

Color Plate 1. The Horsehead Nebula near the belt in the Orion constellation. The dark ridge and dramatic shape are caused by the obscuration of background starlight by billions and billions of smoke-sized interstellar dust particles. The reddish glow is produced by the emission from hydrogen atoms. The prominent, blue-white nebulosity in the lower left originates from starlight reflecting off the dust on the near side of the cloud. ©(1984) ROE/AAT Board. Photograph by David Malin from original plates taken with the UK Schmidt telescope, New South Wales, Australia.



Color Plate 2. IRAS false color image of  $\lambda$  Ori and surrounding nebulosity. The various colors result from the mixing of blue, green and red which represent emission at 12, 60 and 100  $\mu$ m. This illustrates some of the information provided by the IRAS mission about dust. At the center is  $\lambda$ Ori, surrounded by an HII region (S264). The entire shell of atomic and molecular gas swept up during the expansion of the HII gas is about 9° (60 pc). The extent of the 12  $\mu$ m emission illustrates the importance of non-thermal infrared emission by large molecules/small grains (see the section on the Overidentified Infrared Emission Bands). The variations of colors across the image represent changes in the spectral distribution of the IR emission resulting from temperature variations and the destruction of small grains. This figure was kindly provided by Drs. François Boulanger, Gaylin Laughlin and Walter Rice of the Infrared Processing and Analysis Center, Pasadena.



Color Plate 3. Top: Superposition of the IRAS 12  $\mu$ m intensity (blue) and the 100  $\mu$ m intensity (red) for a filament situated at the southern edge of the Taurus cloud. This figure is discussed in the paper by Puget.

Color Plate 4. Bottom: Superposition of the 12  $\mu$ m intensity in blue and the 100  $\mu$ m intensity in red for the main filament in the  $\rho$  Oph complex. This figure is discussed in the paper by Puget.



Color Plate 5. The reflection nebula IC 2220 surrounding the bright red giant HR3126: a rare example of visible reflection nebulosity associated with scattering in ejecta from a late-type star. (Photograph courtesy of D. Malin, Anglo-Australian Observatory). This figure is discussed in the paper by Whittet.