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Excitation and emission wavelength dependence of fluorescence spectra in whole cells of the cyanobacterium *Synechocystis sp.* PPC6803: influence on the estimation of Photosystem II maximal quantum efficiency.

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List of Abbreviation: PS II, Photosystem II; PS I; Photosystem I; RC, Reaction Centre; PBS, Phycobilisome; PBU uncoupled fraction of phycobilisome; PC, Phycocyanin; APC, Allophycocyanin; LHC, Light Harvesting Complex; Chl, Chlorophyll; $F_{M,}$ maximal fluorescence emission (closed PS II centres); F_0 minimal fluorescence emission (open PS II centres); $F_0^{'}$ fluorescence level under actinic illumination approaching F_0; $F_V=F_M-F_0$, variable fluorescence emission; $\Phi_{pc,PSII}$ photochemical efficiency of PSII, $\Phi_{PSII,m}$, maximal photochemical efficiency of PS II; FWHM, full width at half maximum; DAS, decay associated spectra; ϕ, fluorescence quantum yield; $\sigma(\lambda_{ex})$, absorption cross section; $\rho(\lambda_{em})$, normalised emission bandshape; NPQ, non photochemical quenching parameter.

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