

Title: **Phosphapalladacycles in the Mizoroki-Heck reaction**

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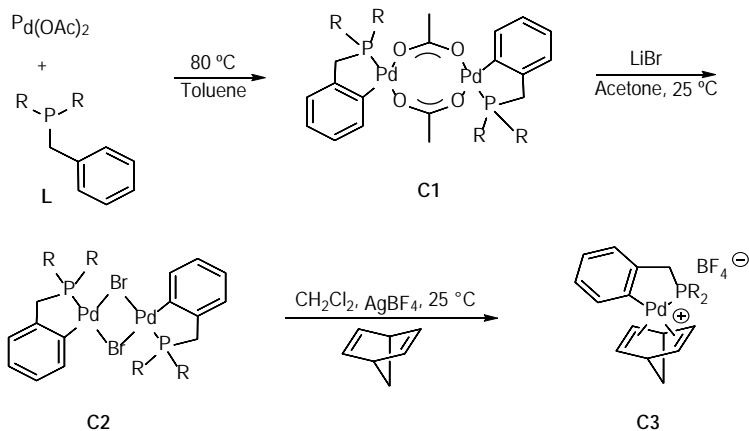
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1. SUMMARY

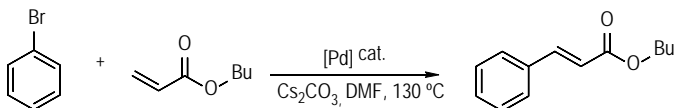
This PROJECT describes the syntheses of neutral dimers (**C1**, **C2**) and cationic mononuclear (**C3**) phosphapalladacycles derived from benzylphosphines (**L**).



Synthesis of the cyclometallated Pd complexes

The desired complexes have been successfully obtained as stable solids and thoroughly characterized, including three crystal structure determinations.

Complexes **C2** and **C3** have been employed as catalysts for the Mizoroki-Heck reaction between bromobenzene and butyl acrylate.



Mizoroki-Heck reaction between bromobenzene and butyl acrylate

It has been found that except **C3A** all the systems are active giving full conversions after a few hours.

Keywords: Phosphines, cyclometallation, palladium, Mizoroki-Heck.