Chandra Observations of SN1999gi and the X-ray Emission of Type IIP Supernovae

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Abstract

We report on the X-ray detection, using the *Chandra X-ray Observatory*, of the Type II-Plateau (IIP) supernova SN1999gi in the spiral galaxy NGC 3184. A faint source is located within $0''.4$ of the supernova's optical position. The inferred luminosity is $\sim 1 \times 10^{37}$ erg s^{-1} in the 0.5-10 keV band for an adopted 1 keV thermal bremsstrahlung spectrum. The luminosity from SN1999gi is very similar to that inferred from the *Chandra* detection of the Type IIP SN1999em in NGC 1637 for which we extracted data from the *Chandra* archive. We suggest that Type IIP supernovae show X-rays initially at outburst, subsequently fade, and are not significant X-ray emitters prior to the remnant stage.

CATEGORY: SUPERNOVAE, SUPERNOVA REMNANTS AND ISOLATED NEUTRON STARS