[J. Chem. Soc., Perkin Trans. 1, 1839-1843 (1996)] [Lab. of Pharm. Chemistry]

Novel Construction of 5-Methylenepyrrol-2-ones by Intramolecular Cyclization of Selenium-Stabilized Alkynyl Amides.

MITSUHIRO YOSHIMATSU, KEIGO MACHIDA, TAKAYO FUSEYA, HIROSHI SHIMIZU,
TADASHI KATAOKA*

S-Ethyl 3-ethoxy-5-(phenylchalcogeno)pent-4-ynethioates were prepared by an α-site selective reaction of γ-chalcogen-substituted prop-2-ynyl cations with *S*-ethyl *O*-silyl enol ethers. These thioesters were treated with amines to give the alkynyl amides in moderate yields. The alkynyl amides reacted with *t*-BuOK-*t*-BuOH in the presence of 18-crown-6 to give (*Z*)-5-(phenylselenomethylene)pyrrol-2-ones in good yields. Isomerization of the (*E*)- and (*Z*)-alkenyl groups of the pyrrolones was observed under acidic conditions. Cycloaddition of a pyrrol-2-one and diazomethane gave regioselectively a pyrazole the subsequent denitrogenation of which gave cyclopropane derivative in good yield.

[J. Org. Chem., **61**, 8200-8206 (1996)] [Lab. of Pharm. Chemistry]

Stereospecific Syntheses of 5-Alkyl-3-ethoxy-2-[(phenylchalcogeno)methylene]tetrahydrofurans.

MITSUHIRO YOSHIMATSU, MOTOYO NAITO, HIROSHI SHIMIZU, OSAMU MURAOKA,
GENZO TANABE, TADASHI KATAOKA*

2-Ethoxy-4-(phenylchalcogeno)but-3-ynyl ketones were reduced with lithium borohydride in ether diastereoselectively to give 5-(phenylchalcogeno)pent-4-yn-1-ols. Treatment of the phenylchalcogen-substituted alkynyl alcohols with *t*-BuOK in *t*-BuOH provided useful (*Z*)-2-[(phenylchalcogeno)methylene]tetrahydrofurans stereoselectively. The novel cyclization described in this paper proceeds via intramolecular oxymetalation of the acetylenic moiety of the alkynyl alcohol substrates.

[Mol. Cryst. Liq. Cryst., **276**, 47-50 (1996)] [Lab. of Pharm. Chemistry]

Separation of Racemic and Meso-1,2-bis{2-[(2-bromo-4,5-dimethoxyphenyl)hydroxymethyl]-4,5-dimethoxybenzyl}-4,5-dimethoxybenzenes by Host-guest Inclusion.

HIROSHI HARA, HIROSHI NAKAMURA, SHIN-ICHI WATANABE*,
TOMOMI MURATA, OSAMU HOSHINO

A dilithiolide, derived from 1,2-bis(2-bromo-4,5-dimethoxybenzyl)-4,5-dimethoxybenzene and *n*-BuLi, reacted with 2.1eq. of 6-bromoveratraldehyde to give diastereoisomers of title compounds in 73% yield. Recrystallization of the mixture from AcOEt-hexane furnished one isomer as 1:1 adduct with AcOEt. On the other hand, the residue was recrystallized from Et$_2$O-acetone to afford another isomer as 1:1 complex with Et$_2$O. Their stereostructures were determined by ^{1}H-NMR measurement using a chiral shift reagent, Eu(tfc)$_3$.