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[Lab. of Pharm. Chemistry]

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

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*S*-Ethyl 3-ethoxy-5-(phenylchalcogeno)pent-4-ynethioates were prepared by an  $\alpha$ -site selective reaction of  $\gamma$ -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.

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[Lab. of Pharm. Chemistry]

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

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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.

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**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.**

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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<sub>2</sub>O-acetone to afford another isomer as 1:1 complex with Et<sub>2</sub>O. Their stereostructures were determined by <sup>1</sup>H-NMR measurement using a chiral shift reagent, Eu(tfc)<sub>3</sub>.