

## **Bibliographic Information**

### **Regiochemical synthesis of straight chain acids by the palladium(II) catalyzed hydrocarboxylation of olefins with oxalic acid.**

El Ali, Bassam; Alper, Howard. Ottawa-Carleton Chem. Inst., Univ. Ottawa, ON, Can.  
Journal of Molecular Catalysis (1993), 80(3), 377-81.

### **Abstract**

Olefins react with carbon monoxide and oxalic acid, catalyzed by palladium acetate in the presence of 1,4-bis(diphenylphosphino)butane, to give linear carboxylic acids regioselectively. Thus, styrene afforded PhCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>H and PhCHMeCO<sub>2</sub>H in a ratio of 85:15 (86% yield). This process shows excellent functional group tolerance.