

[Chem. Lett., 1994, 871-874]

[Lab. of Pharm. Synthetic Chemistry]

**Synthesis of (Z)-1,2-Dihalo-1-alkenes by the Reaction of (Z)-  
( $\beta$ -Halovinyl)phenyliodonium Salts with  $n\text{-Bu}_4\text{NX}$  or  $\text{KX}/\text{CuX}$ .  
Competitions between Nucleophilic Vinylic Substitutions and  
Aromatic Substitutions.**

MASAHITO OCHIAI, KUNIO OSHIMA, YUKIO MASAKI\*

Nucleophilic vinylic substitutions of (Z)-( $\beta$ -halovinyl)phenyliodonium salts with tetrabutylammonium halides proceed in a stereoselective manner with retention of configuration yielding vicinal (Z)-vinyl halides. This reaction competes with nucleophilic aromatic substitutions. Similar competition was observed in the reactions with potassium halides/cuprous halides.

[J. Chem. Res. (S), 1994, 250-251; (M), 1994, 1455-1463] [ Lab.of Pharm.Synthetic Chemistry ]

**Synthesis and Reactions of  
(S)-N,N-Dialkyl-2-(hydroxydiarylmethyl)pyrrolidinium  
Halides as Chiral Phase-Transfer Catalysts.**

MIN SHI, YUKIO MASAKI\*

Chiral quaternary spiro-ammonium salts were prepared from the reaction of (S)- $\alpha,\alpha$ -diaryl-2-pyrrolidinemethanol with  $\alpha,\omega$ -dibromoalkanes and observed to exhibit activity in chiral induction in epoxidation of chalcone and the Darzens condensation of benzaldehyde and phenacyl chloride under the phase-transfer conditions.

[J. Chem. Soc., Perkin Trans. 1, 1994, 1659-1660]

[Lab. of Pharm. Synthetic Chemistry]

**Catalytic Activity of Tetracyanoethylene in the Reactions of  
Aldehydes, Ketones, and Acetals with Silylated Nucleophiles.**

TSUYOSHI MIURA, YUKIO MASAKI\*

Tetracyanoethylene catalyses the reactions of aldehydes, ketones, and acetals with silylated carbon- and hydrogen-nucleophiles to promote carbon-carbon bond formation and reduction under neutral conditions.