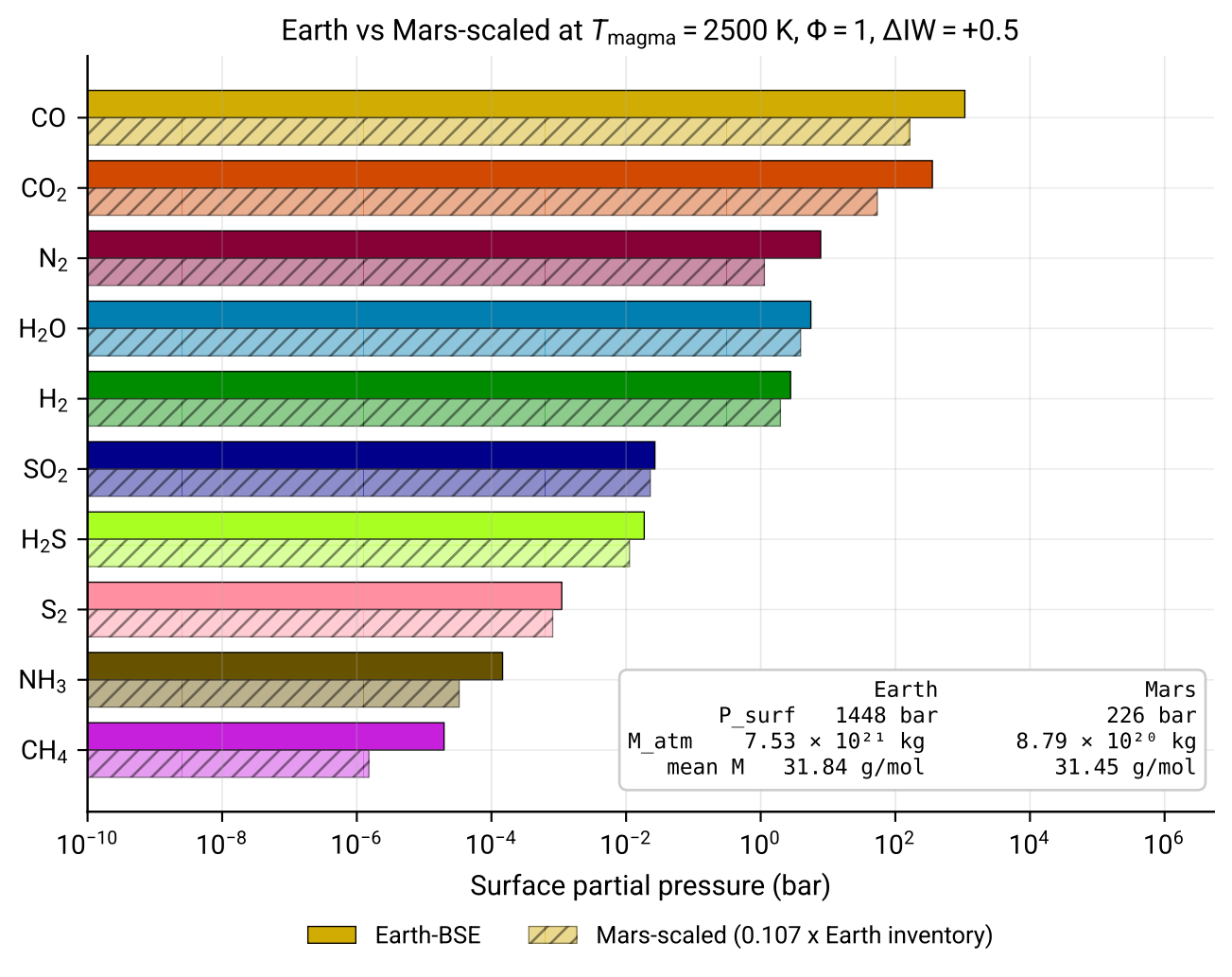

Earth vs Mars-scaled at T_{magma} = 2500 K, Φ = 1, ΔIW = +0.5
CO
CO_2
N_2
H_2O
H_2
SO_2
H_2S
S_2
NH_3
CH_4
Earth
Mars
P_surf 1448 bar 226 bar
M_atm 7.53 × 10²¹ kg 8.79 × 10²⁰ kg
mean M 31.84 g/mol 31.45 g/mol
10^{-10} 10^{-8} 10^{-6} 10^{-4} 10^{-2} 10^{0} 10^{2} 10^{4} 10^{6}
Surface partial pressure (bar)
Earth-BSE
Mars-scaled (0.107 x Earth inventory)