

temperature lapse rate (in atmospheric chemistry)

The rate of change of temperature with altitude (dT/dz). The rate of temperature decrease with increase in altitude which is expected to occur in an unperturbed dry air mass is $9.8 \times 10^{-3} \text{ }^\circ\text{C min}^{-1}$. This is called the dry *adiabatic lapse rate*. The lapse rate is taken as positive when temperature decreases with increasing height. For air saturated with H_2O , the lapse rate is less because of the release of the latent heat of water as it condenses. The average tropospheric lapse rate is about $6.5 \times 10^{-3} \text{ }^\circ\text{C min}^{-1}$. The lapse rate has a negative value within an inversion layer.

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