

THE EXCITATION
SPECTRA OF SINGLET OXYGEN
AND PHOTOLUMINESCENCE
OF METHYL PHEOPHORBIDE-a

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S u m m a r y

The correlation between the photoluminescence intensity of a dye-sensitizer (methyl pheophorbide-a, MPP-a) and the efficiency of the singlet oxygen (1O_2) generation is studied. The excitation spectrum of 1O_2 emission at 1270 nm has one strong band at 403 nm that coincides with the Soret band of MPP-a and only a weak peak at 667 nm, which practically coincides with the strongest band of the MPP-a excitation spectrum. Therefore, the choice of an excitation wavelength for the efficient 1O_2 generation should be based on direct measurements of the excitation spectra of the sensitized 1O_2 emission.