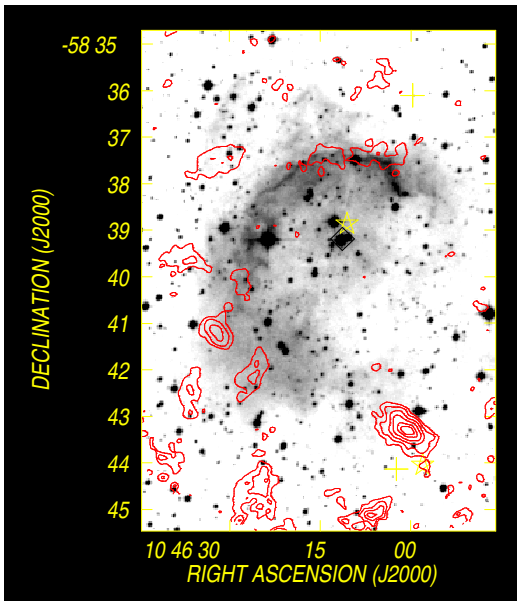

Fig. 1. Overlay of the DSS-R image of RCW 52 in grayscale and the continuum emission at 870 μm in contours. Contours ranges from 20 to 50 mJy beam^{-1}. The star, the square, and the crosses mark the position of IRAS, MSX, and 2MASS YSO candidates, respectively.

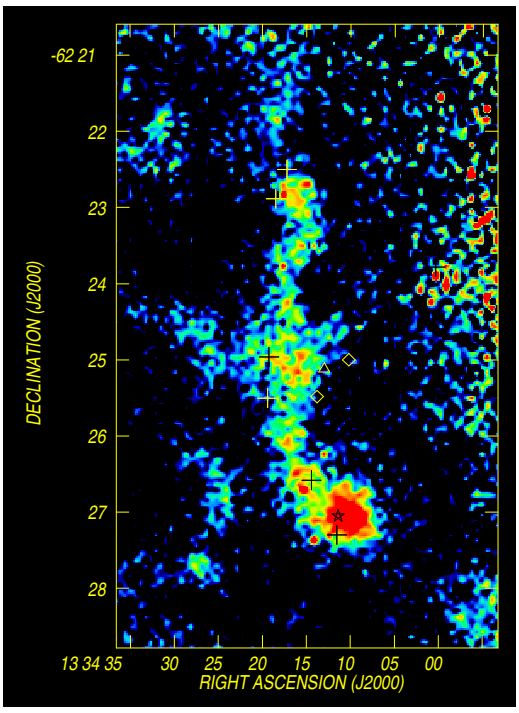

Fig. 2. Continuum emission at 870 μm corresponding to one of the star forming regions in RCW 78. Colorscale ranges from 20 to 130 mJy beam^{-1}. The star, the squares and the triangle, and the crosses mark the position of IRAS, MSX, and 2MASS YSO candidates, respectively.

4. THE RING NEBULA RCW 78

The nebula, of about 35′ in size, is bright to the W and faint to the E. It is associated with WR 55 (HD117688, WN7) at 5 kpc. The velocity of the ionized gas is in the range $[-53, -38]$ km s^{-1} (Chu & Treffers 1981), while the molecular gas component has velocities in the range $[-57, -32]$ km s^{-1} (from NANTEN and SEST data, Cappa et al. 2009). Most of the molecular gas is linked to the W part of the nebula.

Two areas of active stellar formation are present in the southern part. Figure 2 displays the emission at 870 μm corresponding to one of these areas. The dust emission is elongated, with the YSO candidate IRAS 13307-6211 projected onto the brightest emission region, coincident with the IRAC emission at 8 μm. The molecular counterpart of this region, as shown by the ^{13}CO(2-1) observations, has velocities in the interval $[-55, -51]$ km s^{-1}, suggesting that the star forming region is in the approaching section of the expanding shell that surrounds RCW 78. This nebula, as well as RCW 52, shows moderate stellar formation. The total mass estimated for the clumps is 65–130 $M_{\odot}$.

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