

SYNTHESES OF PYRIDINE DERIVATIVES FROM
2-(TRIMETHYLSILYLMETHYL)PYRIDINE

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The reactions of 2-(trimethylsilylmethyl)pyridine (1) with various kinds of carbonyl compounds R^1COR^2 and alkyl halides RX are reported. Treatment of 1 with lithium diisopropylamide in THF at $-75^\circ C$ followed by the addition of 1.5 equivalents of acetophenone (2), benzophenone (3), benzaldehyde (4), or cyclohexanone (6) afforded (E/Z)-2-phenyl-1-(2-pyridyl)propene (7), 1,1-diphenyl-2-(2-pyridyl)ethene (8), trans-2-styrylpyridine (9), 1-phenyl-4-(2-pyridyl)butadiene (10), or 2-(cyclohexylidene-methyl)pyridine (11) respectively. The reactions with acetone and pinacolone were also carried out under the same conditions to give the corresponding products, whereas the reactions of α -picoline with 2, 3, or 6 under the same conditions gave the corresponding alcohols.

Both allyl and benzyl bromide reacted with 1 to give 4-(2-pyridyl)butene and 1-phenyl-2-(2-pyridyl)ethane respectively.