Supporting Information

for

The Spherical Core-shell Magnetic Particles Constructed by Main-chain Palladium N-Heterocyclic Carbenes

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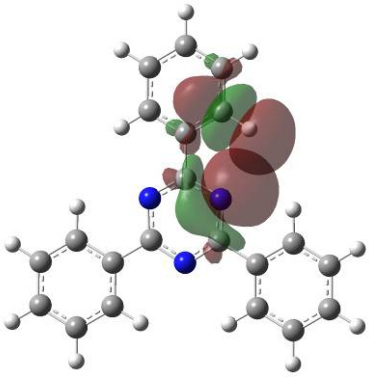	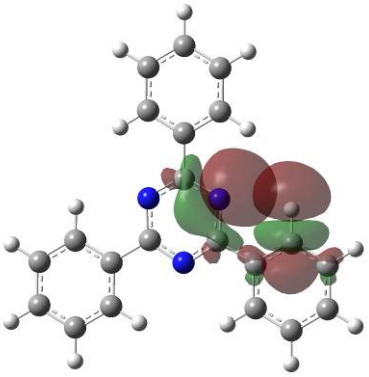
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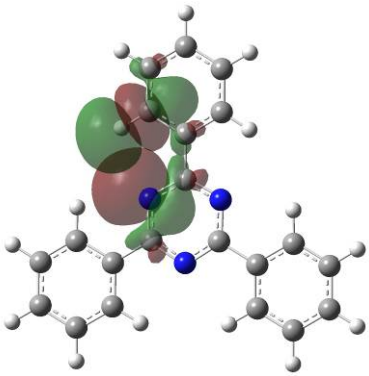	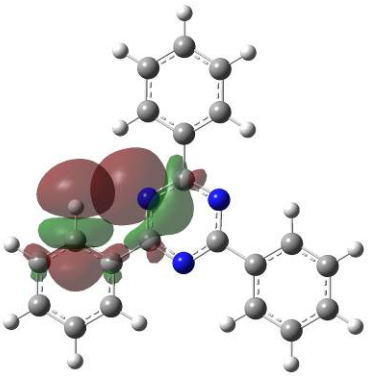
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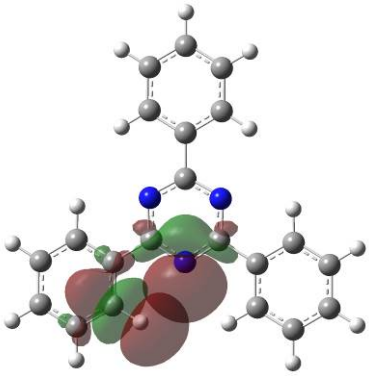	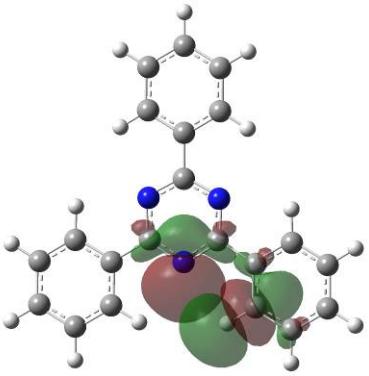
C-H···N	C-H···N

Figure S1 The plots of hydrogen bonds between lone pair electron of N atom on the central triazine ring and anti-bond of C-H on the peripheral rings in TIPT-Cl.

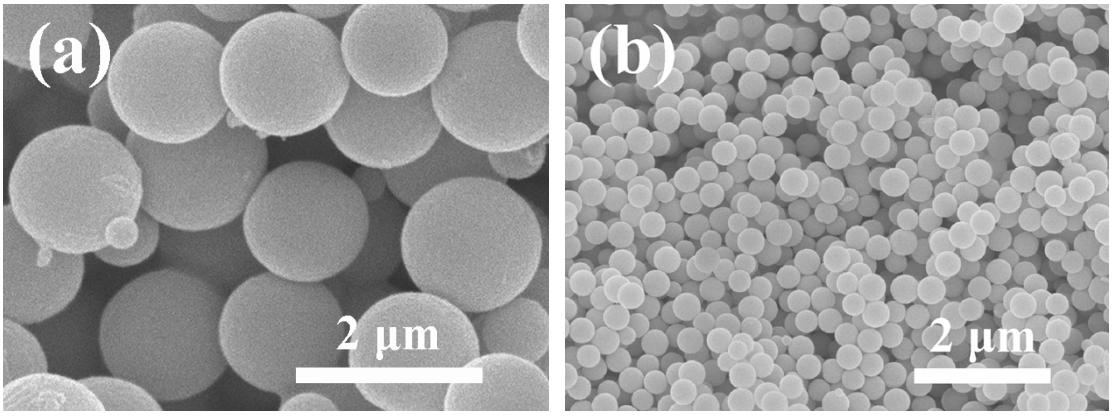

Figure S2 Typical SEM images of PNP2 in concentration increment (a) and decrement (b) of TIPB-Cl and $Pd(OAc)_2$.

Figure S3 Magnetic separation of Fe_3O_4@PNP by the external magnet.

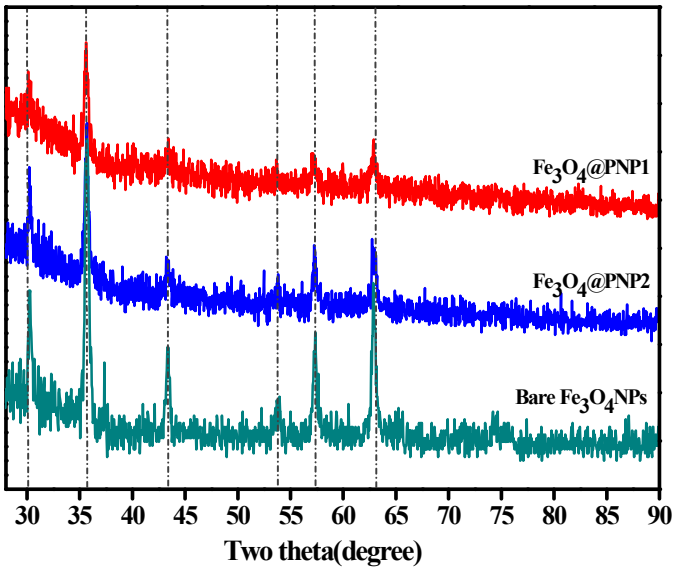

Figure S4 XRD patterns of Fe_3O_4@PNP1, Fe_3O_4@PNP2 and bare Fe_3O_4 NPs.

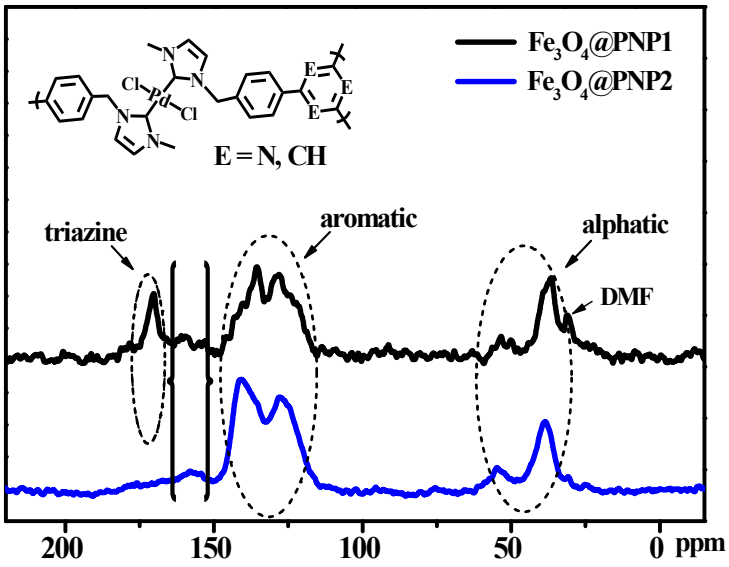

Figure S5 Solid state ^{13}C NMR spectra of Fe_3O_4@PNP1 and Fe_3O_4@PNP2.

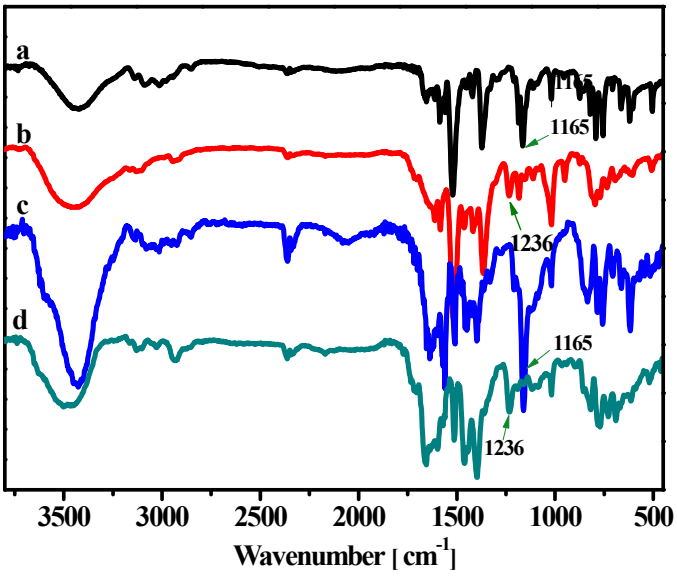

Figure S6 IR spectra of TIPT-Cl (a), Fe_3O_4@PNP1 (b),TIPB-Cl (c) and Fe_3O_4@PNP1 (d).

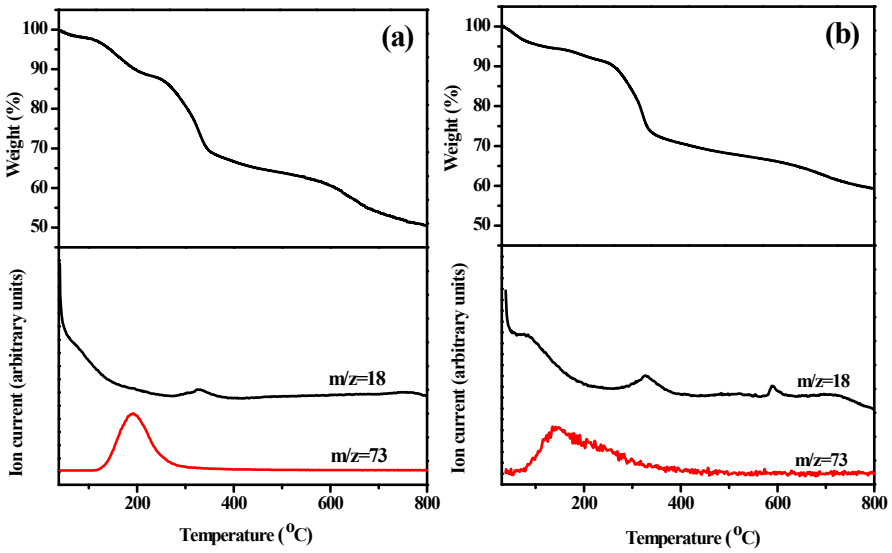

Figure S7 TG-MS curves of Fe_3O_4@PNP1 (a) and Fe_3O_4@PNP2 (b).

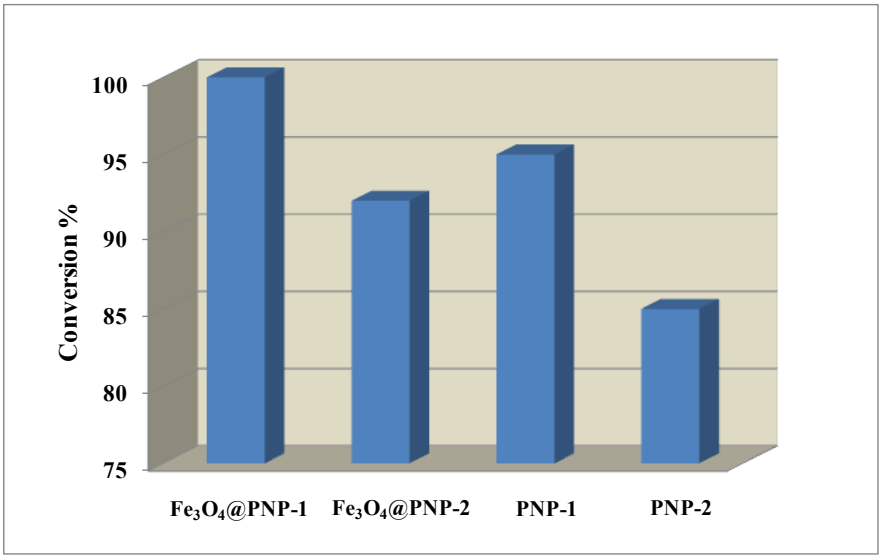

Figure S8 The catalytic activity of the palladium NHC particles. Reaction conditions: 4-bromoacetophenone (0.50 mmol), phenylboronic acid (0.75 mmol), K_2CO_3 (1.0 mmol) and [Pd] (1.0 mol%) in water (1.0 mL) and EtOH (2.0 mL) at 25 °C for 1h.