The Stille Carbonylative Cross-Coupling Reaction

**Significance:** Milstein and Stille reported a high-yielding 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.


**Proposed catalytic cycle:**

**Selected examples:**

- PhO
  - 97.5% yield
- PhO
  - 91.3% yield
- PhO
  - 95.0% yield
- PhO
  - 99.8% yield
- PhO
  - 93.3% yield

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