

SUPPLEMENTARY MATERIALS FOR THE COMPOUNDS

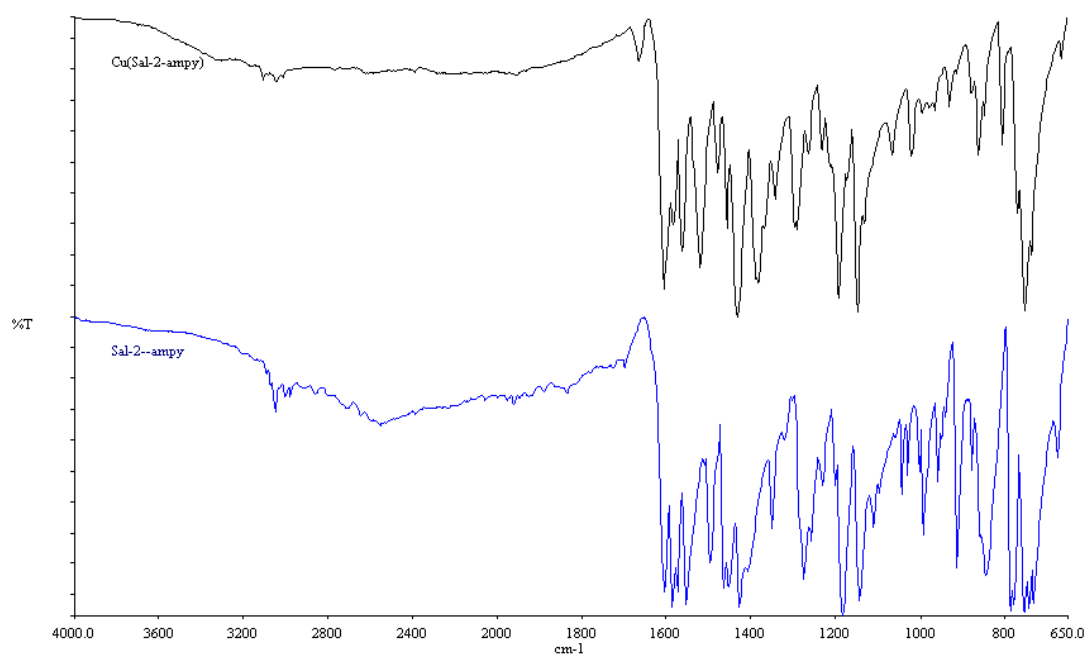


Figure 1: Mid-infrared spectra for ligand L¹ and Cu(L¹)₂Cl₂.

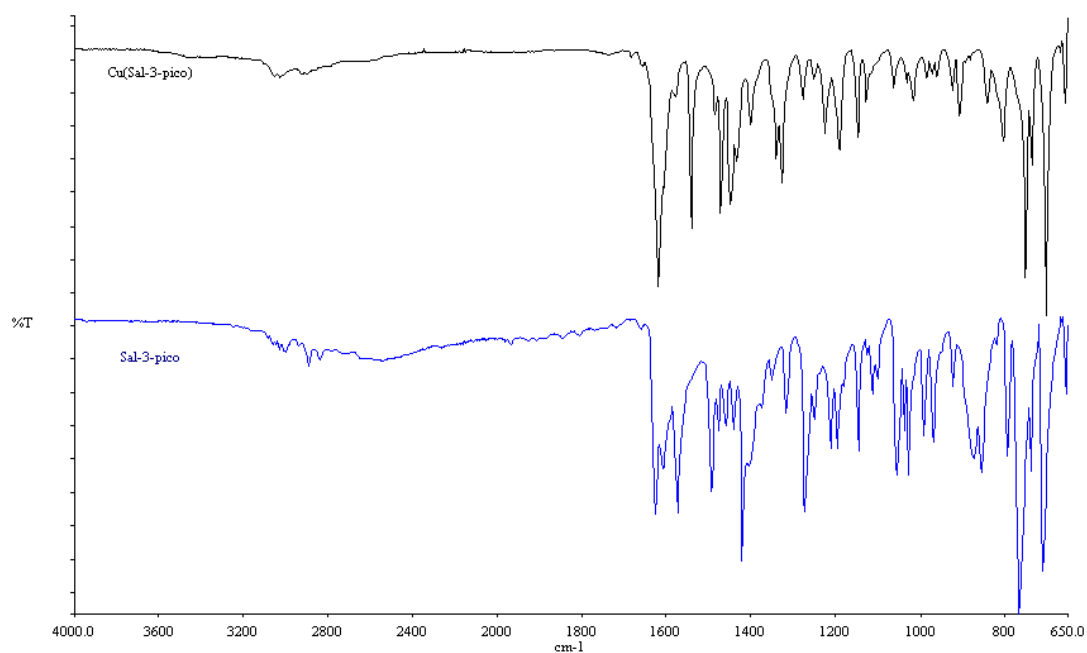


Figure 2: Mid-infrared spectra for ligand L^2 and $Cu(L^2)_2Cl_2 \cdot 7H_2O$

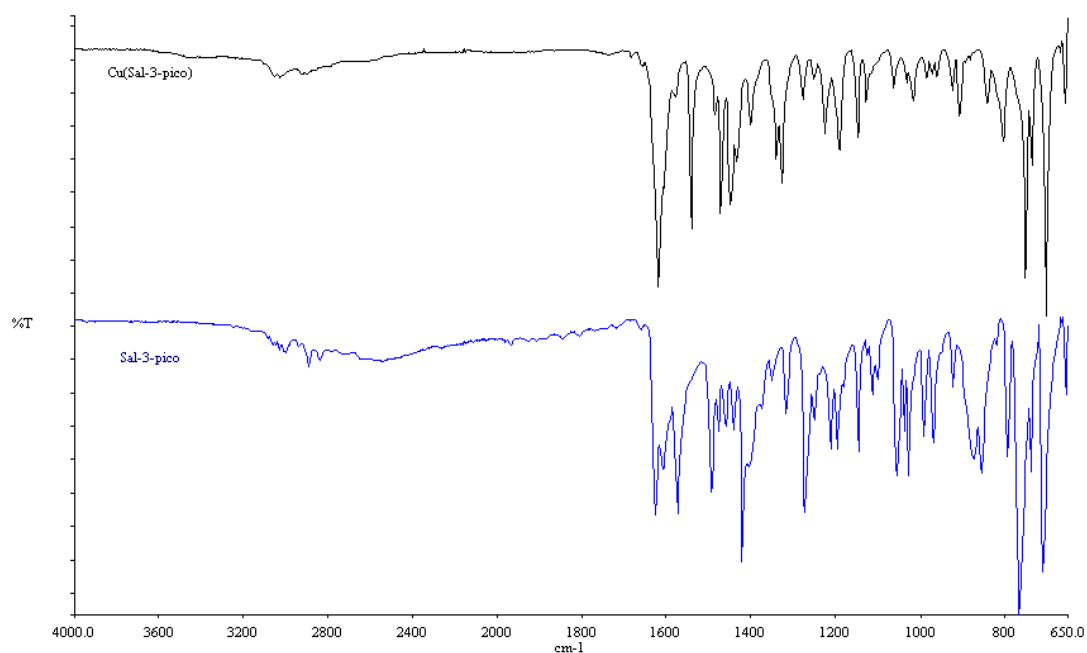
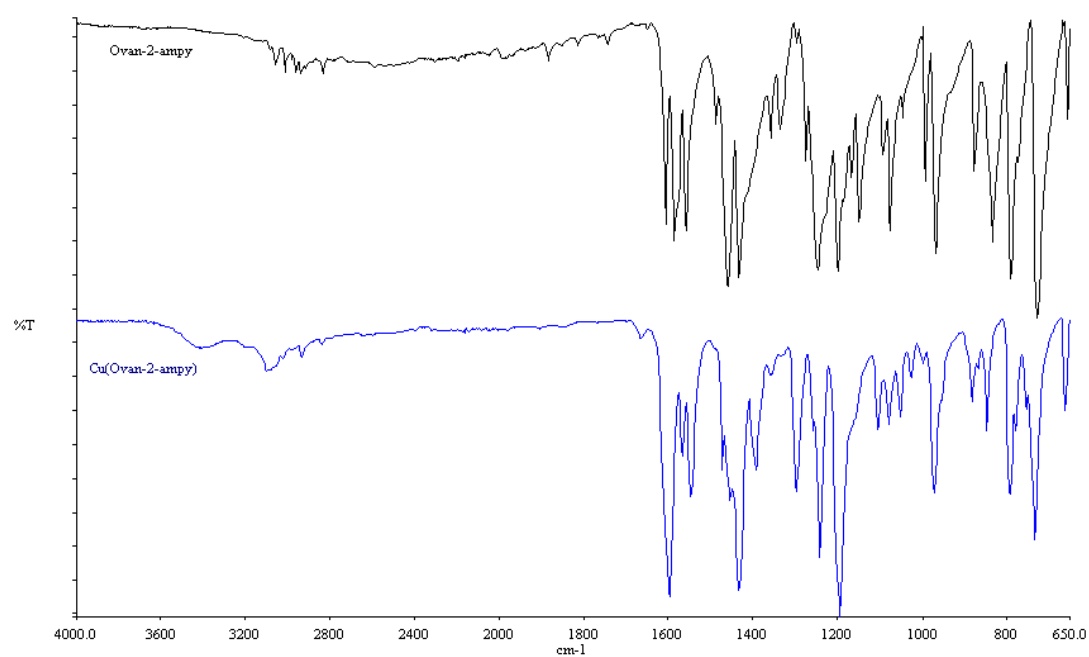


Figure 3: Mid-infrared spectra for ligand L^3 and $Cu(L^3)_2Cl_2 \cdot 7H_2O$

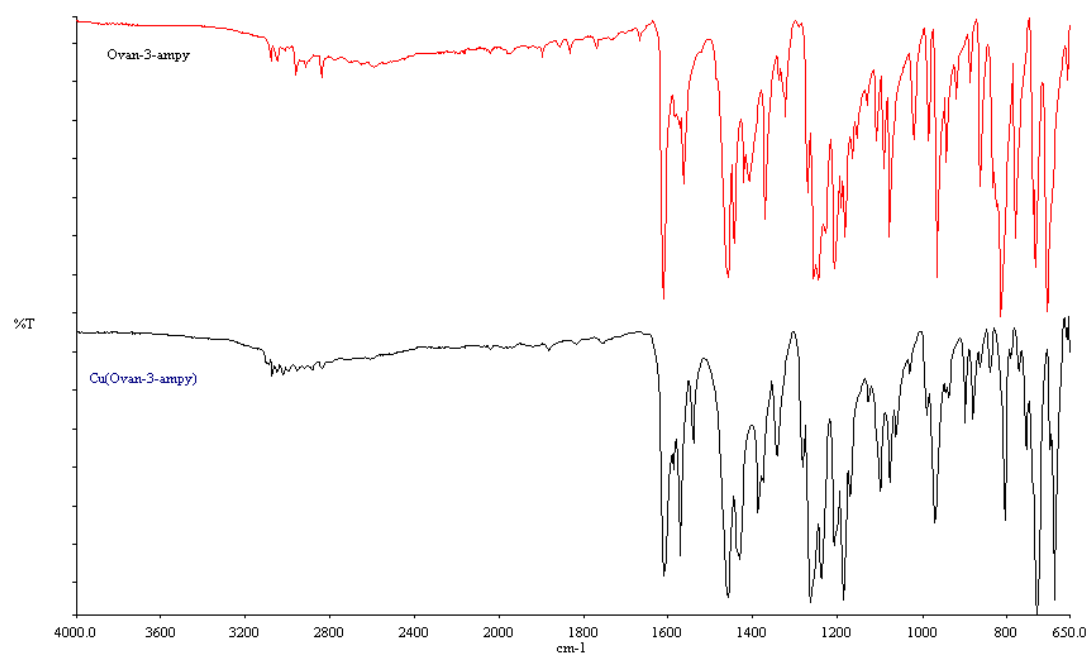
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Figure 4: Mid-infrared spectra for ligand L^4 and $Cu(L^4)Cl_2 \cdot H_2O$



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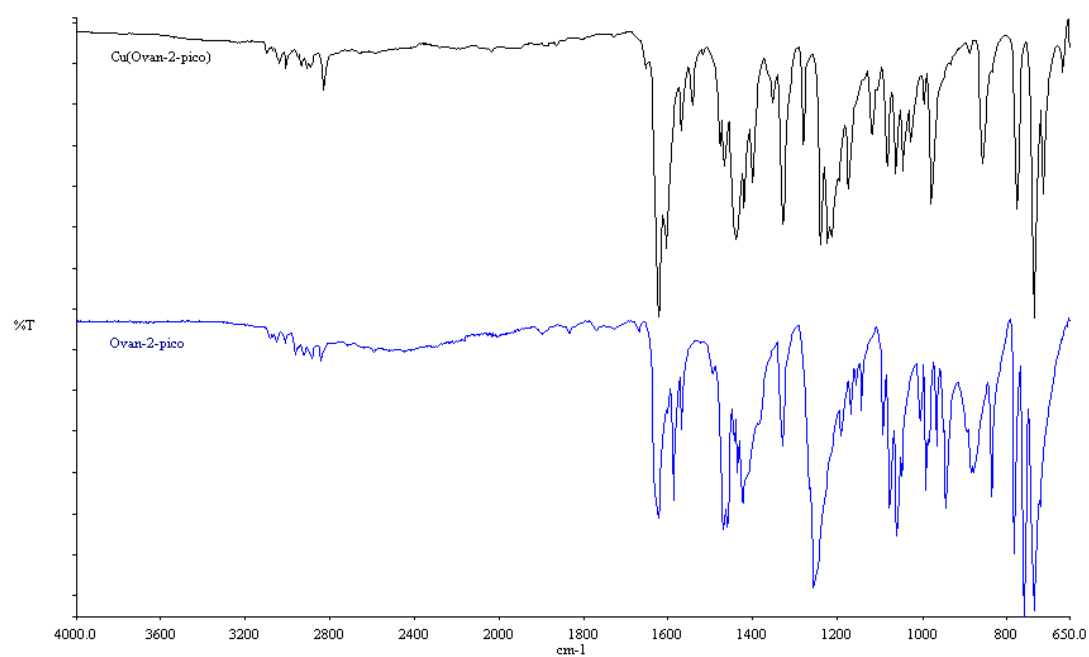
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Figure 5: Mid-infrared spectra for Liagnd L^5 and $Cu(L^5)_2Cl_2 \cdot H_2O$

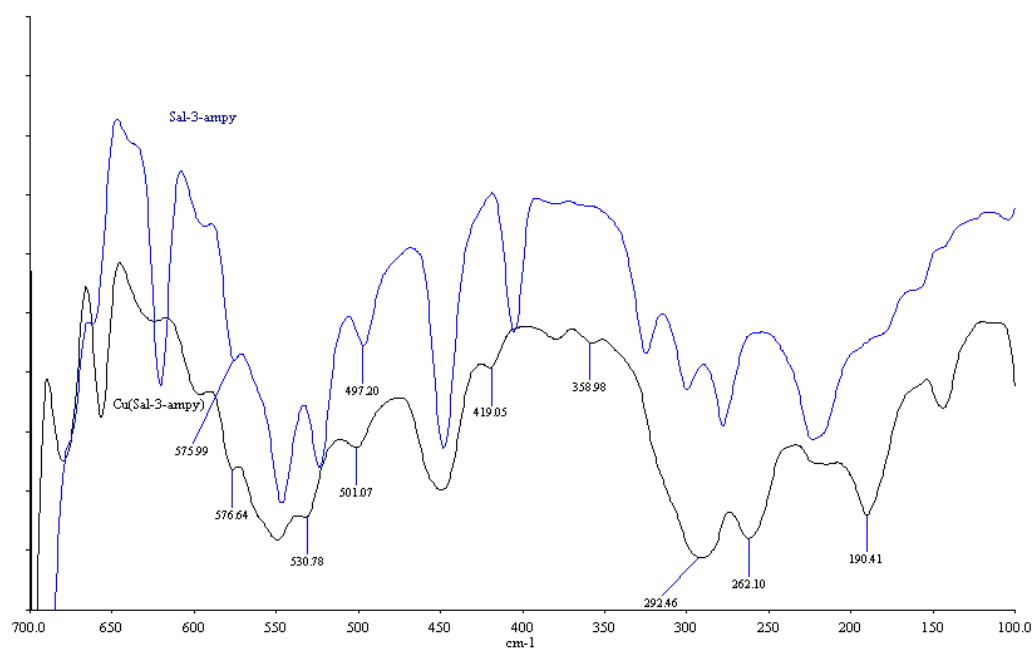
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24 **Figure 6: Mid-infrared spectra for ligand L⁶ and [Cu(L⁶Cl)]**

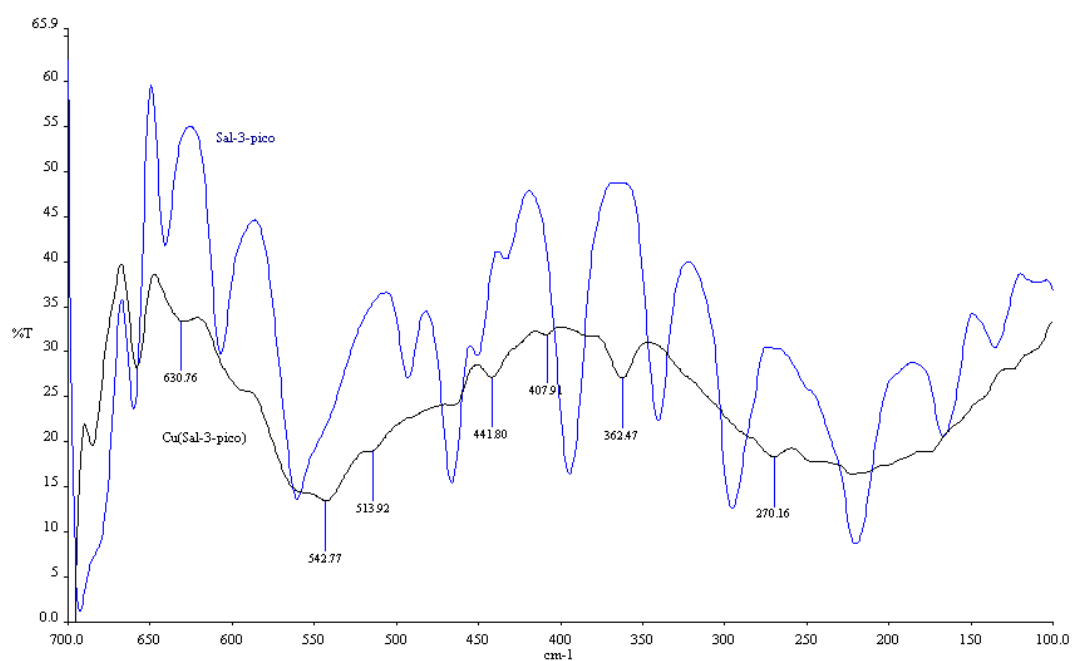
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26 **Figure 7: Far-infrared spectra for ligand L² and Cu(L²)₂Cl₂ · 2H₂O**

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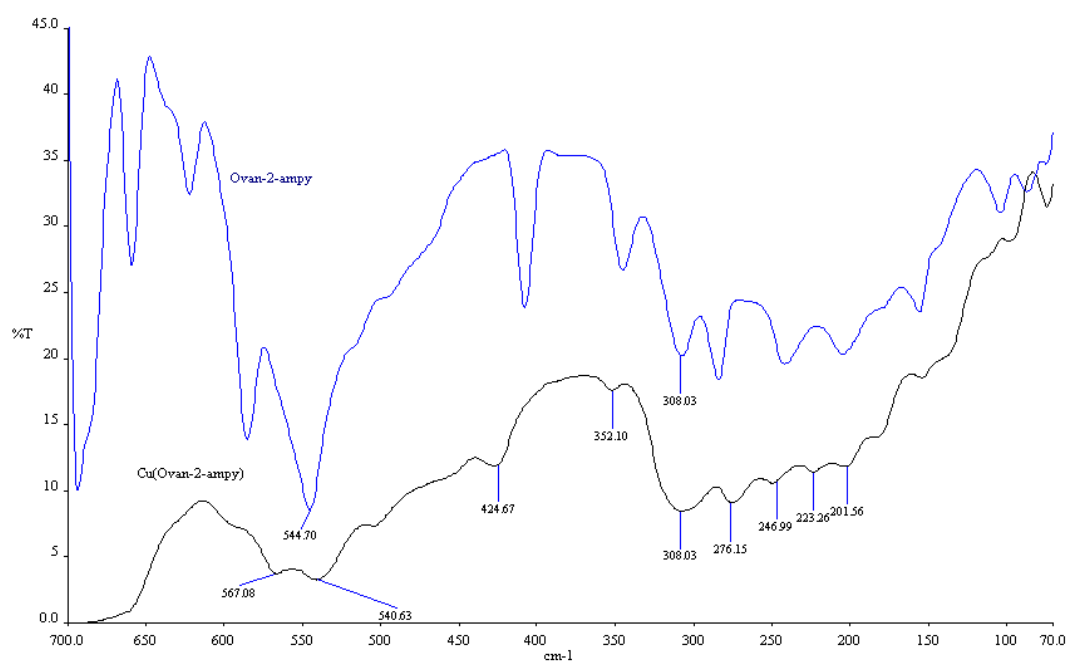
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Figure 8: Far-infrared spectra for ligand L^3 and $\text{Cu}(L^3)_2\text{Cl}_2 \cdot \frac{1}{2}\text{H}_2\text{O}$



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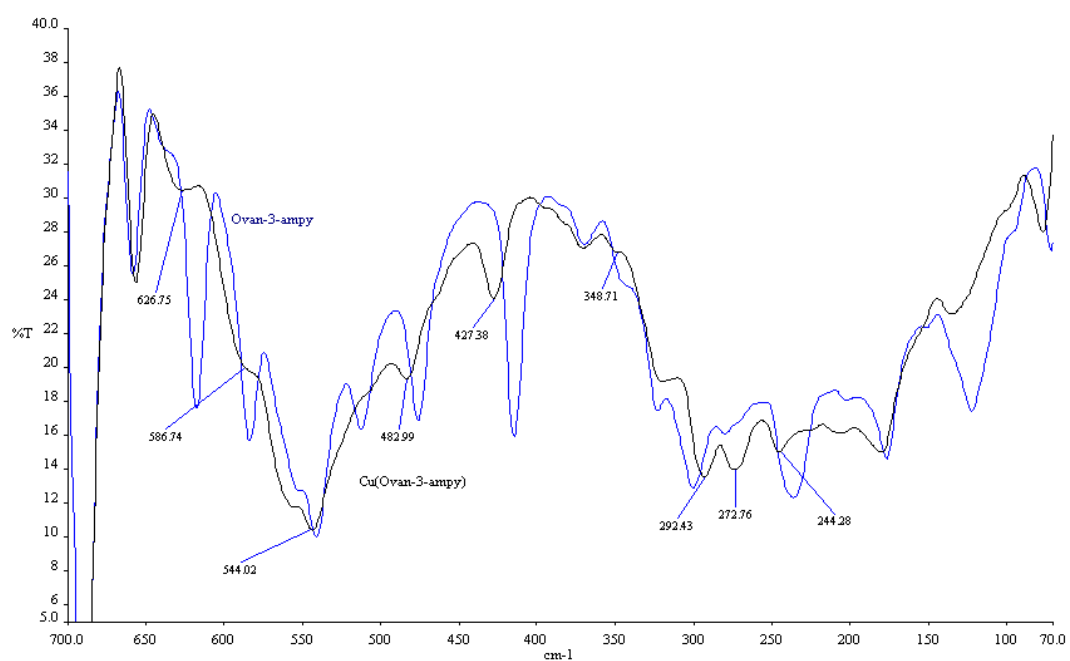
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Figure 9: Far-infrared spectra for ligand L^4 and $\text{Cu}(L^4)\text{Cl}_2 \cdot \text{H}_2\text{O}$

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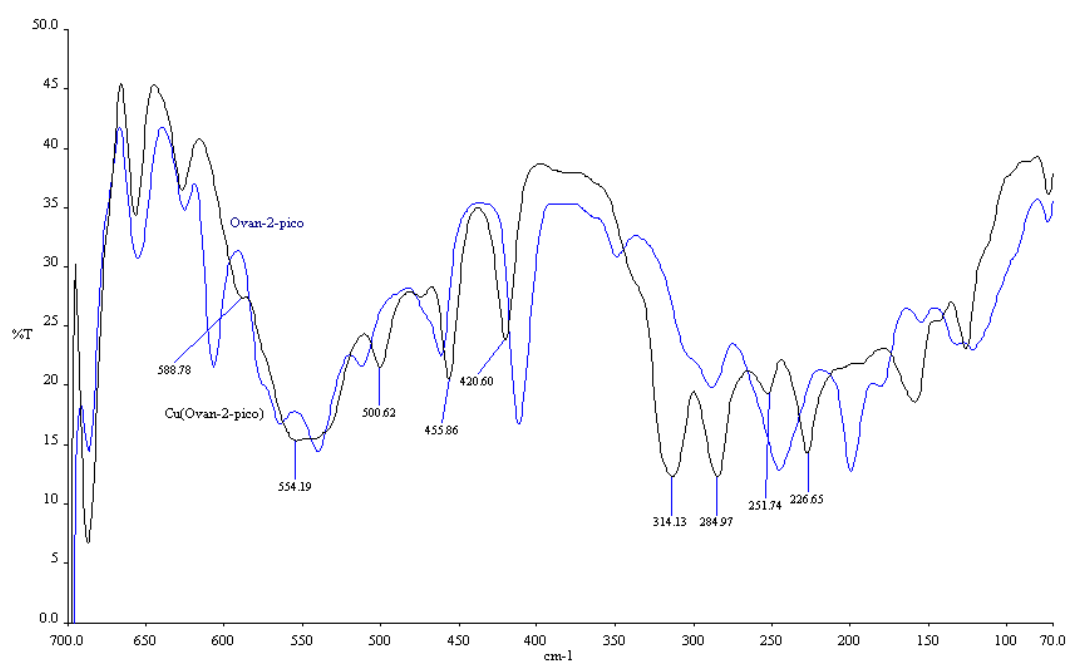
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Figure 10: Far-infrared spectra for ligand L^5 and $Cu(L^5)_2Cl_2 \cdot H_2O$



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Figure 11: Far infrared spectra for ligand L^6 and $[Cu(L^6Cl)]$

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43 **Table 1: Antimicrobial activity of the Schiff base ligands and their Cu(II) complexes.**

Compound	Diameter of zone of inhibition (mm)			
	E. coli	B. subtilis	S. aureus	C. albicans
L ¹	-*	-	-	-
CuL ¹ Cl	-	12	-	-
L ²	-	-	-	-
Cu(L ₂) ₂ Cl ₂ .H ₂ O	-	11	-	-
L ³	11	09	09	-
Cu(L ³) ₂ Cl ₂ .H ₂ O	-	14	-	12
L ⁴	13	14	16	36
CuL ⁴ Cl(H ₂ O)Cl	08	15	14	09
L ⁵	16	12	17	36
Cu(L ⁵) ₂ Cl ₂ .H ₂ O	13	16	15	31
L ⁶	16	12	17	36
[CuL ⁶ Cl]	13	16	15	31
Ampicillin 10 µg/ml	52	38	28	
Ketoconazole				20
DMF (Control)	-	-	-	-

44 -*: No inhibition

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