# Examination of the surface and supramolecular structure of thin hydrogel plates of chitosan L- and D-aspartates

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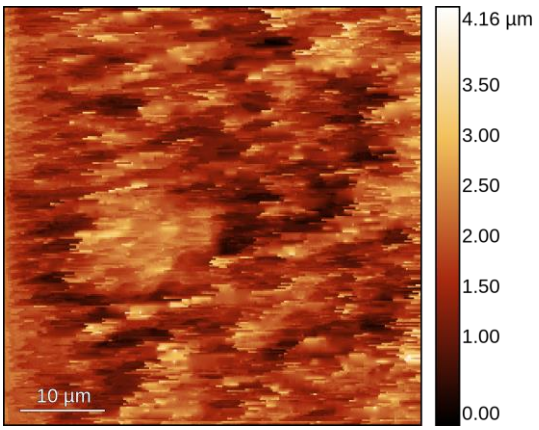
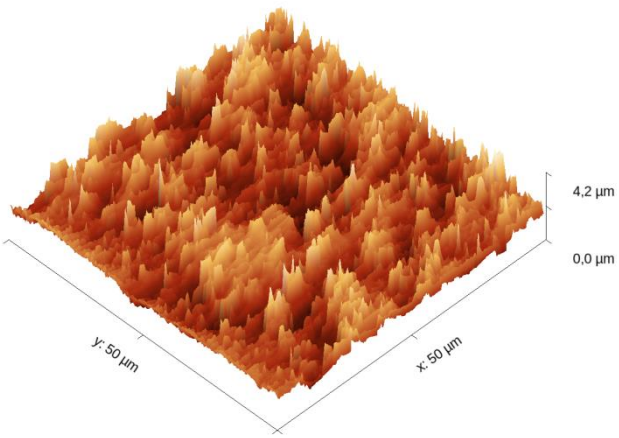
## Abstract

The surface morphology and supramolecular structure of thin hydrogel plates of chitosan L- and D-aspartates were examined by atomic force microscopy and small-angle X-ray scattering. Such materials are promising for designing thin-film nanocomposite materials for solving applied problems of optoelectronics, optosensorics and optophotonics, in particular, for creating highly sensitive and highly selective planar waveguides, SPR and GRS detectors, and optical sensors for diagnosing biological macromolecules, cells and genetic markers, and monitoring small organic biomolecules, etc. A comparative analysis of the surface microrelief and roughness, the average size of nanosized aggregates and their volumetric distribution in the material depending on the enantiomer (L or D) of aspartic acid was carried out.

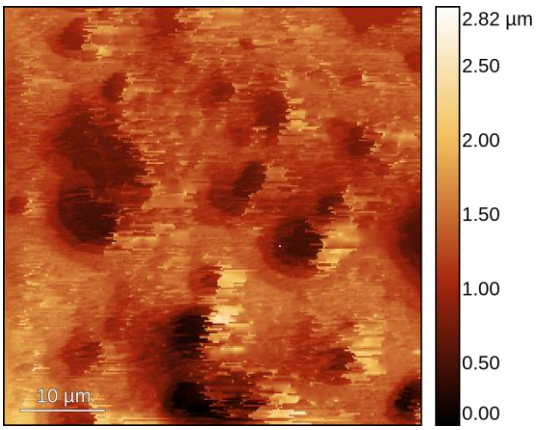
## Atomic force microscopy images of the surface of thin hydrogel plates of chitosan L- and D-aspartates

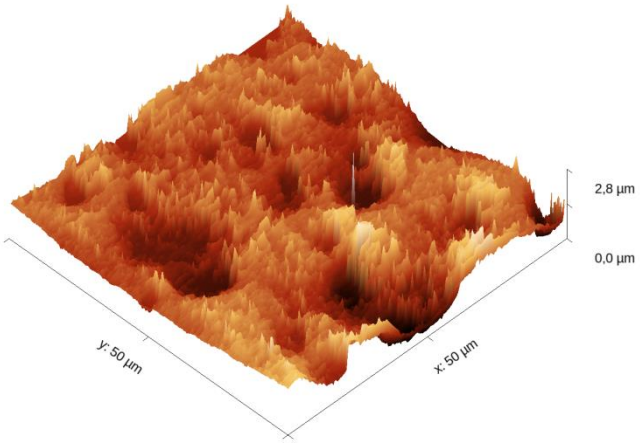
### Chitosan L-aspartate




### Chitosan D-aspartate

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