



Chandra X-Ray
Observatory Center

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SNR 0103-72.6: A supernova remnant in the Small Magellanic Cloud, a galaxy about 190,000 light years from Earth.

Credit: NASA/CXC/PSU/S.Park et al.

Chandra's image shows a striking, nearly perfect ring about 150 light years in diameter surrounding a cloud of gas rich in oxygen and shock-heated to millions of degrees Celsius. The ring marks the outer limits of a shock wave produced as material ejected in the supernova explosion plows into interstellar gas. The size of the ring indicates that we see the supernova remnant as it was about 10,000 years after its progenitor star exploded. Oxygen is synthesized by nuclear reactions in the interiors of stars at least ten times as massive as the Sun. When such a star explodes, its core collapses to form either a neutron star, or if massive enough, a black hole, and the oxygen-rich material surrounding the core is propelled into interstellar space.

Scale: Image is 4 arcmin per side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory