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|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title            | Reaction of 19-hydroxysteroids with diethylaminosulfur trifluoride                                                                                                                                                |
| Sub Title        |                                                                                                                                                                                                                   |
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| Publisher        | 共立薬科大学                                                                                                                                                                                                            |
| Publication year | 1991                                                                                                                                                                                                              |
| Jtitle           | 共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.36 (1991. ) ,p.62- 62                                                                                                                      |
| JaLC DOI         |                                                                                                                                                                                                                   |
| Abstract         |                                                                                                                                                                                                                   |
| Notes            | 抄録                                                                                                                                                                                                                |
| Genre            | Technical Report                                                                                                                                                                                                  |
| URL              | <a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000036-0062">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000036-0062</a> |

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## Reaction of 19-Hydroxysteroids with Diethylaminosulfur Trifluoride\*

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In an attempt to prepare 19-fluorocholesterol derivative, 19-hydroxycholest-4-en-3-one was treated with excess diethylaminosulfur trifluoride in acetonitrile at reflux, and the structure of a major product (60% yield) was determined by spectroscopy and X-ray crystallography to reveal 10 $\beta$ -fluoro-5,10-seco-5,19-cyclo-cholest-4-en-3-one. Analogous reactions of androstane derivative afforded the corresponding bicyclo[4.4.1] compound. Under milder reaction conditions, 19-hydroxycholest-4-en-3-one diethylaminosulfinate was secured in 20% yield.

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\* 本報告は *Cnem. Pharm. Bull.*, **39**, 3335—3337 (1991) に発表.

\*\* 三共分析・代謝研