# Stereoselective Synthesis of syn-Homoallylic Alcohols 


$R^{1}, R^{2}=$ Alk, various substituted Ar

## Selected examples:



96\% yield
syn/anti > 98:2


99\% yield syn/anti> 98:2


95\% yield syn/anti > 98:2

$80 \%$ yield
syn/anti> 98:2

up to $99 \%$ yield syn/anti up to $>95: 5$


96\% yield
syn/anti > 98:2

$79 \%$ yield
syn/anti > 98:2

Significance: The authors established a new synthetic method for the synthesis of syn-homoallylic alcohols from terminal alkynes and aldehydes. As this transformation utilizes easily accessible starting materials, this practical method should find many applications.

Comment: A cationic rhodium(I) catalyst turns 2-silyl-1-alkenylboronates, which can be easily prepared from a terminal alkyne, into the corresponding allylboronate, that directly undergoes nucleophilic addition to an aldehyde to afford the corresponding syn-homoallylic alcohol in excellent stereoselectivity.

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[^0]:    SYNFACTS Contributors: Paul Knochel, Jeffrey M. Hammann
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