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[ADVANCED](#)[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(368K\)\]](#) [\[References\]](#)**Enzyme Encapsulation with Crystal Transformation of Anhydrous Maltose or Anhydrous Trehalose**Hidefumi Yoshii¹⁾, Tetsuya Ohhashi²⁾, Takeshi Furuta¹⁾ and Pekka Linko³⁾

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The encapsulation of protein drugs in powdery forms is quite important in order to improve the stability, as well as to expand the application. When a protein solution is added to anhydrous sugars such as anhydrous maltose or anhydrous trehalose, water molecules are incorporated into sugars as water of crystallization, resulting in a protein encapsulated into sugar powders. This study investigated the enzyme encapsulation with crystal transformation of anhydrous maltose or anhydrous trehalose. The activity of the encapsulated enzyme depended on the crystal transformation rate of the anhydrous sugars. The remaining activity of the encapsulated alcohol dehydrogenase increased with the use of amorphous anhydrous trehalose and the addition of hydroxypropyl- β -cyclodextrin into the enzyme solution.

Key words: trehalose, maltose, encapsulation, crystal transformation[\[PDF \(368K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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