



**Chandra X-Ray
Observatory Center**

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BD+30 3639: A Planetary Nebula (so called because it looks like a planet when viewed with a small telescope).

Credit: NASA/RIT/J.Kastner et al

The Chandra image of the planetary nebula BD+30 3639 shows a hot bubble of 3 million degree Celsius gas surrounding a dying, sun-like star. The distance across the bubble is roughly 100 times the diameter of our solar system. A planetary nebula is formed when a dying red giant star puffs off its outer layer, leaving behind a hot core that will eventually collapse to form a dense star called a white dwarf. The hot bubble is thought to be due to the collision of a two million mile per hour wind from the hot core with the ejected red giant atmosphere. We are seeing the nebula about a thousand years after it formed. The odd shape of the bubble is not yet understood.

Scale: Image is 6.6 arcsec on a side.

Chandra X-Ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory