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Title: Computer simulation of fluorescence spectra for molecular ring: Localization of exciton states

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Peak positions of single molecule steady state fluorescence spectra and localization of exciton states for ring molecular system are presented. Cyclic antenna unit LH2 of the bacterial photosystem from purple bacterium *Rhodospseudomonas acidophila* can be modeled by such molecular ring. Software package Mathematica is used for fluorescence spectra calculation. Simulations were done for three different models of uncorrelated static disorder: Gaussian disorder in local excitation energies, Gaussian disorder in nearest neighbour transfer integrals and Gaussian disorder in radial positions of molecules in the ring. Interaction with phonon bath (dynamic disorder) is also included in Markovian approximation. For the calculation of spectral responses of the system with exciton-phonon coupling the cumulant-expansion method of Mukamel et al. is used.