FACILE PREPARATION OF 2,6-DIMETHYL-2,6-TETRAHYDROPYRANCARBOLACTONE, A VERSATILE INTERMEDIATE FOR THE SYNTHESES OF (±)-FRONTALIN, (±)-CINENIC ACID, AND (±)-LINALOYL OXIDE

Masanori Utaka, Sadao Tsuboi, Hiroshi Makino, Yukito Oota, and Akira Takeda
Department of Synthetic Chemistry, School of Engineering
Okayama University, Tsushima, Okayama 700, Japan

2,6-Dimethylcyclohexanone has been converted to 2,6-dimethyl-2,6-tetrahydropyrancarbolactone (1) via 2,6-dimethyl-2,6-dihydroxycyclohexanone by base-catalyzed oxygenation. This lactone 1 can be used as a key intermediate for the syntheses of the title natural products in racemic forms.