**Suzuki Coupling with an N-Heterocyclic Carbene–Palladium Catalyst**

**Significance:** N-Heterocyclic carbenes (NHCs) L bearing poly(ethylene glycol) chains promoted the palladium-catalyzed Suzuki–Miyaura coupling of aryl chlorides with arylboronic acids to give the corresponding biaryls in up to 96% yield (eq. 1). The borylation of aryl chlorides with B₂pin₂ also proceeded under similar catalytic conditions to afford the corresponding aryl boranes in up to 68% yield (eq. 2).

**Comment:** In the reaction of chlorotoluene with phenylboronic acid, the catalytic performance of L (n = 17) was superior to that of other NHC ligands, such as IMes or IPr, and to NHC ligands L with shorter poly(ethylene glycol) chains (n = 0, 4, ~12).

**Results:**

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\begin{align*}
\text{eq. 1:} & \quad \text{89% yield} \quad \text{93% yield} \quad \text{86% yield} \quad \text{91% yield} \\
\text{eq. 2:} & \quad \text{61% yield} \quad \text{57% yield} \quad \text{68% yield}
\end{align*}
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