H. UEDA, H. SATOH, K. MATSUMOTO, K. SUGIMOTO, T. FUKUYAMA,* H. TOKUYAMA* (TOHOKU UNIVERSITY, SENDAI AND UNIVERSITY OF TOKYO, JAPAN)

Total Synthesis of (+)-Haplophytine

Synthesis of (+)-Haplophytine

**Significance:** The first total synthesis of haplophytine features a Friedel–Crafts alkylation to create the quaternary center in D and an oxidative rearrangement F → G → H.

**Comment:** The stereogenic center in tetrahydro-β-carboline A was installed via a Noyori asymmetric hydrogenation. The Fischer indole synthesis gave two regioisomers (5:3, K major).

**Key words**
haplophytine
indole alkaloids
Fischer indole synthesis
Friedel–Crafts alkylation
quaternary centers

**SYNFACTS Contributors:** Philip Kocienski
Synfacts 2010, 1, 0003-0003 Published online: 21.12.2009
DOI: 10.1055/s-0029-1218265; Reg-No.: K15809SF

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