



**Figure S4.** Experimental (a) and model-based (b) spectra of leaf reflectance in pea plants, which were cultivated for 9 days under the low and moderate light intensity ( $n=6$  for experiments). The average experimental reflectance spectrum ( $n=6$ ) measured in the second mature leaf of pea plants (PolyPen RP 410) is shown. Standard errors are not shown because they are small. In variant “Moderate light intensity”,  $h=33.8 \mu\text{m}$  and  $l=57.1 \mu\text{m}$  (see Figure S3b); other parameters were not changed. In variant “Low light intensity”,  $h=25.7 \mu\text{m}$  and  $l=46.6 \mu\text{m}$  (see Figure S3b); other parameters were not changed.  $R^2$  between experimental and model-based dependences were 0.989 (variant “Moderate light intensity”) and 0.976 (variant “Low light intensity”).