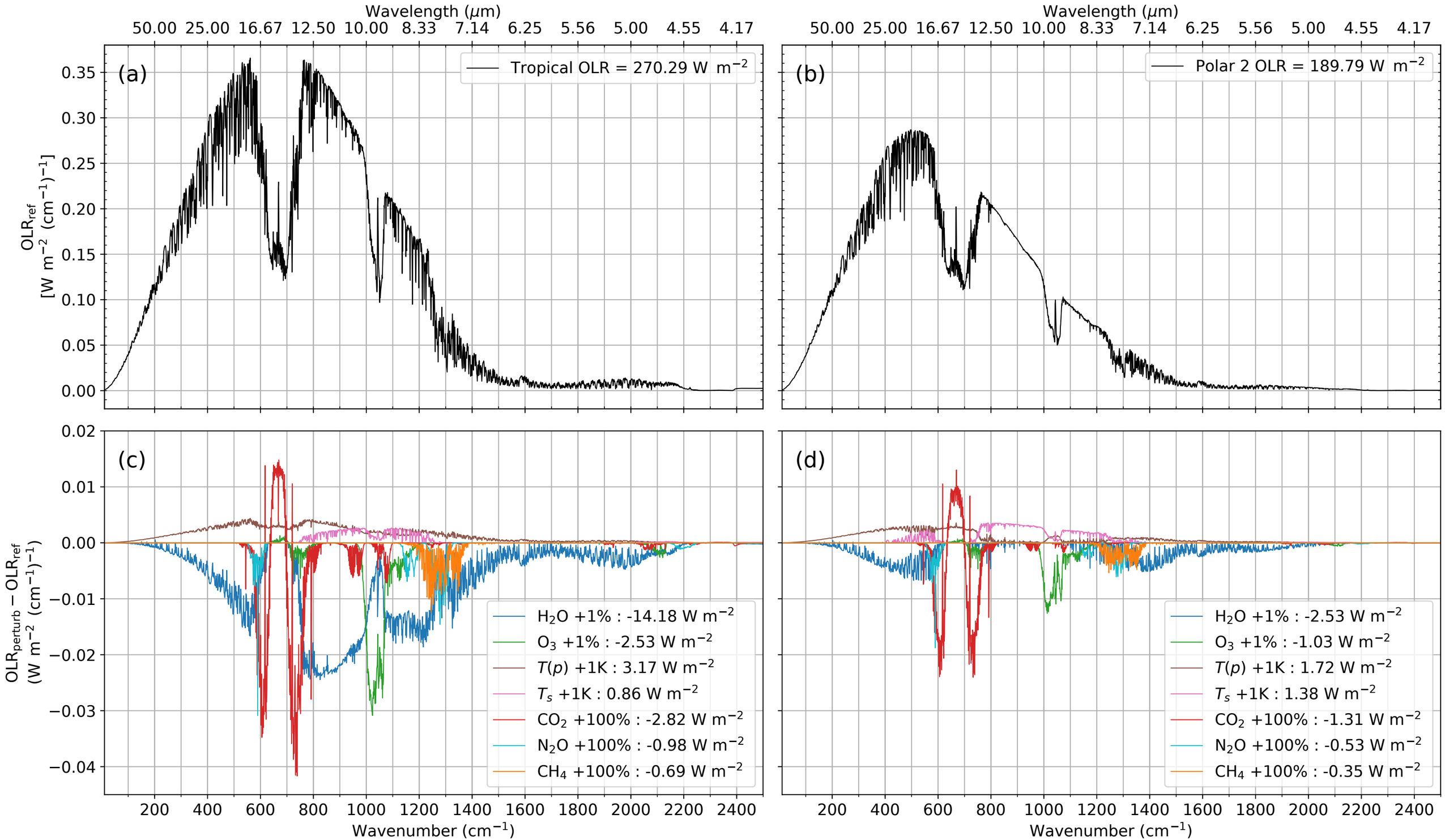
Wavelength (μm)
50.00 25.00 16.67 12.50 10.00 8.33 7.14 6.25 5.56 5.00 4.55 4.17
(a)
Tropical OLR = 270.29 W m^{-2}
(b)
Polar 2 OLR = 189.79 W m^{-2}
OLR$_{ref}$ [W m^{-2} (cm^{-1})$^{-1}$]
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
(c)
(d)
OLR$_{perturb}$ − OLR$_{ref}$ (W m^{-2} (cm^{-1})$^{-1}$)
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
H$_2$O +1% : -14.18 W m^{-2}
O$_3$ +1% : -2.53 W m^{-2}
$T(p)$ +1K : 3.17 W m^{-2}
T_s +1K : 0.86 W m^{-2}
CO$_2$ +100% : -2.82 W m^{-2}
N$_2$O +100% : -0.98 W m^{-2}
CH$_4$ +100% : -0.69 W m^{-2}
H$_2$O +1% : -2.53 W m^{-2}
O$_3$ +1% : -1.03 W m^{-2}
$T(p)$ +1K : 1.72 W m^{-2}
T_s +1K : 1.38 W m^{-2}
CO$_2$ +100% : -1.31 W m^{-2}
N$_2$O +100% : -0.53 W m^{-2}
CH$_4$ +100% : -0.35 W m^{-2}
200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400
Wavenumber (cm^{-1})