Supplementary Material (ESI) for Dalton Trans.

Ruthenium(0) nanoparticles supported on xonotlite nanowire a long-lived catalyst for hydrolytic dehydrogenation of ammonia-borane

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Supplementary (SI):

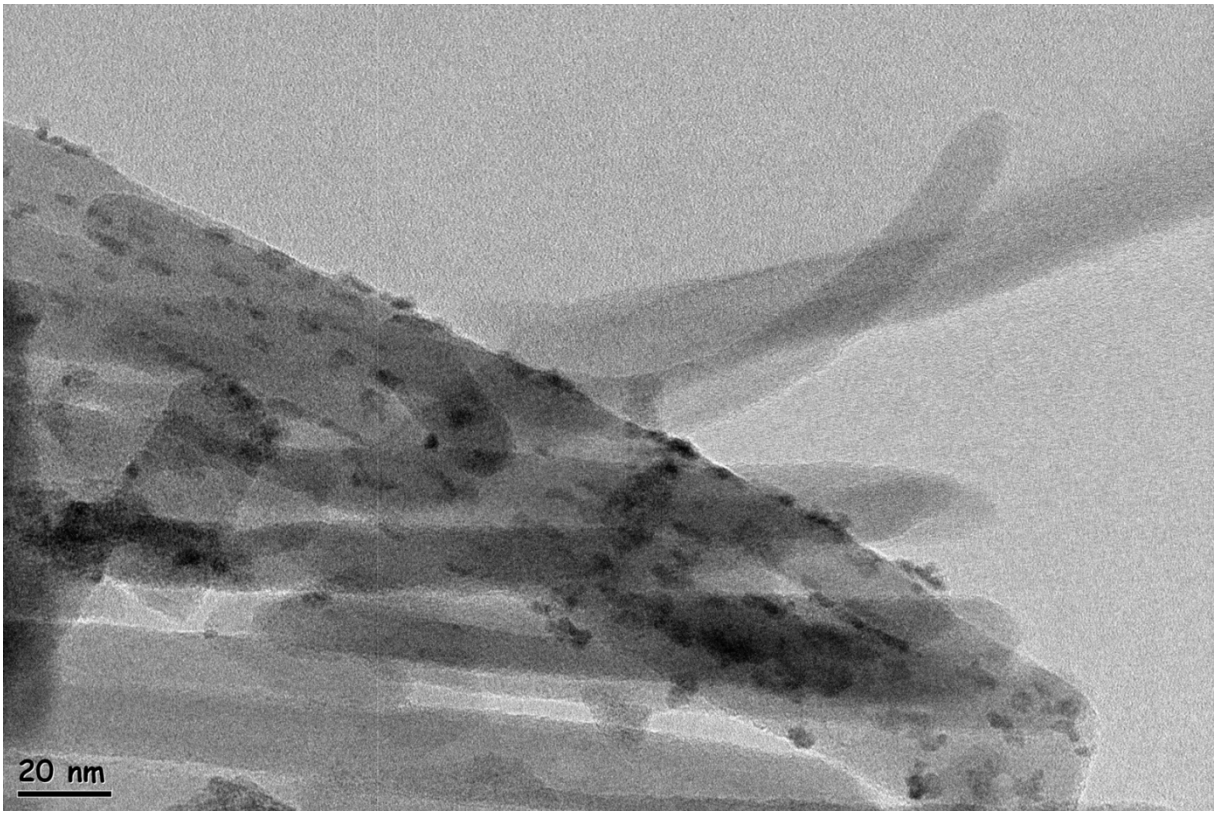
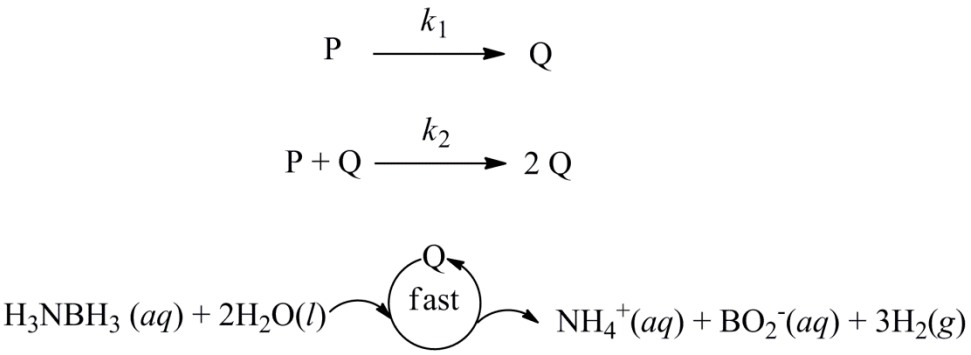


Fig.S1. TEM image of *in situ* generated ruthenium(0) nanoparticles supported on xonotlite nanowire during the hydrolysis of AB at room temperature

Scheme S1 Illustration of the hydrolytic dehydrogenation of ammonia borane as reporter reaction: P is the precursor ruthenium(III) ion-supported on xonotlite nanowire and Q is the growing $Ru(0)_n$ nanoparticles catalyst.



Equation S1

$y=A-((K_1/K_2)+A)/(1+(K_1/(K_2*A))*\exp((K_1+K_2*A)*x))$

$$[A]t = \frac{\frac{k_1}{k_2} + [A]_0}{1 + \frac{k_1}{k_2[A]_0} * \exp(k_1 + k_2[A]_0)\, t}$$