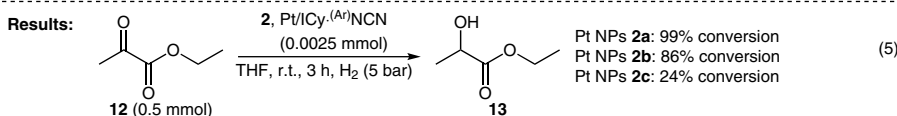
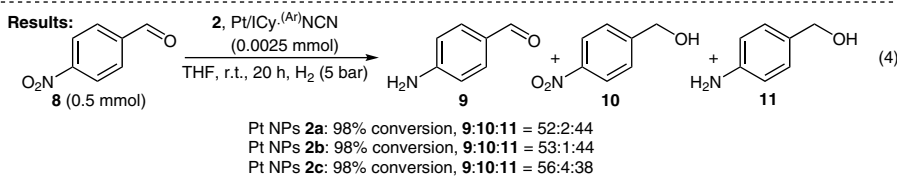
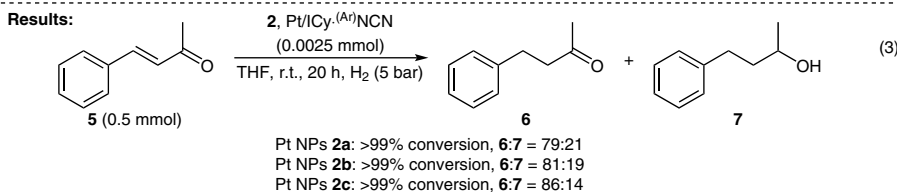
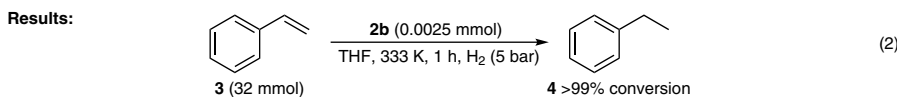
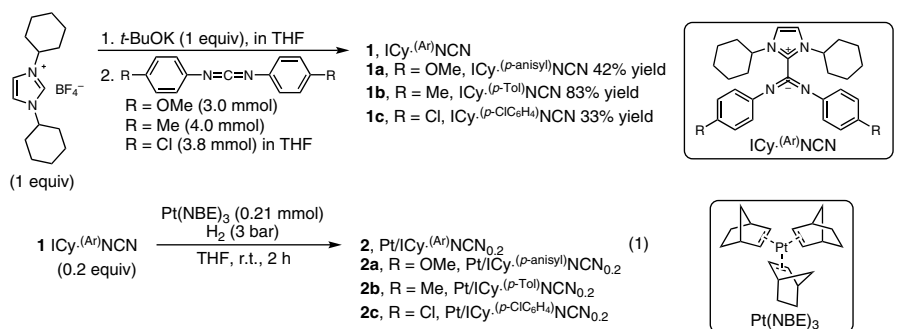


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Zwitterionic Amidinates as Effective Ligands for Platinum Nanoparticle Hydrogenation Catalysts
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Zwitterionic Ligand Supported Platinum Nanoparticles as Hydrogenation Catalysts



Significance: Zwitterionic imidazolium amidinate ligand-supported platinum nanoparticle catalysts **2a–c** [$\text{Pt}/\text{ICy}^{(\text{Ar})}\text{NCN}_{0.2}$] were prepared as shown in eq. 1. The hydrogenation of olefins, carbonyl or nitro compounds was carried out with platinum nanoparticles **2a–c** to give the corresponding reduced products (eqs. 2–5).

Comment: The platinum nanoparticle catalyst **2b** was characterized by means of ^{15}N and ^{13}C MAS NMR, TEM, HR-TEM, WAXS, TGA and elemental analyses. The authors have previously reported the synthesis of $\text{Ru}-\text{ICy}^{(p\text{-Tol})}\text{NCN}_{0.2}$ and its application in the hydrogenation of styrene (L. M. Martínez-Prieto et al. *Chem. Commun.* **2015**, 51, 4647).

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