

Title	Reaction of (20S)-3 β -acetoxybisanthol-5-enic acid with lead tetraacetate ; structure of pregnane derivatives and a dimer
Sub Title	
Author	佐藤, 良博(Sato, Yoshihiro) 園田, よし子(Sonoda, Yoshiko)
Publisher	共立薬科大学
Publication year	1982
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.27 (1982.) ,p.51- 52
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000027-0051

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.

Reaction of (20 S)-3 β -Acetoxynorchole-5-enoic Acid with Lead Tetraacetate; Structure of Pregnane Derivatives and a Dimer*

YOSHIHIRO SATO and YOHICO SONODA

佐藤良博, 園田よし子

The reaction of lead tetraacetate with carboxylic acids is known to effect oxidative decarboxylation. As a part of our studies on steroid chemistry, we carried out the reaction of 3 β -acetoxynorchole-5-enoic acid (1) with lead tetraacetate, and the results are reported herein.

1 was treated with lead tetraacetate and the products were examined by thin-layer

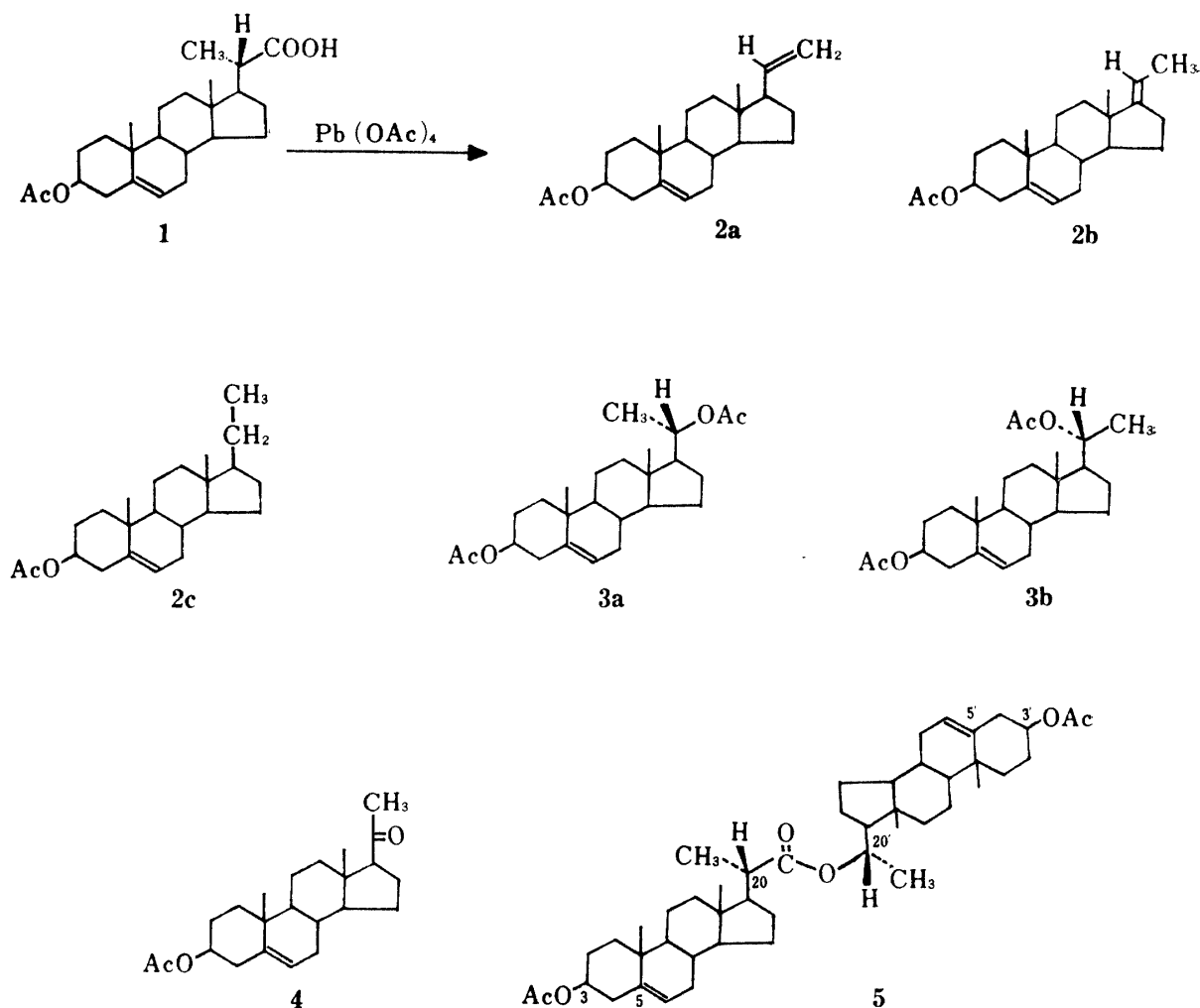


Chart 1. Reaction Products of 1 with Lead Tetraacetate

* 本報は *Chem. Pharm. Bull.*, 30, 822 (1982) に報告.

chromatography. Four spots were obtained, and the corresponding substances, 2a, b, c, 3a, b, 4 and 5, were separated by silica gel column chromatography. Their structures were determined as shown in Chart 1.

Reduction of 5 with LiAlH_4 in tetrahydrofuran was then attempted and its reaction products were identified as $3\beta,20\alpha$ -dihydroxypregn-5-ene (9a) and $3\beta,22$ -dihydroxybisanorchol-5-ene (11) by GC-MS, mixed mp determination and PMR spectroscopy (Chart 2).

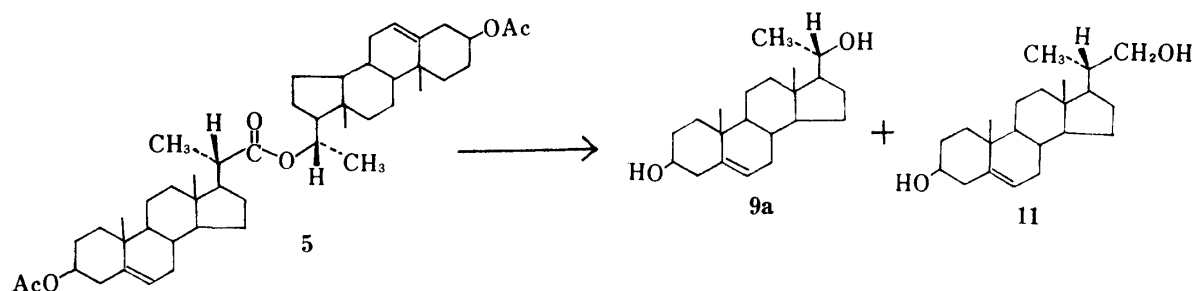


Chart 2.

In view of these results and PMR and MS analyses, the structure of 5 was considered to be $3'\beta$ -acetoxypregn-5'-en-20' α -yl 3β -acetoxybisanorchol-5-enate with the ester linkage at positions 22 and 20'.

Further, the reactions were examined under various conditions and the reaction mechanisms are discussed.