

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

[Lab. of Pharm. Synthetic Chemistry]

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

MASAHITO OCHIAI, KUNIO OSHIMA, YUKIO MASAKI*

Nucleophilic vinylic substitutions of (Z)-(β -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)- α,α -diaryl-2-pyrrolidinemethanol with α,ω -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.**

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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.