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Microbial metabolism of white phosphorus

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Abstract

In the previous works we have for the first time demonstrated the biodegradation of industrial pollutant - white phosphorus - by the wastewater sewage of the treatment facilities. We have also obtained the cultures of microorganisms, developed resistance to the white phosphorus. There are no references to the works of the kind in literature. However biodegradation assumes metabolic pathway of the substance, which is also unknown in the case of white phosphorus. In the present work for the first time the research work devoted to the search for the white phosphorus metabolites is described, and the probable way of the phosphorus metabolism is proposed. Besides, significant attention is paid to the literature sources, devoted to the study of oxidative-reductive metabolism of phosphorus and confirming our hypothesis.