Supporting Information for

Porphyrin-based porous polyimide polymers/Pd nanoparticles composites as efficient catalysts for Suzuki-Miyaura coupling reactions

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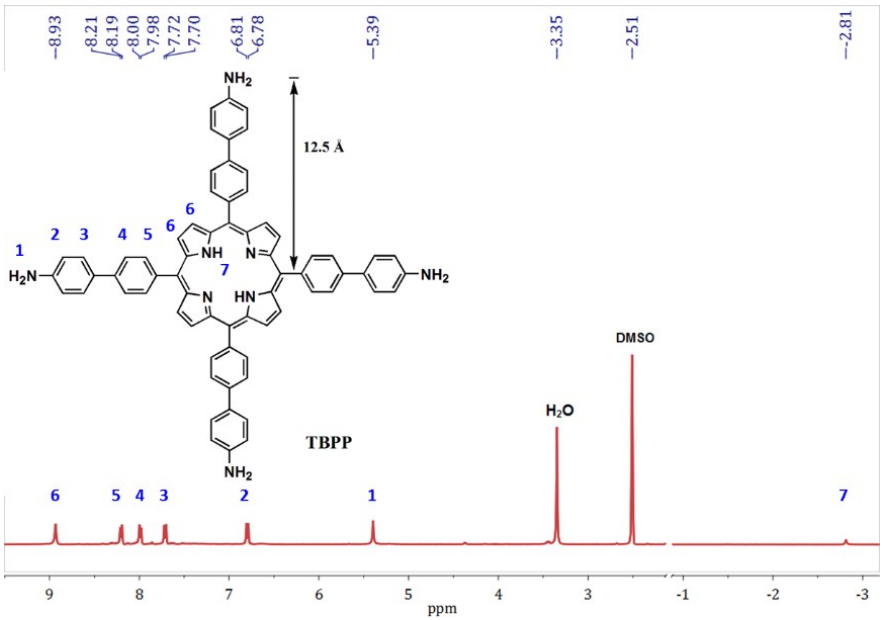

Fig. S1 ^{1}H NMR of 5, 10, 15, 20-Tetrakis(4-aminobiphenyl)porphyrin (TBPP).

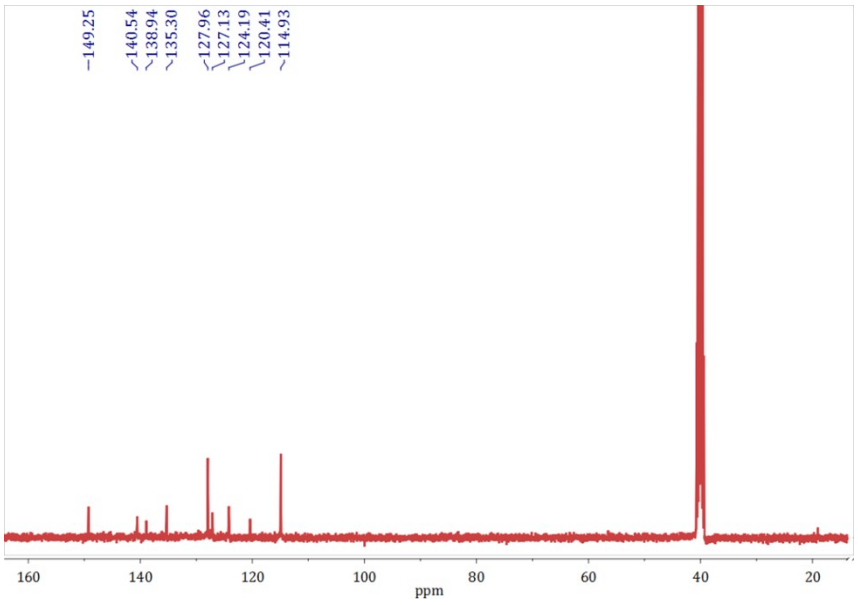

Fig. S2 ^{13}C NMR of 5, 10, 15, 20-Tetrakis(4-aminobiphenyl)porphyrin (TBPP).

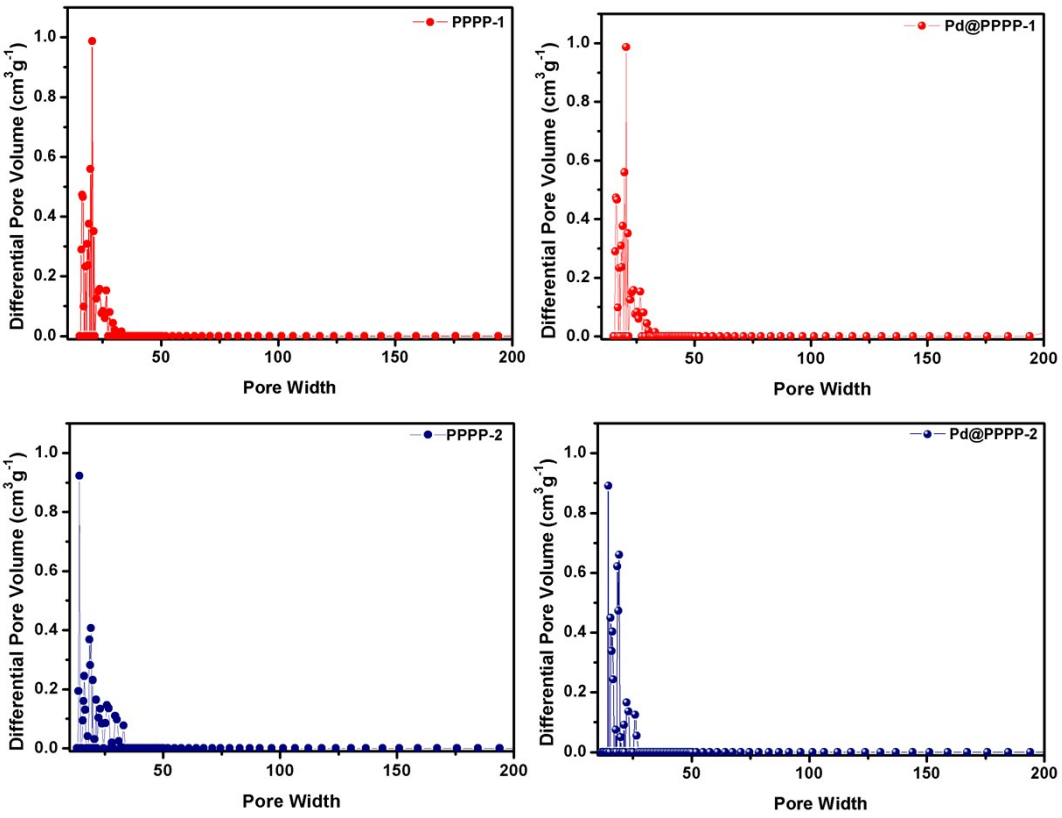

Fig. S3 Pore size distribution for **PPPP-1**, **Pd@PPPP-1**, **PPPP-2** and **Pd@PPPP-2** calculated based on collected N_2 isotherms.

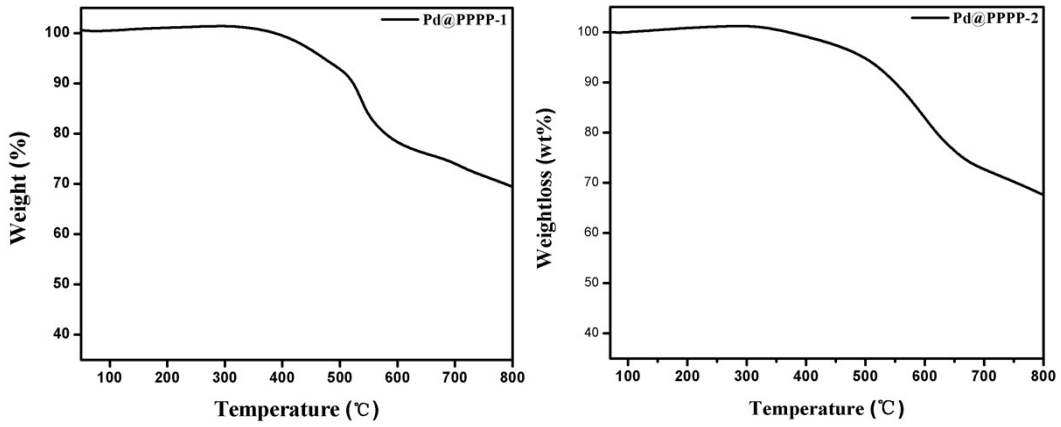

Fig. S4 TGA data of **Pd@PPPP-1** and **Pd@PPPP-2** under N_2 atmosphere.

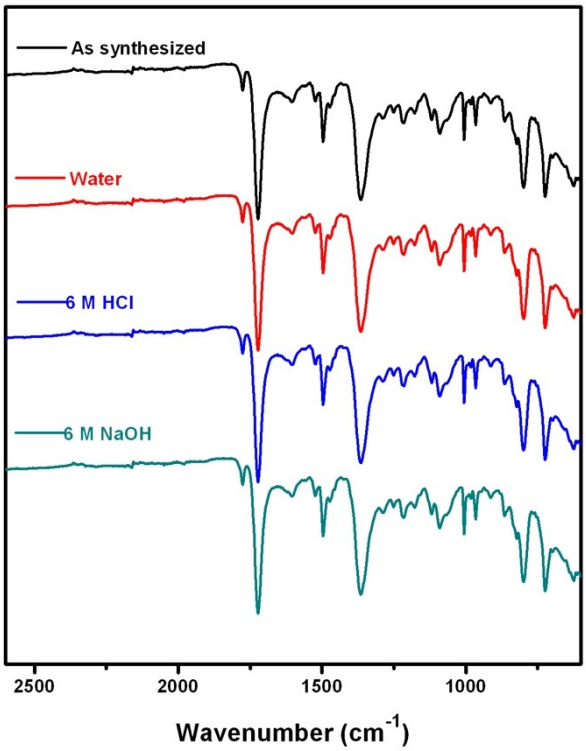

Fig. S5 FT-IR spectra of **Pd@PPPP-1** after treatment for 3 days in HCl (6 M) solutions, NaOH (6 M) solutions, and boiling water.

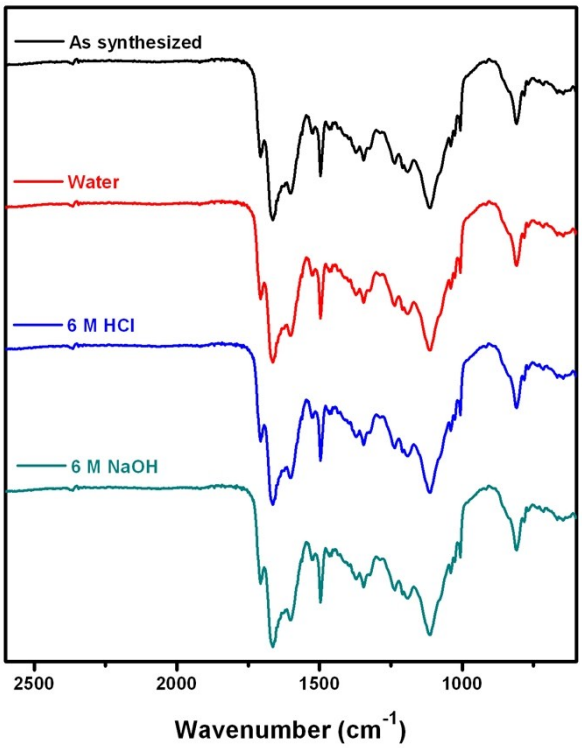

Fig. S6 FT-IR spectra of **Pd@PPPP-2** after treatment for 3 days in HCl (6 M) solutions, NaOH (6 M) solutions, and boiling water.

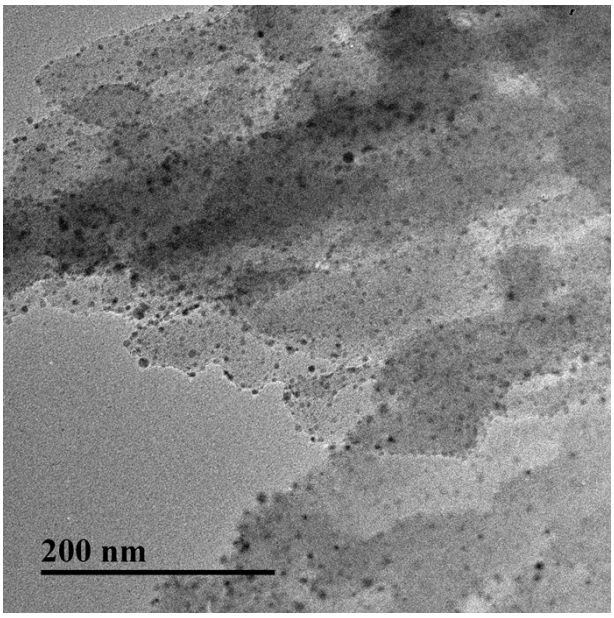

Fig. S7 TEM images of **Pd@PPPP-1** after treatment for 3 days in NaOH (6 M).

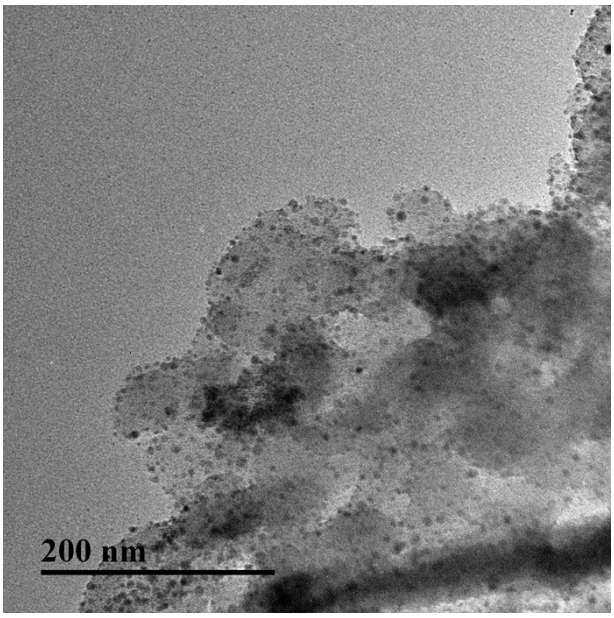

Fig. S8 TEM images of **Pd@PPPP-2** after treatment for 3 days in NaOH (6 M).

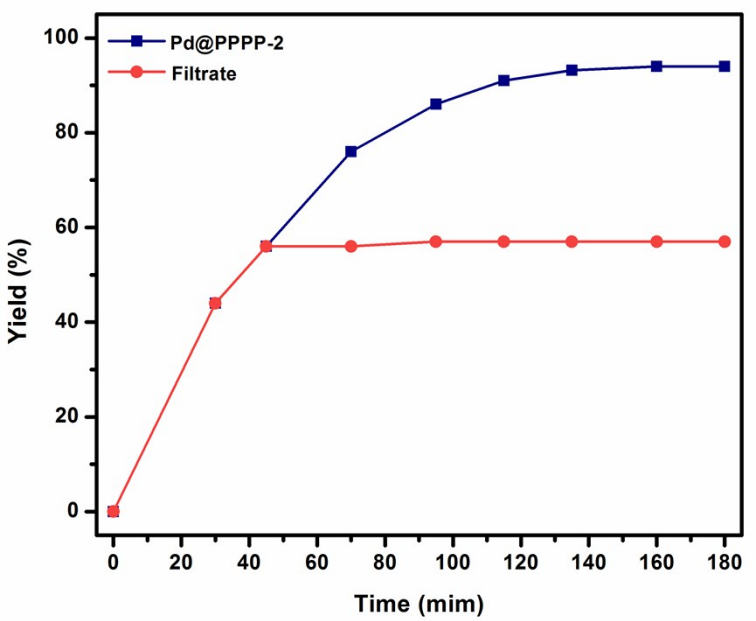

Figure S9 Filtration test of **Pd@PPPP-1** for the coupling phenylboronic and p-iodonitrobenzene.

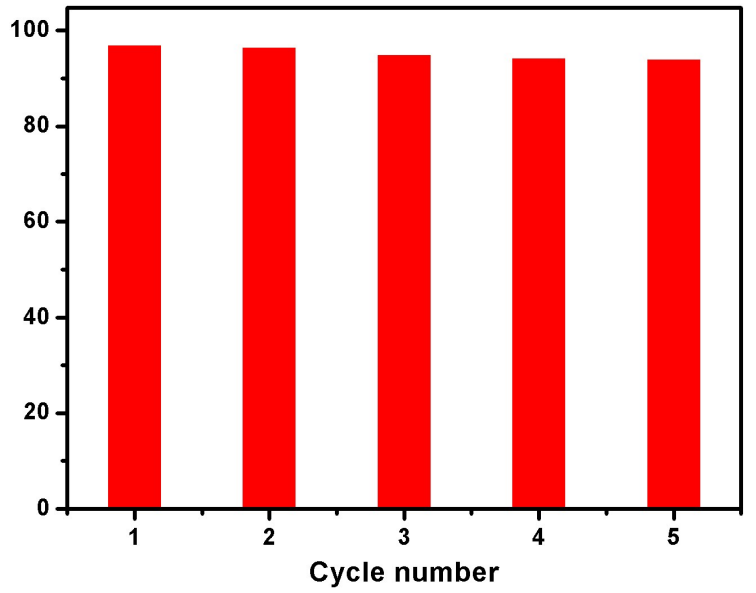

Figure S10 Yield of catalytic recyclability studies for the coupling phenylboronic and p-iodonitrobenzene by **Pd@PPPP-2**.

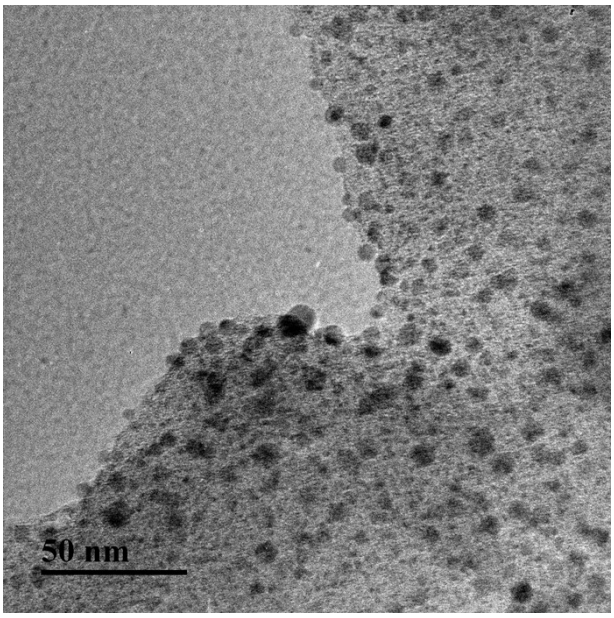

Figure S11 TEM image of **Pd@PPPP-2** after 5rd cycle.

Crystallographic information of modeled PPPPs

Table S1. PPPP-1 eclipsed stacking			
Space group P_4/mmm a = 34.1122 Å c = 3.4871 Å			
Atom	*x/a*	*y/b*	*z/c*
C1	0.10195	0	0.00000
C2	0.14739	0	0.00000
C3	0.08126	-0.03638	0.00000
C4	0.42439	0.96782	0.00000
C5	0.46534	0.97970	0.00000
C6	0.29577	0.96462	0.00000
C7	0.33670	0.96466	0.00000
O8	0.41302	0.93395	0.00000
N9	0.04165	0.95835	1.00000
C10	0.07205	0.90000	1.00000
C11	0.16953	1.03490	1.00000
C12	0.21045	1.03519	1.00000
C13	0.23142	1.00000	1.00000
N14	0.59983	1.00000	1.00000
C15	0.35775	1.00000	1.00000
C16	0.27483	1.00000	1.00000
C17	0.50000	0.04235	0.00000

Table S2. PPPP-1 staggered stacking			
Space group I_4/mmm a = 34.1269 Å c = 6.5904 Å			
Atom	*x/a*	*y/b*	*z/c*
C1	0.10199	0	0.00000
C2	0.14745	0	0.00000
C3	0.08130	-0.03641	0.00000
C4	0.33680	0.96467	0.00000
C5	0.42447	0.96782	0.00000
N6	0.04170	0.95830	1.00000
C7	0.07208	0.89997	1.00000
C8	0.16960	1.03489	1.00000
C9	0.21051	1.03518	1.00000
O10	0.41313	1.06604	1.00000
C11	0.53462	1.02030	1.00000
C12	0.29588	1.03537	1.00000
C13	0.23150	1.00000	1.00000
C14	0.27439	1.00000	1.00000
C15	0.35785	1.00000	1.00000
N16	0.40026	1.00000	1.00000
C17	0.50000	0.04236	0.00000

Table S3. PPPP-2 eclipsed stacking			
Space group P_4/mmm a = 34.6223 Å c = 3.4820 Å			
Atom	*x/a*	*y/b*	*z/c*
C1	0.10044	0.00000	0.00000
C2	0.14522	0.00000	0.00000
C3	0.08006	-0.03585	0.00000
C4	0.47984	0.93023	0.00000
C5	0.54070	0.03487	0.00000
C6	0.58347	0.03461	0.00000
O7	0.59990	0.06578	0.00000
C8	0.66827	0.03461	0.00000
N9	0.04104	0.95896	1.00000
C10	0.07099	0.90147	1.00000
C11	1/6	1.03439	1.00000
C12	0.20734	1.03467	1.00000
C13	0.29142	1.03476	1.00000
C14	0.22801	1.00000	1.00000
C15	0.27078	1.00000	1.00000
C16	0.35314	1.00000	1.00000
C17	0.47957	1.00000	1.00000
N18	0.39574	1.00000	1.00000

Table S4. PPPP-2 staggered stacking			
Space group I_4/mmm a = 34.6786 Å c = 6.7106 Å			
Atom	*x/a*	*y/b*	*z/c*
C1	0.10037	0.00000	0.00000
C2	0.14510	0.00000	0.00000
C3	0.08000	-0.03583	0.00000
C4	0.29118	0.96526	0.00000
N5	0.04104	0.95896	1.00000
C6	0.07093	0.90156	1.00000
C7	1/6	1.03434	1.00000
C8	0.20717	1.03462	1.00000
O9	0.40053	1.06697	1.00000
C10	0.66855	1.03462	1.00000
C11	0.45937	1.03515	1.00000
C12	0.41677	1.03577	1.00000
C13	0.52006	1.06988	1.00000
C14	0.22782	1.00000	1.00000
C15	0.27056	1.00000	1.00000
C16	0.35260	1.00000	1.00000
C17	0.47952	1.00000	1.00000
N18	0.39484	1.00000	1.00000