

Abstract Submitted
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CO & O Emission Lines in Circumstellar Disks JESUS ENRIQUEZ, UTEP, INGA KAMP, STScI — CO emission lines have been used to observe Circumstellar Disks around type A stars. CO observations have detected a gas-to-dust ratio much lower than the interstellar gas-to-dust ratio. The reason is that CO is a poor tracer of gas (H₂). The main motivation is to check the result from CO with other tracers such as C, C⁺ and O, with future instruments such as SOFIA, Herschel, APEX and ALMA. Models of emission lines were created with the help of a 2D Monte Carlo code from Hogerheijde & van der Tak (2000) to calculate the line emission from the optically thin disk models. Four different models of different Earth masses were used to create the line profiles for CO and O. The integrated flux of the line profiles were calculated to obtain an easy-to-use plot for observers to get the disk masses for a known integrated flux.

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