Title	Mechanism of the carboxylation of cyclohexanone with carbon dioxide catalyzed by 1, 8-diazabicyclo [5. 4. 0] undec-7-ene
Sub Title	
Author	森, 久和(Mori, Hisakazu)
Publisher	共立薬科大学
Publication year	1987
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.32 (1987.) ,p.98- 98
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000032-0098

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

**Mechanism of the Carboxylation of Cyclohexanone with Carbon
Dioxide Catalyzed by 1,8-Diazabicyclo[5.4.0]undec-7-ene***

Hisakazu MORI

森 久和

The dependence of the rate of carboxylation upon the concentration of the reactant was investigated in dimethyl sulfoxide. The reaction rate depends upon the concentration of cyclohexanone and 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) in the first order, respectively. The reaction follows almost the first order dependence upon the CO₂ pressure in the range of 50—400 torr. From these characteristics of the reaction, it was suggested that the carboxylation proceeds *via* the reaction between CO₂ dissolved in dimethyl sulfoxide and the anion of cyclohexanone rather than that between the CO₂ adduct with DBU and cyclohexanone. The results of carboxylation by CO₂ adduct with DBU and by CO₂ dissolved in dimethyl sulfoxide also support the above conclusion. The formation of cyclohexanone anion by reaction of cyclohexanone with DBU was verified by the UV spectrum of the solution of concentrated DBU and cyclohexanone.

* 本報告は *Bull. Chem. Soc. Jpn.*, **61**(2), 435–439 (1988) に発表.