

Supplementary Information of of Vásquez-Elizondo et al.: Absorptance determinations on multicellular tissues.

Figure S1: Images of the two methodologies used to validate the transmittance method proposed by Beer et al. (1998), Beer and Bjork (2000) and Beer and Axelsson (2004) to estimate absorptance on marine macrophytes. Panel a) shows the spectrophotometer AMINCO DW2 (USA) controlled by an OLIS data collection system, which was equipped with an opal-glass in front of the photomultiplier according to Shibata (1959). Panels b) and c) illustrate how the leaves were placed in the spectrophotometer to measure the transmittance spectrum. A leaf holder (in black) was used to maintain the leaf in the same position during the measurement. A white leaf generated in the field by the seagrass meadow (c) was used as reference for the base line. The white leaves were directly collected from the field and preserved hydrated in the laboratory (c). Panels (d), (e) and (f) show the set-up used to estimate absorptance following the method proposed by Beer et al. (1998), Beer and Bjork (2000) and Beer and Axelsson (2004). To assure the maintenance of a constant distance and angular position between the lamp, the sample and the cosine corrected miniature irradiance sensor of the diving PAM device, we used leaf clips. Measurements were performed against air, and thus, the full irradiance by the lamp was used as reference, or against the same white leaf used in the spectroscopic determinations (b, c), as shown in plot (e). The position of the pigmented leaf is shown in plot (f).

