Electronic Supporting Informations

Fig. S1 IR spectrum for compound 1.

Fig. S2 IR spectrum for compound 2.
Fig. S3 View of the 2D $[\text{Zn(NH}_2\text{-bdc)}]_n$ sheet of $2$ in the crystallographic $bc$ plane.

Fig. S4 Space-filling model showing one dimensional channel ($8.3 \times 3.8 \text{ Å}^2$) along the crystallographic $b$ axis in $1$. Guest water molecules have been removed for clarity.
**Fig. S5** Space-filling model showing one dimensional channel (8.0 \( \times \) 1.6 Å\(^2\)) along the crystallographic in \( b \)-axis 2. Guest water molecules have been removed for clarity.

**Fig. S6** View of the 3D supramolecular framework structure of 1 (\( \pi-\pi \) interactions: Cyan dotted lines and H-bonding: Green dotted lines) along the crystallographic \( b \)-axis.
**Fig. S7** View of the 3D supramolecular framework structure of 2 ($\pi$–$\pi$ interactions: Cyan dotted lines and H-bonding: Green dotted lines) along the crystallographic $b$-axis.

**Fig. S8** CO$_2$ adsorption isotherms for 1 and 2 at 298 K: adsorption (filled circles), desorption (open circles).