(*R*)-5-[(1*R*,2*R*)-1-Ethyl-2-(4-oxocyclohexyl)butyl]oxepan-2-one, an Enantiopure 'Pseudosteroid'

Brigitte Kluess[a], Wolfgang Kreiser[a], Tony Sukri[a], Wolfgang Poll[b], and Hartmut Wunderlich[b]

[a] Fachbereich Chemie Universität Dortmund, Otto-Hahn-Str. 6, D-44227 Dortmund
[b] Institut für Anorganische Chemie und Strukturchemie, Universität Düsseldorf, Universitätsstr. 1, D-40225 Düsseldorf

Reprint requests to Dr. H. Wunderlich.
E-mail: hartmut.wunderlich@uni-duesseldorf.de

Z. Naturforsch. **61b,** 111 – 112 (2006);
received September 20, 2005

The title compound $C_{18}H_{30}O_3$ represents an optically pure member of a class of 'pseudosteroids', *i. e.* perhydrostilbene derivatives which mimic steroidal androgens (in the way like hexestrols or stilbestrols serve to substitute natural estrogens). The molecule **2** is characterized by three consecutive chiral centers leading to eight possible stereoisomers including four diastereomers. All enantiomers have been separated and their biological profile has been determined. As the result of the crystal structure presented here the two symmetry independent molecules display the configuration *R,R,R* at the centers of chirality.

Key words: Pseudosteroid, Perhydrostilbenes, Androgenic Activity, Crystal Structure