

SYNTHESIS OF NATURAL CHITOSAN POLYMERS GRAFTED WITH AMINOMETHYL ZINC PHTHALOCYANINE FOR PHOTODYNAMIC THERAPY

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Abstract. This paper reports on the synthesis of substituted aminomethyl zinc phthalocyanine (AMZnPc). Grafting of zinc aminomethyl phthalocyanine onto chitosan was achieved using ethyl chloroformate. The composition of Chitosan-AMZnPc with a content of aminomethyl zinc phthalocyanine of 10, 20, 30, and 60% was confirmed by FTIR and UV-Vis spectroscopies. The absorbance increases with increasing AMZnPc concentration in the Chitosan - AMZnPc solution.

Keywords: ZnPc derivative, chitosan, grafting reaction, UV-Vis, FTIR.