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Comparative characterization of extracellular and intracellular hydrocarbons of *Clostridium pasteurianum*

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Abstract

Extracellular and intracellular hydrocarbons produced by *Clostridium pasteurianum* VKM 1774 during cultivation on glucose-containing media in an argon atmosphere or in the presence of carbon dioxide and molecular hydrogen were analyzed by gas-liquid chromatography. Intracellular hydrocarbons were 50-55% (C₂₅-C₃₅) n-alkanes. Carbon dioxide and molecular hydrogen stimulated synthesis of extracellular hydrocarbons, which comprised 90-95% (C₁₁-C₂₄) n-alkanes.

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Keywords

Clostridium pasteurianum, Extracellular, Hydrocarbons, Intracellular