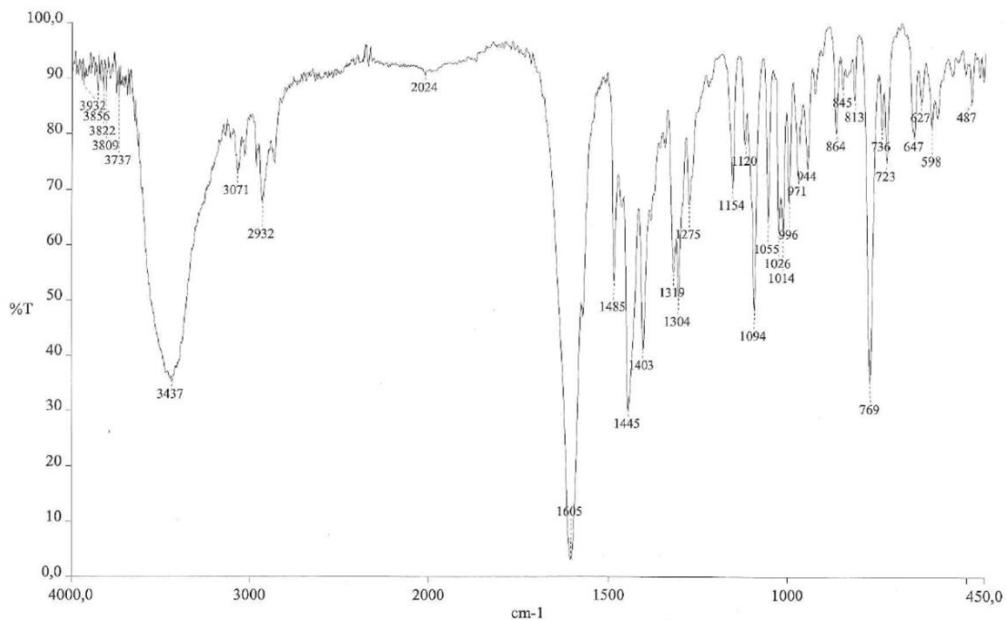
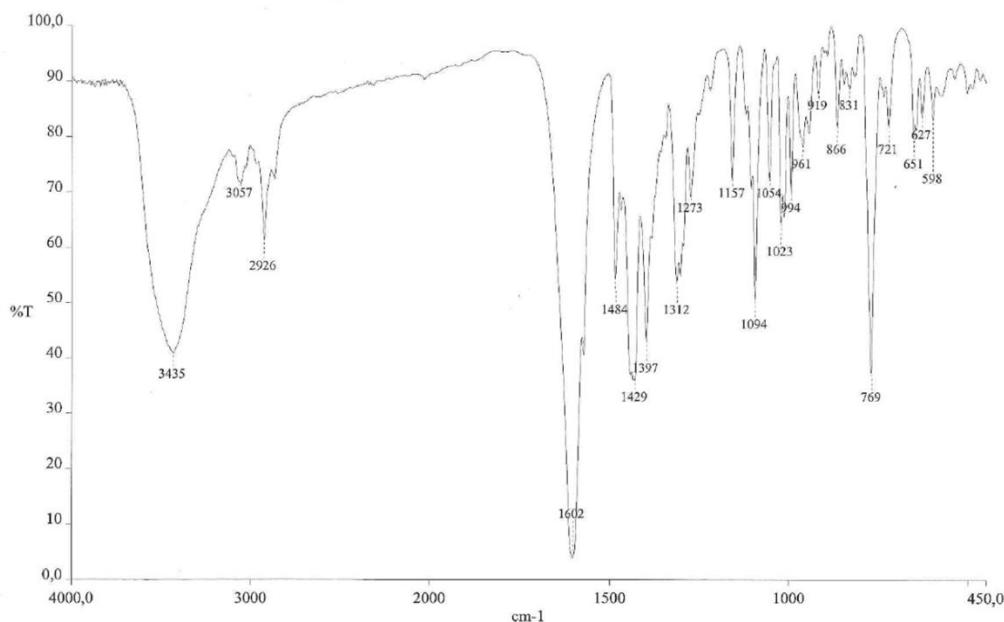


## Supporting information

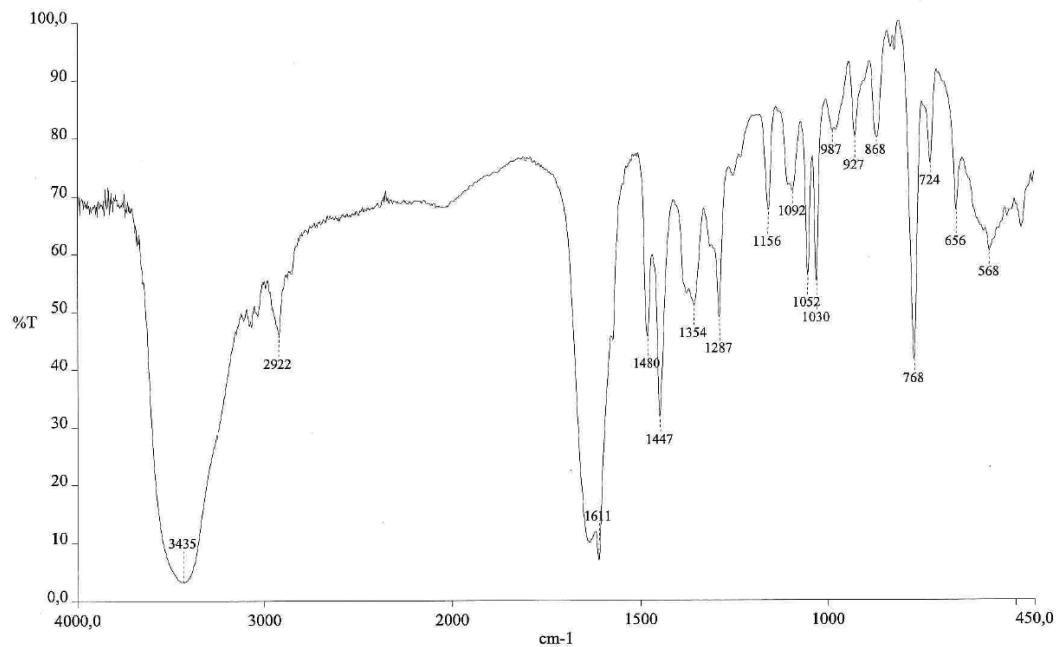
### S1. FTIR spectra



**Figure S1** IR spectrum of  $\text{Zn}_2(\text{tpen})\text{Cl}_3$  (I)



**Figure S2** IR spectrum of  $\text{Zn}_2(\text{tpen})\text{Br}_3$  (II)



**Figure S3** IR spectrum of  $[\text{Cu}_2(\text{tpena})\text{Br}_3][\text{Cu}_2(\text{tpena})\text{Br}_3(\text{H}_2\text{O})]\cdot 6\frac{1}{2}\text{H}_2\text{O}$  (III)