

## Glossary

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$A$  - area

$l$  – length of the cell

$L_p$  – hydraulic conductivity of the plasma (cell) membrane

$L$  – relative hydraulic conductance of the plasma membrane =  $(L_p A / V)$

$dL/dt$  – elongation rate

$P$  – turgor pressure, the difference in pressure inside and outside the cell

$P^*$  – dimensionless turgor pressure

$P_C$  – critical turgor pressure

$P_i$  – initial value of the turgor pressure at the beginning of a stress relaxation experiment

$dP/dt$  – rate of change of turgor pressure

$RH$  – relative humidity

$t$  – time

$t_c$  – time constant of the exponential decay

$T_{1/2}$  – halftime of the exponential decay

$V$  – volume

$V_{cw}$  – volume of the cell wall chamber

$v_{cw} = (dV/dt)/V$  – relative rate of change cell wall chamber volume

$v_{cw}^*$  – dimensionless  $v_{cw}$

$v_s = v_{cw} = \text{constant}$ ; a constant average value over some time interval

$v_{sC}$  = calculated value of  $v_s$

$v_{sM}$  = measured value of  $v_s$

$v_w^*$  – dimensionless  $v_w$  (relative rate of change in water volume)

$v_T^*$  – dimensionless  $v_T$  (relative rate of change in water volume lost through transpiration)

$\varepsilon$  – volumetric elastic modulus

$\Delta\pi^*$  – dimensionless osmotic pressure difference across the plasma membrane

$\Pi$  – dimensionless group of variables

$$\Pi_{\text{ev}} = P_{\text{C}} / \varepsilon$$

$$\Pi_{\text{pe}} = \varepsilon \phi / v_{\text{s}}$$

$$\Pi_{\text{pv}} = \phi P_{\text{C}} / v_{\text{s}}$$

$\phi$  – irreversible wall extensibility