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Chlorin e6 – CdSe/ZnS Quantum Dots Nanocomposites as Efficient Singlet Oxygen Generator *

© F.A. Sewid^{1,2}, A.K. Vishratina¹, A. Dubavik¹, A.V. Veniaminov¹, V.G. Maslov¹, and A.O. Orlova¹

¹ ITMO University,
197101 St. Petersburg, Russia

² Physics Department, Faculty of Science, Mansoura University,
35516 Mansoura, Egypt

e-mail: a.o.orlova@gmail.com

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A new approach to the formation of colloidal nanocomposites based on CdSe/ZnS Quantum Dots and monomeric form of Chlorin e6 is suggested. We demonstrate that FRET with efficiency close to theoretical prediction can be realized in the nanocomposites, and it leads to twofold enhancement of singlet oxygen generation in comparison with the same amount of free Chlorin e6.

Keywords: Photosensitizers, Quantum Dots, Chlorin e6, nanocomposites, FRET, Singlet Oxygen.

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