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[\[PDF \(604K\)\]](#) [\[References\]](#)**Formation of δ -Tocopherol-cyclodextrin Complexes by the Action of Cyclodextrin Glucanotransferase**Shoji Miwa¹⁾, Mayumi Ohnishi-Kameyama²⁾ and Shoichi Kobayashi³⁾

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Formation of δ -tocopherol (δ -Toc) and cyclodextrin (CDs) complexes were studied by two kinds of methods. The first was a method (the CD wrap method) newly developed by the author, in which the mixture of starch and δ -Toc was reacted with cyclodextrin glucanotransferase (CGTase) in a 20% ethanol solution. The other was an inclusion method, in which the mixture of δ -Toc and CDs was vigorously stirred to form complexes in a water solution. The products prepared by the two methods were analyzed by fast atom bombardment (FAB) mass spectrometry. The peaks corresponding to δ -Toc- α -CD and δ -Toc- β -CD complexes were found in mass spectra of samples prepared by the CD wrap method, whereas such peaks were not found in the mass spectra of the inclusion method samples.

Key words: cyclodextrins, δ -tocopherol, complex, cyclodextrin glucanotransferase, fast atom bombardment mass spectrometry

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