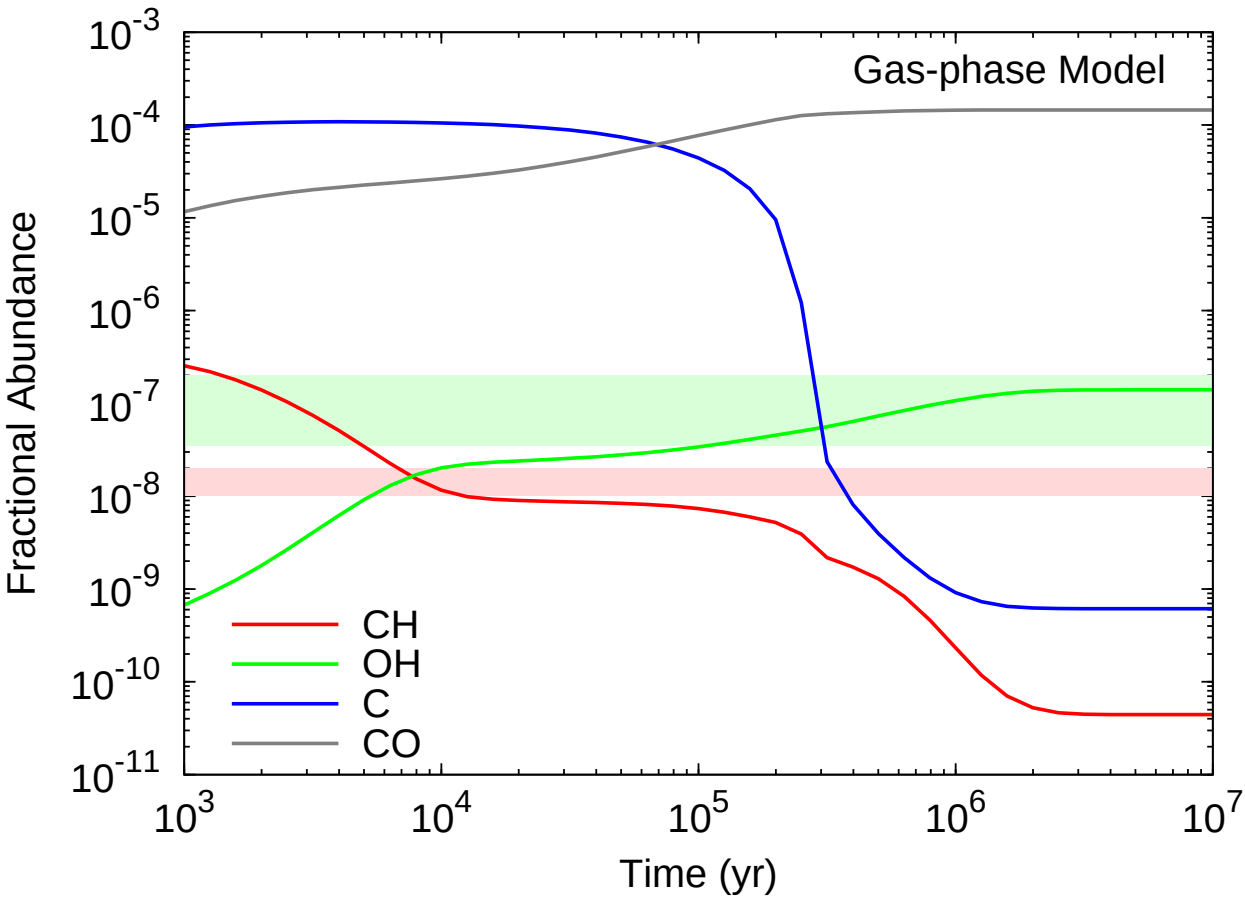
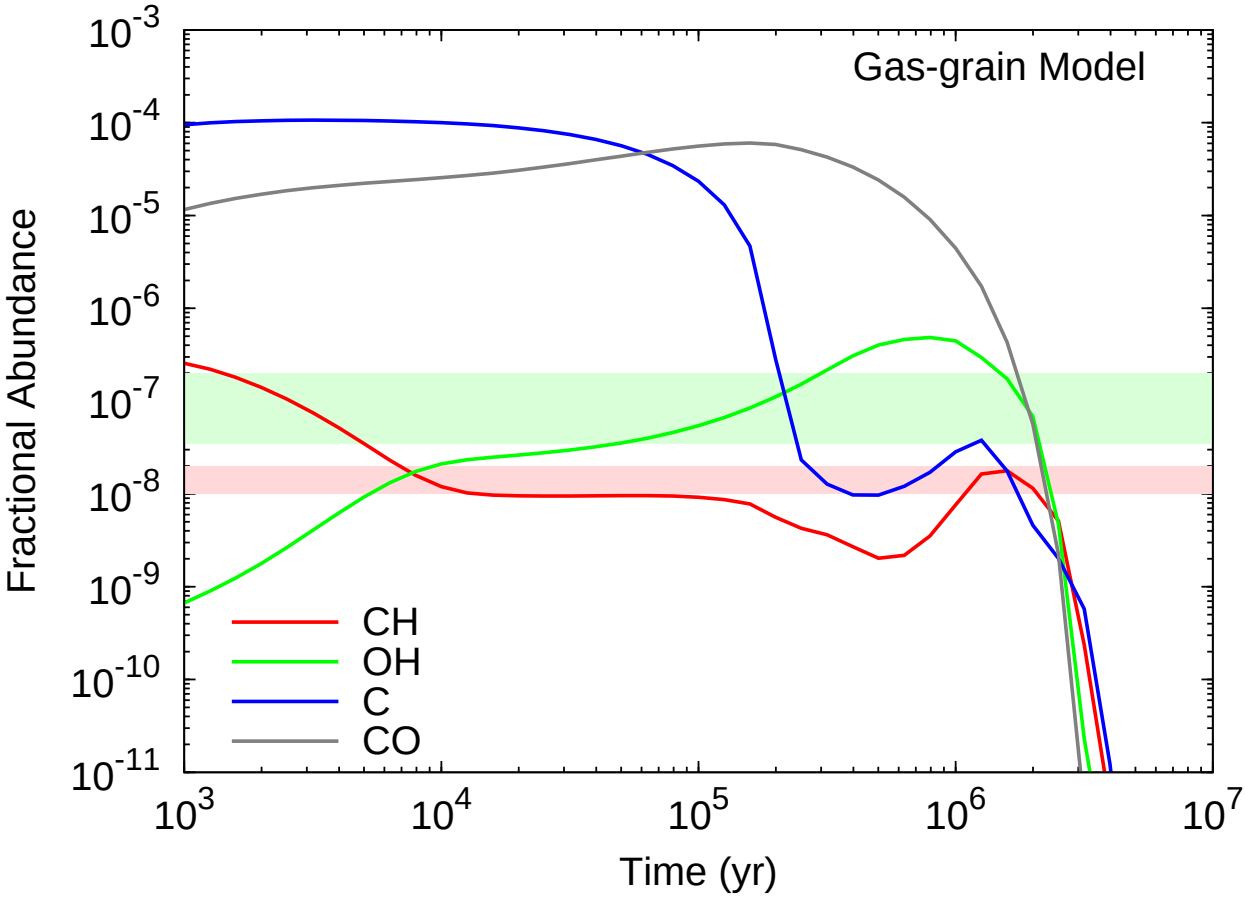

Gas-phase Model
Fractional Abundance
Time (yr)
CH
OH
C
CO
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{3}
10^{4}
10^{5}
10^{6}
10^{7}

(a)


Gas-grain Model
Fractional Abundance
Time (yr)
CH
OH
C
CO
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{3}
10^{4}
10^{5}
10^{6}
10^{7}

(b)