



"For the two photosystems I & II, chlorophylls a & b exist to assist the photosynthetic process by absorbing specific spectra of light energy. Chlorophyll a absorbs the violet blue - blue wavelengths of light (390-450nm with peak at 420nm (433?)) and orange to far-red (600-700nm with a peak at 680nm (663?)). Chlorophyll b however absorbs violet blue to green blue light (390-500nm with a peak at 480nm (457?)) and yellow to red light (600nm-680nm with a peak at 630nm (650?)). Plants still use the green and yellow spectra as there exist photopigments that turn green or yellow photons (500-600nm wavelengths) into blue and red photons through excitation and emittance reactions."