

C726998 : MAJOR BIOTECHNOLOGY

KEY WORD:

ALPHA HYDROXY ACID / BETA HYDROXY ACID

PRAMOTE JAKKAEW : SYNTHESIS OF HYDROXY CARBOXYLIC ACID FROM

CASTOR OIL. THESIS ADVISOR : ASSOC. PROF. SOPHON ROENGSUMRAN, Ph.D.

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The synthesis of beta hydroxy carboxylic acid was carried out by transesterification of castor oil with methanol using concentrated sulfuric acid as a catalyst , then followed by ozonization. The product from these reaction is 3 hydroxy nonanoic acid.(69.14%) The synthesis of alpha hydroxy carboxylic acid was carried out by transesterification of castor oil with methanol using concentrated sulfuric acid as a catalyst , then bromination and dehydrohalogenation with alcoholic KOH to move the position of double bond of ricinoleic methylester. After ozonization , it appeared that no alpha hydroxy carboxylic acid was formed , presumably , the migration of double bond in ricinoleic methylester was not success.

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