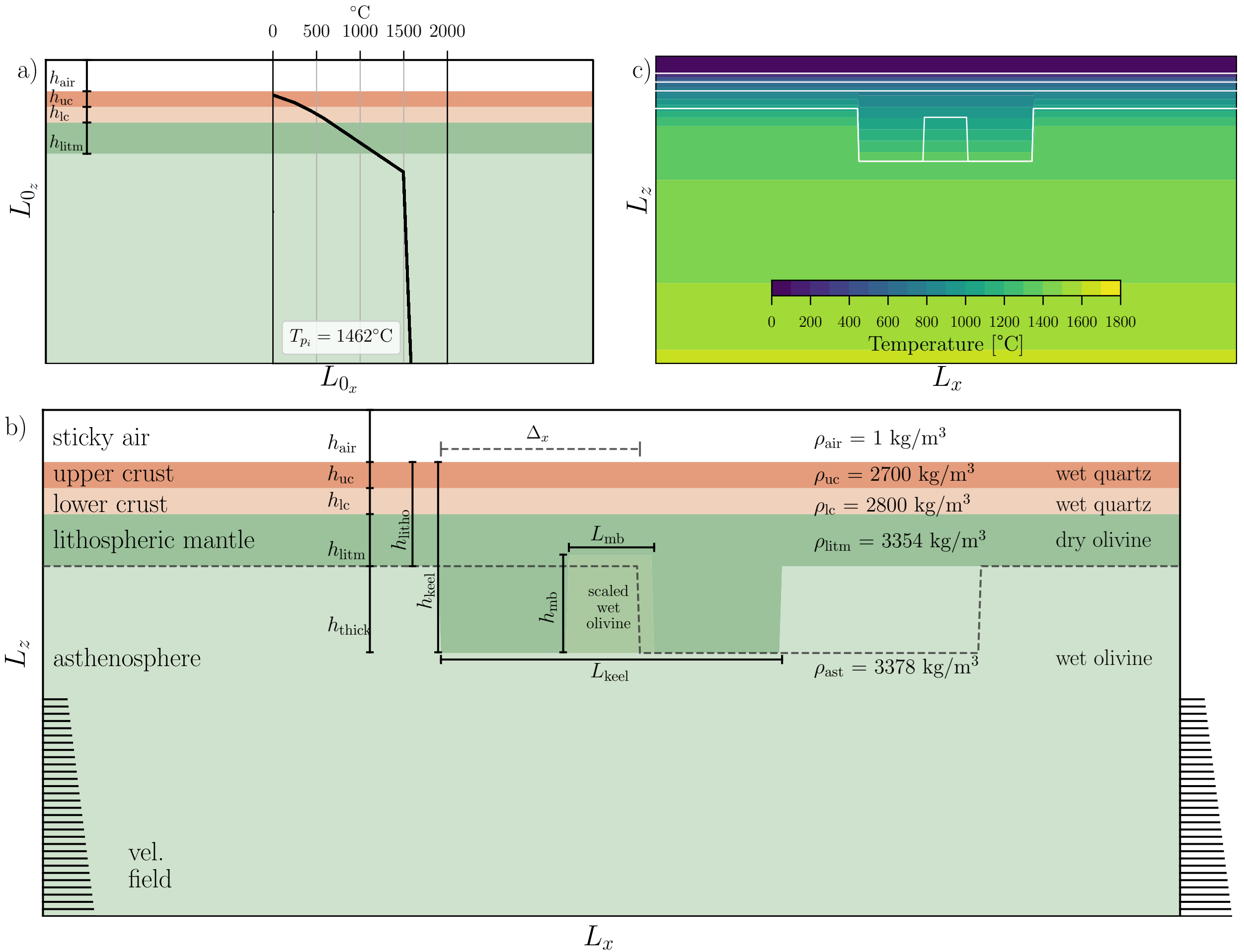
a)
°C
0 500 1000 1500 2000
h_{air}
h_{uc}
h_{lc}
h_{litm}
L_{0_z}
$T_{p_i} = 1462°C$
L_{0_x}
c)
L_z
0 200 400 600 800 1000 1200 1400 1600 1800
Temperature [°C]
L_x
b)
sticky air
h_{air}
Δ_x
$\rho_{air} = 1$ kg/m^3
upper crust
h_{uc}
$\rho_{uc} = 2700$ kg/m^3
wet quartz
lower crust
h_{lc}
$\rho_{lc} = 2800$ kg/m^3
wet quartz
lithospheric mantle
h_{litm}
h_{litho}
L_{mb}
$\rho_{litm} = 3354$ kg/m^3
dry olivine
h_{keel}
h_{mb}
scaled wet olivine
h_{thick}
asthenosphere
L_{keel}
$\rho_{ast} = 3378$ kg/m^3
wet olivine
L_z
vel. field
L_x