Thematic Section: Thermodynamic Research. **Full Paper**
Subsection: Physical Chemistry. *Reference Object Identifier* – ROI: jbc-02/15-44-10-45
Publication is available for discussion in the framework of the on-line Internet conference "*Butlerov readings*".
http://butlerov.com/readings/ *(English Preprint)*
Contributed: September 03, 2015.

The recurrent method to define various sets of clusters and cluster size distribution in the system consisting of finite number of particles

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Keywords*:* system with finite number of atoms or molecules, finite system, isolated system, isothermal system, cluster, nanoparticle, cluster size distribution function, thermodynamic equilibrium.

Abstract

The system consisting of finite number of identical particles (atoms and molecules) is considered. The recurrent method to define various sets of clusters consisting of the particles is find. Various sets of clusters are defined for systems consisting of from 1 to 13 particles. Cluster size distribution is defined for these systems. It is shown that the dependence of the cluster appearance probability on the cluster size to the number of particles in the system is weakly depend on the number of particles in the system for the systems with the number of particles greater than ten, and the dependence is rapidly decreased with the increasing of the number of particles in the system.