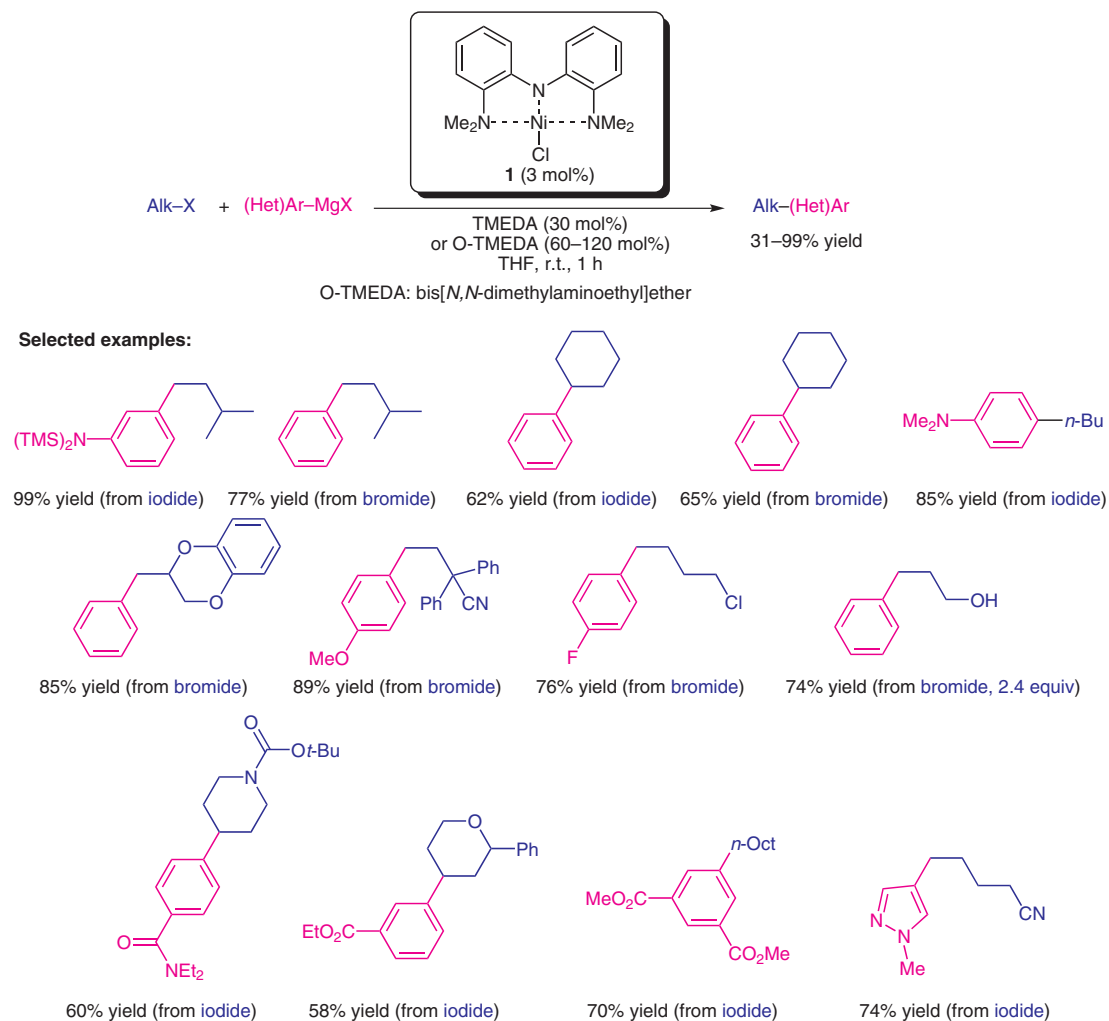


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Functional Group Tolerant Kumada–Corriu–Tamao Coupling of Nonactivated Alkyl Halides with Aryl and Heteroaryl Nucleophiles: Catalysis by a Nickel Pincer Complex Permits the Coupling of Functionalized Grignard Reagents

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Functional Group Tolerant Kumada–Corriu–Tamao Coupling



Significance: The nickel(II) pincer complex **1** could be successfully used to promote a range of Kumada–Corriu–Tamao couplings using both functionalized organomagnesium reagents and alkyl iodides/bromides. Sensitive functional groups, such as ester, cyano, amide, and CF_3 were well tolerated.

Comment: This C_{sp^2} – C_{sp^3} coupling reaction displays a high generality, proceeds under mild reaction conditions, and leads to fast reaction times. These features make it a valuable tool for the coupling of aryl or heteroaryl organomagnesium reagents with non-activated β -hydride-containing primary and secondary alkyl halides.

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Grignard reagents

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SYNFACTS
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