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New Journal of Chemistry

## **Electronic Supplementary Information**

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## A Coordination Driven Self-assembled Pd<sub>6</sub>L<sub>8</sub> Nanoball Catalyses Copper and Phosphine-free Sonogashira Coupling Reaction in both Homogeneous and Heterogeneous Formats

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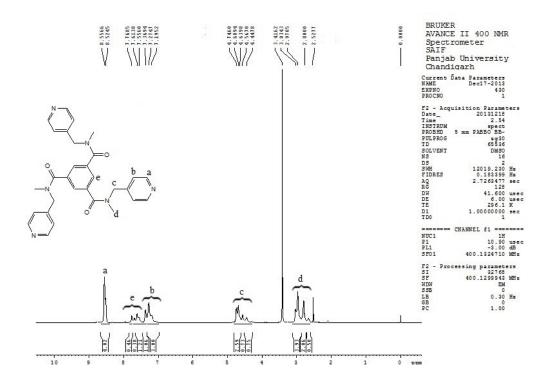


Figure S1: <sup>1</sup>H-NMR spectrum of the compound L in DMSO-*d*<sub>6</sub>

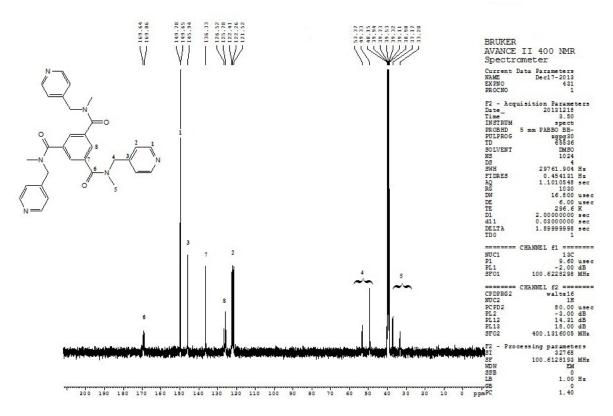


Figure S2: <sup>13</sup>C-NMR spectrum of the compound L in DMSO- $d_6$ 

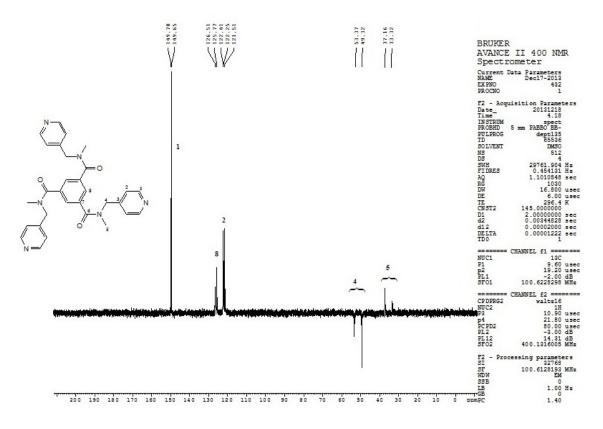


Figure S3: DEPT-135 spectrum of the compound L in DMSO- $d_6$ 

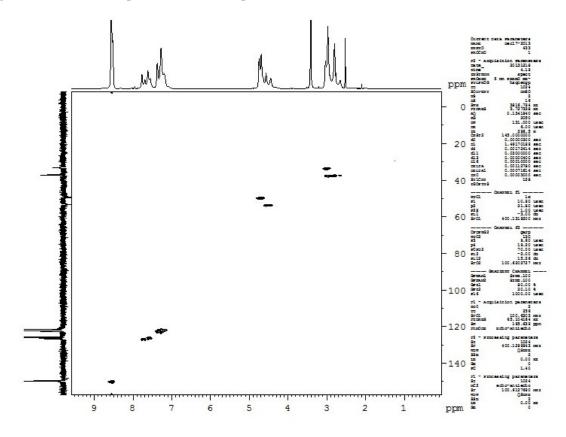


Figure S4: <sup>1</sup>H- <sup>13</sup>C HSQC spectrum of the compound L in DMSO- $d_6$ 

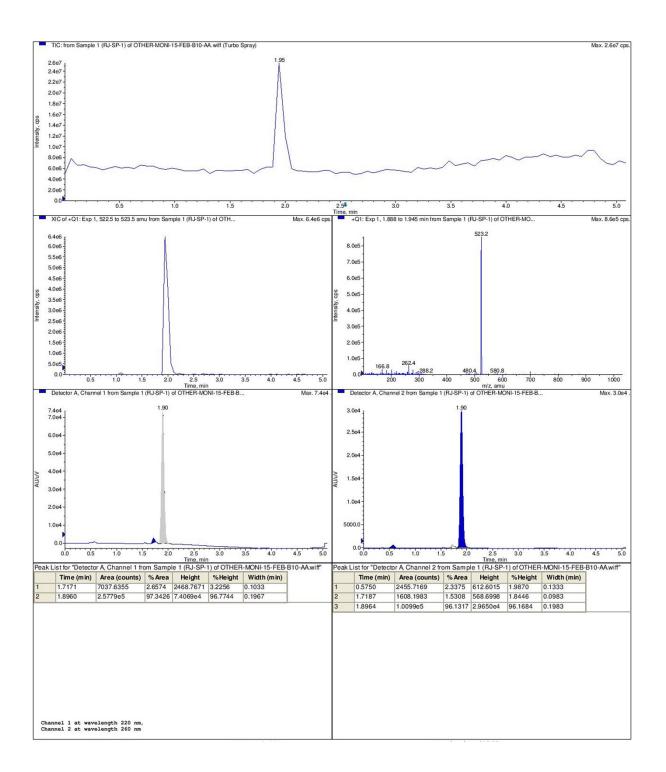


Figure S5: LCMS spectrum of the compound L

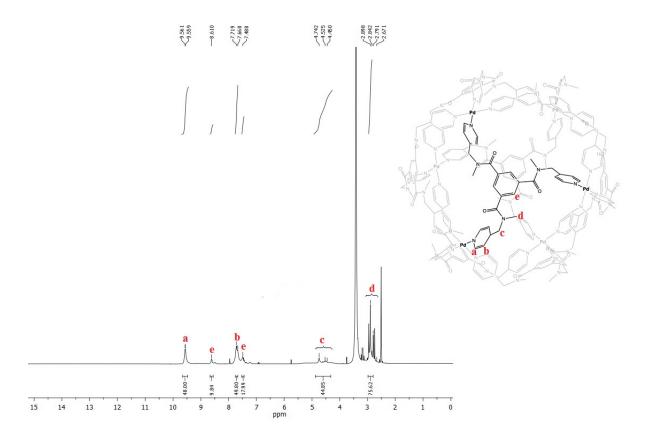


Figure S6: <sup>1</sup>H-NMR spectrum of the compound 1 in DMSO- $d_6$ 

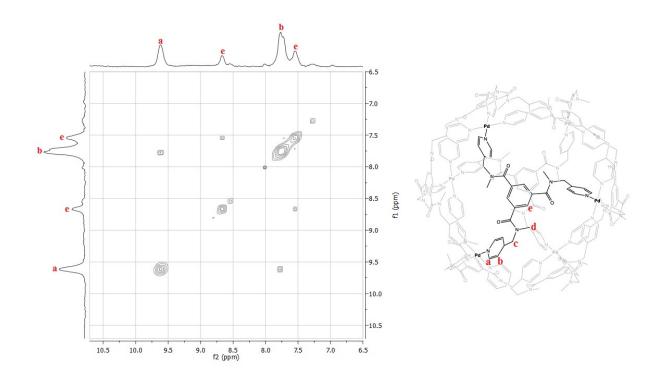
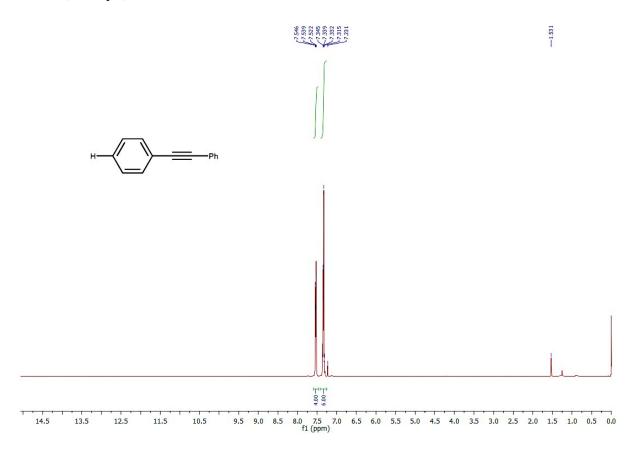


Figure S7: <sup>1</sup>H- <sup>1</sup>H COSY spectrum of the compound 1 in DMSO- $d_6$ 

## <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of the coupling products:

Table 3, Entry1, 10 and 15:



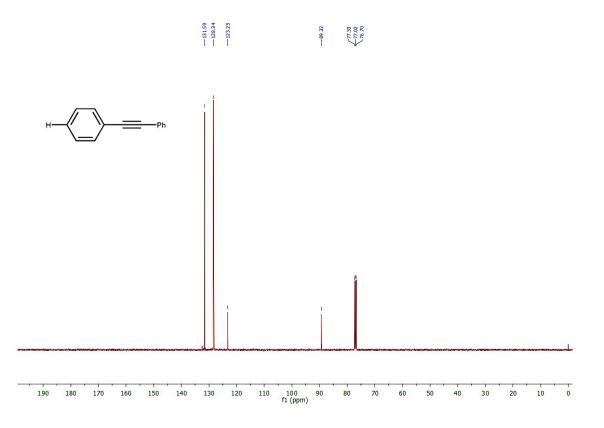
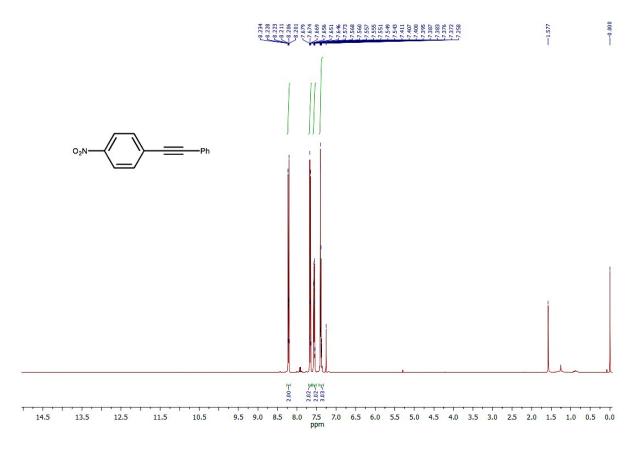


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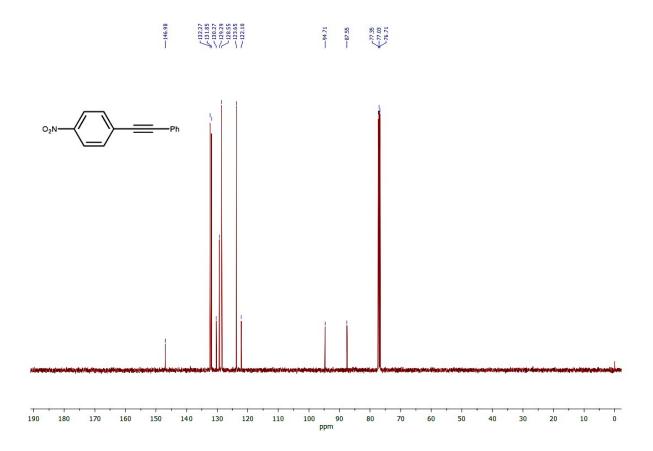
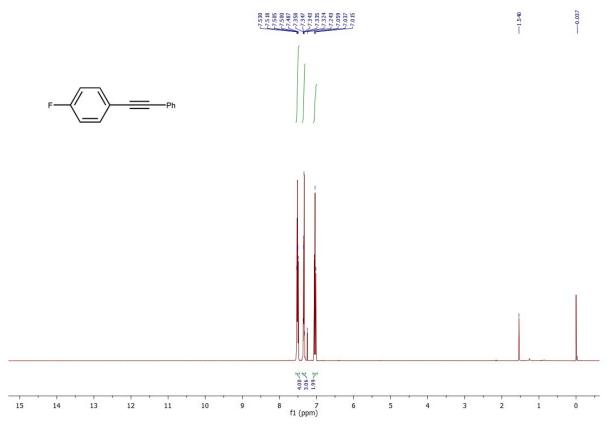
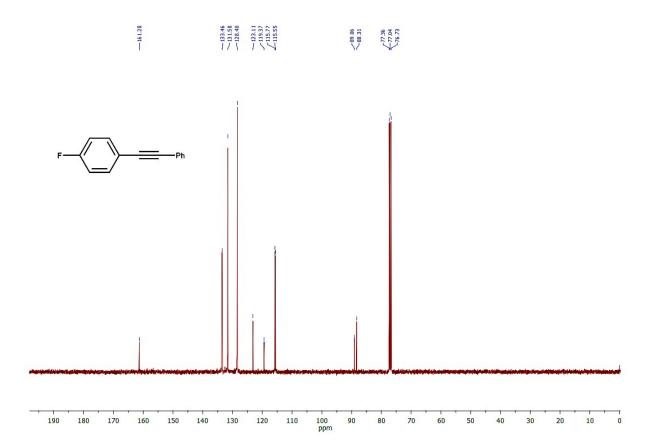
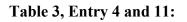
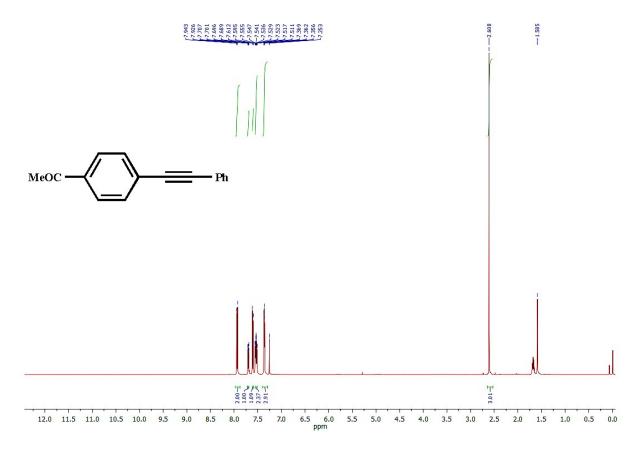


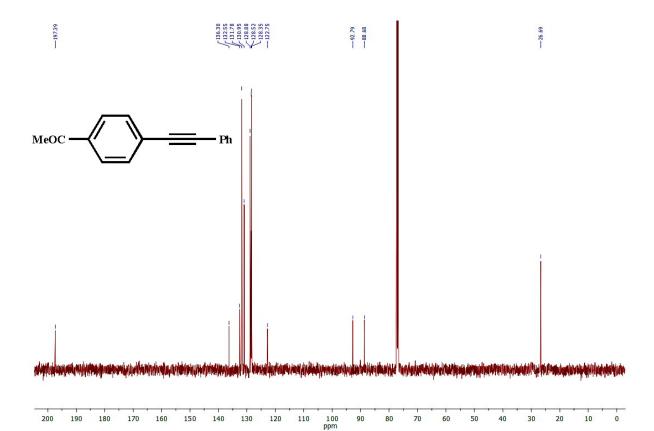
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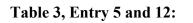


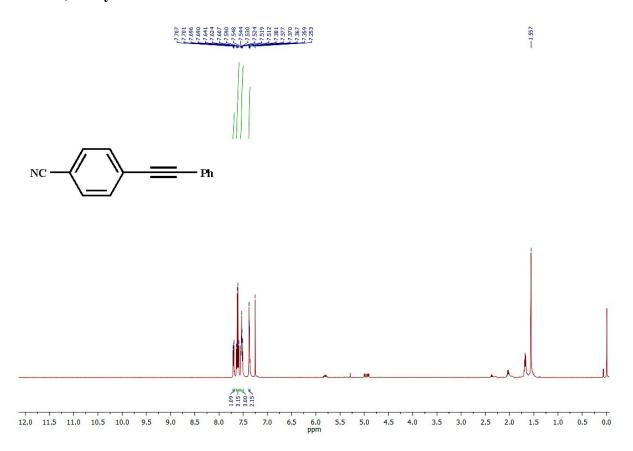












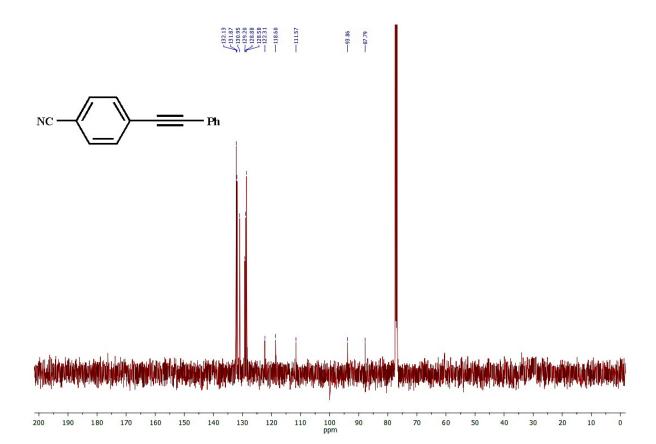
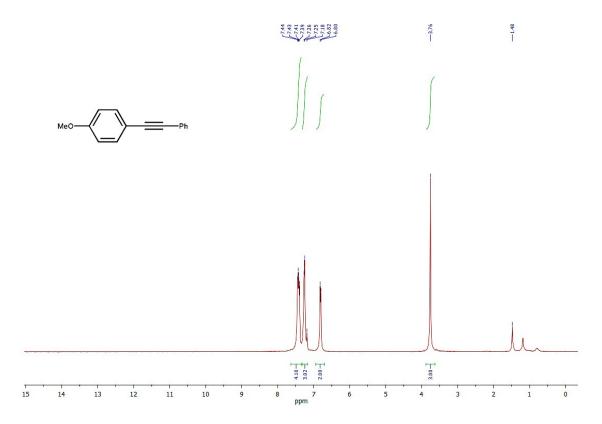


Table 3, Entry 6 and 13:



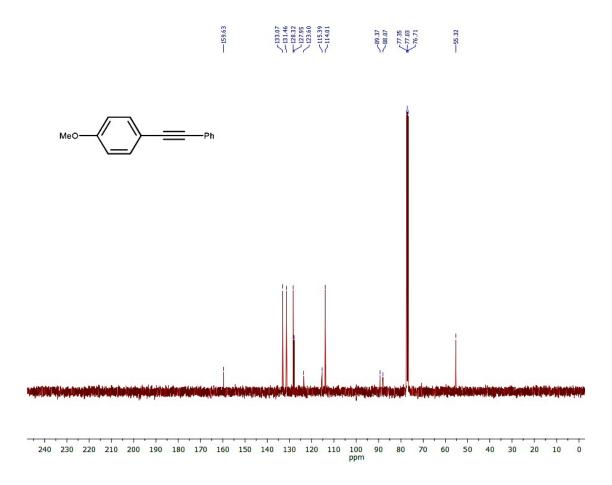


Table 3, Entry 7 and 14:

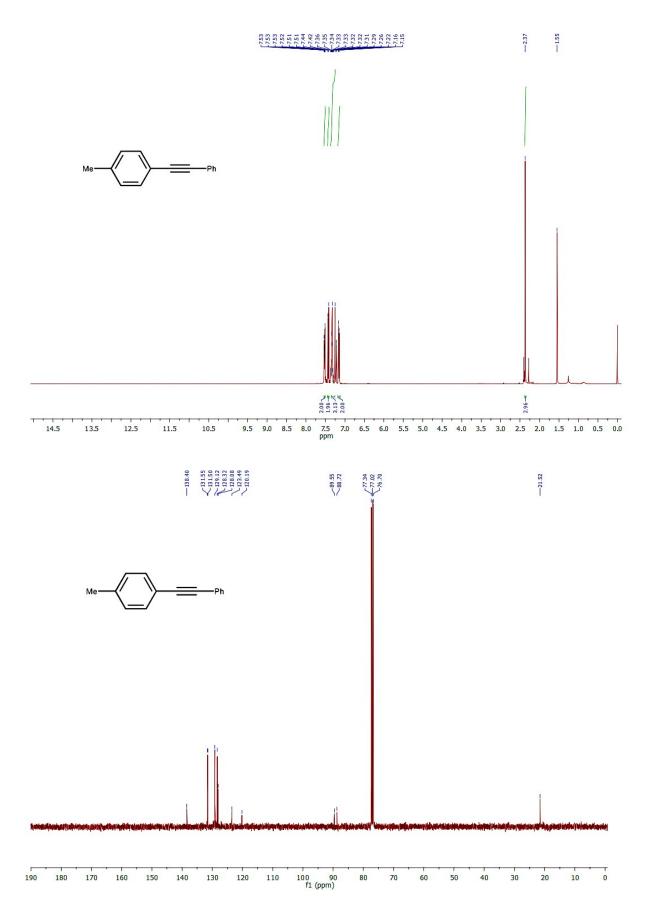


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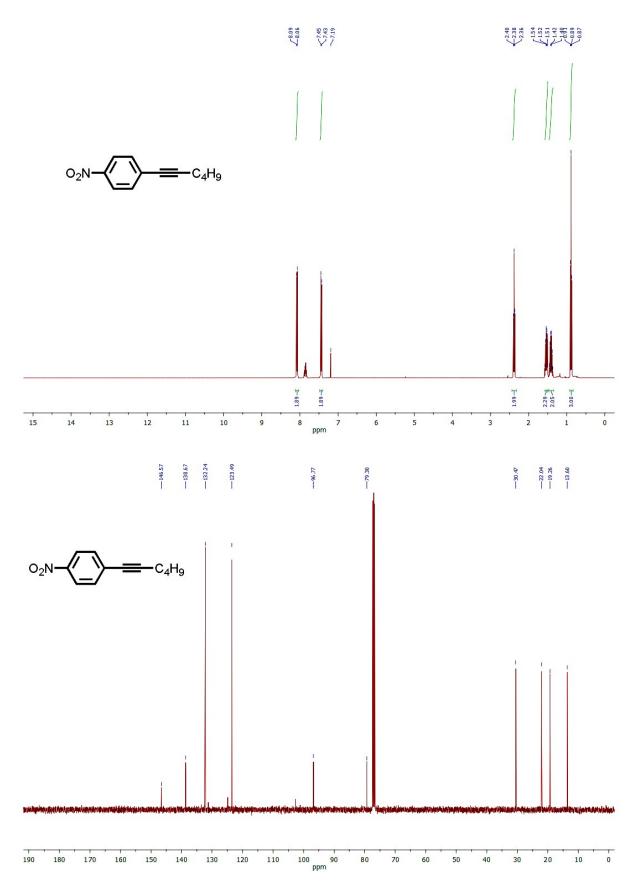


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