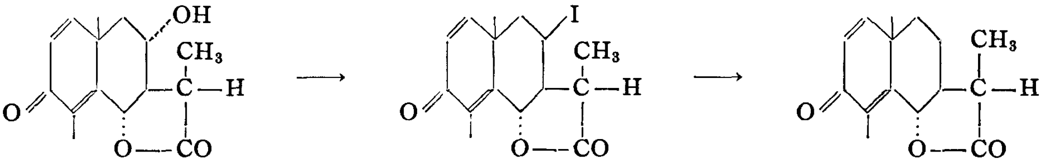
## Communications to the Editor

*U. D. C. 547. 659. 6*

# A Conversion of Artemisin into (−)-*α*-Santonin.

In recent communications[1] the present writer proposed that the absolute configuration of artemisin should be represented by the formula (I). Another evidence for this structure has been offered by the following transformations.

Treatment of artemisin (I) with triphenyl phosphite methiodide[2] resulted in the displacement of the $C_8$-hydroxyl group with iodine to yield the iodo compound (II), m.p. 139°(decomp.); $[\alpha]_D^{18}$ −236°; $\lambda_{max}^{EtOH}$ 239 mμ(log ε 4.00); $\nu_{max}^{Nujol}$ 1786 cm$^{-1}$ (lactonic CO), 1662 cm$^{-1}$ (conj. CO), 1631 cm$^{-1}$ (-C=C-), 1613 cm$^{-1}$ (-C=C-) (*Anal.* Calcd. for $C_{15}H_{17}O_3I$ : C, 48.40; H, 4.60; I, 34.10. Found : C, 48.25; H, 4.33; I, 33.93). When the latter was catalytically reduced in the presence of Raney nickel deactivated by pyridine, it was led to a crystalline compound, m.p. 173°; $[\alpha]_D^{18}$ −169. This proved to be identical with (−)-*α*-santonin (III) by the comparison of their infrared spectra and rotations as well as by the mixed melting point determination.



(I) (II) (III)

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[1] M. Sumi : Proc. Japan Acad., **32**, 684(1956); **33**, 153(1957).
[2] S. R. Landauer, H. N. Rydon : J. Chem. Soc., **1953**, 2224.