Catechol Mediated Intermolecular Carbohydrogenation of Terminal and Non-Terminal

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A few years ago, we have reported a radical chain reduction of organoboranes to alkanes with a very inexpensive 4-tert-butylcatechol under very mild conditions ^[1]. More recently, we have extended this procedure for the efficient deiodination of alkyl iodides with a mixture of 4-tert-butylcatechol and triethylborane ^[2]. Herein, we disclose that this reagent can be used for amazingly efficient carbohydrogenation of terminal and even non-terminal alkenes.

[1] Giorgio Villa, Guillaume Povie, Philippe Renaud, J. Am. Chem. Soc, **2011**, 133, 5913-5920.
[2] Guillaume Povie, Leigh Ford, Davide Pozzi, Valentin Soulard, Giorgio Villa, manuscript submitted.