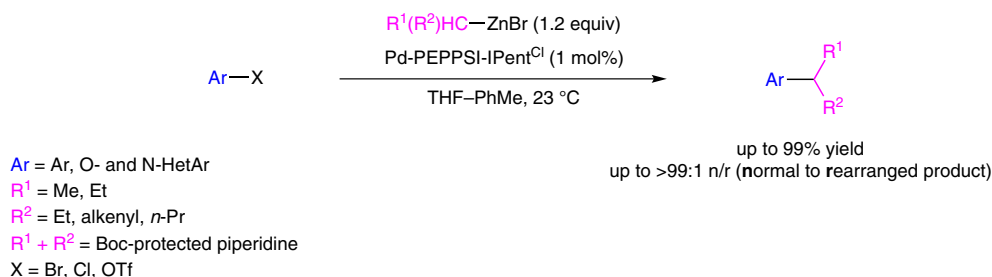


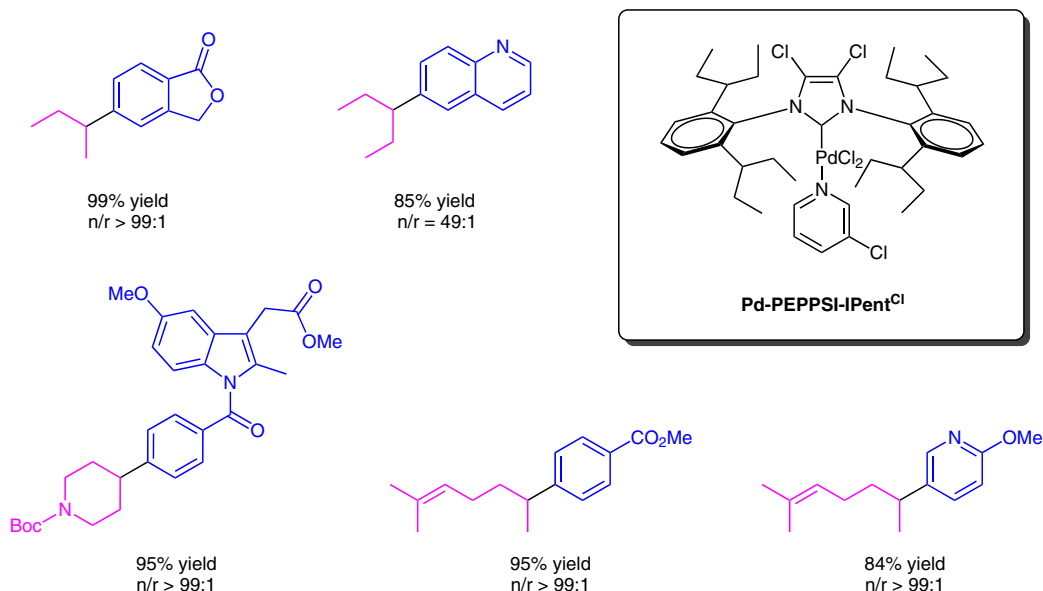
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Pd-PEPPSI-IPent<sup>Cl</sup>: A Highly Effective Catalyst for the Selective Cross-Coupling of Secondary Organozinc Reagents  
*Angew. Chem. Int. Ed.* **2012**, *51*, 11354–11357.

## Pd-PEPPSI-IPent<sup>Cl</sup> – Selective Coupling of Secondary Organozinc Nucleophiles



### Selected examples:



**Significance:** The authors report the new catalyst Pd-PEPPSI-IPent<sup>Cl</sup>, which highly efficiently couples secondary alkylzinc reagents to (hetero)aryl bromides, chlorides and triflates. The corresponding alkylated aromatics are obtained in excellent yield and with high regioselectivity.

**Comment:**  $\beta$ -Hydride elimination (BHE) constitutes one of the main drawbacks for the cross-coupling of secondary alkyl reagents, especially if they react with electron-rich coupling partners. These problems are overcome by the new palladium-catalyst, which bears bulkier substituents and additionally, is characterized by a decreased electron density, thus favoring reductive elimination instead of BHE. Density functional theory (DFT) calculations support the theoretical selectivities.

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