

Circumstellar disks around Herbig Be stars (Corrigendum)

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In Sect. 6.2, Table 7 has incorrect values for the mass-loss rates and dissipation timescales. The correct values for the mass-loss rates, calculated with Eq. (11) by Alexander (2008), are given in the following table.

One of the key points in our discussion was calculating the dissipation timescales for disks around Herbig Be stars. The compilation of disk masses presented in Table A.13 shows that the highest disk mass expected in Be stars is close to $1 M_{\odot}$, so in addition to the mass-loss rate we also presented and discussed the expected dissipation time for a disk of $1 M_{\odot}$, finding it to be around 10^5 years.

The new values of the mass-loss rates are 10–20 times lower than before. In view of this, the disk mass presented in the compilation table is probably overestimated for the youngest objects in our sample, since we can expect a dense envelope (and outflow) around them. In Fig. 8 we only have upper limits or single-dish observations above $0.1 M_{\odot}$, with the exception of Z CMa (probably the youngest object in our sample), in which the disk mass is overestimated by a factor three with respect to the modeling, which gives a value close to $0.1 M_{\odot}$. For this reason we have recalculated the expected disk lifetime for a mass of $0.1 M_{\odot}$ in the previous table. The values for the disk lifetime are only

Table 1. Dissipation timescale.

Source	R_g^a (AU)	Mass-loss rate (M_{\odot}/yr)	Lifetime ^b (yr)
MWC 137	124.6	6.1×10^{-7}	1.6×10^5
LKH α 215	62.3	1.1×10^{-7}	9.5×10^5
R Mon	71.2	2.2×10^{-7}	4.4×10^5
Z CMa	106.8	1.2×10^{-7}	8.1×10^5
MWC 297	80.1	2.6×10^{-7}	3.8×10^5
MWC 1080	89.0	2.5×10^{-7}	4.0×10^5

Notes. ^(a) Gravitational radius calculated following Eq. (1) by Alexander (2008). ^(b) Time required to disperse a disk of $0.1 M_{\odot}$.

slightly higher than before, therefore the discussion and conclusions remain valid.

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References

Alexander, R. 2008, *New Astron. Rev.*, 52, 60