

This dataset contains:

Analytical characterisation of the complexes (CHN microanalysis).

¹H NMR spectra of the complexes (raw data and plotted spectra).

NOESY NMR spectra (raw data – plotted spectra are in the Supporting Information).

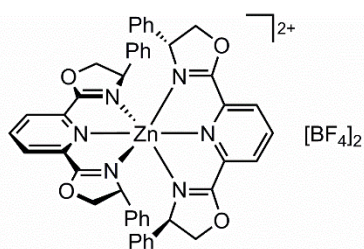
X-ray Crystallographic data:

- Structure of (*R*)-**1** (CCDC 1830133).
- Structure of (*RS*)-**1**·2.5CH₃CN (CCDC 1830136).
- Structure of (*R*)-**2**·0.5CH₃CN (CCDC 1830134).
- Structure of (*RS*)-**2** (CCDC 1830135).
- Structure of (*R*)-**3**·3CH₃CN (CCDC 1830137).
- Structure of (*RS*)-**4**·CH₃CN (CCDC 1830132).

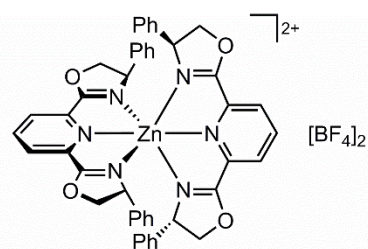
Solid state magnetic susceptibility measurements (raw and processed data).

Solution magnetic susceptibility measurements (processed data).

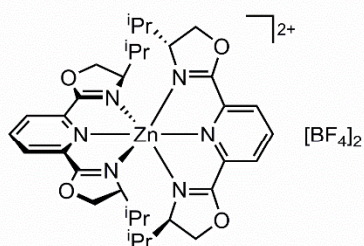
Compounds prepared during this study



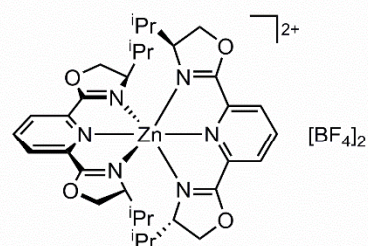
Bis[2,6-bis((*R*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]zinc(II)
ditetrafluoroborate
 $C_{46}H_{38}B_2F_8N_6O_4Zn$
Compound (*R*)-1



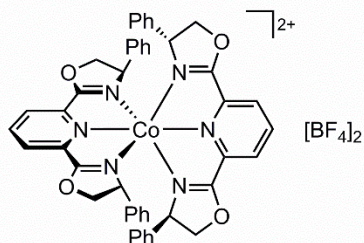
[2,6-Bis((*R*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]-
[2,6-bis((*S*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]zinc(II)
ditetrafluoroborate
 $C_{46}H_{38}B_2F_8N_6O_4Zn$
Compound (*RS*)-1



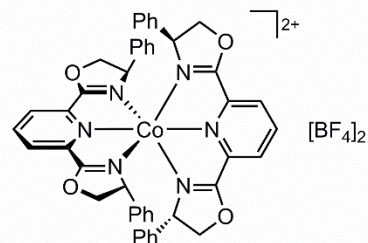
Bis[2,6-bis((*R*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]zinc(II)
ditetrafluoroborate
 $C_{34}H_{46}B_2F_8N_6O_4Zn$
Compound (*R*)-2



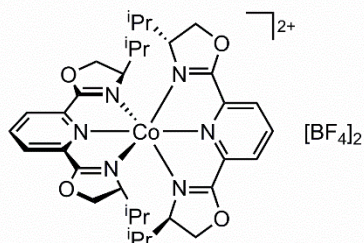
[2,6-Bis((*R*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]-
[2,6-bis((*S*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]zinc(II)
ditetrafluoroborate
 $C_{34}H_{46}B_2F_8N_6O_4Zn$
Compound (*RS*)-2



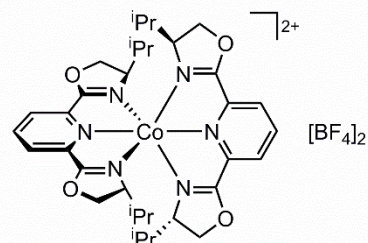
Bis[2,6-bis((*R*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]cobalt(II)
ditetrafluoroborate
 $C_{46}H_{38}B_2CoF_8N_6O_4$
Compound (*R*)-3



[2,6-Bis((*R*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]-
[2,6-bis((*S*)-4-phenyl-4,5-dihydrooxazol-2-yl)pyridine]cobalt(II)
ditetrafluoroborate
 $C_{46}H_{38}B_2CoF_8N_6O_4$
Compound (*RS*)-3



Bis[2,6-bis((*R*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]cobalt(II)
ditetrafluoroborate
 $C_{34}H_{46}B_2CoF_8N_6O_4$
Compound (*R*)-4



[2,6-Bis((*R*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]-
[2,6-bis((*S*)-4-isopropyl-4,5-dihydrooxazol-2-yl)pyridine]cobalt(II)
ditetrafluoroborate
 $C_{34}H_{46}B_2CoF_8N_6O_4$
Compound (*RS*)-4