Full Paper Reference Object Identifier - ROI: jbc-02/15-41-2-47 The article is published on materials of the report on "International Scientific Forum

Butlerov Heritage - 2015". http://foundation.butlerov.com/bh-2015/ (English Preprint) Submitted on April 13, 2015.

Giant clusters of distilled water in ratchet forming coxeter space

© Yury I. Sukharev, Inna Yu. Apalikova, and Oksana M. Shamina

Department of Chemistry of Solids and Some Processing Stages. Chelyabinsk State University. Br. Kashirinyh St., 129. Chelyabinsk, 454000. Russia. Tel: +7 (351) 799-70-63. E-mail: Yuri Sucharev@mail.ru

*Leader of the thematic course; ⁺Corresponding author

Keywords: Lagrangian mapping, electroglow, fulleroid, multipoles, oxyhydrates system, colloidal clusters, spontaneous pulsation flow, the diffuse electric double layer, topological continuum, dissociation disproportionate mechanism, theory of Whitney, the geometry of caustics.

Abstract

Whenever a moving cluster is in a cell containing an obstacle or obstacles, a reaction occurs, which needs those obstacles. That is, point reflex maps of those interacting fragments form. Those maps are Coxeter polygons, including individual megaclusters, as with water clusters. The following giant formations can be discerned on calculated giant clusters: fulleroid polytopes of giant clusters of, e.g., water or oxyhydrates (with 17 or more vertexes) can be clearly observed; and pyramidal polygons with 10 vertexes and octahedral with six vertexes are also observable.