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## **SYNFACTS** **Highlights in** **Current Synthetic** **Organic Chemistry**

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Rüdigerstraße 14  
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ISSN 1861-1958

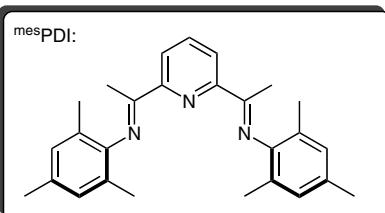
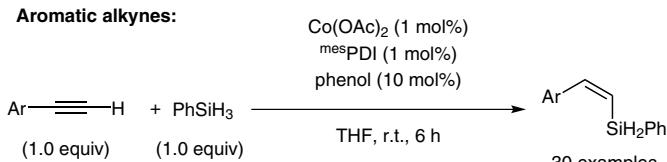
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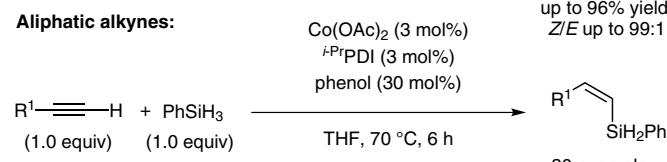
# Hydrosilylation of Terminal Alkynes

**Aromatic alkynes:**

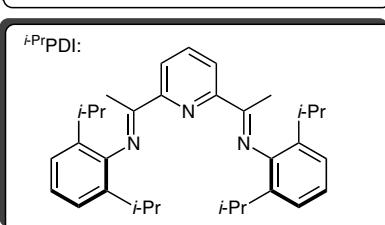


30 examples up to 96% yield  
 $Z/E$  up to 99:1

**Aliphatic alkynes:**

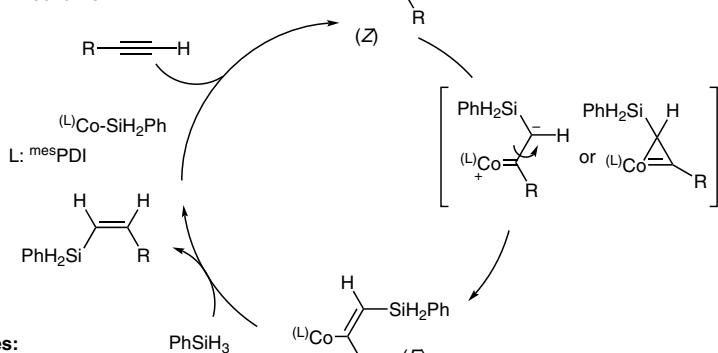


$\text{R}^1$  = various substituents



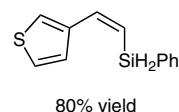
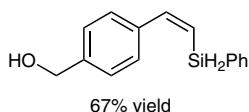
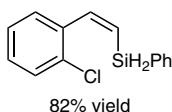
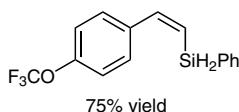
30 examples up to 96% yield  
 $Z/E$  up to 99:1

**Proposed reaction mechanism:**

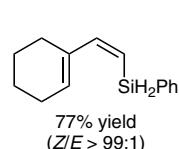
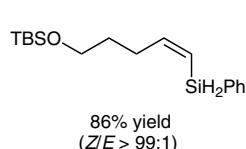
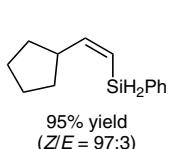
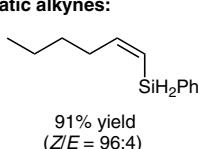


**Selected examples:**

**Aromatic alkynes:**



**Aliphatic alkynes:**



**Significance:** Ge and co-workers report a *Z*-selective hydrosilylation of terminal alkynes with catalysts generated from bench-stable  $\text{Co(OAc)}_2$  and pyridine-2,6-diimine ligands.

**Comment:** The authors propose a silylmetalation pathway with a cobalt(I) silyl intermediate for the hydrosilylation and hydrogenation of alkynes and alkenes.