

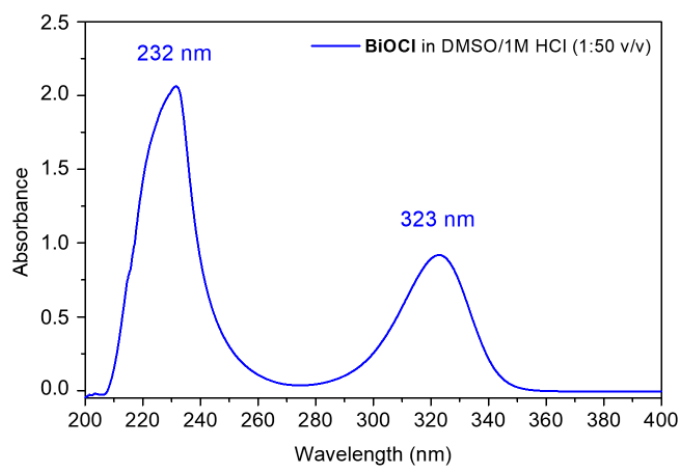
# Structural insights into new Bi(III) coordination polymers with pyridine-2,3-dicarboxylic acid: Photoluminescence properties and anti-*Helicobacter pylori* activity

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**Table S1.** Selected bands of the most important bonds in the FT-IR spectra of pyridine-2,3-dicarboxylic acid and Bi(III) polymers **1** and **2** ( $\text{cm}^{-1}$ ).

| Assignments                              | 2,3pydcH <sub>2</sub> | <b>1</b>            | <b>2</b>             |
|--|-----------------------|---------------------|----------------------|
| $\nu(\text{O-H})_{\text{H}_2\text{O}}$   | –                     | 3600–3200 <i>br</i> | –                    |
| $\nu(\text{N-H})_{\text{pyH}}$           | 3103                  | –                   | –                    |
| $\nu(\text{N-H})_{\text{Et}_3\text{NH}}$ | –                     | –                   | 2712, 2511 <i>br</i> |
| $\nu(\text{C=O})_{\text{COOH}}$          | –                     | 1727                | 1708                 |
| $\nu_{\text{as}}(\text{COO})$            | 1581                  | 1618, 1574, 1537    | 1618, 1563           |
| $\nu_{\text{s}}(\text{COO})$             | 1361                  | 1372                | 1381, 1369           |
| $\Delta\nu$                              | 220                   | 246, 202, 165       | 249, 182             |
| $\nu(\text{C=C/N})$                      | 1600, 1469, 1408      | 1605, 1449          | 1573, 1479, 1441     |
| $\nu(\text{C-N})_{\text{Et}_3\text{NH}}$ | –                     | –                   | 1272                 |

$\Delta\nu = \nu_{\text{as}}(\text{COO}) - \nu_{\text{s}}(\text{COO})$ ; *br* – broad; pyH – pyridinium cation; Et<sub>3</sub>NH – triethylammonium cation.



**Fig. S1.** The UV-Vis spectrum of the product of the reaction of BiCl<sub>3</sub> with H<sub>2</sub>O in 1M HCl solution.