

Obtaining phytoactive products by gas-discharge treatment of an aqueous suspension of chitosan

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The article presents the results of plasma-chemical treatment of an aqueous suspension of chitosan and shows the effect of the obtained products on the germination of pea seeds and on the early development of plants. The effect of a direct current discharge in air using a suspension under treatment as a cathode, as well as a discharge in gas-vapor bubbles near the surface of an electrode immersed in a suspension (“underwater” discharge) is studied. The accumulation rates of water-soluble products and their energy yields were determined. It is shown that the use of modified suspensions increases the germination of seeds and the rate of initial development of plants when sown in the ground.

Keywords: plasma, underwater discharge, chitosan, modification, seed treatment, germination.

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