

**Supporting Information**  
**COORDINATION POLYMERS CONSTRUCTED FROM BINUCLEAR COPPER(II)**  
**CARBOHYDRAZONE NODES AND BIS(4-PYRIDYL) SPACERS**

Natalia TALMACI,<sup>a</sup> Teodora MOCANU,<sup>b</sup> Sergiu SHOVA,<sup>c</sup> Mihai RĂDUCĂ,<sup>d,e</sup>  
Diana DRAGANCEA,<sup>d,\*</sup> and Marius ANDRUH<sup>d,e</sup>

<sup>a</sup> Institute of Chemistry, Academiei 3 Str., MD Chisinau, Republic of Moldova

<sup>b</sup> Ilie Murgulescu Institute of Physical Chemistry, 202 Splaiul Independentei, 060021 Bucharest,  
Romania

<sup>c</sup> “Petru Poni” Institute of Macromolecular Chemistry of the Romanian Academy, Aleea Grigore  
Ghica Vodă 41-A,  
RO-700487 Iasi, Romania

<sup>d</sup> “C. D. Nenitzescu” Institute of Organic and Supramolecular Chemistry of the Romanian Academy,  
Splaiul Independentei 202B, Bucharest, Romania

<sup>e</sup> Faculty of Chemistry, University of Bucharest, 4–12 Regina Elisabeta Blvd., 030018 Bucharest,  
Romania

\*Corresponding author [ddragancea@gmail.com](mailto:ddragancea@gmail.com) (D.D.)

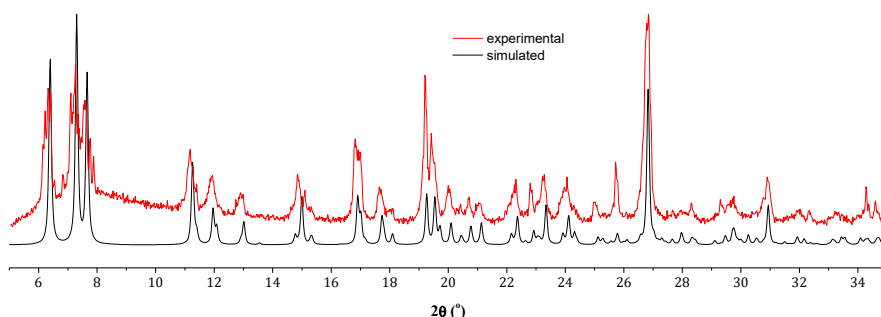


Figure S1. Simulated (black) and experimental (red) powder X-ray diffractograms for compound 1

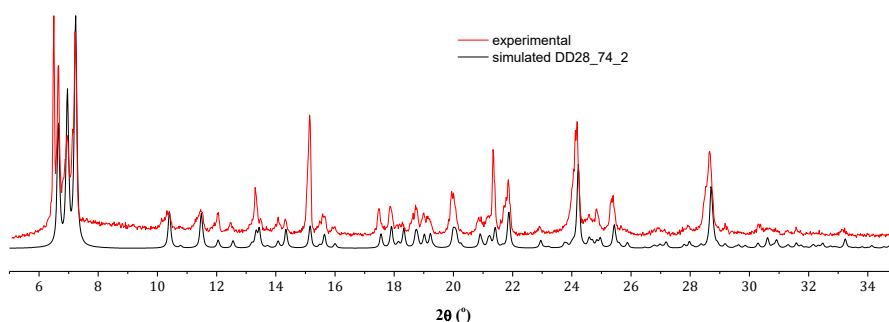


Figure S2. Simulated (black) and experimental (red) powder X-ray diffractograms for compound 2

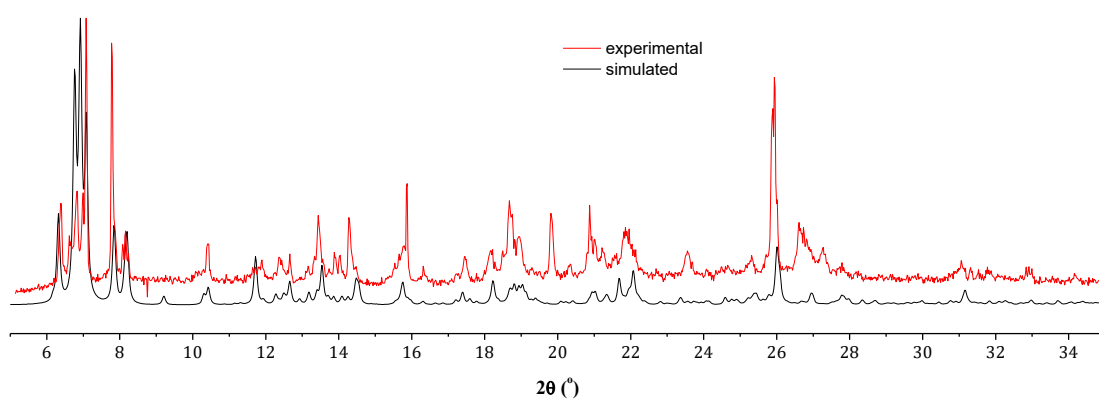


Figure S3. Simulated (black) and experimental (red) powder X-ray diffractograms for compound **3**

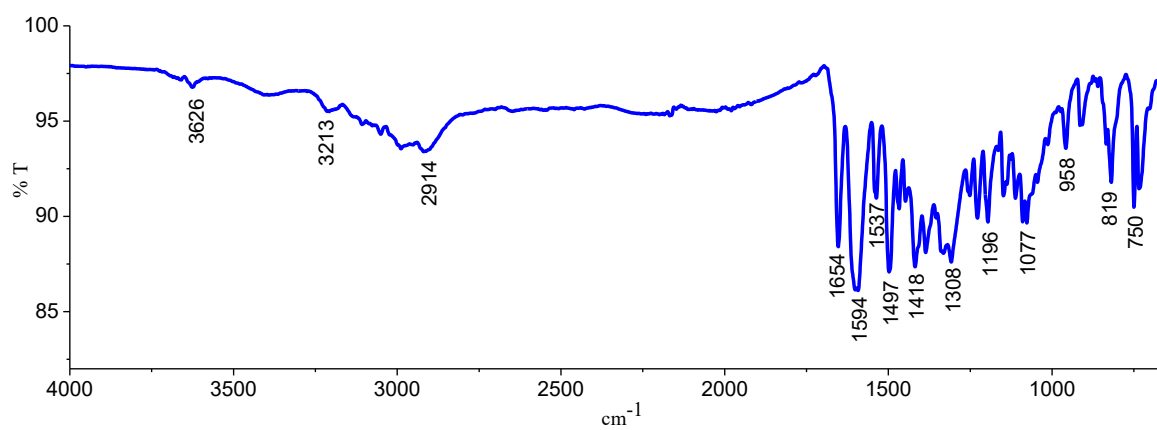


Figure S4. The IR spectrum of **1**

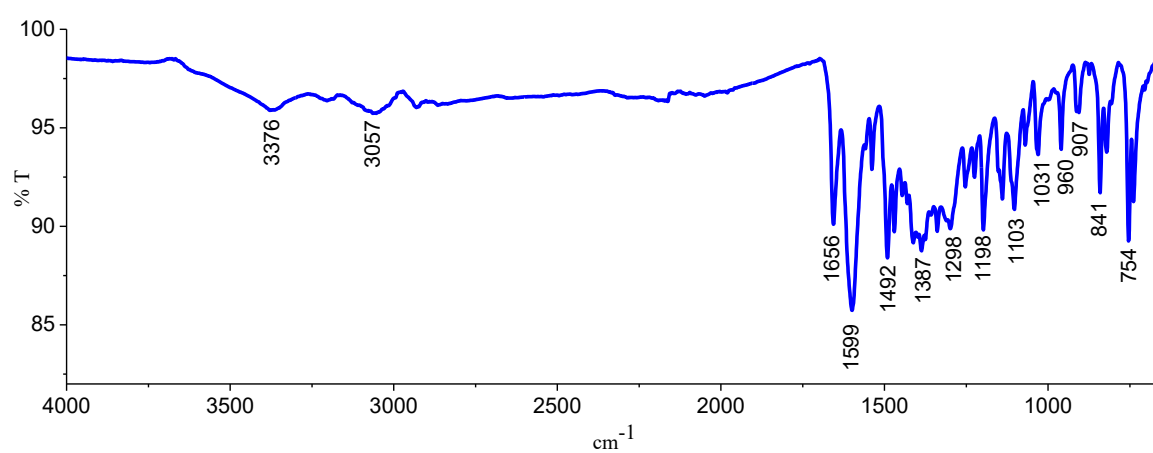


Figure S5. The IR spectrum of **2**

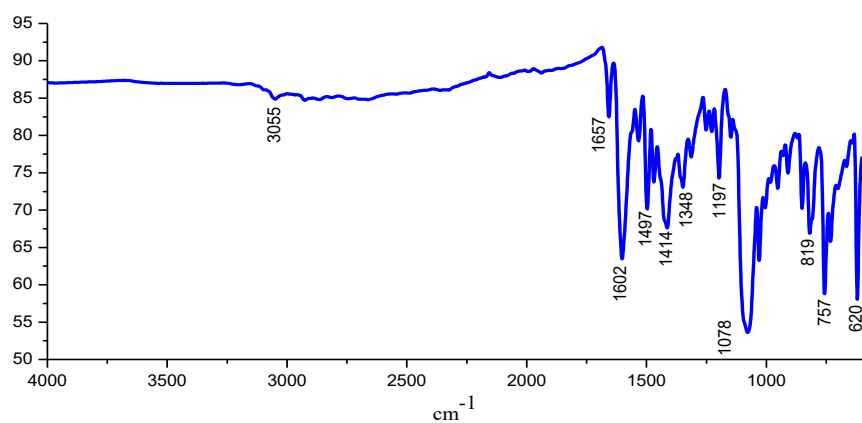


Figure S6. The IR spectrum of **3**

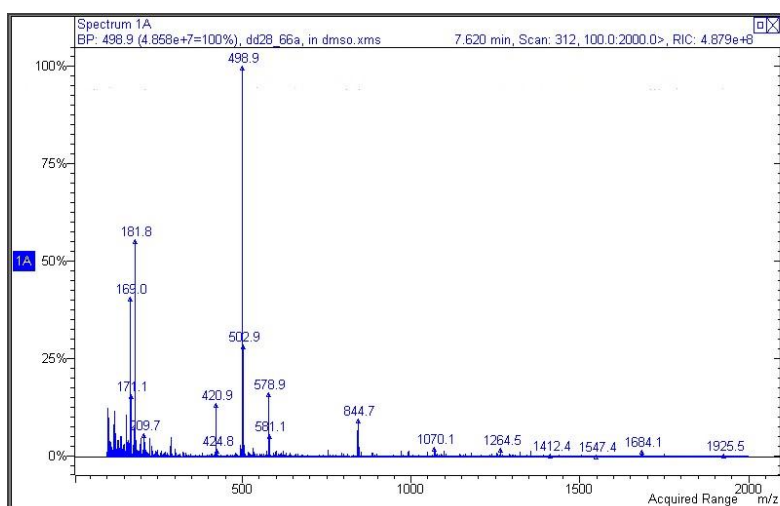


Figure S7. ESI-MS of **1**

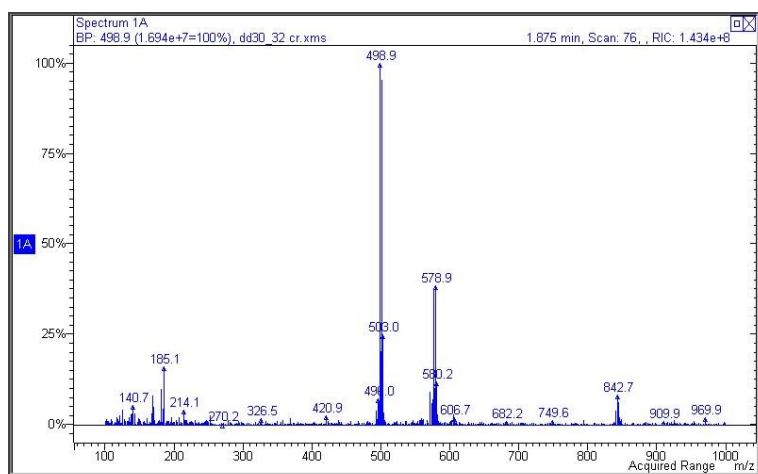


Figure S8. ESI-MS of **3**

Table S1.

Crystallographic data and structures refinement for compounds **1** - **3**.

Compound	<b>1</b>	<b>2</b>	<b>3</b>
Chemical formula	C <sub>28</sub> H <sub>28</sub> Cu <sub>2</sub> N <sub>8</sub> O <sub>8</sub>	C <sub>30</sub> H <sub>32</sub> Cu <sub>2</sub> N <sub>8</sub> O <sub>8</sub>	C <sub>141</sub> H <sub>147</sub> Cl <sub>4</sub> Cu <sub>8</sub> N <sub>31</sub> O <sub>36</sub>
M (g·mol <sup>-1</sup> )	731.66	759.72	3502.01
Temperature (K)	293(2)	293(2)	200(2)
Crystal system	triclinic	triclinic	Triclinic
Space group	<i>P</i> - <i>1</i>	<i>P</i> - <i>1</i>	<i>P</i> - <i>1</i>
<i>a</i> (Å)	8.10287(19)	8.8896(3)	15.1931(3)
<i>b</i> (Å)	13.5109(4)	14.5934(5)	15.3490(3)
<i>c</i> (Å)	15.0205(3)	15.2278(6)	22.2511(3)
<i>α</i> (°)	66.844(3)	61.854(4)	93.8390(10)
<i>β</i> (°)	83.9075(19)	75.525(3)	99.9510(10)
<i>γ</i> (°)	75.585(2)	75.130(3)	109.877(2)
<i>V</i> (Å <sup>3</sup> )	1464.26	1664.19	4761.92(16)
<i>Z</i>	2	2	1
<i>D</i> <sub>calc</sub> (mg/mm <sup>3</sup> )	1.659	1.516	1.221
<i>μ</i> (mm <sup>-1</sup> )	1.518	1.339	2.054
GOF <sup>c</sup>	1.131	1.384	1.042
R <sub>1</sub> <sup>a</sup> (I > 2σ(I))	0.0372	0.0578	0.0759
wR <sub>2</sub> <sup>b</sup> (all data)	0.1104	0.2050	0.2339
largest diff. peak/hole (e Å <sup>-3</sup> )	0.796/ -0.468	2.889/ -0.496	1.76/ -0.56
<sup>a</sup> R <sub>1</sub> = $\sum   F_o  -  F_c   / \sum  F_o $ . <sup>b</sup> wR <sub>2</sub> = $[\sum w(F_o^2 - F_c^2)^2 / \sum w(F_o^2)^2]^{1/2}$ ; $w = 1 / [\sigma^2(F_o^2) + (aP)^2 + bP]$ where P = $[\max(F_o^2, 0) + 2F_c^2] / 3$			