

Table 1: Columns for DP_HI.csv.

Column	Unit	Description
name		Galaxy name
RA	deg	Right ascension (J2000)
DEC	deg	Declination (J2000)
dist_best	Mpc	Hubble-flow corrected distance
vhelio	km/s	Heliocentric velocity
HIflux	Jy km/s	Integrated HI flux
HIfluxerr	Jy km/s	Uncertainty on HI flux (HIfluxerr=0 for upper limits)
MHI	Msun	HI mass
MHIerr	Msun	Uncertainty on HI mass
logMHI		$\log(M_{\text{HI}}/M_{\odot})$
logMHIerr		Uncertainty on $\log M_{\text{HI}}$
HI_ref		Reference for the HI flux
Flag		Flag to indicate: (0) well measured sources (1) upper limits (ignored in our study) (2) confused sources (ignored in our study) (3) sources for which the HI flux was corrected (Wang et al. 2014) to account for HI outside of the ALFALFA aperture.

HI masses for DustPedia

To obtain HI masses for the DustPedia sample we have performed a literature compilation (see also Casasola et al., 2018, *in prep.*). The columns for DP_HI.csv are described in Table 1. Integrated HI fluxes were found for 764 out of the 875 DustPedia galaxies. The various references used in this compilation are listed in Table 2. When multiple references were available, preference was given to the measurements with the smallest uncertainty. There are 67 ALFALFA sources for which the DustPedia aperture is larger than $5'$ and there might thus be significant HI flux outside of the ALFALFA aperture (flag=3). The HI flux for these sources was therefore corrected to account for HI outside of the ALFALFA aperture using the HI-profile from Wang et al. (2014). HI fluxes were converted to M_{HI} using:

$$M_{\text{HI}} = 2.36 \times 10^5 f_{\text{HI}} D^2 \quad (1)$$

Where f_{HI} is the compiled HI flux and D is the best distance measure from Clark et al. (2018) in Mpc. See De Vis et al. (2019) for more details.

Table 2: References used in the compilation of HI fluxes.

HI ref ID	Reference
Bettoni2003	Bettoni et al. (2003)
Boselli2014	Boselli et al. (2014)
Bottinelli1980	Bottinelli et al. (1980)
Bottinelli1982	Bottinelli et al. (1982)
Bouchard2003	Bouchard et al. (2003)
Bureau1996	Bureau et al. (1996)
Casasola2004	Casasola et al. (2004)
Chamaraux1999	Chamaraux et al. (1999)
Clark2015	Clark et al. (2015)
Courtois2009	Courtois et al. (2009)
Davoust2004	Davoust & Contini (2004)
Garcia1992	Garcia et al. (1992)
Haynes2018	Haynes et al. (2018)
Huchtmeier1989	Huchtmeier & Richter (1989)
Huchtmeier1995	Huchtmeier et al. (1995)
Huchtmeier2000	Huchtmeier et al. (2000)
Huchtmeier2003	Huchtmeier et al. (2003)
Huchtmeier2005	Huchtmeier et al. (2005)
Kilborn2002	Kilborn et al. (2002)
Koribalski2004	Koribalski et al. (2004)
Lang2003	Lang et al. (2003)
Martin1991	Martin et al. (1991)
Masters2014	Masters et al. (2014)
Mathewson1992	Mathewson et al. (1992)
Meyer2004	Meyer et al. (2004)
Nordgren1998	Nordgren et al. (1998)
Ott2012	Ott et al. (2012)
Paturel2003	Paturel et al. (2003)
Schneider1992	Schneider et al. (1992)
Smoker2000	Smoker et al. (2000)
Springob2005	Springob et al. (2005)
Staveley-Smith2016	Staveley-Smith et al. (2016)
Theureau1998	Theureau et al. (1998)
Theureau2005	Theureau et al. (2005)
Theureau2007	Theureau et al. (2007)
Tift1988	Tift & Cocke (1988)
vanDriel2016	van Driel et al. (2016)
Walter2008	Walter et al. (2008)
Wong2006	Wong et al. (2006)

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