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## Bi-1,10-phenanthrolines and Their Mono-nuclear Ru(II) Complexes

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**Supporting Information** (7 pages)

**Figure Captions** 

Figure S1. (A) Dependence of the relative luminescence quantum yield  $(\phi/\phi_0)$  of Ru-3 ([Ru-3] = 1 x 10<sup>-5</sup> M, MeOH) on the concentration of  $Zn^{2+}$ ; (B) Titration profile for Ru-3 showing the relative quantum yield as a function of  $-\log[Zn^{2+}]$ . The solid line represents a non-linear fit according to equation (1).

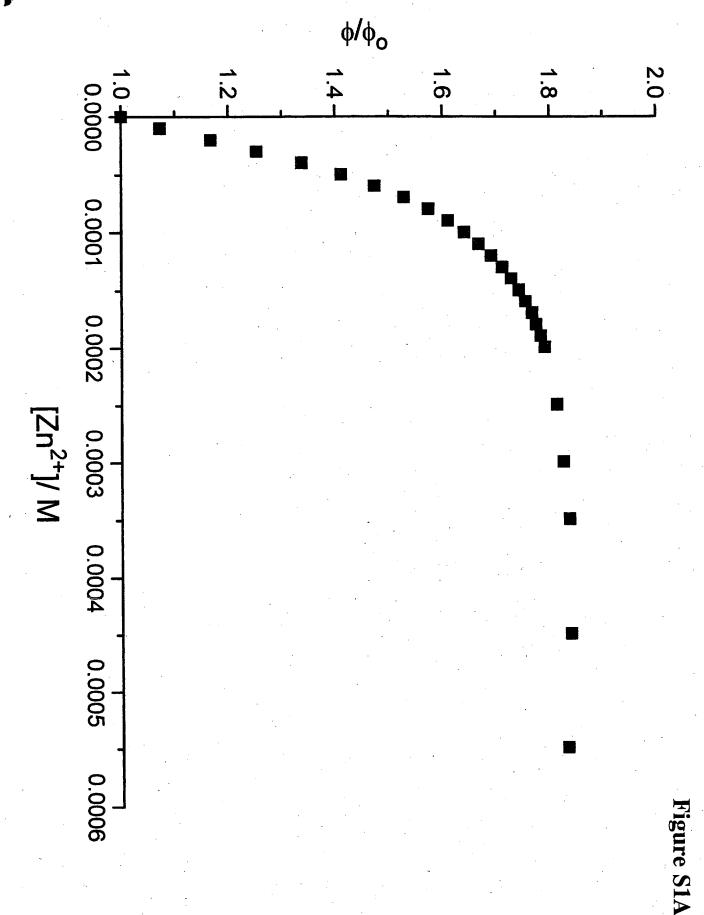
Figure S2. Titration profile for Ru-3 with  $Cd^{2+}$  showing the relative luminescence quantum yield as a function of  $-\log[Cd^{2+}]$ . The solid line represents a non-linear fit according to equation (1). The concentration of Ru-3 was 1 x  $10^{-5}$  M, MeOH.

Figure S3. Titration profile for Ru-3 with  $Hg^{2+}$  showing the relative luminescence quantum yield as a function of  $-log[Hg^{2+}]$ . The solid line represents a non-linear fit according to equation (1). The concentration of Ru-3 was 1 x  $10^{-5}$  M, MeOH.

Figure S4. Titration profile for Ru-1 with  $Zn^{2+}$  showing the relative luminescence quantum yield as a function of  $-\log[Zn^{2+}]$ . The solid line represents a non-linear fit according to equation (1). The concentration of Ru-1 was 1 x  $10^{-5}$  M, MeOH.

Figure S5. Titration profile for Ru-2 with  $Zn^{2+}$  showing the relative luminescence quantum yield as a function of  $-\log[Zn^{2+}]$ . The solid line represents a non-linear fit according to equation (1). The concentration of Ru-2 was 1 x 10<sup>-5</sup> M, MeOH.

Figure S6. Titration profile for Ru-4 with  $Zn^{2+}$  showing the relative luminescence quantum yield as a function of  $-\log[Zn^{2+}]$ . The solid line represents a non-linear fit according to equation (1). The concentration of Ru-4 was 1 x  $10^{-5}$  M, MeOH.



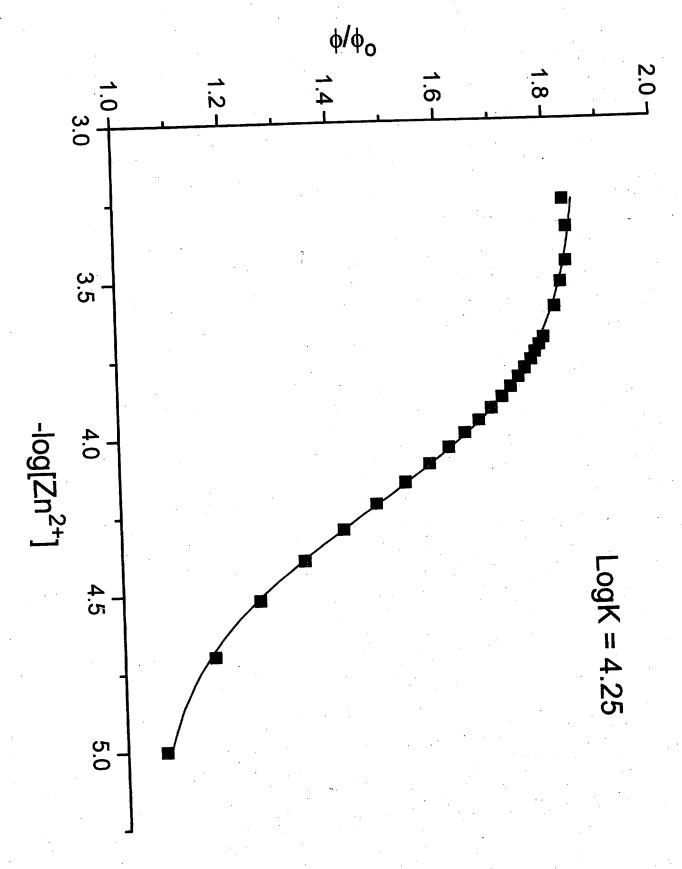
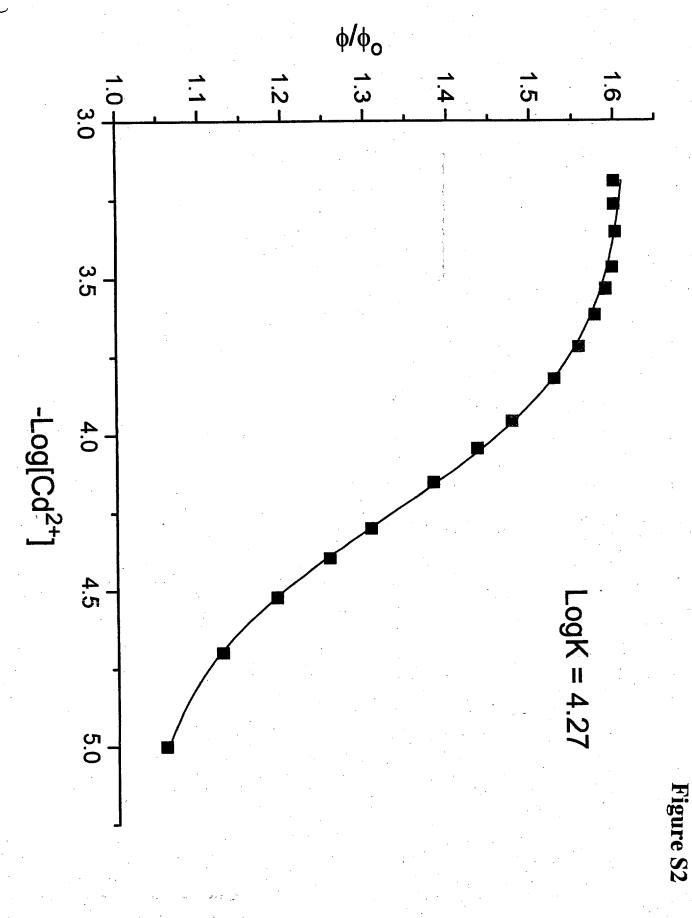


Figure S1B



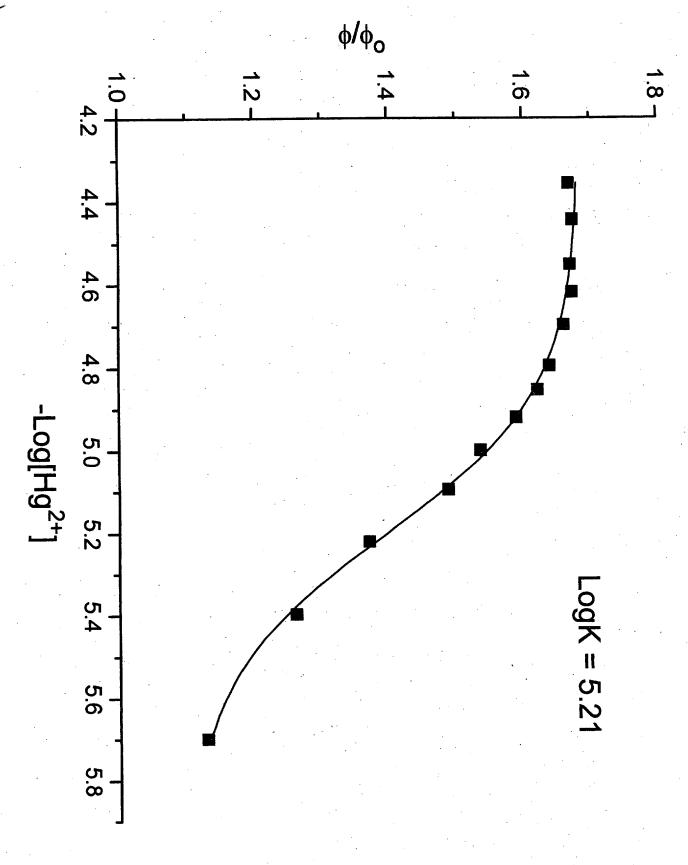


Figure S3

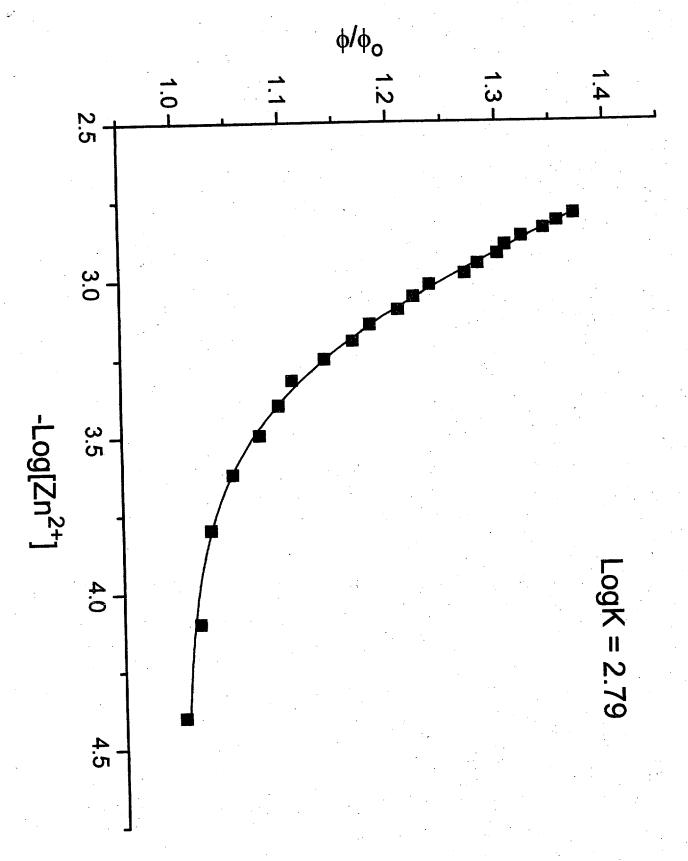
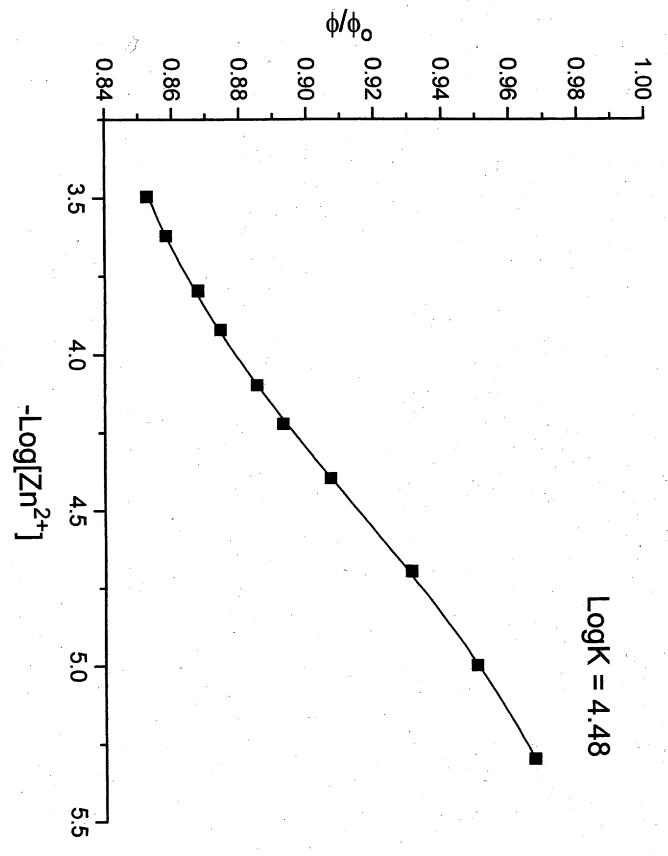
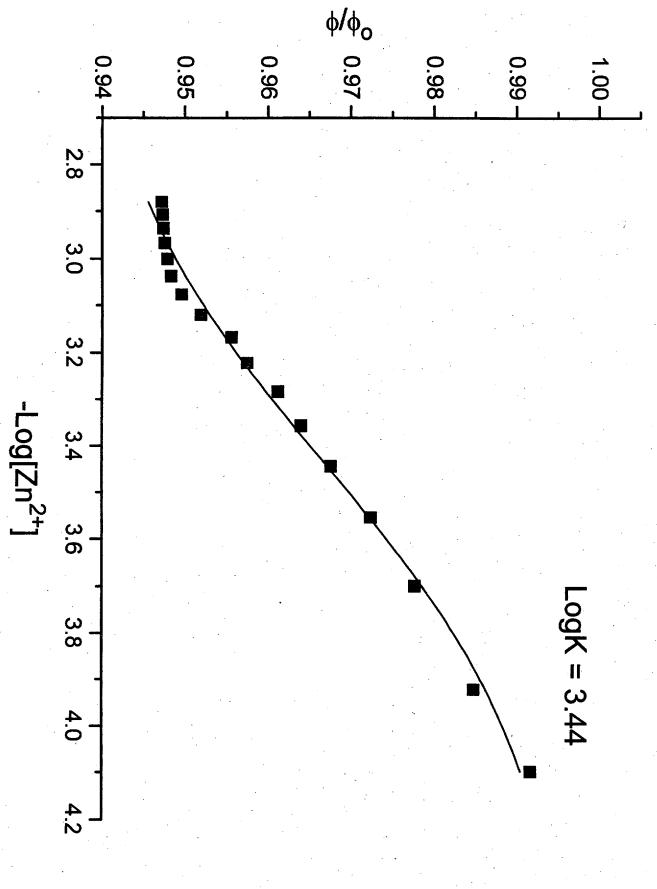


Figure S4



igure S5



igure S6

Figure S6