Supporting Information

Unveiling the potent activity of a synthetic ion transporter against multidrug-resistant Gram-positive bacteria and biofilms

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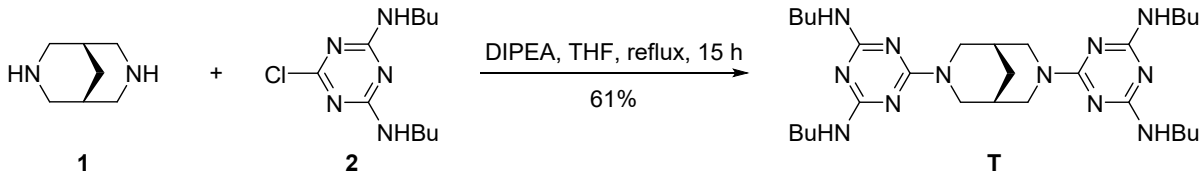
1. Synthesis of compound T:



Scheme S1. Synthesis of compound **T**.

The compound **T** was synthesized using the reported protocol.[S1]

Compounds **1** and **2** were synthesized previously [S1] and were used directly for the preparation of **T**. In a 25 mL round bottom flask, a mixture of **1** (130 mg, 1.03 mmol) and **2** (664 mg, 2.58 mmol) was dissolved in 3.5 mL of anhydrous THF. A solution of DIPEA (538 µL, 3.09 mmol) in 2 mL of THF was then added dropwise to the reaction mixture at room temperature. The resulting mixture was refluxed for 15 h under a nitrogen atmosphere. Upon completion of the reaction (monitored by TLC), THF was removed under vacuum using a rotary evaporator. The residue was then extracted with ethyl acetate (20 mL), dried over Na_2SO_4, and concentrated

under reduced pressure to yield a thick yellowish oil. This oil was subsequently purified by column chromatography on silica gel using 2% MeOH in $CHCl_3$ as the eluent, resulting in the isolation of compound **T** (357 mg, 61%) as a white solid. **^{1}H NMR (400 MHz, $CDCl_3$):** δ 4.80 (s, 4H), 3.27 (s, 8H), 3.05 (dd, *J* = 13.0, 3.1 Hz, 4H), 1.93 (d, *J* = 29.9 Hz, 4H), 1.56 – 1.45 (m, 8H), 1.41 – 1.31 (m, 8H), 0.93 (t, *J* = 7.3 Hz, 12H). **^{13}C NMR (101 MHz, $CDCl_3$):** δ 164.85, 164.76, 47.72, 40.55, 32.05, 31.97, 28.63, 20.26, 13.97.

2. NMR Data:

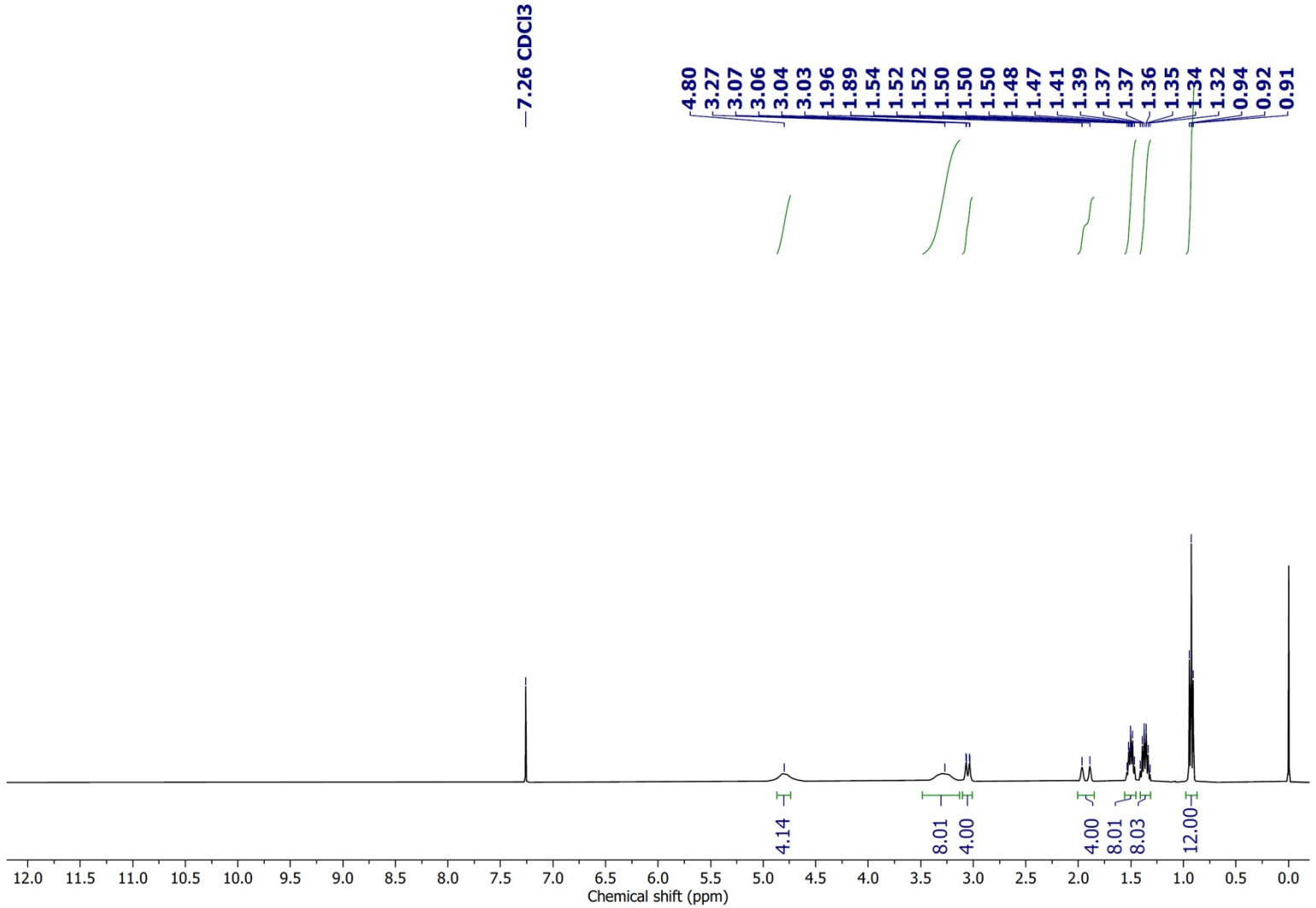


Figure S1. ^{1}H NMR (400 MHz) of compound **T** in $CDCl_3$ solvent at 25 °C.

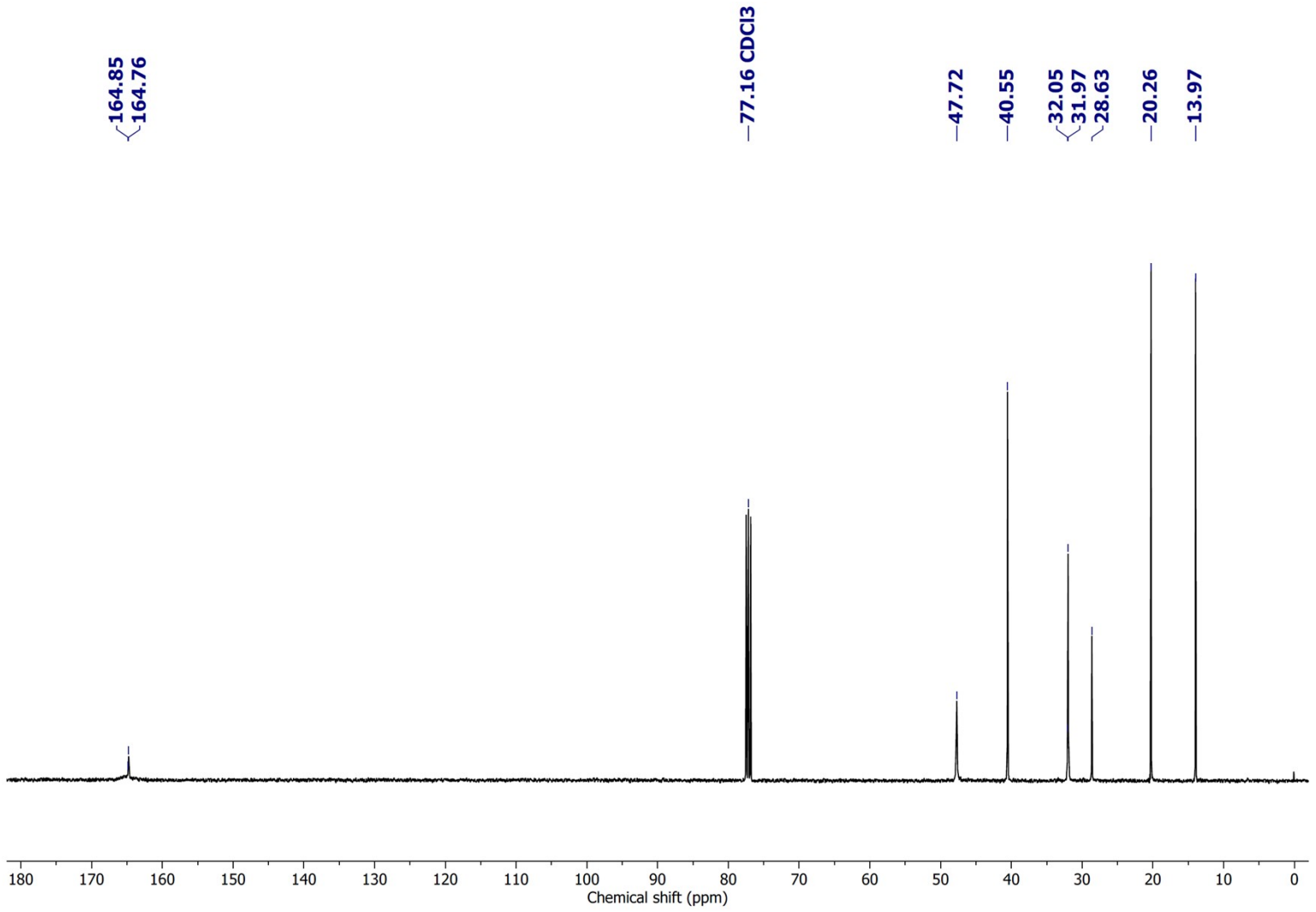


Figure S2. ^{13}C NMR (101 MHz) of compound **T** in $CDCl_3$ solvent at 25 °C.

3. Reference:

S1. S. V. Shinde, P. Talukdar, *Angew. Chem., Int. Ed.,* 2017, **56**, 4238–4242.