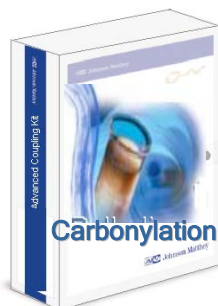




## Carbonylation Catalyst Kit

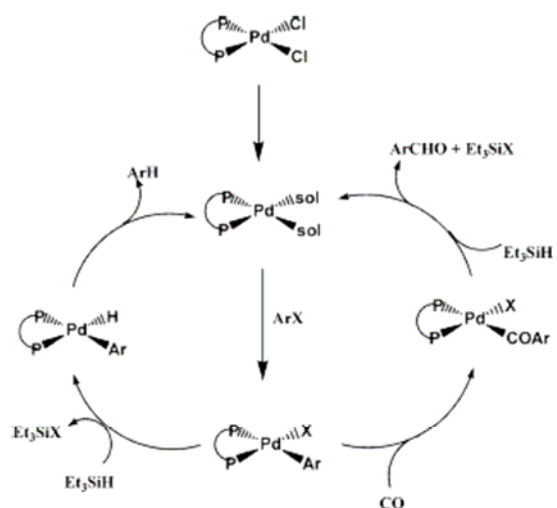


Due to the wide-ranging reactivity of -CHO functionality, step (and atom) economical methodologies for the preparation of aldehydes are extremely useful in route development for organic synthesis in the Pharmaceutical and Fine Chemical sectors.

Johnson Matthey has developed very practical methodologies in this area. This kit contains a variety of catalysts for the carbonylation of aryl-halides, triflates, mesylates and even tosylates to aldehydes, acids, esters and amides under relatively milder conditions.

### Kit includes the following catalysts:

Pd-105	PdCl <sub>2</sub> dppb
Pd-107	PdCl <sub>2</sub> dppf
Pd-124	Pd(Br) <sub>2</sub> (BINAP)
Pd-126	PdCl <sub>2</sub> dppp
Pd-133	PdCl <sub>2</sub> dcpp
Pd-134	XantPhosPdCl <sub>2</sub>
FC-1032	FibreCat 1032



Mechanism for Reductive Carbonylation

#### References:

C. F. J. Barnard, *Organometallics* **2008**, 27, 5402-5422  
Palladium-catalyzed carbonylation – a reaction come of age

C. F. J. Barnard, *Org. Process Res. Dev.* **2008**, 12, 566-574  
Carbonylation of aryl halides: extending the scope of the reaction

L. Ashfield and C.F. J. Barnard, *Org. Process Res. Dev.* **2007**, 11, 39-43  
Reductive carbonylation – an efficient and practical route for the conversion of aryl halides to aldehydes

Catalog Part #S7012

Kits are available for purchase through Johnson Matthey Catalysis and Chiral Technologies

Please contact your local sales representative for additional details or email your request to [cct@jmtusa.com](mailto:cct@jmtusa.com).

Kit is supplied with one gram of each catalyst.