

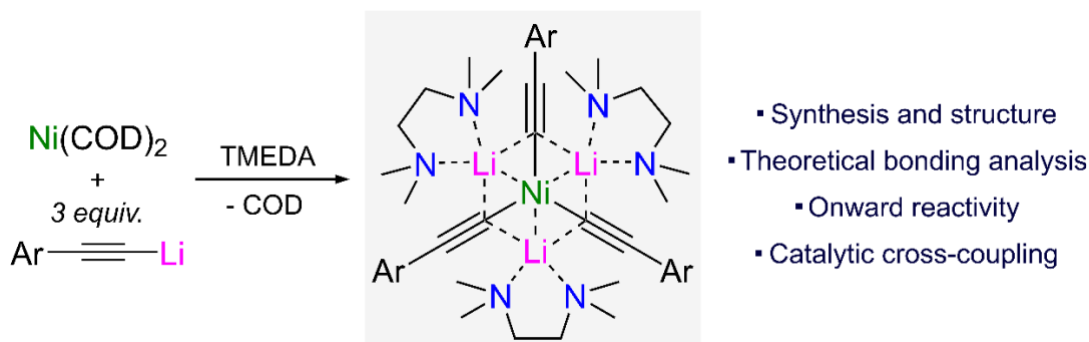
Exploiting synergic reactivities of s-block metal nickelates for bimetallic catalysis

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Heterobimetallic nickelates derived from Ni(0)-olefin complexes and polar organometallics were widely studied during the spawn of low-valent organonickel chemistry but remained dormant in the literature for several decades.¹ We have recently demonstrated that nickelates are key intermediates in the Ni-catalysed cross-coupling of aryl ethers, prompting a renewed experimental and theoretical interest into these unique heterobimetallic complexes.²

In this talk, the synthesis and structures of homoleptic s-block metal nickelates which can be readily accessed from Ni(0) olefin complexes and a variety of s-block metal organometallics will be discussed.³ Structural and Mechanistic insights and applications of these nickelates in catalytic cross-coupling reactions and C-C bond cleavage will also be discussed.^{4,5}



References:

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