### **Supplementary Figures**

## Figure S1

Response of net CO<sub>2</sub> assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in sunflower (*Helianthus annuus*) with (covered) and without (control)  $12 \times 5.8$  mm diameter grease patches applied to both leaf surfaces covering approximately half the leaf area; n = 3, bars indicate s.e.m. Ratio of assimilation rate and transpiration rate when covered and uncovered,  $A^c/A$  and  $Tr^c/Tr$  shown on right hand axes. Leaf temperature =  $25^{\circ}$ C, VPD = 0.8 kPa, chamber CO<sub>2</sub>  $\approx 370$  µmol mol<sup>-1</sup> and 21% O<sub>2</sub>.

# Figure S2

Response of net  $CO_2$  assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in faba bean (*Vicia faba*) with (covered) and without (control) grease patches covering approximately half the leaf area. n = 3. Other details as in Figure S1, except chamber  $CO_2 = 360 \mu mol mol^{-1}$ .

### Figure S3.

Response of net  $CO_2$  assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in dwarf bean (*Phaseolus vulgaris*) with (covered) and without (control) grease patches covering approximately half the leaf area. n = 4. Other details as in Figure S2.

#### Figure S4.

Response of net  $CO_2$  assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in maize ( $Zea\ mays$ ) with (covered) and without (control) grease patches covering approximately half the leaf area. n = 5. Other details as in Figure S2.

# Figure S5.

Response of net  $CO_2$  assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in faba bean (*Vicia faba*) with (covered) and without (control) small grease patches (4.5 mm diameter) covering approximately half the leaf area. n = 3. Other details as in Figure S2.

#### Figure S6.

Response of net  $CO_2$  assimilation rate, A and transpiration rate, Tr, to photosynthetic photon flux density (PPFD) in sunflower (*Helianthus annuus*) with (covered) and without (control) grease patches covering approximately half the leaf area. n = 5. Chamber  $CO_2 \approx 1450 \mu mol mol^{-1}$ , other details as in Figure S1.