

LOW-MASS X-RAY BINARIES IN THE LMC

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ABSTRACT.

We report results on three low-mass X-ray binaries (LMXB) in the LMC, obtained with EXOSAT, IUE and ground-based (ESO) telescopes: LMC X-2 which appears to be "Sco X-1"-like, LHG 83 and LHG 87. The latter are two weaker sources first detected in the course of the HEAO-B LMC survey. They have faint optical counterparts of which LHG 87 was only recently identified by us. In X-rays, they are characterized by ultrasoft X-ray spectra possibly characteristic of black-hole primaries. LHG 83 furthermore shows evidence for X-ray ionization of the surrounding interstellar medium, similar to the He III region around the black-hole candidate LMC X-1. X-ray binaries with masses of compact objects in excess of $3 M_{\odot}$ and ultrasoft X-ray spectra are comparatively frequent in the LMC. We suggest that subcritical accretion onto black holes takes place in LHG 83 and LHG 87.

Paper presented at the IAU Colloquium No. 93 on 'Cataclysmic Variables. Recent Multi-Frequency Observations and Theoretical Developments', held at Dr. Reimis-Sternwarte Bamberg, F.R.G., 16-19 June, 1986.

Astrophysics and Space Science **131** (1987) 689.

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