

Columns for DP-late_type-H2.xlsx

Column 1: Galaxy name

Column 2: H₂ mass in M_⊕ within the radius r₂₅⁽¹⁾ derived from CO observations, assuming the constant conversion factor X_{CO} = 2 x 10²⁰ cm⁻² (K km s⁻¹)⁻¹ with ±30% uncertainty from Bolatto et al. (2013). See Casasola et al. (2020) for details⁽²⁾.

Column 3: Uncertainty in H₂ mass M_⊕ calculated as the quadrature sum of the uncertainty on the CO emission line flux and on the X_{CO} conversion factor. See Casasola et al. (2020) for details.

Column 4: Type of H₂ mass data. Code 0 = detection, Code -1 = upper limit.

⁽¹⁾ r₂₅ is the isophotal radius at which the optical surface brightness falls beneath 25 mag arcsec⁻².

⁽²⁾ If requested, H₂ masses are also available under the assumption of the metallicity-dependent X_{CO} according to the calibration of Amorín et al. (2016). See Casasola et al. (2020) for details.

Please do not hesitate to contact us (viviana.casasola@inaf.it) if you intend to use the data for scientific analysis. The following acknowledgement would be appreciated: "This work made use of the H₂ mass data of DustPedia late-type galaxies (Casasola et al. 2020; Davies et al. 2017)."

References

- Amorín, R., Muñoz-Tuñón, C., Aguerri, J. A. L., & Planesas, P. 2016, A&A, 588, A23
Bolatto, A. D., Wolfire, M., & Leroy, A. K. 2013, ARA&A, 51, 207
Casasola, V., Bianchi, S., De Vis, P., et al. 2020 A&A, 633, A100
Davies, J. I., Baes, M., Bianchi, S., et al. 2017, PASP, 129, 044102

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