

SYNTHETIC STUDIES OF THE LYTHRACEAE ALKALOIDS VIA [3 + 2]CYCLOADDITION REACTION

Kozo Shishido^a, Katsura Tanaka^a, Keiichiro Fukumoto^a, Tetsuji Kametani^b, and
Seichi Takano^a

a) Pharmaceutical Institute, Tohoku University, Aobayama, Sendai 980, Japan

b) Institute of Medicinal Chemistry, Hoshi University, Ebara 2-4-41,
Shinagawa-ku, Tokyo 142, Japan

The Lythraceae alkaloids, two isomeric arylquinolizidinols (1,2), abresoline (3) and two lactonic biphenyl ether alkaloids, decaline (4) and vertaline (5) were synthesized efficiently via regio- and stereoselective [3 + 2]cycloaddition reaction as shown in the Scheme.

