$$\text{LTE } \alpha^{\neg\,\mathrm{He}}_{\mathrm{C_I}(1\text{–}0)} = C \cdot [QE] \cdot [\tau] \cdot 10^{-4} / ([\mathrm{C_I/H_2}])$$
$$\approx [(0.00 + (T_{\mathrm{ex}}/75)^{5.62}) \cdot (T_{\mathrm{ex}}/75)^{-7.47} + 11.25]$$
$$\times (2 \times 10^{-5} / [\mathrm{C_I/H_2}])$$