



**Chandra X-Ray
Observatory Center**

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M82: The nearest starburst galaxy at a distance of 11 million light years from Earth.

Credit: NASA/CXC/SAO/PSU/CMU

M82, at a distance of 11 million light years from Earth, is the nearest starburst galaxy. Massive stars are forming and expiring in M82 at a rate ten times higher than in our galaxy. The bright spots in the center are supernova remnants and X-ray binaries. These are some of the brightest such objects known. The luminosity of the X-ray binaries suggests that most contain a black hole. The diffuse X-ray light in the image extends over several thousand light years, and is caused by multimillion degree gas flowing out of M82. A close encounter with a large galaxy, M81, in the last 100 million years is thought to be the cause of the starburst activity.

Scale: Image is 5 arcmin on a side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
