Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Supporting Information

Taking profit of a terpyridine ligand for the deposition of Pd nanoparticles onto a magnetic material for selective hydrogenation reactions

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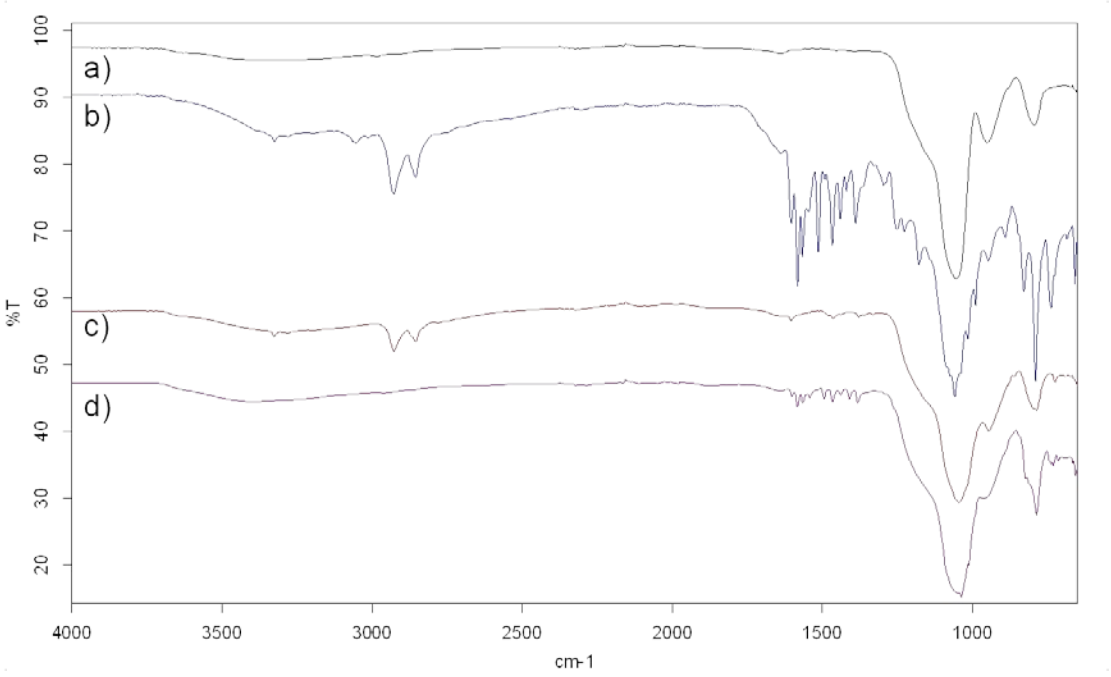

Figure S1: ATR-IR spectra of (a) **S**, (b) **L**, (c) $\mathbf{S_L}$ and (d) $\mathbf{S_L Pd}$

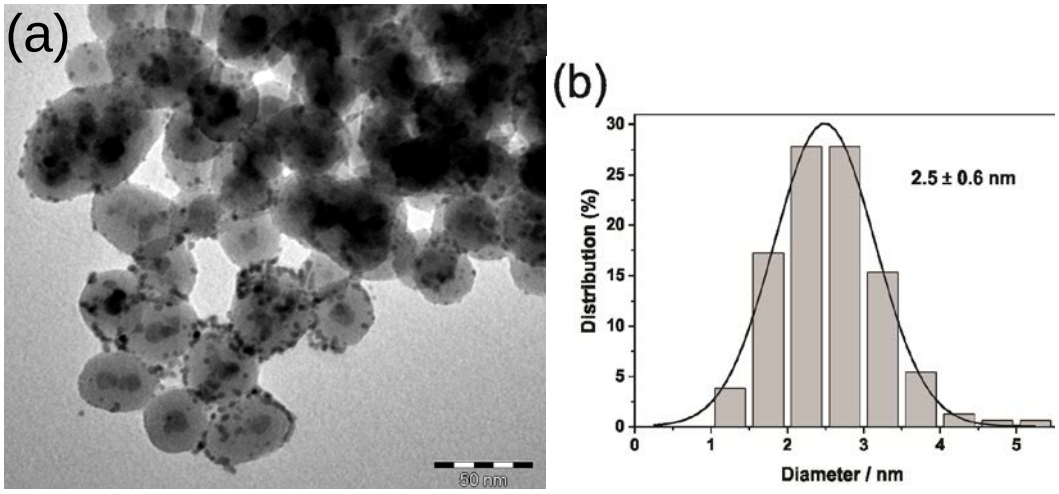

Figure S2: TEM micrograph of (a) catalyst $\mathbf{S_L Pd}$ and (b) its respective Pd NPs size distribution histogram.

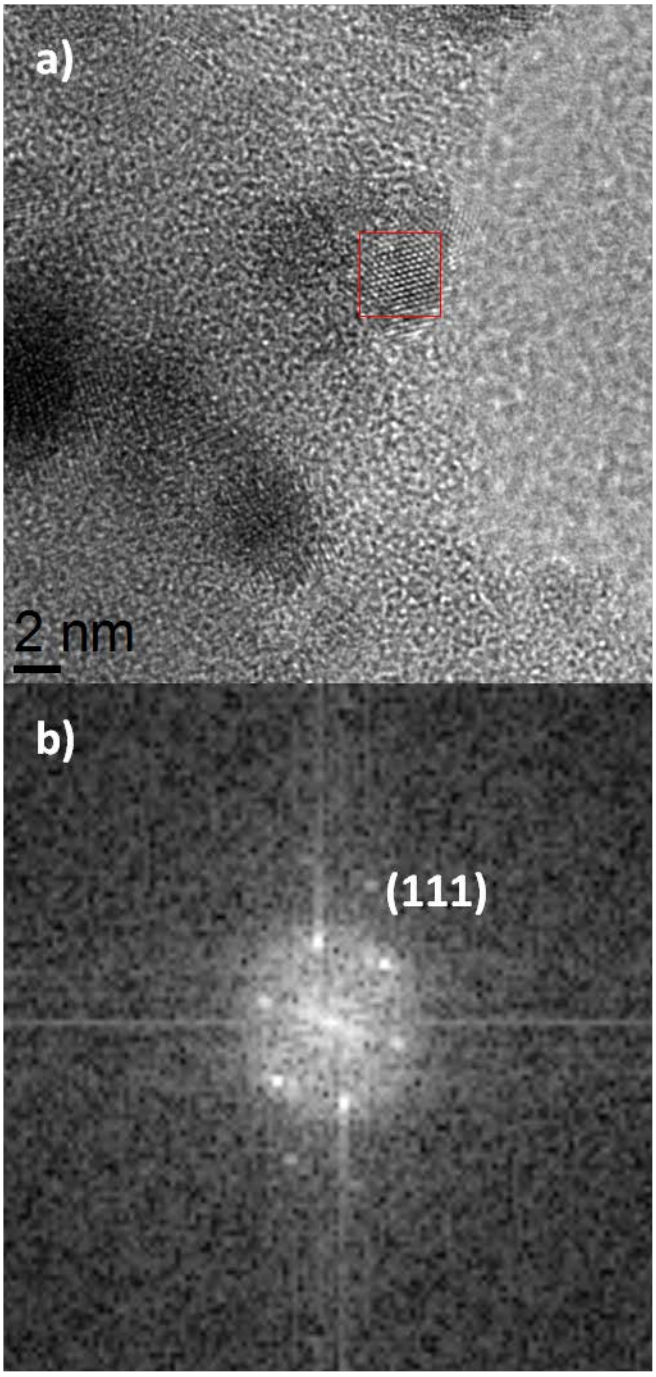

Figure S3: (a) HR-TEM micrograph of supported Pd nanoparticles (**S_LPd)** showing (b) the interplanar spacing of (111) Pd planes (2.27 Å).

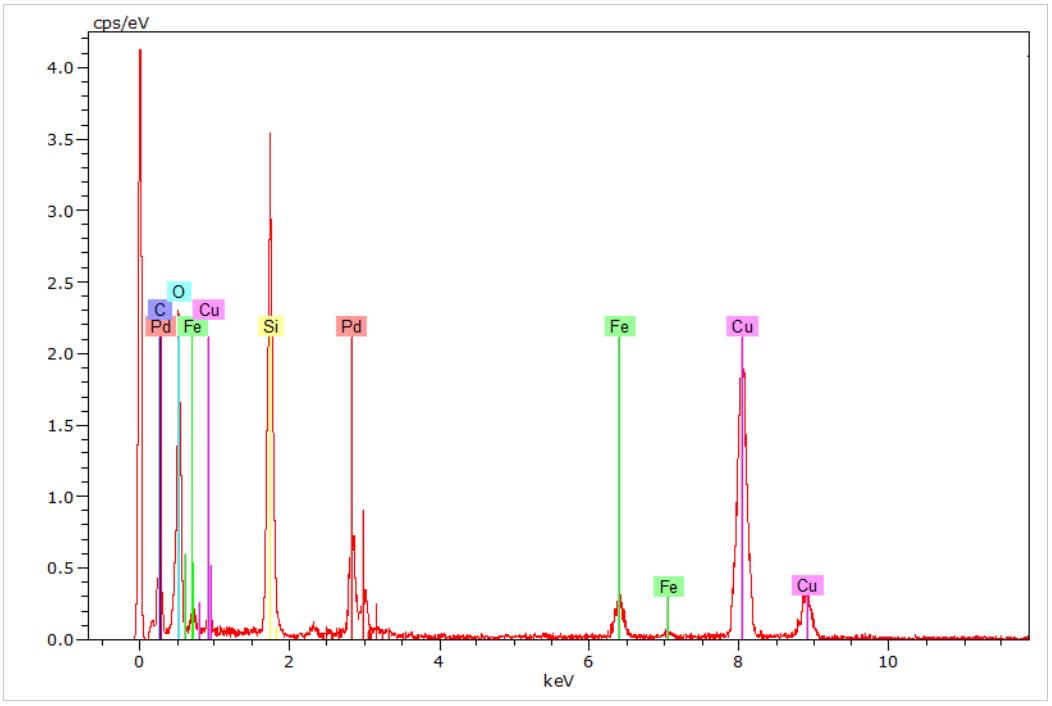

Figure S4: HRTEM EDX mapping analyses of **S_LPd.**

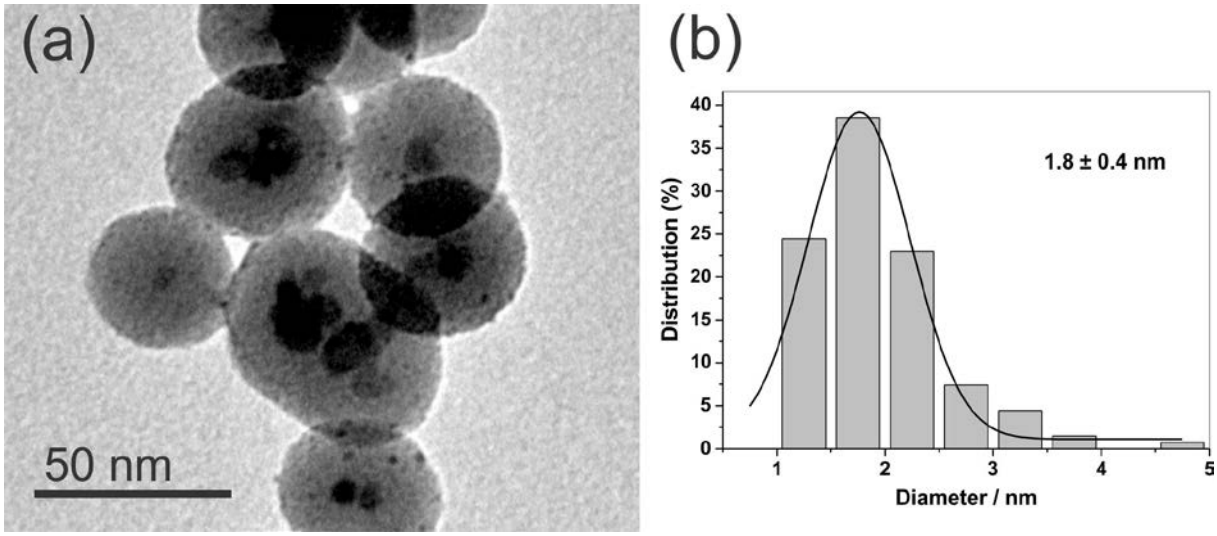

Figure S5: (a) TEM micrograph of **S_{NH2}Pd** and (b) Pd NPs size distribution histogram.

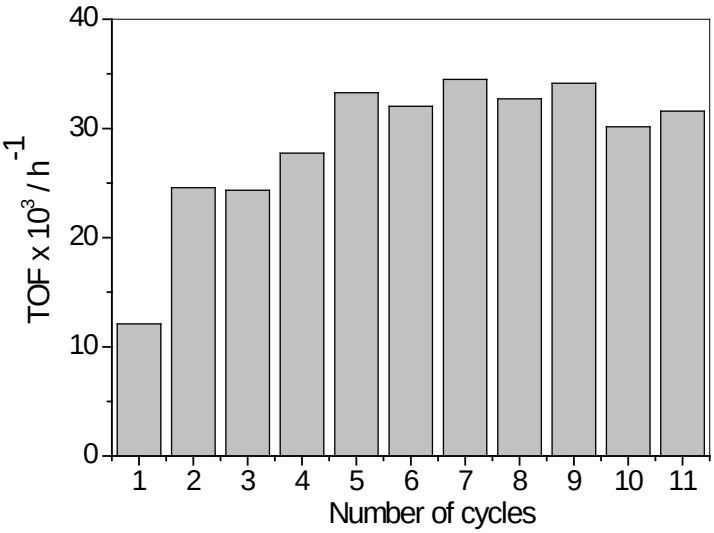

Figure S6. Catalyst S_LPd reused in successive hydrogenation reactions. Reaction conditions (solventless): cyclohexene (20 mmol), catalyst (1.8 μmol of Pd), 348 K, 6 atm of H_2.