P39b HH 80/81 のパワーソースからのX線

○坪井陽子、鈴木悠一郎（中央大学）、Steve Pravdo、T. Thompson（JPL）、L. Rebull（テキサス大学）

We report the discovery of X-ray emission from the infrared (IRAS 18162-2048) and radio (MRR 14) center of the bipolar outflow that powers HH 80/81. This source has a 2-10 keV X-ray luminosity of the order of 10^{30}–10^{31} ergs s^{-1}. It is located within an unresolved X-ray hot spot with a radius of ∼0.1 pc and an average energy >2 keV. The observations were made with the ACIS instrument on the Chandra X-ray Observatory. Four years earlier, in a shorter observation with lower spatial resolution, we found a complex of X-ray sources including one near the power source. Comparing the observations in 2002 with those in 2006 shows that the hotspot was present at both epochs, but the contributions from constituent sources varied, with two sources appearing, two fading, and the power source becoming relatively brighter. The power source is not observable at visible and near-IR wavelengths because of absorption within the region – the X-ray spectrum is consistent with Av ∼100 mag– but emerges in the mid-IR and has been classified as a class 0/1 protostar. We discuss the X-ray emission from this source and this region in the context of the existing infrared and radio models.