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## **Supporting Information**

## Palladium Catalyst Coordinated in Knitting N-Heterocyclic Carbenes Porous Polymers for Efficient Suzuki-Miyaura Coupling Reactions

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Figure S1. TG for the precursors (Poly-NHC).



FigureS2. SEM images for Poly-NHC-1 and Poly-NHC-1-Pd<sup>2+</sup>



Figure S3. SEM images for Poly-NHC-2 and Poly-NHC-2-Pd<sup>2+</sup>



Figure S4. SEM images for Poly-NHC-3 and Poly-NHC-3-Pd<sup>2+</sup>



Figure S5. TEM images for Poly-NHC-1 and Poly-NHC-1-Pd<sup>2+</sup>



Figure S6. TEM images for Poly-NHC-2 and Poly-NHC-2-Pd<sup>2+</sup>



Figure S7. TEM images for Poly-NHC-3 and Poly-NHC-3-Pd<sup>2+</sup>



*Figure S8.*  $N_2$  sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-1.



*Figure S9.*  $N_2$  sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-1-Pd<sup>2+</sup>.



*Figure S10.* N<sub>2</sub> sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-2.



*Figure S11.*  $N_2$  sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-2-Pd<sup>2+</sup>.



*Figure S12.* N<sub>2</sub> sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-3.



*Figure S13.* N<sub>2</sub> sorption isotherms at 77.3 K (a) and pore size distributions calculated using DFT methods via adsorption branch (slit pore models, differential pore volumes, Pore width) (b) of Poly-NHC-3-Pd<sup>2+</sup>.