THE COLD GAS CONTENT OF ELLIPTICAL GALAXIES

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The 100m radiotelescope at Effelsberg has been used to observe two samples of elliptical galaxies in the 21cm line of neutral hydrogen. One sample is defined by the elliptical galaxies in the Revised-Shapely-Ames catalog (RSA) (Huchtmeier 1994, *Astron.Astrophys*286, p.389); the other sample is defined by all elliptical galaxies with IRAS $100\,\mu$ fluxes $\geq 500mJy$ north of declination -31^0 (Huchtmeier, Sage, Henkel 1995 *Astron.Astrophys.* in press). Among the detected galaxies there are 23 (RSA) and 24 (IRAS) isolated elliptical galaxies free of confusion by nearby galaxies with similar radial velocities. Global properties of these two samples of elliptical galaxies are discussed: their HI-properties, optical and IR luminosities, their optical colors, their masses of dust and of molecular hydrogen.

Elliptical galaxies from the RSA and most elliptical galaxies from the IRAS sample have the same mean M_{HI}/L_B ratio : 0.030 ± 0.026; only a small group of objects from the IRAS sample is several times richer in HI ($M_{HI}/L_B = 0.206 \pm 0.105$). These "HI-rich" elliptical galaxies have blue colors like spiral galaxies and have a tendency towards higher average dust temperatures. The large number of elliptical galaxies in compact groups (in this sample) suggests that gravitational interactions and mergers may be an important source of interstellar matter for elliptical galaxies.