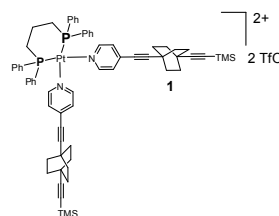
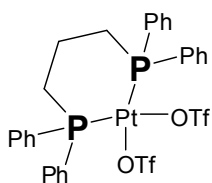


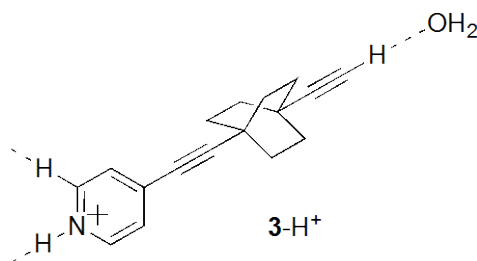
Electronic Supplementary Information (ESI)

Asymmetric addition of pyridine to 1,4-ethynylbicyclo[2.2.2]octane: dissymmetrical rotator ligands illustrated in *dppp*Pt(II) and $[\text{Re}_6\text{Se}_8]^{2+}$ complexes and an amphidynamic hydrogen bonded framework solid

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Scheme S1. ³¹P NMR spectra at 300 MHz in CD₃CN of *dppp*Pt(II)(OTf)₂ and *dppp*Pt(II)[μ -**1**]₂(OTf)₂, **4**.



Scheme S2. The three hydrogen bond donor functionalities anchoring **3-H⁺** in [**3-H⁺**]₂[OH₂]₂[Pt(CN)₄]²⁻.