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ANALYSIS OF POLYDISPERSED VESICULAR SYSTEMS STRUCTURE: PARALLEL IMPLEMENTATION OF THE SEPARATED FORM-FACTORS METHOD

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The separated form factors method (SFF) is an effective approach to obtain information about a structure of vesicular systems from the small angle scattering data. Parameters of vesicular system are determined by means of minimization of a discrepancy between experimental data on intensity of small angle scattering and the results of respective SFF-based calculations. The minimization procedure is based on the least square method which was employed in the code FUMILI from the library JINRLIB. In this contribution, we utilize the parallel MPI-version of this code. Effectiveness of parallel implementation is tested on the cluster HybriLIT. Results of numerical analysis of small angle neutron scattering data on polydispersed population of phospholipid vesicles are presented.

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