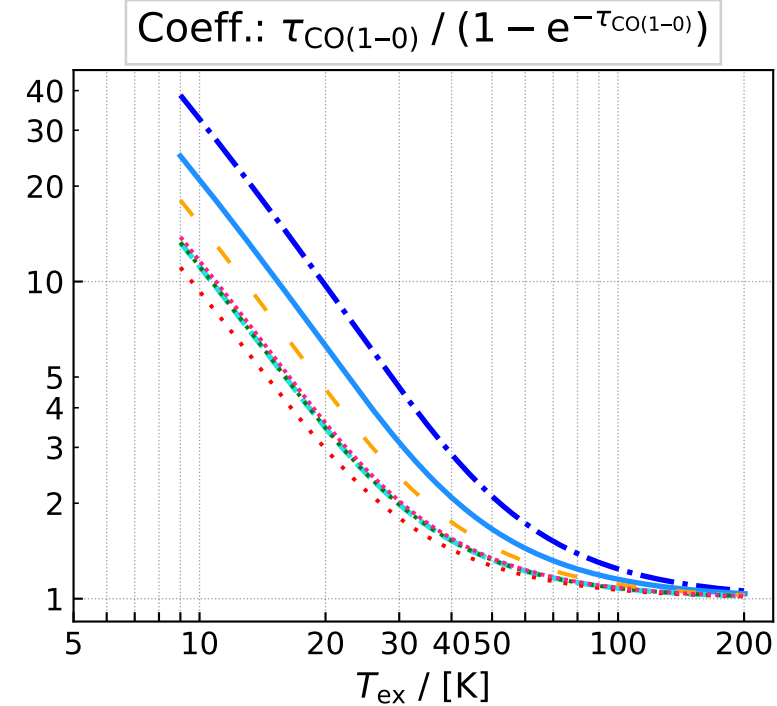
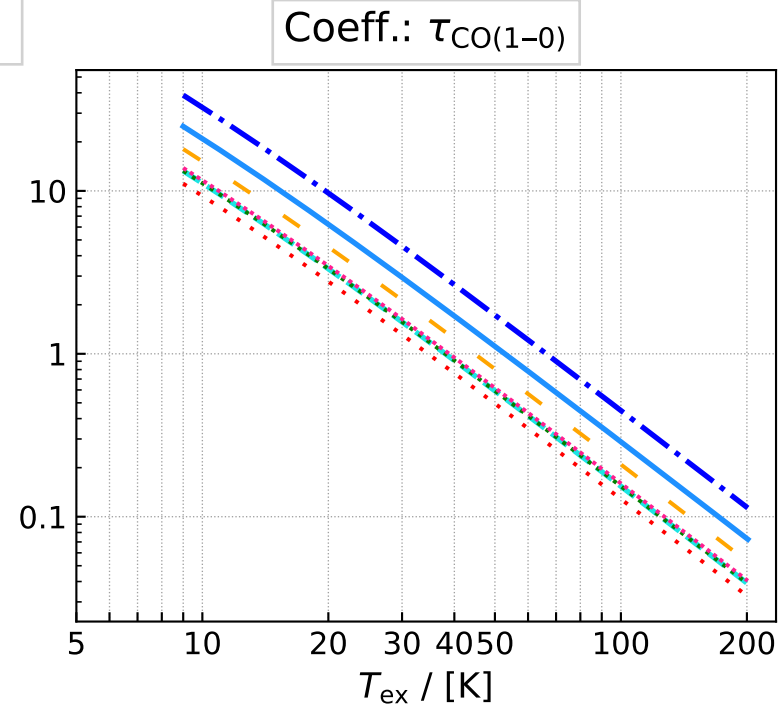
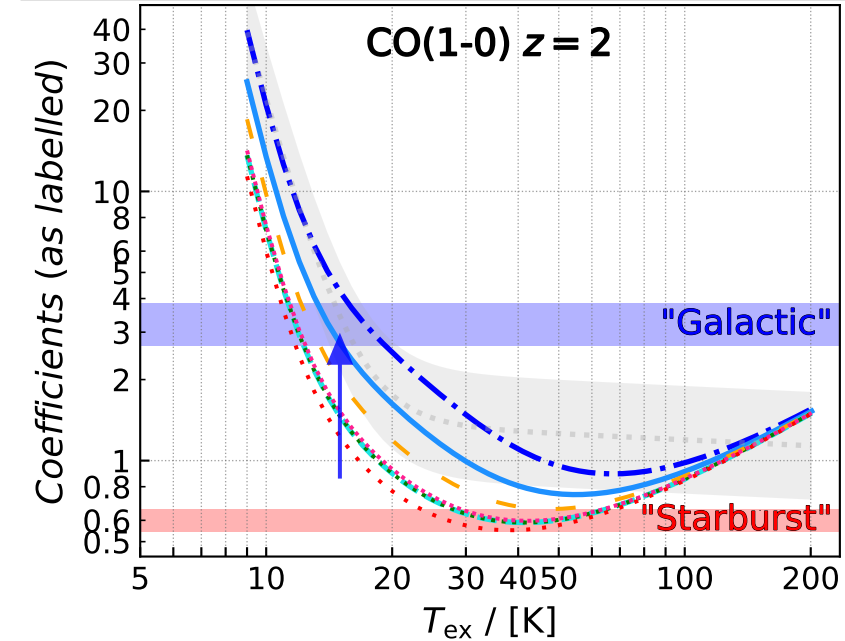


$$\text{LTE } \alpha_{\text{CO}(1-0)}^{-\text{He}} = C \cdot [QE] \cdot [\tau] \cdot 10^{-4} / ([\text{CO}/\text{H}_2])$$

$$\approx [(0.00 + (T_{\text{ex}}/75)^{5.59}) \cdot (T_{\text{ex}}/75)^{-5.68} + 0.22] \times (1 \times 10^{-4} / [\text{CO}/\text{H}_2])$$



- $N_{\text{CO}}=6.4\text{e}17, \Sigma_{\text{mol}}=140, \Delta\nu=3$
 $N_{\text{CO}}/\Delta\nu = 2.1\text{e}17$
- $N_{\text{CO}}=1.4\text{e}18, \Sigma_{\text{mol}}=300, \Delta\nu=10$
 $N_{\text{CO}}/\Delta\nu = 1.4\text{e}17$
- $N_{\text{CO}}=1.8\text{e}18, \Sigma_{\text{mol}}=400, \Delta\nu=25$
 $N_{\text{CO}}/\Delta\nu = 7.3\text{e}16$
- $N_{\text{CO}}=3.7\text{e}18, \Sigma_{\text{mol}}=800, \Delta\nu=50$
 $N_{\text{CO}}/\Delta\nu = 7.3\text{e}16$
- $N_{\text{CO}}=4.0\text{e}18, \Sigma_{\text{mol}}=871, \Delta\nu=40$
 $N_{\text{CO}}/\Delta\nu = 1.0\text{e}17$
- $N_{\text{CO}}=4.3\text{e}18, \Sigma_{\text{mol}}=935, \Delta\nu=70$
 $N_{\text{CO}}/\Delta\nu = 6.1\text{e}16$
- $N_{\text{CO}}=6.9\text{e}18, \Sigma_{\text{mol}}=1500, \Delta\nu=90$
 $N_{\text{CO}}/\Delta\nu = 7.6\text{e}16$