

## **Supporting Information**

# **The formation of a unique 2D isonicotinate polymer driven by Cu(II) aerobic oxidation**

*Francisco Sánchez-Férez <sup>a</sup>, Teresa Calvet <sup>b</sup>, Mercè Font-Bardia <sup>c</sup>, and Josefina Pons <sup>a,\*</sup>*

<sup>a</sup>Departament de Química, Universitat Autònoma de Barcelona, 08193-Bellaterra, Barcelona, Spain

<sup>b</sup>Departament de Mineralogia, Petrologia i Geologia Aplicada, Universitat de Barcelona, Martí i Franquès s/n, 08028 Barcelona, Spain

<sup>c</sup>Unitat de Difracció de Raig-X, Centres Científics i Tecnològics de la Universitat de Barcelona (CCiTUB), Universitat de Barcelona, Solé i Sabarís, 1-3, 08028 Barcelona, Spain

\*Corresponding author E-mail: josefina.pons@uab.es

**FTIR-ATR and  $^1\text{H}$  NMR spectroopies**

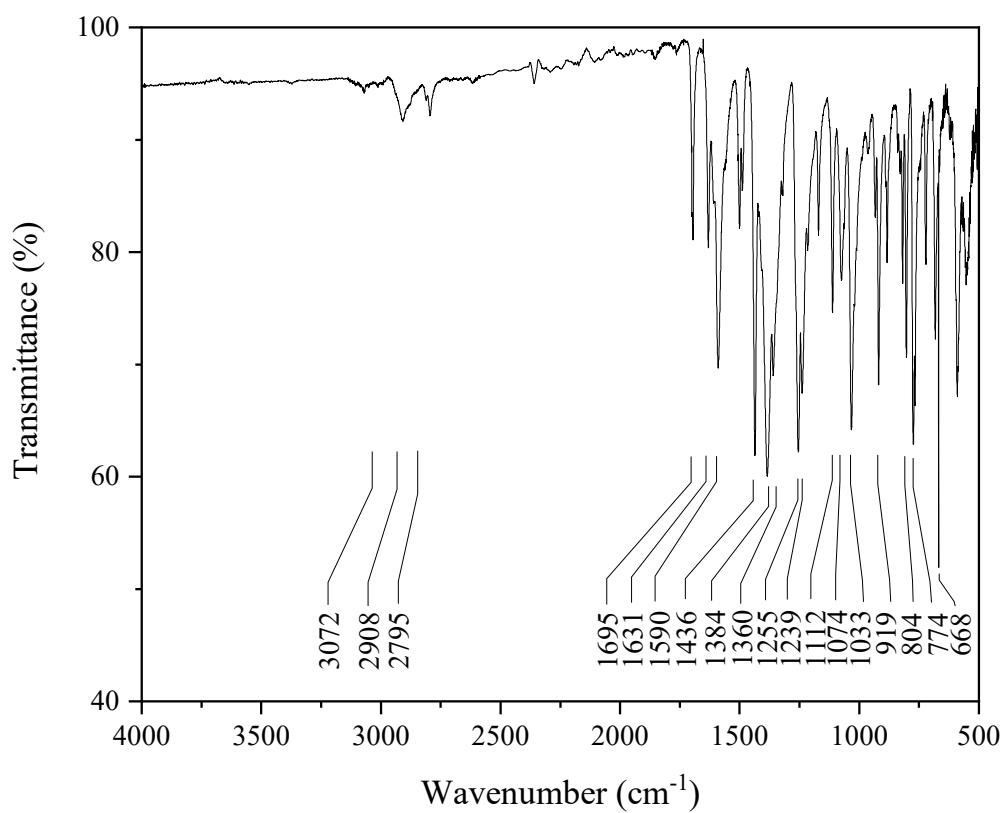


Figure S1. FTIR-ATR spectrum of compound **1**.

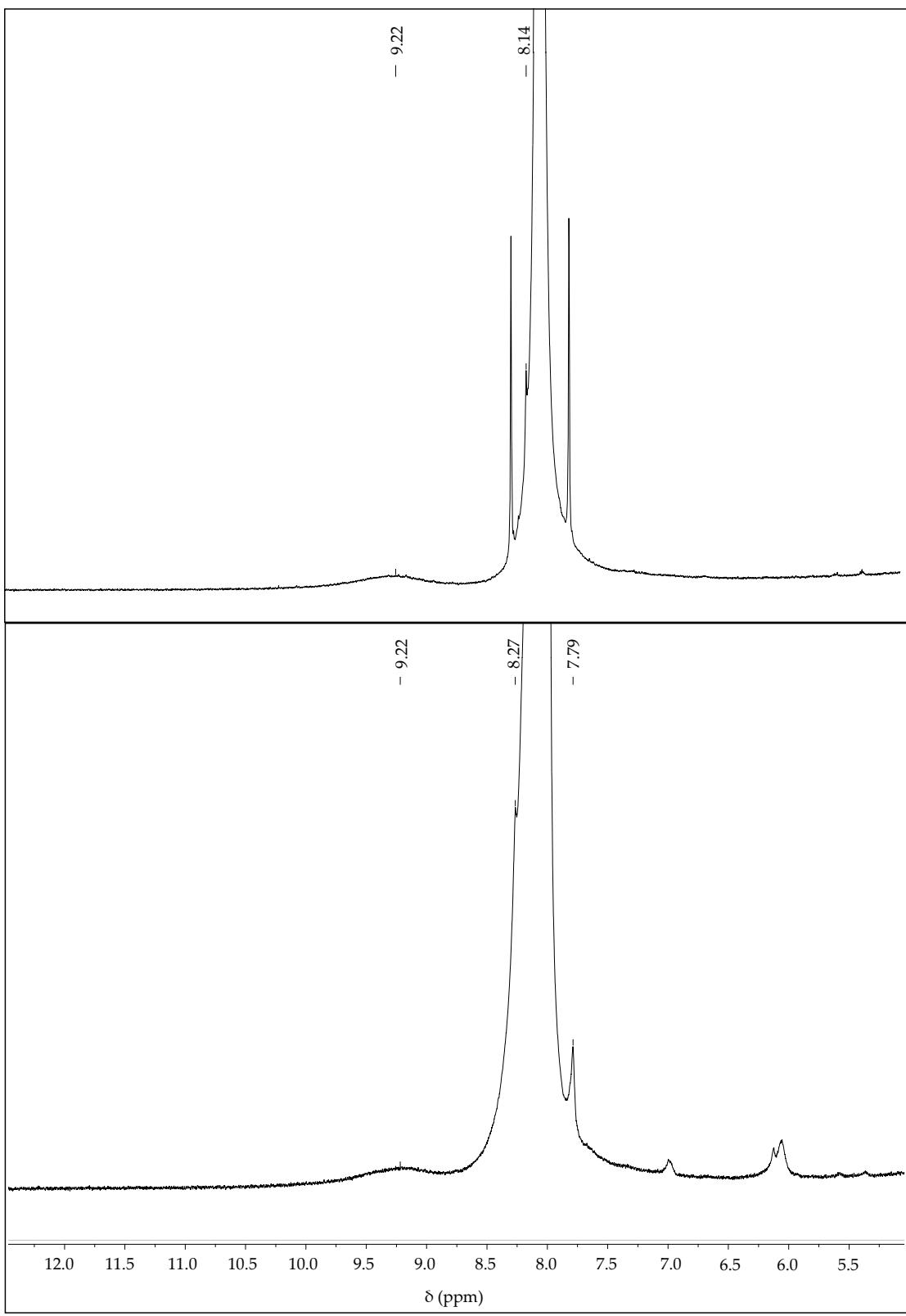


Figure S2.  $^1\text{H}$  NMR spectra in  $\text{DMF}-d_6$  of the catalytic assays. a) using  $\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$  in DMF at 2.1 bars of  $\text{O}_2$  pressure for 18 h at  $120^\circ\text{C}$ , and; b) using  $\text{Cu}(\text{OAc})_2 \cdot \text{H}_2\text{O}$  in DMF at 2.1 bars of  $\text{O}_2$  pressure for 18 h at  $120^\circ\text{C}$ .

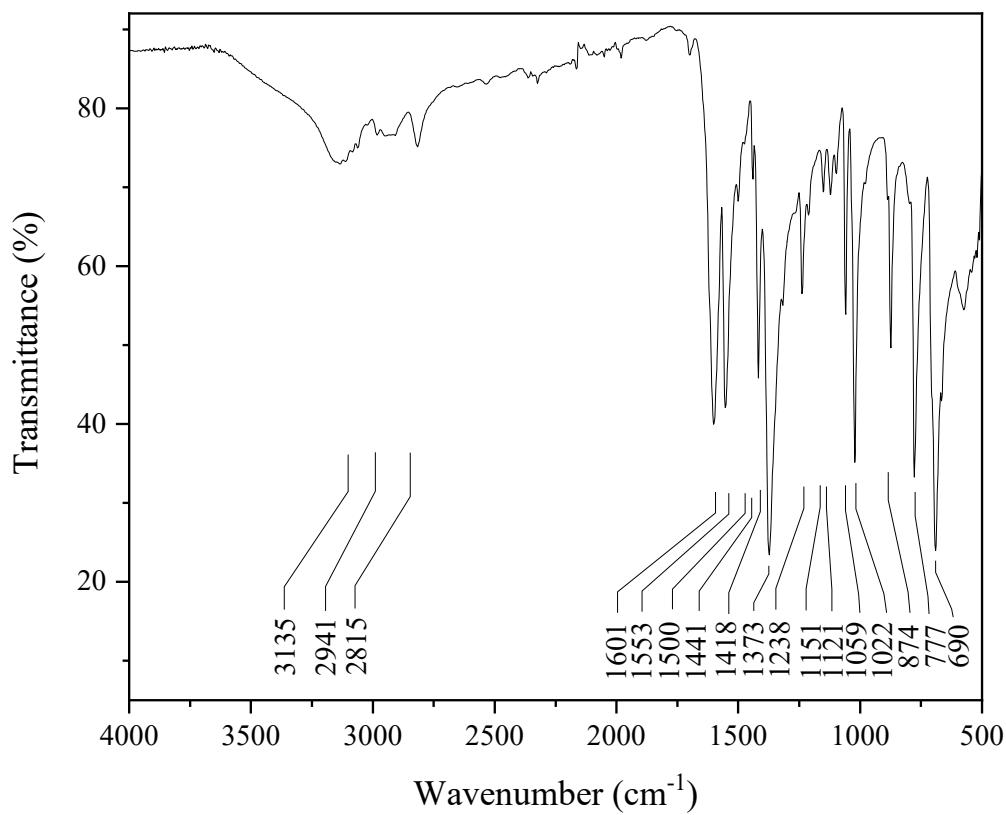


Figure S3. FTIR-ATR spectrum of compound  $[\text{Cu}(\text{ina})_2(\text{H}_2\text{O})]_n$