

研究简报

用蒜头果油脂合成大环内酯的新方法

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摘要 通过蒜头果油臭氧化、还原制备 ω -羟基脂肪酸三甘油酯, 然后在催化剂作用下关环合成大环内酯. 该方法不需要皂化和酸化反应, 也不需要分离出二十四碳-15-烯酸, 缩短了蒜头果油合成环十五内酯的步骤, 为通过油脂合成大环内酯提供了简单合成方法.

关键词 [蒜头果油](#) [环十五内酯](#) [臭氧化](#) [大环内酯](#)

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A New Method for Synthesis of Macrocylic Lactones via *Malaria Oleifera* Chum Oil

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Abstract Synthesis of macrocylic lactones has been applied to medical and flavor field. Triglycerides(2) of ω -hydroxycarboxylic acids synthesized from malaria oleifera chum oil(1) via ozonization and reduction, and compound 2 were catalytically transformed to macrocylic lactones(3). This is a new method involving fewer steps and a 61% yield of cyclopentadecanolide was obtained. The reactive properties of macrolactonization of ω -hydroxycarboxylic acids were also studied. The result obtained shows that the priority order of macrolactonization as follows: 11-undecalactone>cyclotridecanolide>cyclopentadecanolide, *i.e.* the short chain ω -hydroxycarboxylic acids were preferentially cyclized.

Key words [Malaria oleifera chum oil](#) [Cyclopentadecanolide](#) [Ozonization](#) [Macrocylic lactone](#)

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