based on strong recent star formation rates (SFR) greater than 10 solar masses per year, as indicated by observed thermal infrared emission from the Infrared Astronomical Survey (IRAS). Near-infrared magnitudes and colors were obtained from the 2 Micron All-Sky Survey (2MASS), which observed the entire sky in these bands. These relatively nearby galaxies are unusual in that they exhibit SFR more typical of galaxies observed early in cosmic time. Near-infrared light is emitted primarily by cool stars (G, K, or M spectral types), with most of the light provided by the old stellar component in these galaxies. Investigating these infrared colors using color-color diagrams provides insight into the nature and total mass of the underlying galaxy and helps constrain the starburst strength and duration.

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