ABSTRACT

This thesis focuses on the synthesis of intermediates suitable for cyclotertramerization of naphthalocyanine aza-analogues. The aim of this thesis was to find and optimize a problematic step of the synthesis of an important intermediate which preparation employing classical synthesis methods shown to be problematic. We tried to solve this problem by testing and application of microwave radiation on the reaction process. We tested various possibilities of reaction conditions and parameters during the experiments. The reaction mixture was subjected to various temperatures and variable time in the environment of microwave radiation. Thereby we succeeded in finding the way to the satisfactory synthesis of the intermediate with exactly defined period and conditions of reaction process in microwave reactor CEM Explorer – 24 position. We re-purified the prepared compound through column and we used it consequently for the preparation of the next step (product) within the scope of synthesis of intermediates for cyclotertramerization of naphthalocyanine aza-analogues. The last product was specified by IR and NMR spectra.