



# OH Masers and the Dust Emissions Towards High Mass Protostellar Objects

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Context: OH maser emission is known to be associated with high mass star forming regions. Towards some of these regions, OH masers are associated with HII regions. Towards others, believed to be in an earlier evolutionary state, OH masers are offset from HII regions. Towards these later regions, it is believed that OH masers are associated with the circumstellar disk (e.g. Edris et al. 2005; Gray et al. 2003). These disks should be hosting dense dust grains. The presence of the hot dust could be traced via the millimeter continuum emission as well as IR emission.

Aims: studying the association between millimeter (mm) continuum, the OH masers emission, and IRAS sources.

Methods: A sample of 27 High Mass Star Forming Regions (HMSFRs) chosen from IRAS catalog and show OH maser emission (Edris et. al. 2007) have been studied at 1.1 millimeter (mm) continuum emission of the Bolocam Galactic Plane Survey (BGPS).

Results: The 1.1-mm continuum emission have been found within  $\sim 30'$  towards 23 sources of the OH maser sample. These sources were divided into three groups depends on the offset of the closest mm peak from the OH maser position. The association between the OH, mm and IR emissions types have been confirmed for two sources. Generally the IRAS position is more consistent with the mm peaks than the OH maser emission and towards 10 sources the IRAS and OH masers are not consistent with the same mm peak.

Conclusion: The relatively large positional uncertainty do not allow to firm conclusions but it seems that the IR peak is closer to the mm emission than the OH maser.

Comments: 10 pages, 26 figures and one table

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