



**Figure S2.** Spectra of leaf reflectance calculated at  $C_{Car}=1.5 \text{ mg cm}^{-3}$ ,  $C_{Car}=1 \text{ mg cm}^{-3}$ , and  $C_{Car}=0.5 \text{ mg cm}^{-3}$ . These concentrations correspond to average concentrations of carotenoids in leaf equaling to 0.75, 0.5, and 0.25  $\text{mg cm}^{-3}$ . Other parameters of the model are same with the parameters, which were used for simulation of spectrum in Figure 8c.