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Electronic Supplementary Information

Synthesis of DMF-protected Au NPs with different size distributions and their catalytic performance on Ullmann homocoupling of aryl iodides

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Figure S1. The TEM image of DMF-protected Au NPs at 160 °C.



Figure S2. The TEM image of DMF-protected Au NPs before (a) and after (b) 5 cycles.



Figure S3. PXRD patterns of standard diffraction peak of Au (JCPDS card no. 04-0784), Au NPs 1, Au NPs 2 and Au NPs 3.

The ${}^{1}H$ and ${}^{13}C$ NMR spectra of 1,1'-biphenyl



The ¹H and ¹³C NMR spectra of 4,4'-Dimethyl-biphenyl



The ¹H and ¹³C NMR spectra of 4,4'-Dimethoxy-biphenyl



The ¹H and ¹³C NMR spectra of 3,3'-Dimethoxy-biphenyl



The ¹H and ¹³C NMR spectra of 2,2'-Dimethoxy-biphenyl







The ¹H and ¹³C NMR spectra of 4,4'-dibromo-biphenyl





The ¹H and ¹³C NMR spectra of 1,1'-Biphenyl,4,4'-bis(1,1-dimethylethyl)





The ¹H and ¹³C NMR spectra of 4,4'-dinitro-biphenyl



The ¹H and ¹³C NMR spectra of 4,4'-dicyano-biphenyl



The ¹H and ¹³C NMR spectra of 2,2'Bipyridinyl

