



## Synthesis and Characterization of A New *Ortho* Palladed Complex Via C-H Activation of Redox Non-Innocent 2-(Arylazo)-N-Phenyl Aniline

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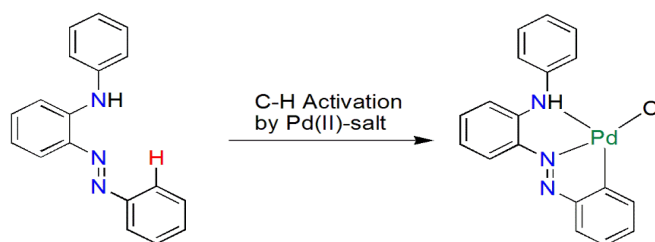
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### ABSTRACT

The new redox active 2-(arylazo)-N-phenyl aniline ligand **LH** has been prepared by the reaction between N-phenyl-ortho-phenylenediamine and nitrobenzene in the presence of NaOH. The room temperature reaction of equimolar amounts of **LH** and  $[PdCl_2(CH_3CN)_2]$  in methanol in the presence of triethylamine afforded ortho palladed complex  $[Pd^{II}(L)Cl]$  (**I**) in 63% yield, where the ligand is bound to the Pd(II) metal in tridentate (C,N,N) coordination. The complex **I** was characterized from spectroscopic data and its structure was confirmed by X-ray crystallographic analysis. The redox chemical behaviors of **LH** and complex **I** were studied.

### Graphical abstract



**Keywords:** Cyclopalladation; C-H Activation; Azobenzene; Redox-active.