## Key words

## ketones

organotin
palladium catalysis
Stille-carbonylative cross-coupling

## Synfact Classic

Proposed catalytic cycle:


Selected examples:

97.5\% yield

91.3\% yield

95.0\% yield


93.3\% yield

Significance: Milstein and Stille reported a highyielding palladium-catalyzed carbonylative coupling reaction of acid chlorides and organotin reagents. The reaction is very mild, does not require inert atmosphere and shows tolerance to a wide scope of functional groups.

Comment: Notably, aryltin groups are transferred in preference to alkyltin groups. The authors also showed that a second organic group attached to the tin can be transferred, however at a notably slower rate.

Review: J. K. Stille Angew. Chem., Int. Ed. Engl. 1986, 25, 508-524.

