

Supporting Information

Synthesis Ruthenium complexes Functionalized with Benzothiophene and their Antibacterial activity against *Staphylococcus aureus*

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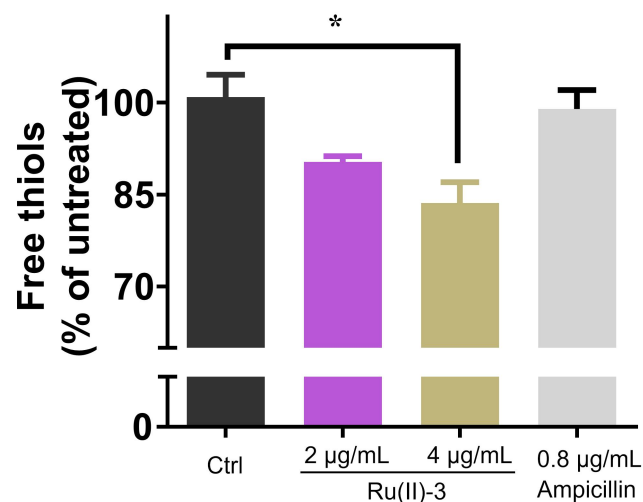


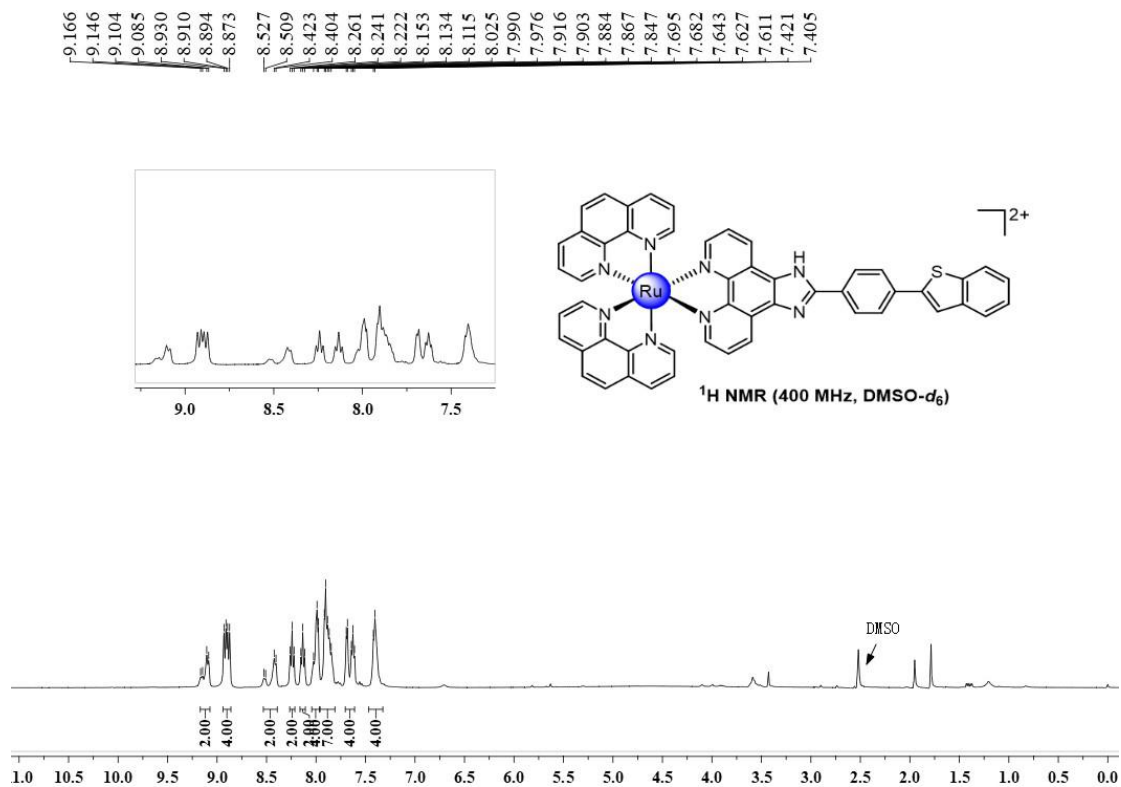
Figure S1 *S. aureus* cultures treated with indicated concentrations of **Ru(II)-3** for 30 min show a decrease in free thiol concentration relative to untreated control.

Table S1 Minimum inhibition concentration (MIC) of all the compounds against *Pseudomonas aeruginosa* bacterial strains.

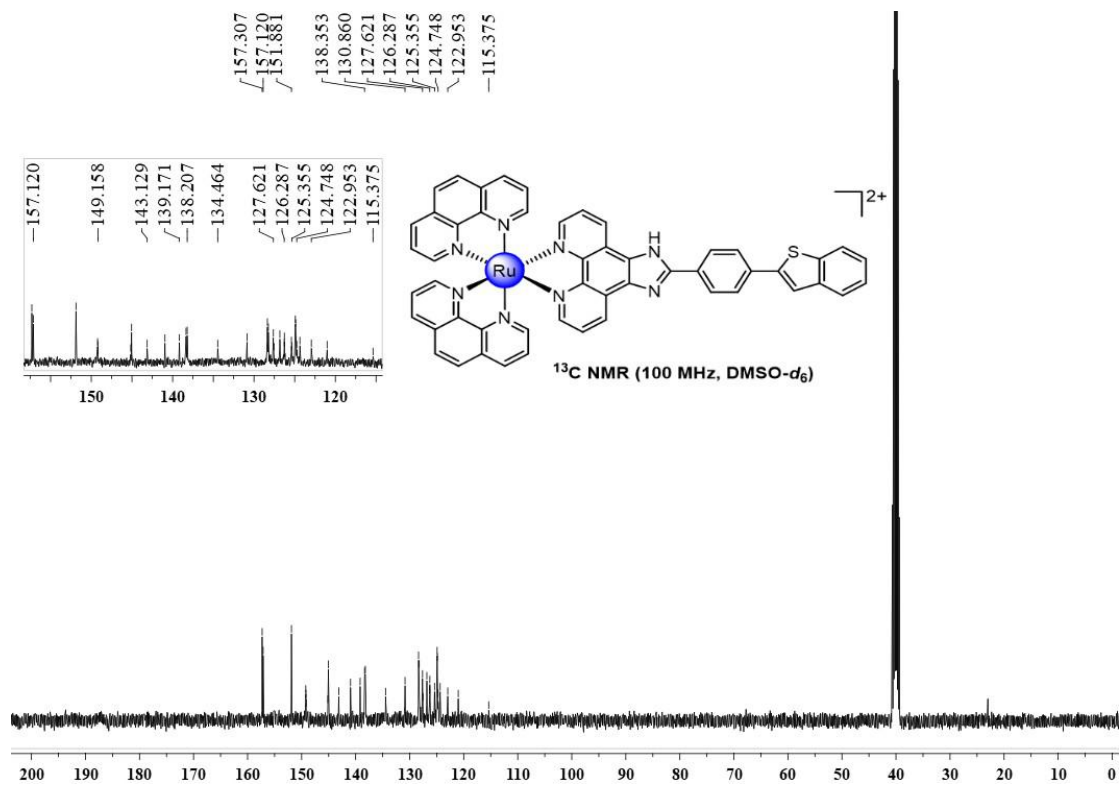
Compounds	Minimum inhibition concentration (MIC)
Ru(II)-1	0.250 mg/mL
Ru(II)-2	0.250 mg/mL
Ru(II)-3	0.150 mg/mL
RuCl₃.3H₂O	>0.250 mg/mL

Spectra of Complexes

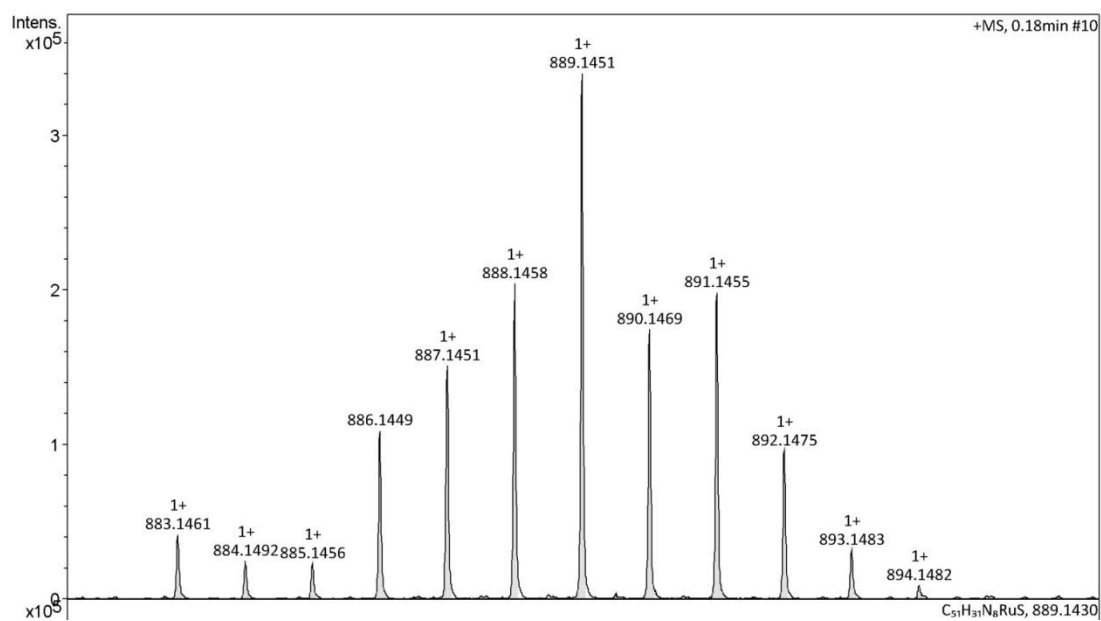
^1H NMR of $[\text{Ru}(\text{phen})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-1)



^{13}C NMR of $[\text{Ru}(\text{phen})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-1)

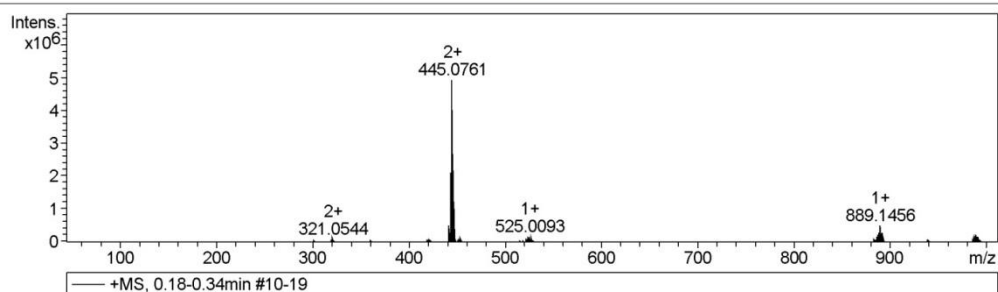


HRMS of [Ru(phen)₂(BTPIP)](ClO₄)₂ (Ru(II)-1)

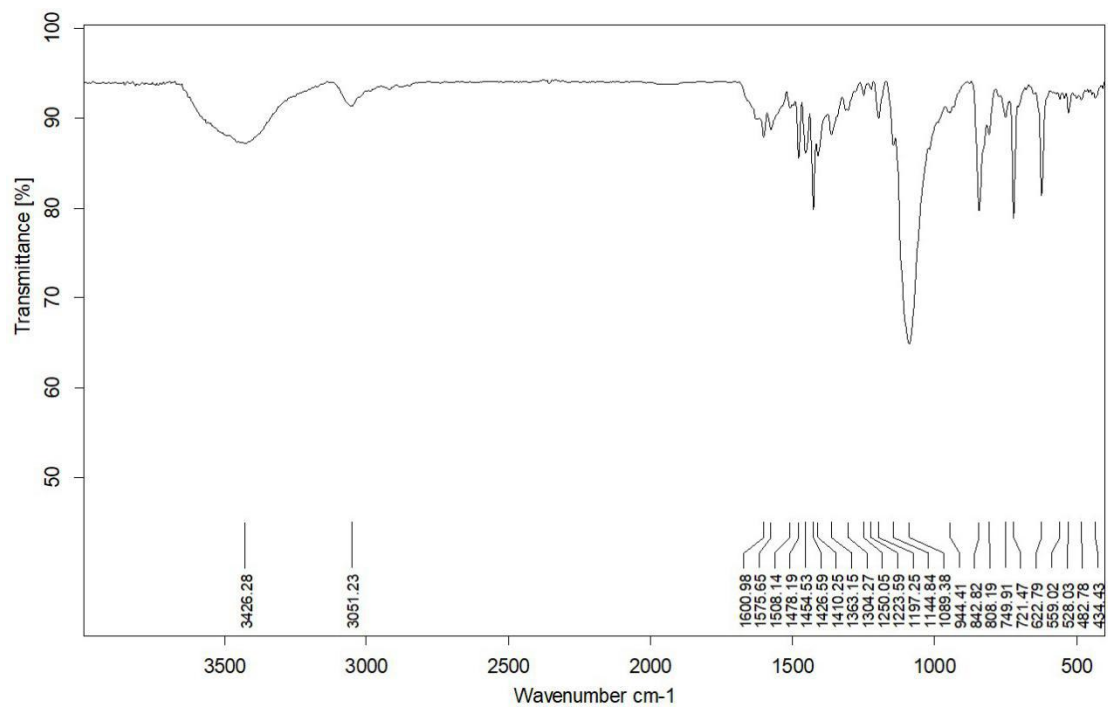


Acquisition Parameter

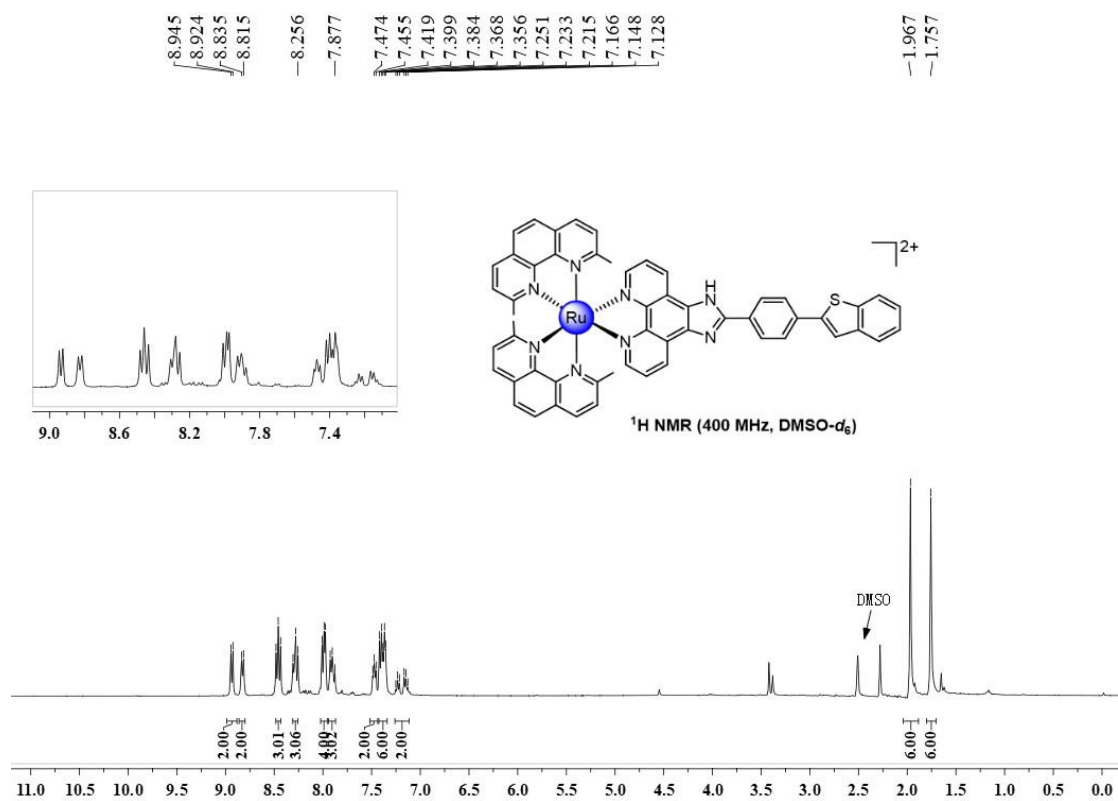
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Scan End	1000 m/z	Set Charging Voltage	0 V	Set Divert Valve	Waste
		Set Corona	0 nA	Set APCI Heater	0 °C



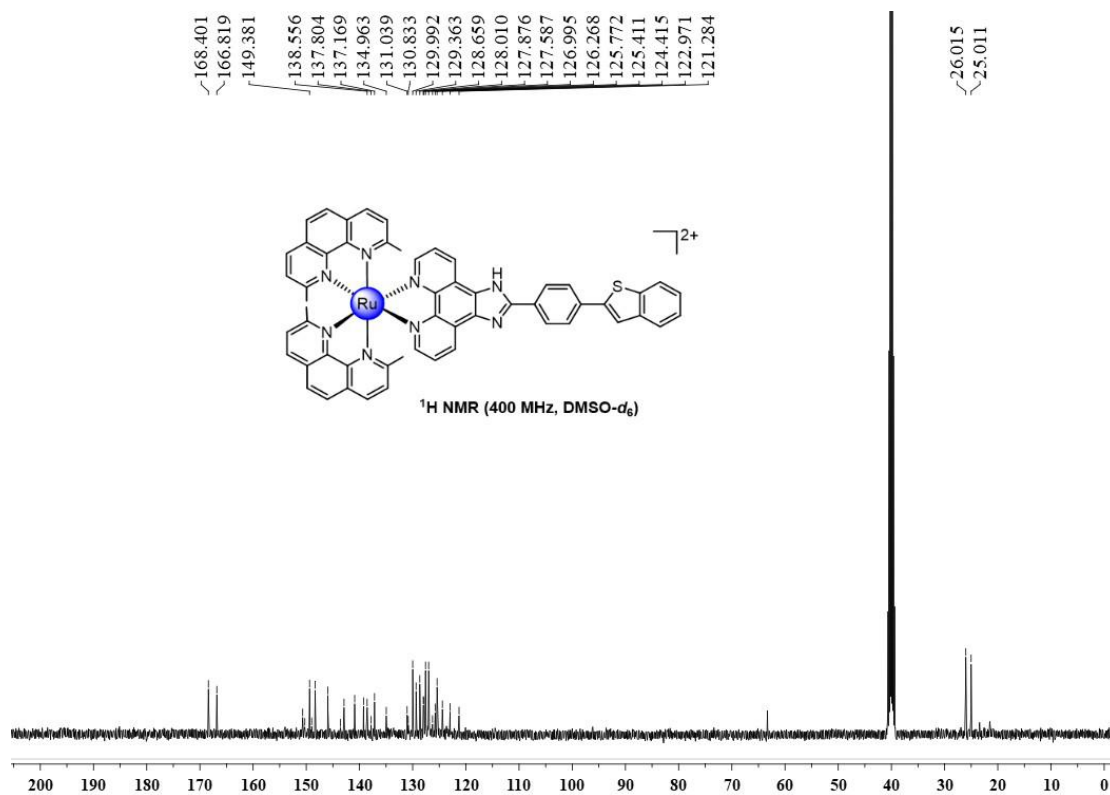
IR of [Ru(phen)₂(BTPIP)](ClO₄)₂ (Ru(II)-1)



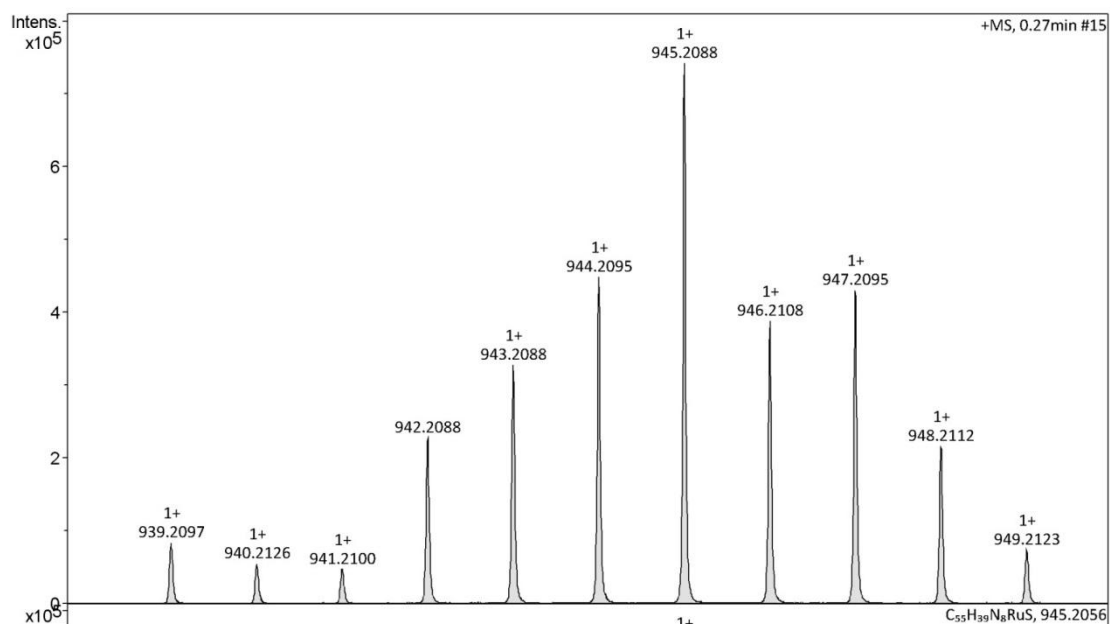
^1H NMR of $[\text{Ru}(\text{dmp})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-2)



^{13}C NMR of $[\text{Ru}(\text{dmp})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-2)

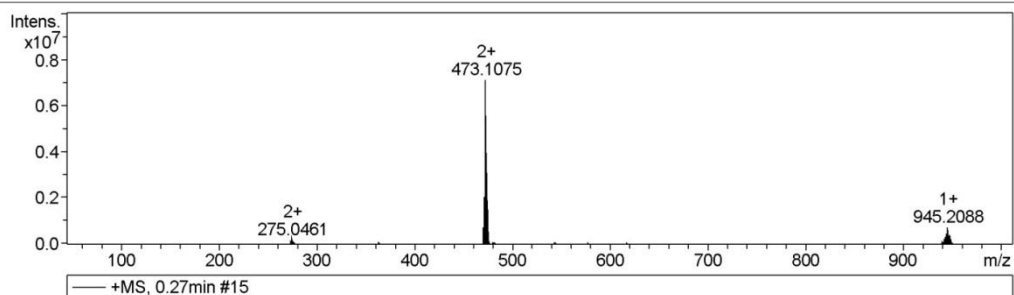


HRMS of [Ru(dmp)₂(BTPIP)](ClO₄)₂ (Ru(II)-2)

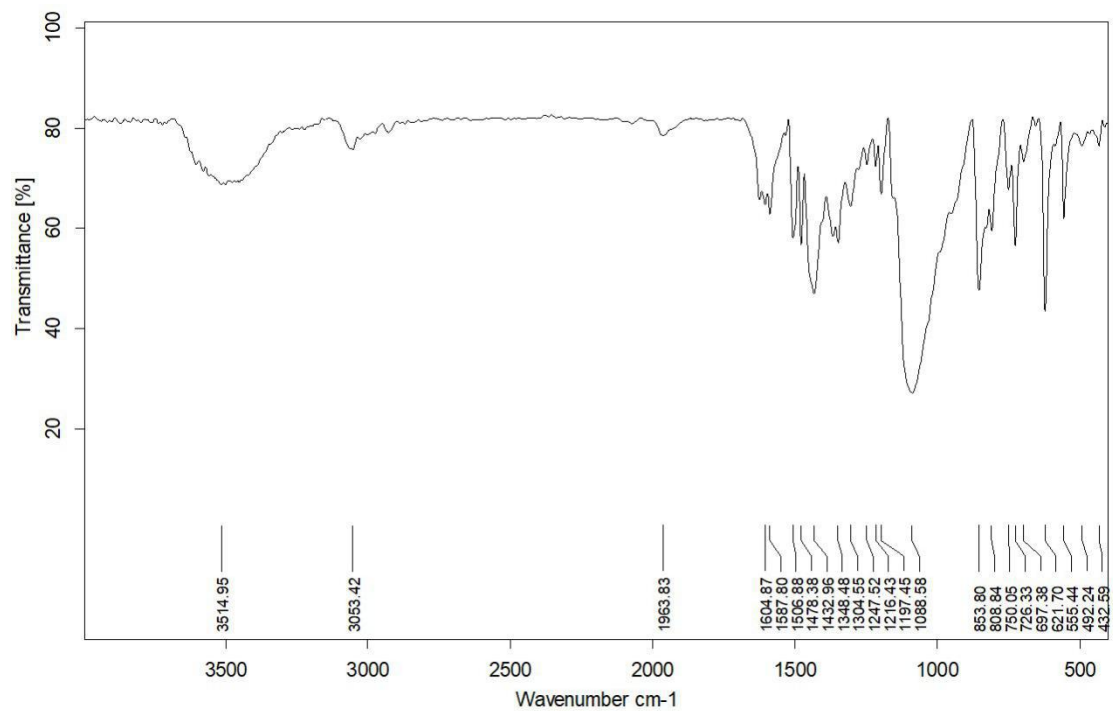


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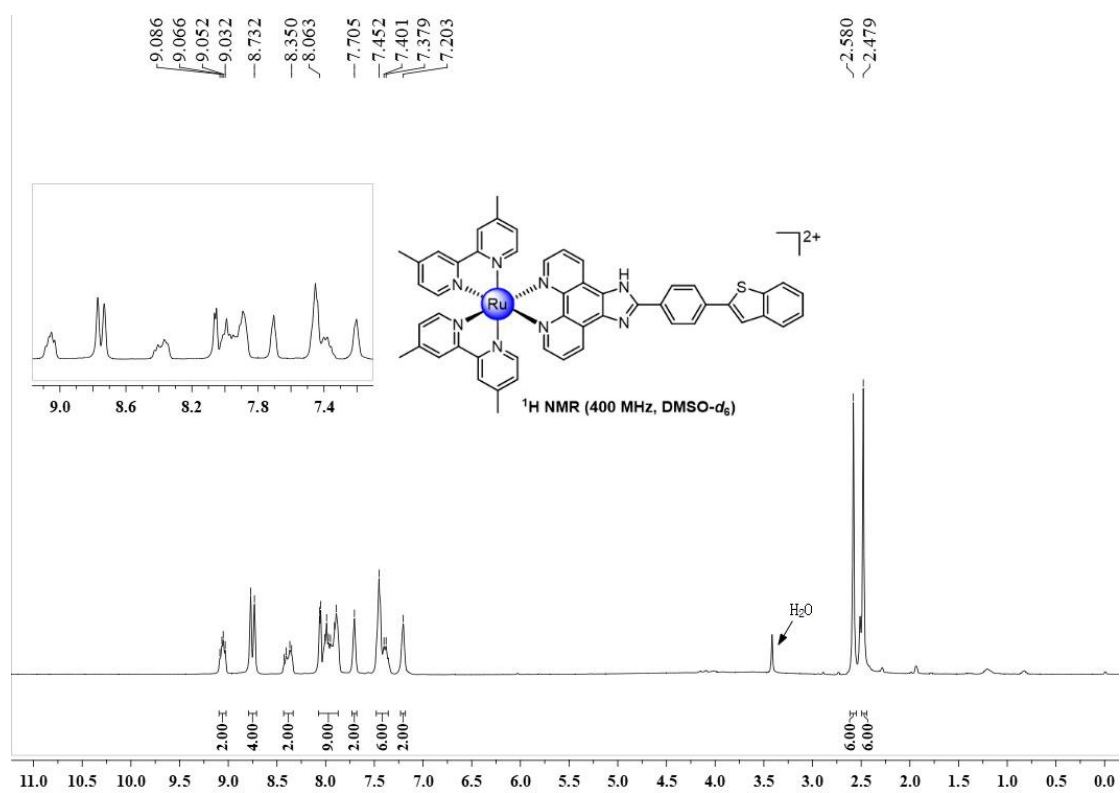
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Focus	Active	Set Capillary	3500 V	Set Dry Heater	180 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	4.0 l/min
Scan End	1000 m/z	Set Charging Voltage	0 V	Set Divert Valve	Waste
		Set Corona	0 nA	Set APCI Heater	0 °C



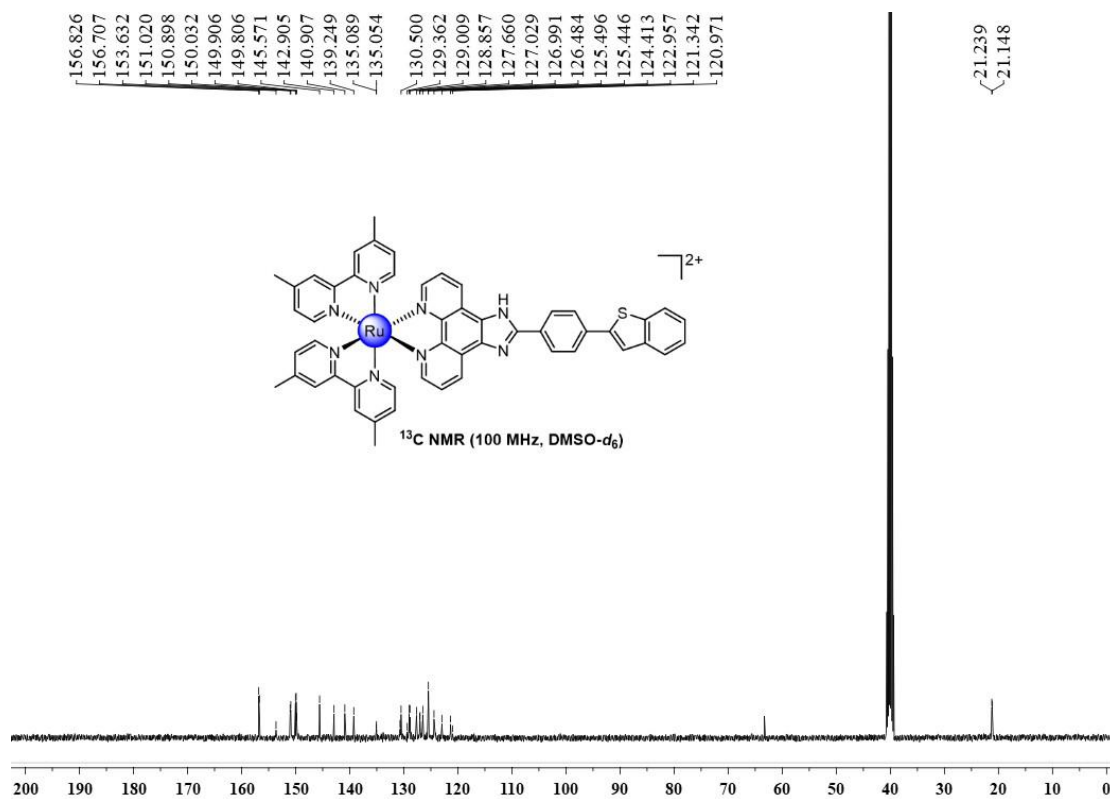
IR of [Ru(dmp)₂(BTPIP)](ClO₄)₂ (Ru(II)-2)



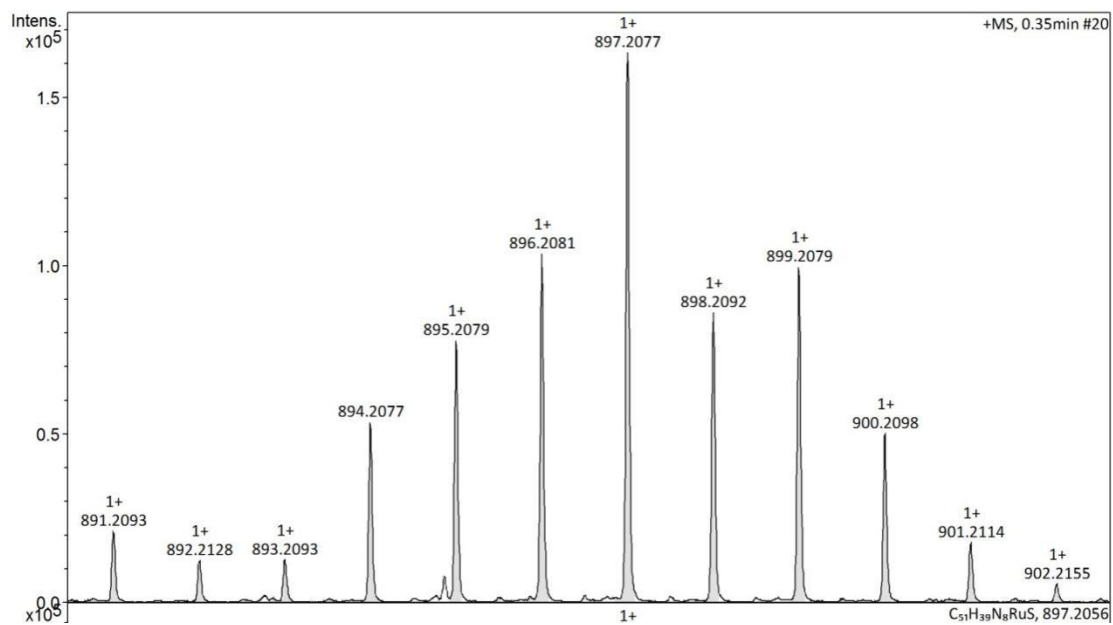
^1H NMR of $[\text{Ru}(\text{dmb})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-3)



^{13}C NMR of $[\text{Ru}(\text{dmb})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-3)

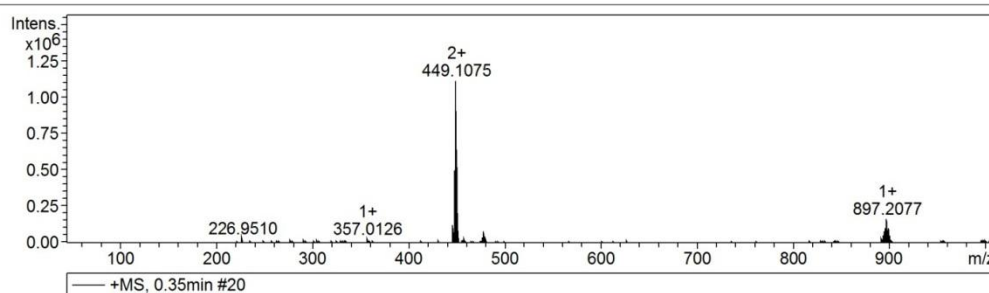


HRMS of $[\text{Ru}(\text{dmb})_2(\text{BTPIP})](\text{ClO}_4)_2$ (Ru(II)-3)



Acquisition Parameter

Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	0.6 Bar
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IR of [Ru(dmb)₂(BTPIP)](ClO₄)₂ (Ru(II)-3)

