benzoin

thiazolium salts C-glycosides

Y. KOYAMA, R. YAMAGUCHI, K. SUZUKI\* (TOKYO INSTITUTE OF TECHNOLOGY, JAPAN) Total Synthesis and Structure Assignment of the Anthrone *C*-Glycoside Cassialoin *Angew. Chem. Int. Ed.* **2008**, *47*, 1084-1087.

## **Synthesis of Cassialoin**

**Significance:** A significant development in the synthesis of cassialoin is the use of the  $\alpha$ -ketol **F** as a selectively protected stereogenic anthrone surrogate in which the diastereotopic faces are differentiated thereby allowing control of the C-glycosidation reaction (**F**+**G** $\rightarrow$ **H**) at C10.

**Comment:** A regioisomer (17%) was formed in the cyclocondensation reaction of **A** and **B**. The  $\alpha$ -ketol **F** was obtained as a single diastereoisomer. The epoxidation–reduction of glycal **K** (66%) installed the correct stereochemistry at C1' and C2'.

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