

Primary, secondary, tertiary, and quaternary structural organization of gel oxyhydrates

© Yury I. Sukharev

Department of Solid State Chemistry and Nanoprocesses. Chelyabinsk State University.

Br. Kashirinykh St., 129. Chelyabinsk, 454000. Russia.

Phone: +7 9634602775. E-mail: Yuri_Sucharev@mail.ru.

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Abstract

As we see it now, the structural organization of gel oxy hydrate is very similar to the protein structure. It was K. Lindstrom-Lang who in his time suggested to distinguish 4 levels of structural organization of proteins: primary, secondary, tertiary and quaternary structures. Although this division is somewhat outdated, we still use it. For proteins the primary structure is natural when there is observed the sequence of amino acid residues of polypeptide determined by the structure of the gene and its genetic code. That is, the primary structure is the sequence of amino acid residues in the polypeptide chain. It is quite the other thing with oxyhydrates of *d*- and *f*-elements. The primary structure of oxyhydrate should be regarded as a kind of critical points of some complex smooth functions (by V.I. Arnold). Physically, these features are related to the geometry of destruction and binding of diffuse double electrical layer of macromolecules of gel oxyhydrates and their aging.