

## A series of metal complexes with the non-innocent *N,N'*-bis(pentafluorophenyl)-*o*-phenylenediamido ligand: twisted geometry for tuning the electronic structure

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### Synthesis of the ligand H<sub>2</sub><sup>F</sup>pda<sup>1</sup>

*ortho*-Phenylenediamine (1.00 g, 9.25 mmol) in THF (30 mL) was added to LiN(SiMe<sub>3</sub>)<sub>2</sub> (6.95 g, 41.6 mmol) in THF (20 mL) maintained at -78°C. The reaction mixture was allowed to warm to room temperature after it was cooled again to -78°C. Hexafluorobenzene C<sub>6</sub>F<sub>6</sub> (4.30 g, 23.1 mmol) was added slowly, then the mixture was stirred at room temperature for 12 h. After water (100 mL) and Et<sub>2</sub>O (50 mL) were added, organic phase was collected, water phase was extracted with Et<sub>2</sub>O (2×100 mL). Combined organic fractions were dried over K<sub>2</sub>CO<sub>3</sub>, after that all volatiles were removed at reduced pressure. The raw product was purified via column chromatography (SiO<sub>2</sub>, *n*-hexane/CH<sub>2</sub>Cl<sub>2</sub> = 2:3) and finally recrystallized from *n*-heptane. Yield: 2.89 g (71%).

### Reference

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1 D. Sorokin, Ph.D. Thesis, Philipps-Universität Marburg, 2006.