## **Supplementary Material**

## *In vivo* epidermal UV-A absorbance is induced by sunlight and protects *Soldanella alpina* leaves from photoinhibition

Constance Laureau<sup>A</sup>, Sylvie Meyer<sup>A,B</sup>, Xavier Baudin<sup>C</sup>, Christophe Huignard<sup>A</sup> and Peter Streb<sup>A,D</sup>

<sup>A</sup>Laboratoire Ecologie Systématique et Evolution, Université Paris-Sud, UMR-CNRS 8079, Bât. 362, F-91405 Orsay, France.

<sup>B</sup>Univ Paris Diderot, Sorbonne Paris Cité, F-75475, Paris, France.

<sup>c</sup>Plateforme de Recherche ImagoSeine, Institut Jacques Monod, UMR 7592 CNRS, INSERM (Institut National de la Santé et de la Recherche Médicale), Université Paris Diderot-Paris7, Bât. Buffon, F-75013 Paris, France.

<sup>D</sup>Corresponding author. Email: peter.streb@u-psud.fr



**Fig. S1.** Transmission spectrum of the green nylon filter between 300 and 700 nm. The filter was used to reduce incident light intensity in *S. alpina* leaves at the natural growing site.



**Fig. S2.** Correlation between total leaf-UV-A-absorption DA<sub>375</sub> and LMA in leaves of *S. alpina* collected from different growing sites and grown under different conditions The correlation coefficient was  $r^2 = 0.979$ . One point corresponds to the mean of  $n \ge 4$  leaves.



**Fig. S3.** Relationship between total  $DA_{322}$  and total  $DA_{375}$  for leaves grown in Alps with a high (HA), a low (LA) and intermediary (IA) UV-A-absorbance and leaves grown in the growth chamber (GC). One point corresponds to one leaf. Regression equations and correlation coefficient are indicated.