



**Figure 1.** A. Micrograph of the abaxial surface of an olive leaf (bottom side up), where a stomata can be seen, and the pathway of CO<sub>2</sub> from ambient ( $C_a$ ), to leaf surface ( $C_s$ ), to intercellular spaces ( $C_i$ ) and to chloroplast ( $C_c$ ). Boundary layer conductance ( $g_{\text{boundary layer}}$ ), stomatal conductance ( $g_{\text{stomata}}$ ) and mesophyll conductance ( $g_m$ ) are indicated. B. Electron micrograph of a grapevine leaf where plasma membrane (pm), cell wall (cw), the chloroplast envelope (ce), and stroma thylacoid (st) can be observed. The pathway of CO<sub>2</sub> from  $C_i$  to chloroplast CO<sub>2</sub> ( $C_c$ ) is characterised by intercellular air spaces conductance to CO<sub>2</sub> ( $g_{\text{ias}}$ ), through cell wall, and through the liquid phase inside cell ( $g_{\text{liq}}$ ) – which in turn could be divided in a strictly 'liquid' phase and a 'lipid' phase, or in cytosol and chloroplast phases.