Supplementary Material (ESI) for Chemical Science

Supporting Information

Active and Reusable Pd(II) Organometal Catalyst Covalently Bonded to Mesoporous Silica Nanosphere for Water-Medium Organic Reactions

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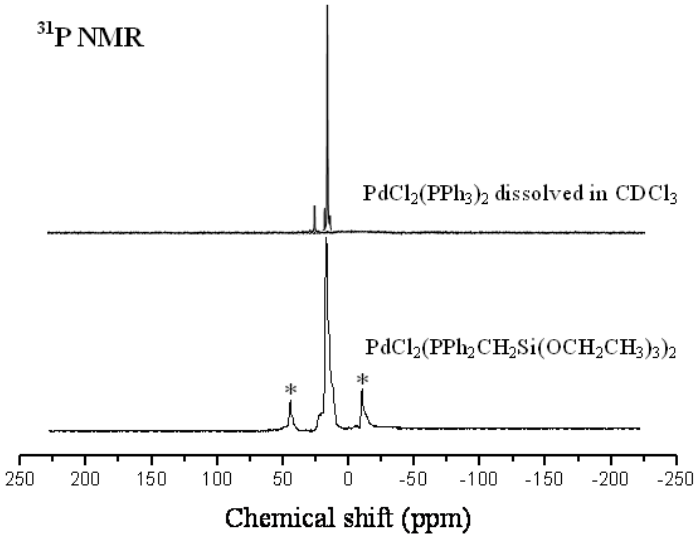


Fig. S1 ^{31}P NMR spectra of $PdCl_2(PPh_3)_2$ dissolved in $CDCl_3$ and $PdCl_2[PPh_2CH_2Si(OCH_2CH_3)_3]_2$.

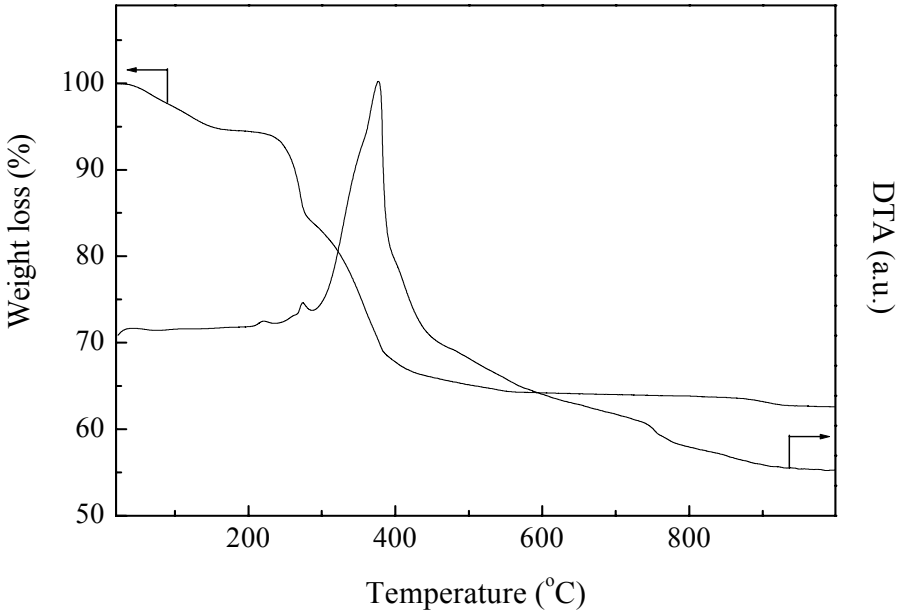


Fig. S2 TG/DTA curves of the Pd-PPh_2-MSN-2 catalyst

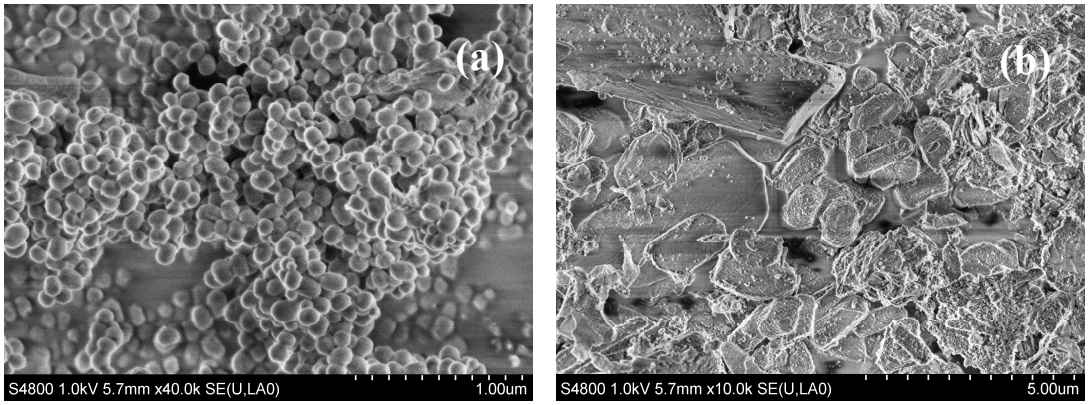


Fig. S3 FESEM images of (a) Pd-PPh_2-MSN-2 and (b) Pd-PPh_2-MCM-41 catalysts

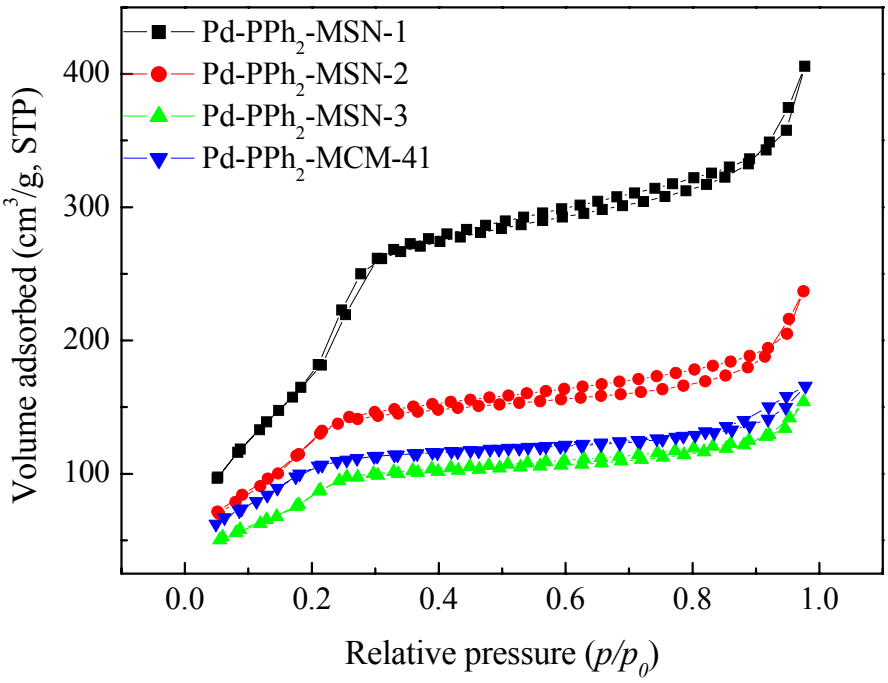


Fig. S4 Nitrogen adsorption-desorption isotherms of different catalysts

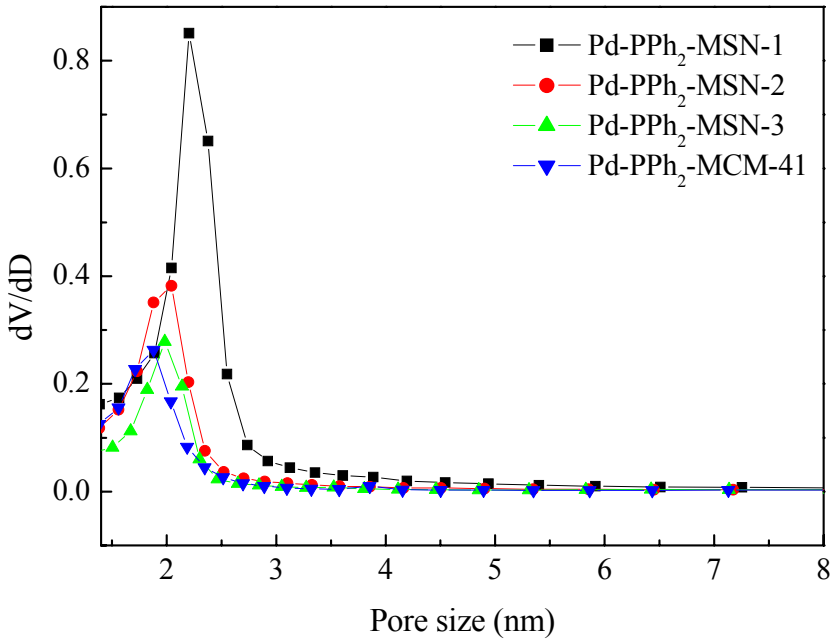
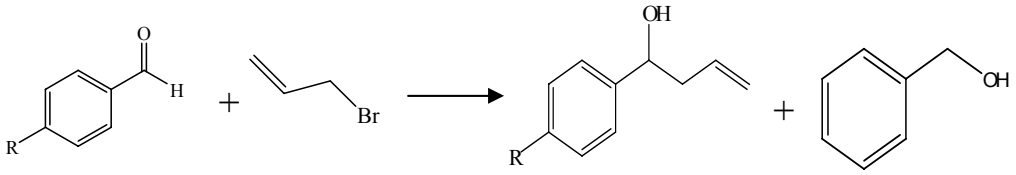
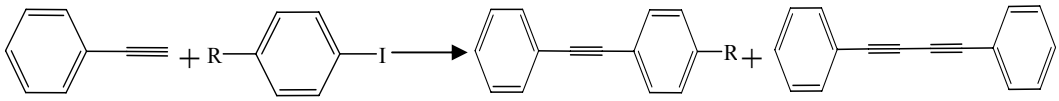


Fig. S5 Pore size distribution curves of different catalysts



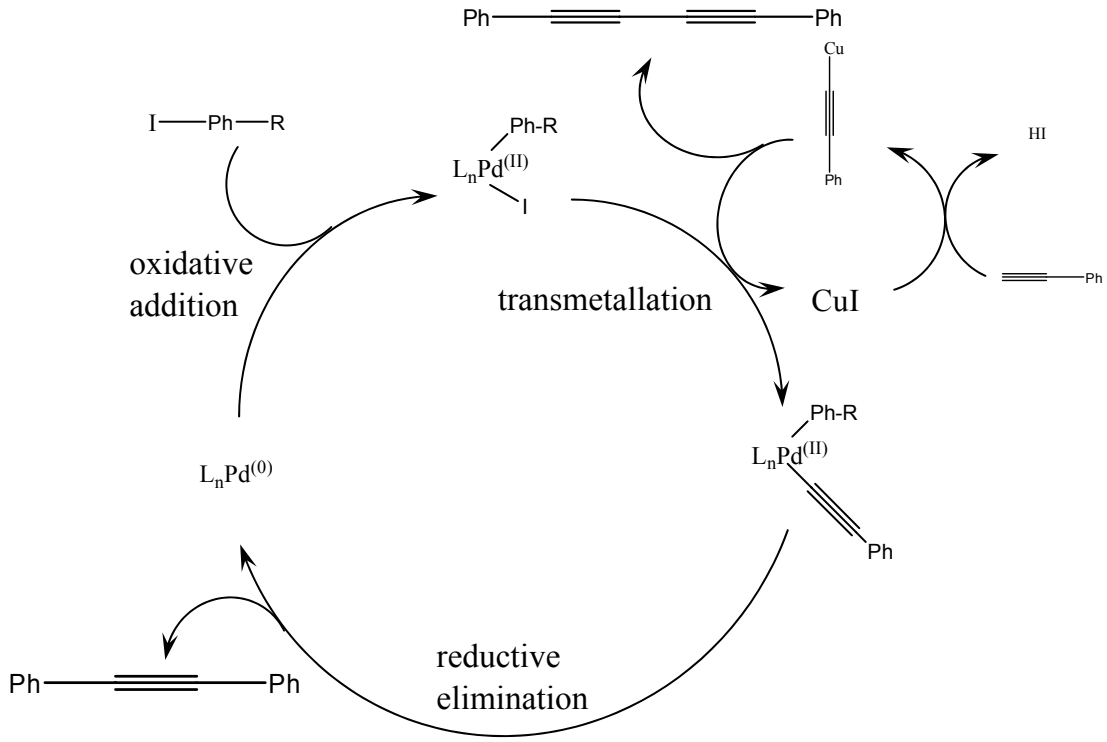
(main product) (by-product)

Scheme S1 Reaction equations of Barbier reactions



(main product) (by-product)

Scheme S2 Reaction equations of Sonogashira reactions



Scheme S3 The reaction mechanism of Sonogashira reaction