

Calcd. for  $C_{10}H_{15}O_2N$ : C, 67.02; H, 7.31; N, 7.82% was obtained. Chlorination of IV with phosphorus oxychloride and successive catalytic hydrogenation of the dechloro-compound (oil) afforded DL-actinidine(V), b.p.  $100\sim 103^\circ\text{C}/12\text{ mmHg}$  (picrate: m.p.  $142\sim 143^\circ\text{C}$ ). V was then resolved into an optically active form through the mono-salt of dibenzoyltartaric acid. The less soluble salt in absolute ethanol yielded, on regeneration of the base, a laevorotatory oil(VI),  $[\alpha]_D^{25} -8.01^\circ$  (c 2.17, chloroform), the infrared spectrum of which was in all respects identical with that of natural actinidine. Identity between the picrates of VI, m.p.  $146\sim 147^\circ\text{C}$ , and of I, was also established through the mixed melting point determination and the comparison of the infrared spectra.

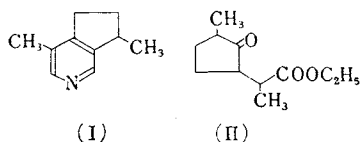
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### The Synthesis of Actinidine

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(Received August 18, 1959)

Actinidine(I)<sup>1)</sup>, a basic effective component for the Felidae animals in *Actinidia polygama* Miq. (Matatabi), was synthesized from ethyl  $\alpha$ -(3-methyl-2-oxo-cyclopentyl)-propionate(II)<sup>2)</sup> as follows.



The cyanohydrin of II was dehydrated to a cyanoester(III), b.p.  $106\sim 120^\circ\text{C}/2\text{ mmHg}$  by the action of thionyl chloride in the presence of pyridine. The position of the double bond in III is not conclusive, and both possible isomers seem to have been actually produced. Attempts to separate them with alkali or ethoxide solution resulted in failure. On acid or alkali hydrolysis of III, the dihydroxypyridine derivative(IV), m.p.  $167\sim 168^\circ\text{C}$  (Anal. Found: C, 66.71; H, 7.32; N, 7.77.

1) T. Sakan, A. Fujino, F. Murai, Y. Butsugan and A. Suzui, This Bulletin, **32**, 315 (1959).

2) R. L. Jones and R. P. Linstead, *J. Chem. Soc.*, **1936**, 616.