SUPPLEMENTARY INFORMATION

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Hybrid Aminoquinoline-Triazine Ligand Design: Synthesis, Characterisation, and Coordination Chemistry with Platinum-Group Metal Precursors

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Spectroscopic Data

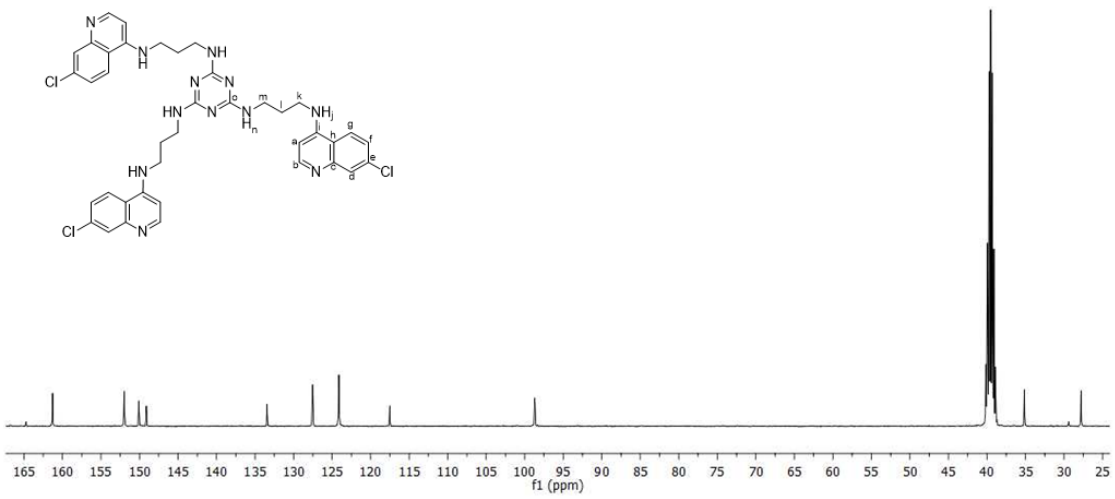


Fig. S1. $^{13}C\{^{1}H\}$ NMR spectrum of trimeric ligand **2** in DMSO-d_6.

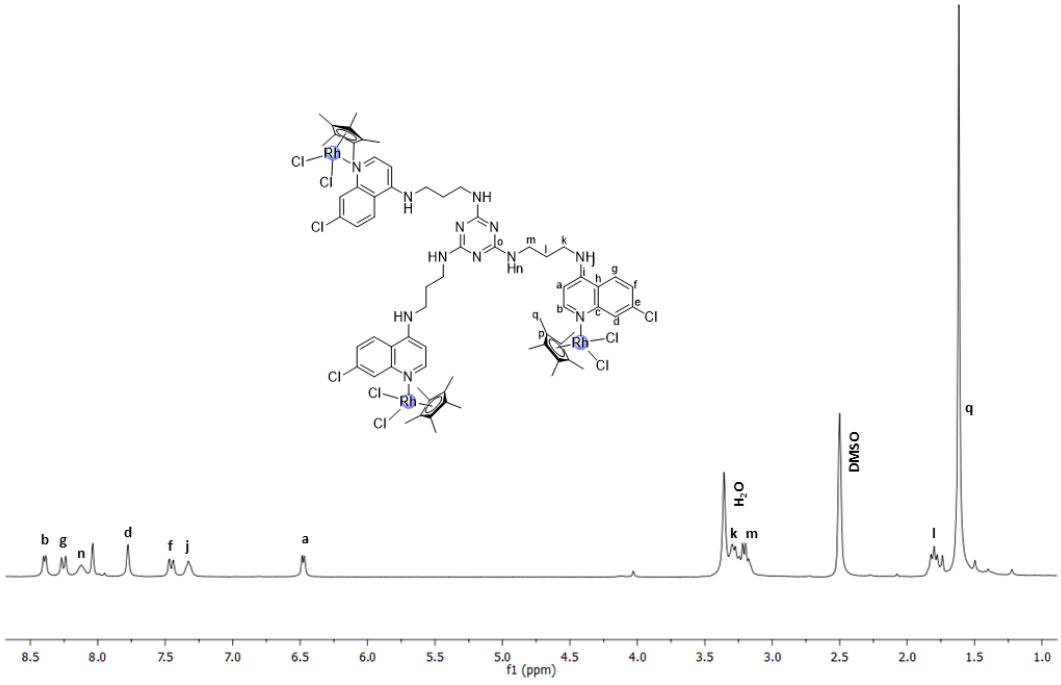


Fig. S2. ^{1}H NMR spectrum of the trinuclear Rh(III) complex (**4**) in DMSO-d_6.

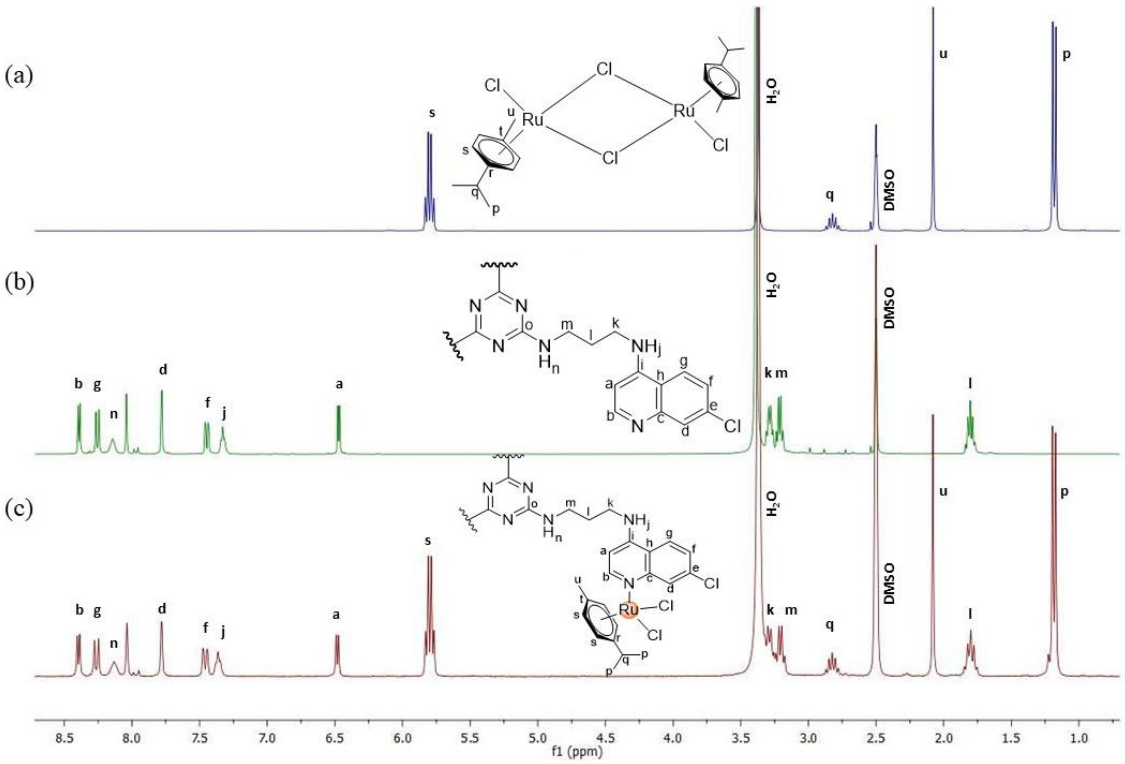


Fig. S3. Stacked ^{1}H NMR spectra of (a) [Ru(*p*-cymene)(μ-Cl)Cl]$_2$, (b) 4-aminoquinoline-triazine ligand, **2**, and (c) trinuclear Ru(II) 4-aminoquinoline-triazine complex, **5**, in DMSO-d_6.

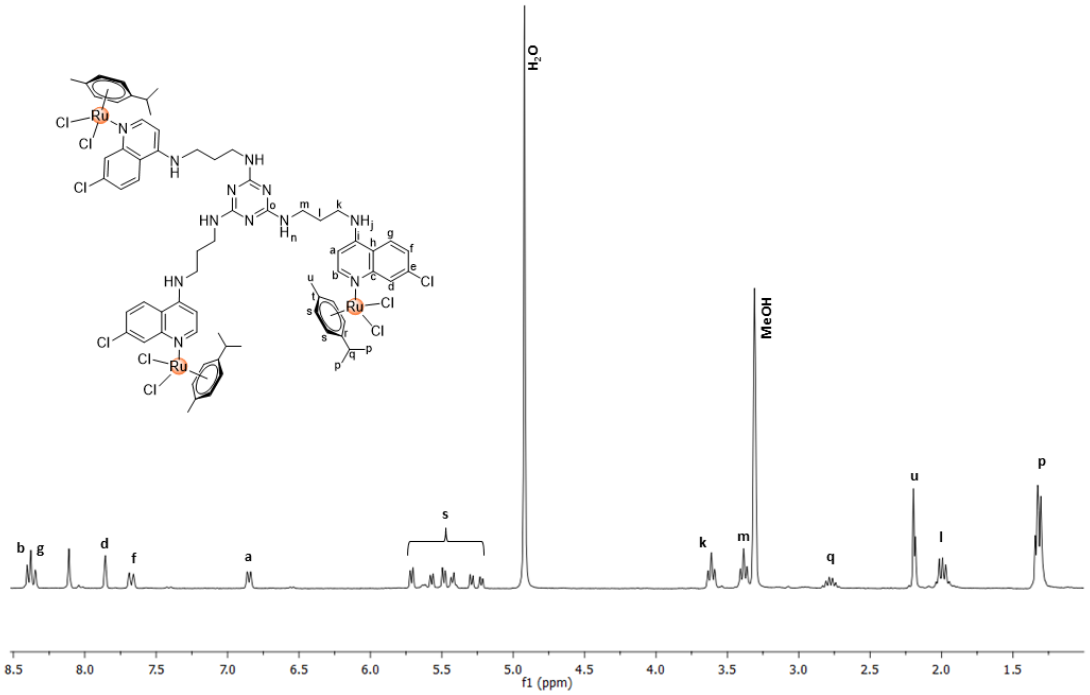


Fig. S4. ^{1}H NMR spectrum of the trinuclear Ru(II) complex (**5**) in CD_3OD.

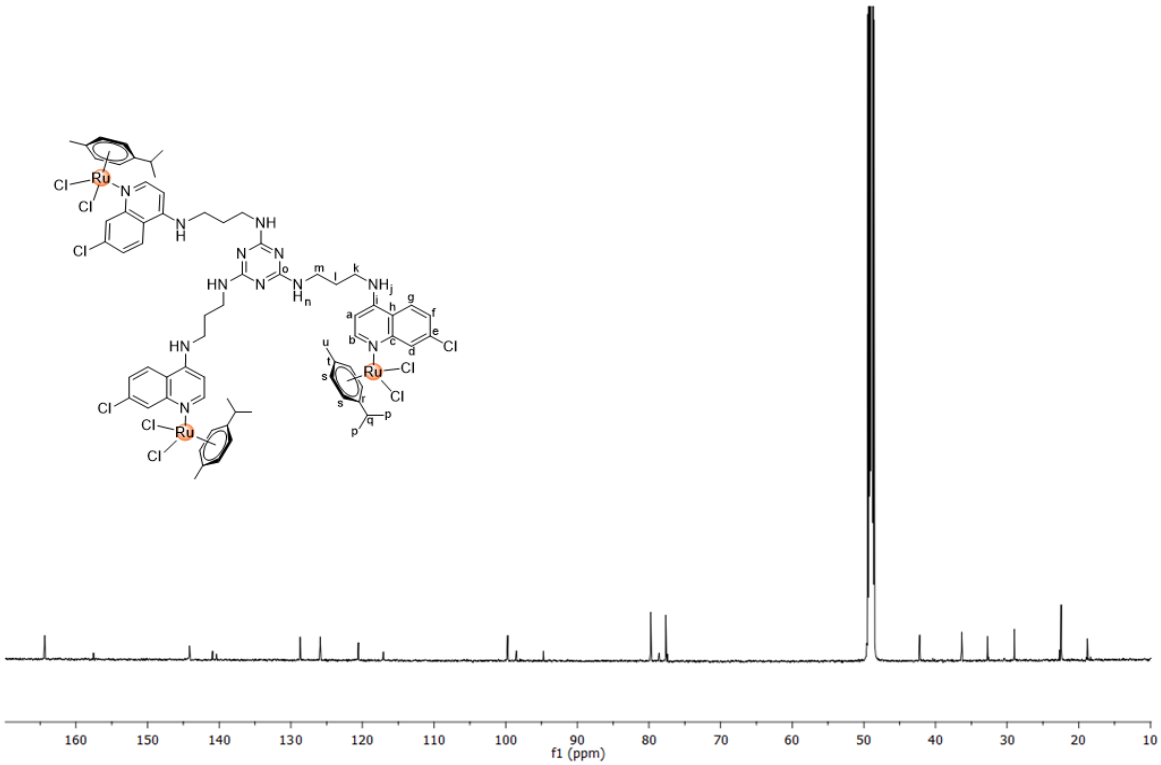


Fig. S5. Solution-state ^{13}C NMR spectrum of the trinuclear Ru(II) complex (**5**) in CD_3OD.

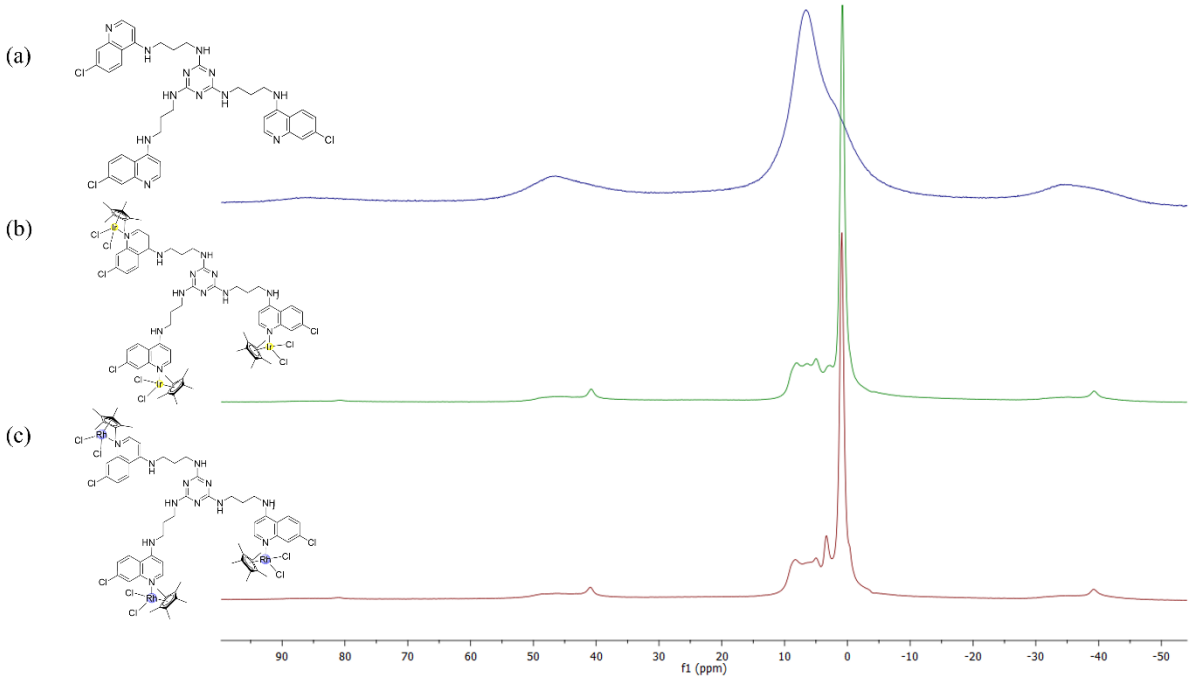


Fig. S6. Solid-state ^{1}H NMR spectra of (a) ligand **2**, (b) Ir(II) complex **3**, and (c) Rh(III) complex **4**.

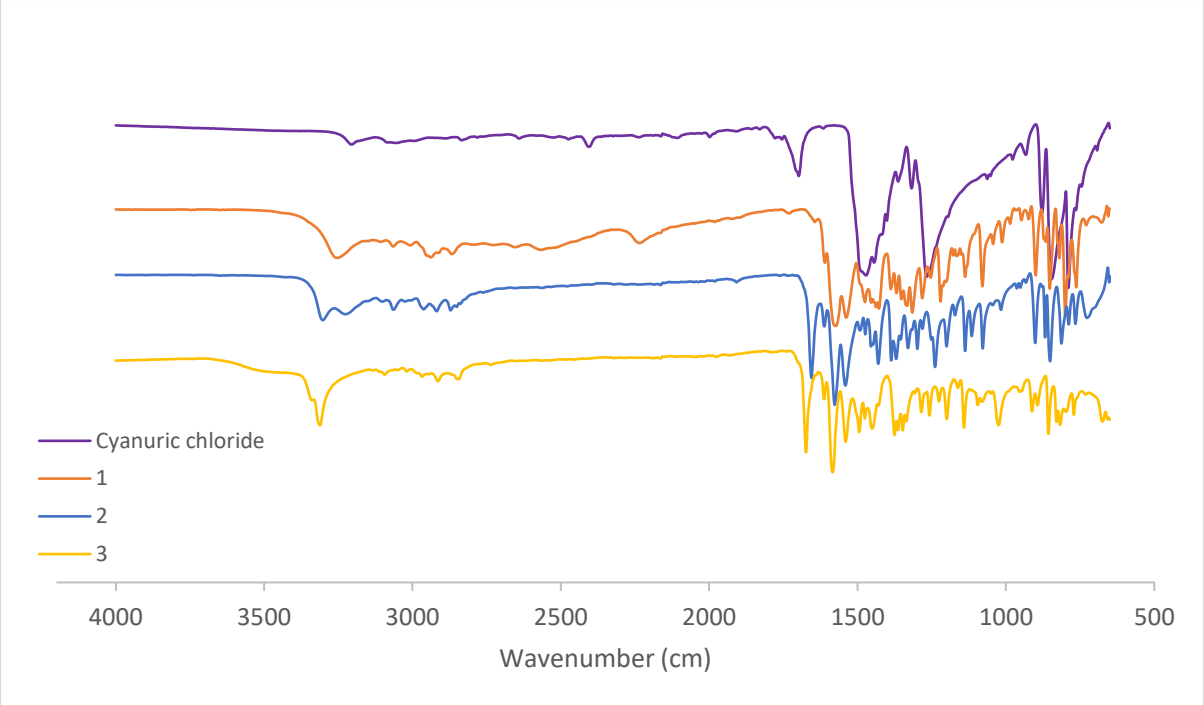


Fig. S7. Stacked IR spectra of cyanuric chloride (purple), 4-aminoquinoline precursor **1** (orange), 4-aminoquinoline-triazine ligand **2** (blue), and Ir(III) complex **3** (yellow).

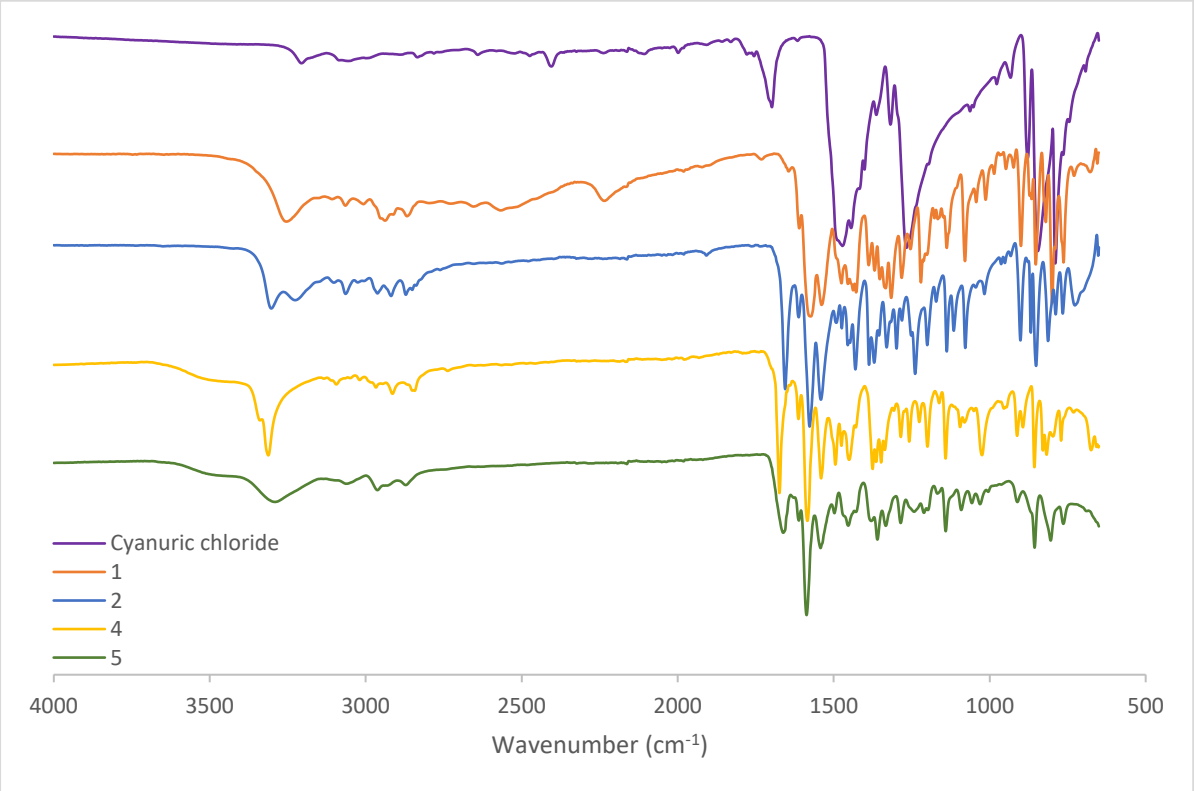
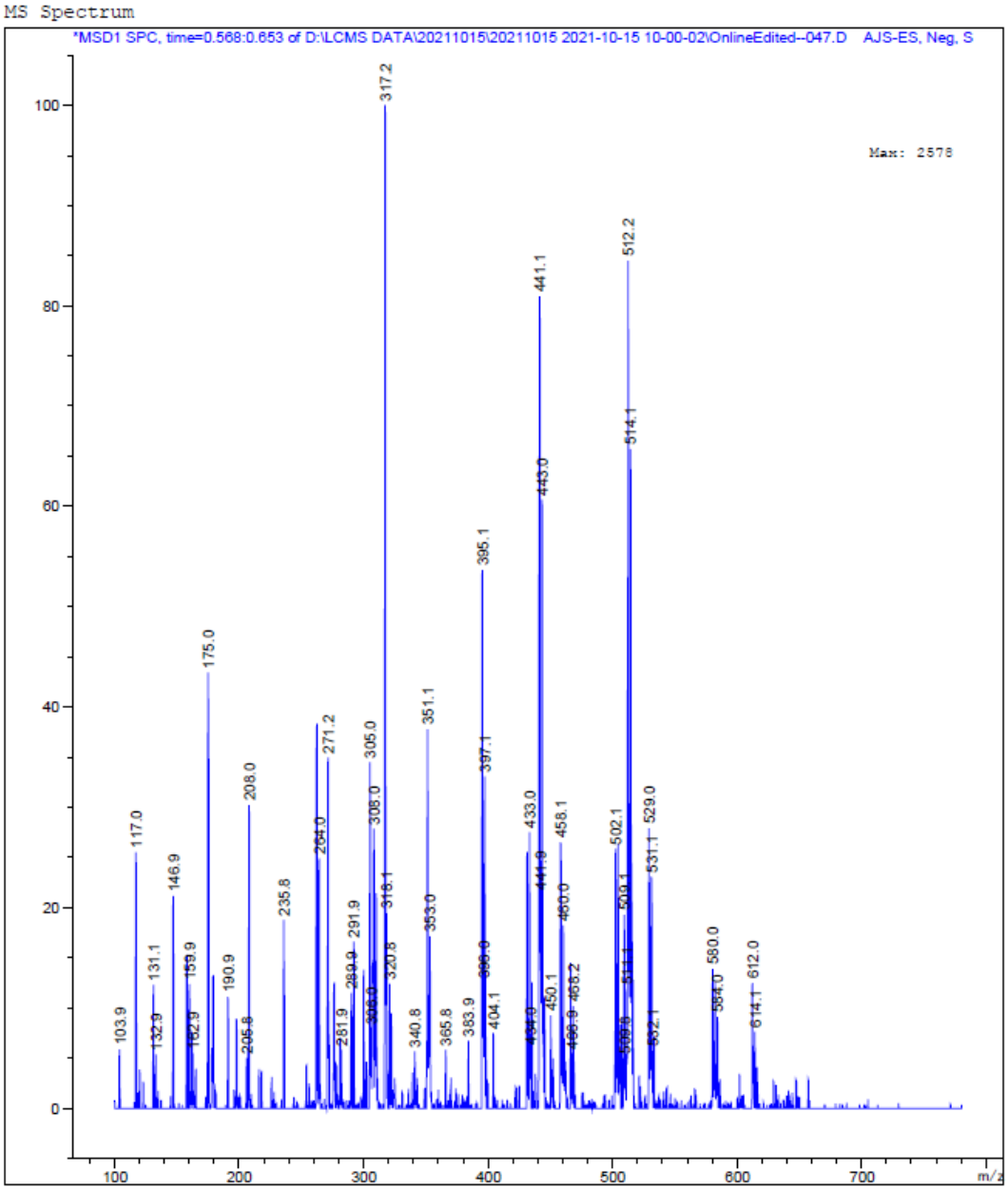


Fig. S8. Stacked IR spectra of cyanuric chloride (purple), 4-aminoquinoline precursor **1** (orange), trimeric ligand **2** (blue), trinuclear Rh(III) complex **4** (yellow), and trinuclear Ru(II) complex **5** (green).

(a)


MS Spectrum
*MSD1 SPC, time=0.568:0.653 of D:\LCMS DATA\20211015\20211015 2021-10-15 10-00-02\OnlineEdited--047.D AJS-ES, Neg, S
Max: 2578
m/z

(b)

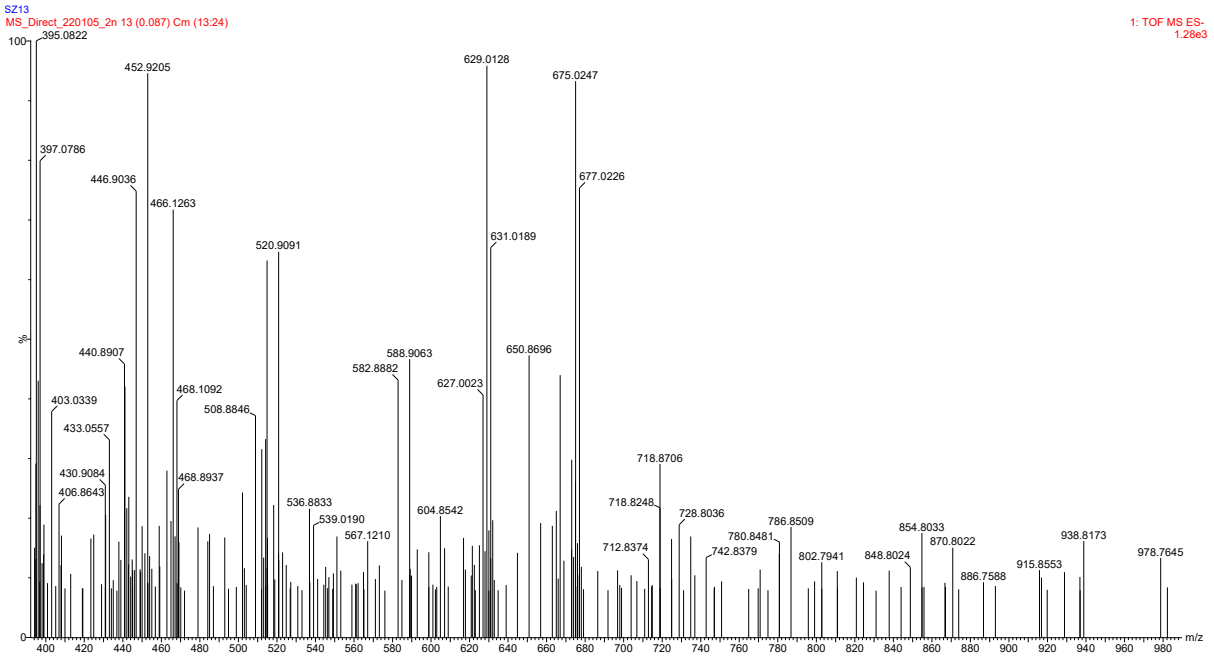


Fig. S9. Mass spectral data of the aminoquinoline-triazine ligand **2** (a) obtained by LC-MS in the negative-ion mode, (b) obtained by high resolution ESI-MS in the negative-ion mode.

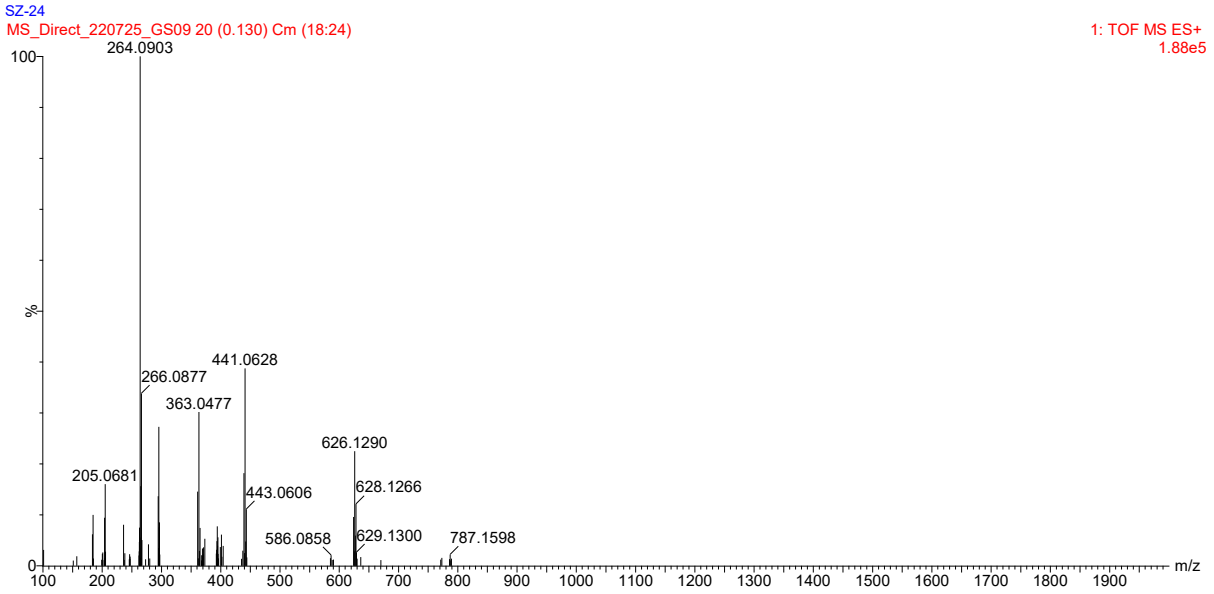


Fig. S10. Mass spectral data of trinuclear Ir(III) complex (**3**) obtained by high resolution ESI-MS in the positive-ion mode.

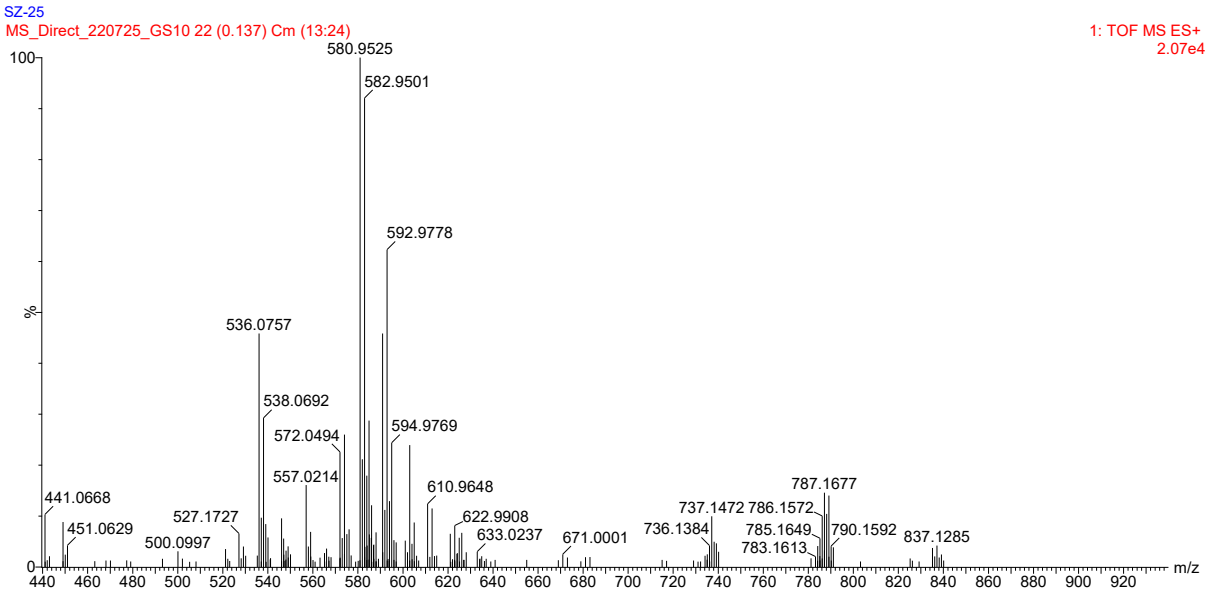


Fig. S11. Mass spectral data of trinuclear Rh(III) complex (**4**) obtained by high resolution ESI-MS in the positive-ion mode.

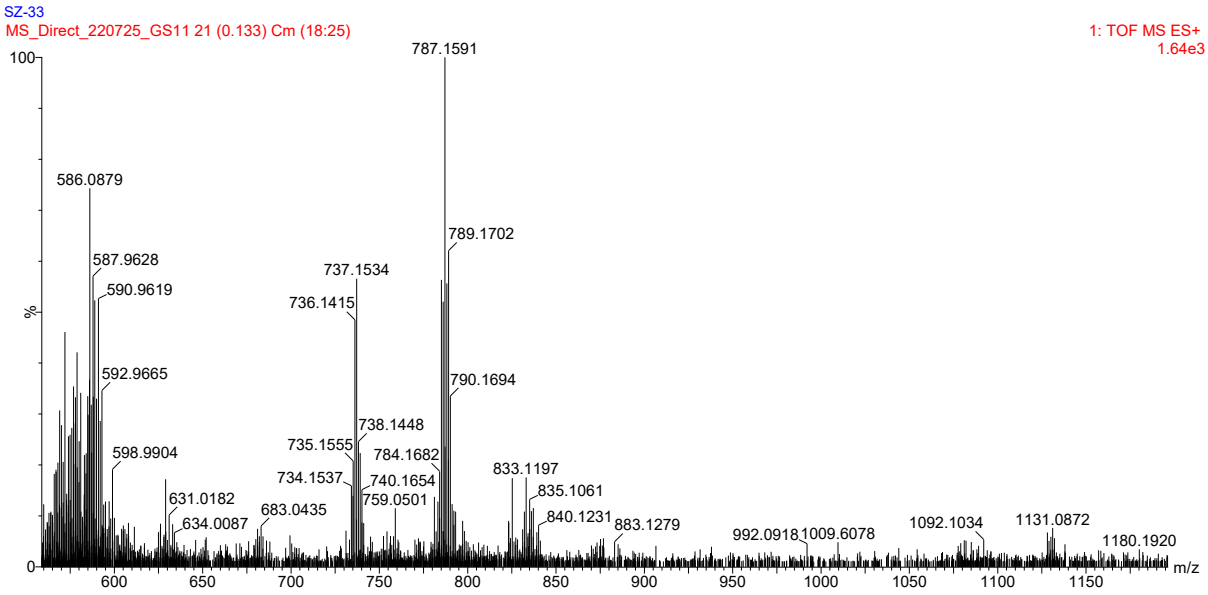


Fig. S12. Mass spectral data of trinuclear Ru(II) complex (**5**) obtained by high resolution ESI-MS in the positive-ion mode.