Electronic Supplementary Material (ESI) for Dalton Transactions.

SUPPORTING MATERIAL

Synthesis and Characterisation of Antimicrobial Metal-Organic Frameworks as Multi-drug Carriers

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Table S1. Unit cell parameters of the **OnG6** and **Mg_2(olsalazine)** MOFs. Due to the low number of diffraction peaks the structures of the **OnG6** MOFs were solved in the lowest symmetry space group *P*6, in contrast to the **M_2(olsalazine)** frameworks, which were solved in the $P3_221$ space group.

Parameter	**OnG6-Zn**	**OnG6-Mg**	**OnG6-Cu**	**OnG6-Co**	**Mg_2(olsalazine)**
Space Group	*P*6	*P*6	*P*6	*P*6	$P3_221$
a / Å	24.61(3)	24.32(2)	24.45(3)	24.39(5)	24.97(5)
b / Å	24.61(3)	24.32(2)	24.25(3)	24.39(5)	24.97(5)
c / Å	5.894(7)	5.84(14)	5.81(4)	5.85(3)	6.72(4)
alpha / °	90	90	90	90	90
beta / °	90	90	90	90	90
gamma / °	120	120	120	120	120
volume / Å^3	3091(5)	2972(8)	2974(18)	3011(14)	3824(3)

Table S2. INH loadings for the **OnG6** MOFs.

OnG6	**INH Loading**	**Framework Stoichiometry derived from ^{1}H-NMR spectrum**
OnG6-Zn	4 wt%	**$Zn_2(AZD)_1(INH)_{0.12}$**
OnG6-Mg	22 wt%	**$Mg_2(AZD)_1(INH)_{0.74}$**
OnG6-Cu	N/A	**N/A**

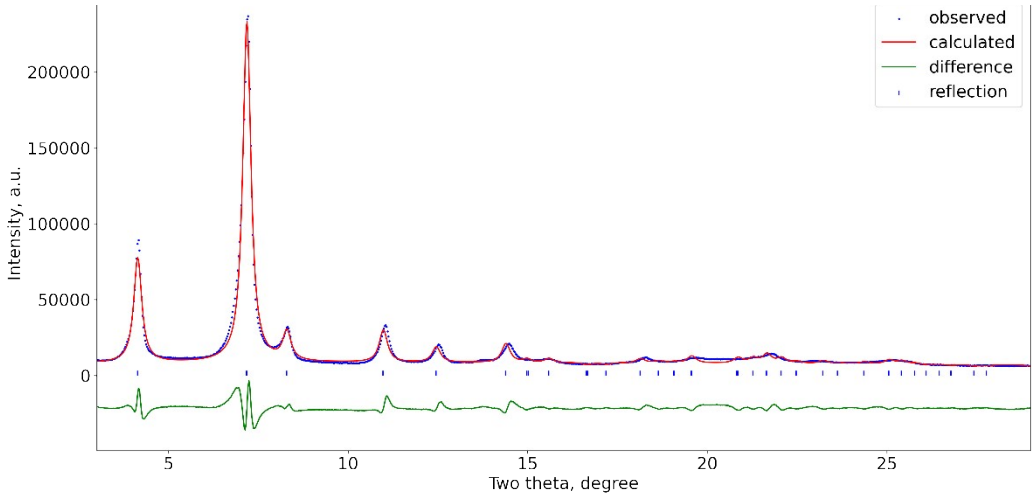

Figure S1. Pawley profile fit for **OnG7-Mg.**

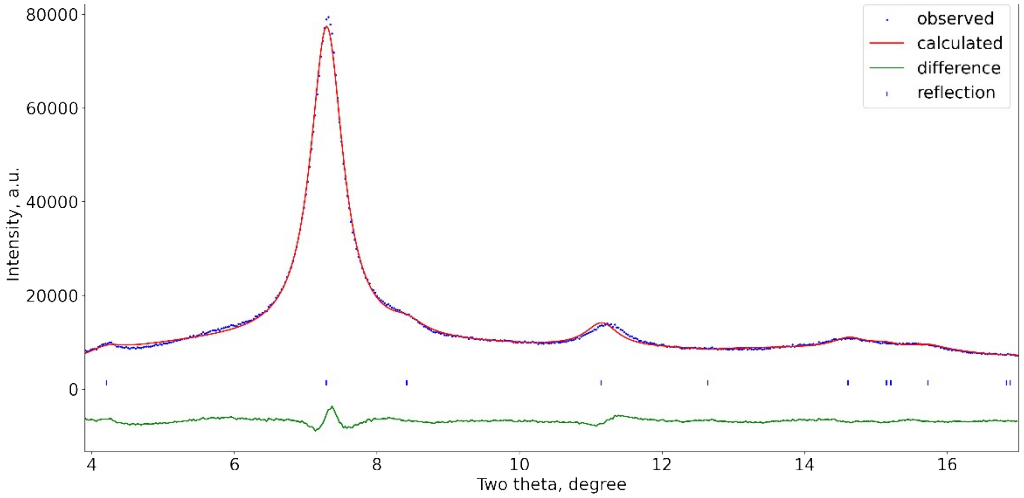

Figure S2. Pawley profile fit for **OnG6-Zn.**

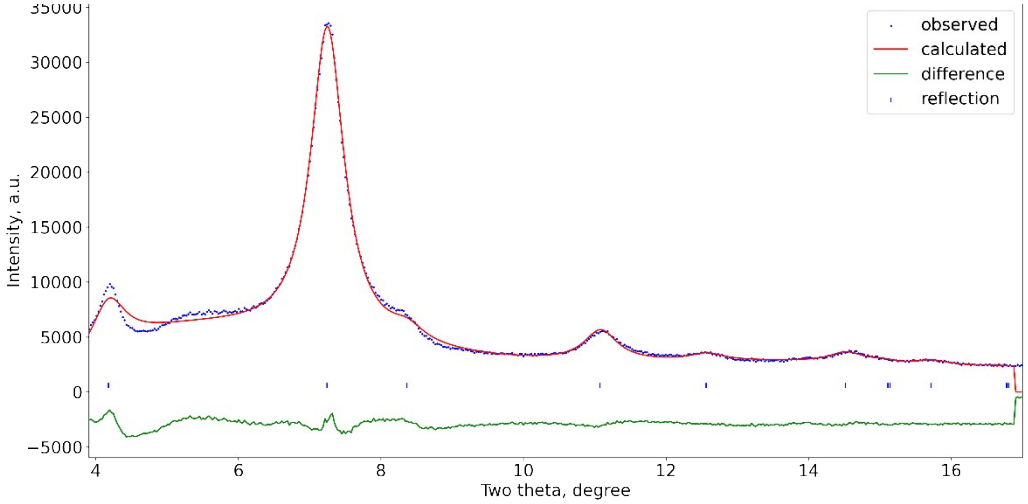

Figure S3. Pawley profile fit for **OnG6-Co.**

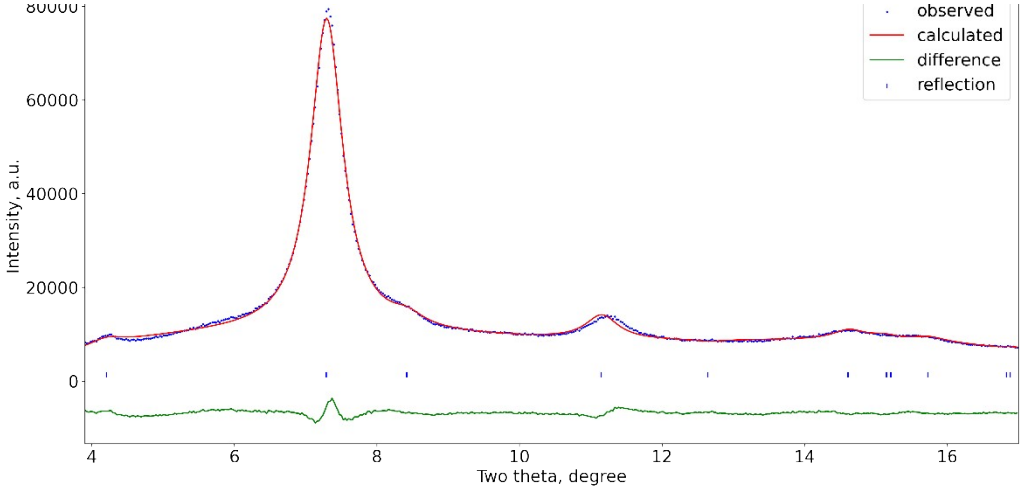

Figure S4. Pawley profile fit for **OnG6-Cu.**

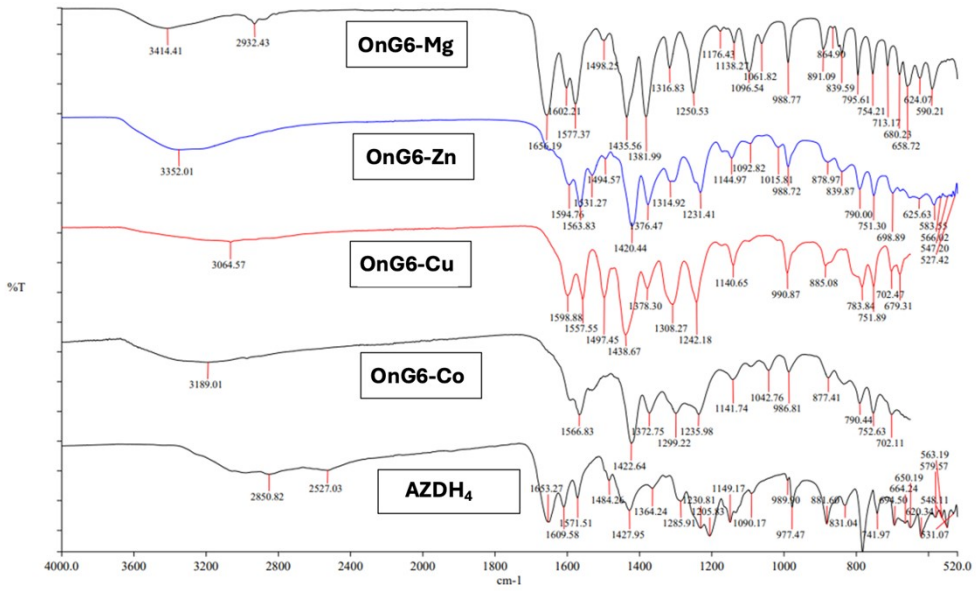

Figure S5. FTIR spectra of the **OnG6** MOFs and the linker $AZDH_4$.

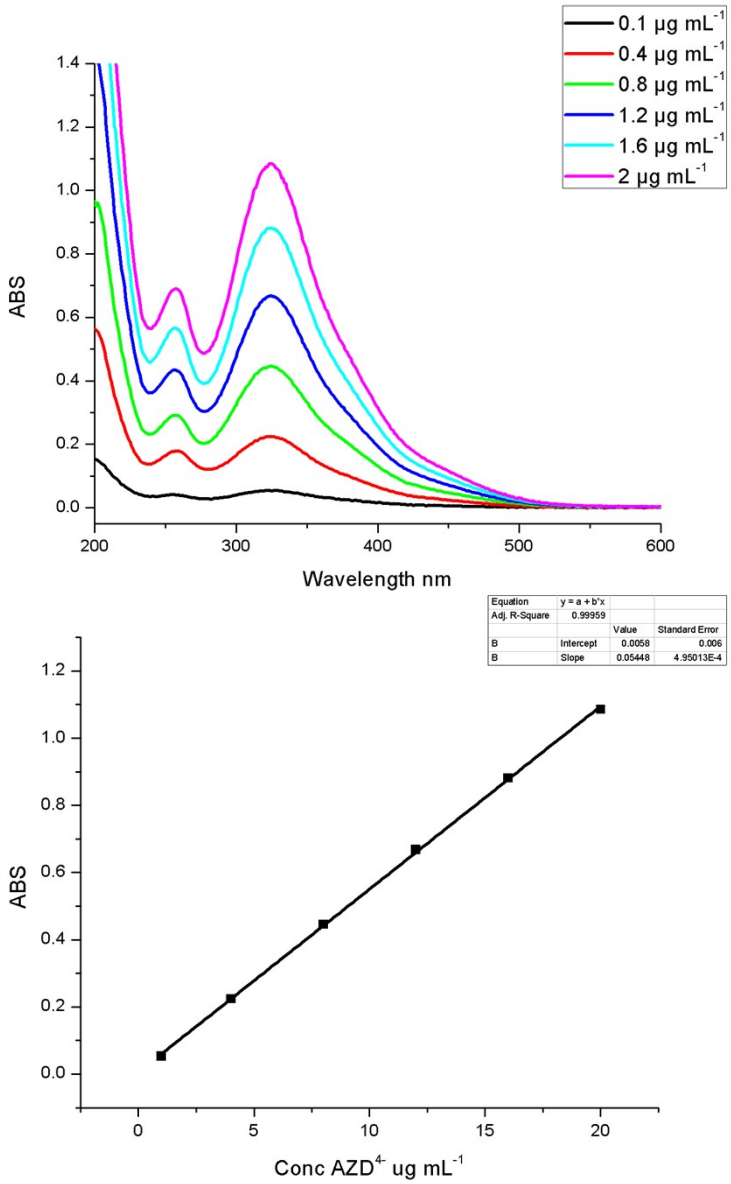

Figure S6. UV-Vis data (top) for Na_4(AZD) calibration curve (bottom).

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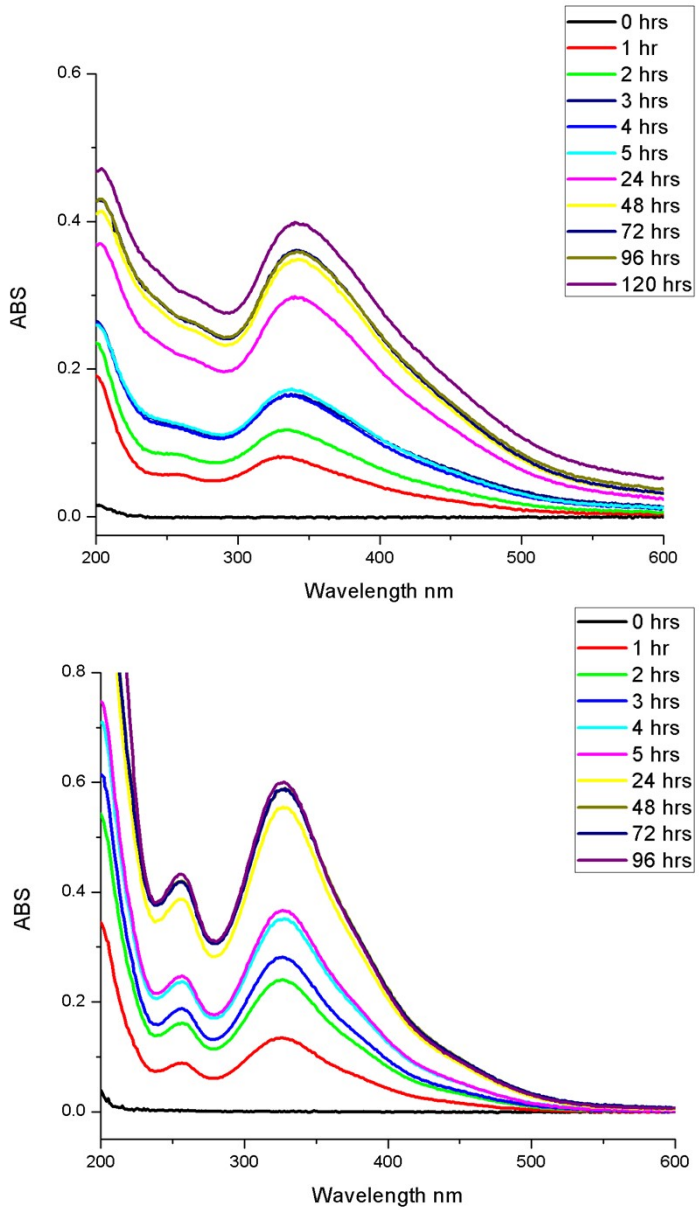

Figure S7. UV-Vis data for **OnG6-Cu** dissolution in H_2O (top) and PBS solution.

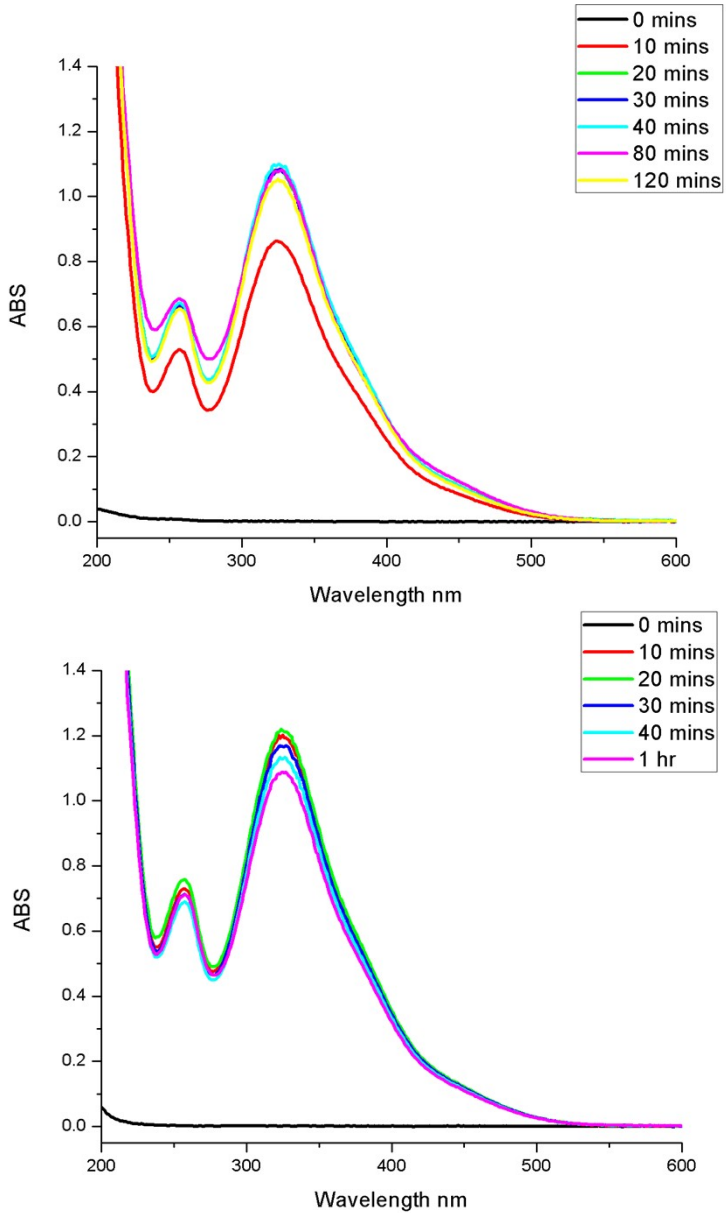

Figure S8. UV-Vis data for **OnG6-Mg** dissolution in H_2O (top) and PBS solution.

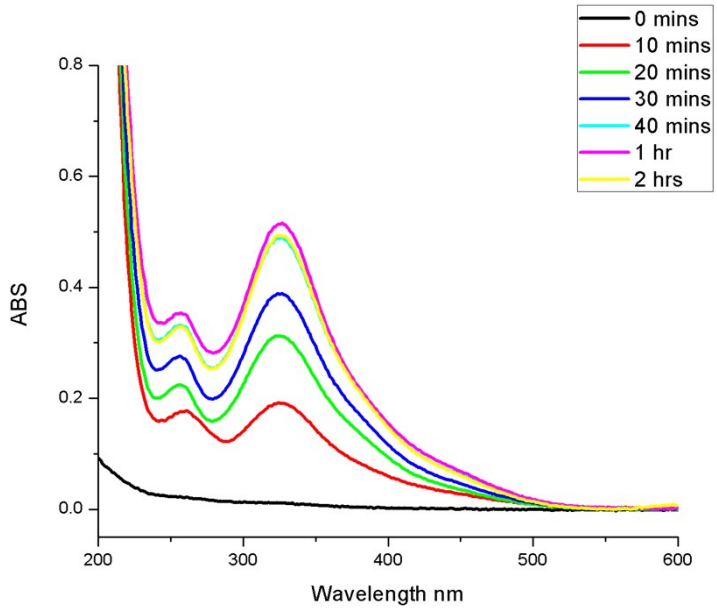

Figure S9. UV-Vis data for **OnG6-Zn** dissolution in water.

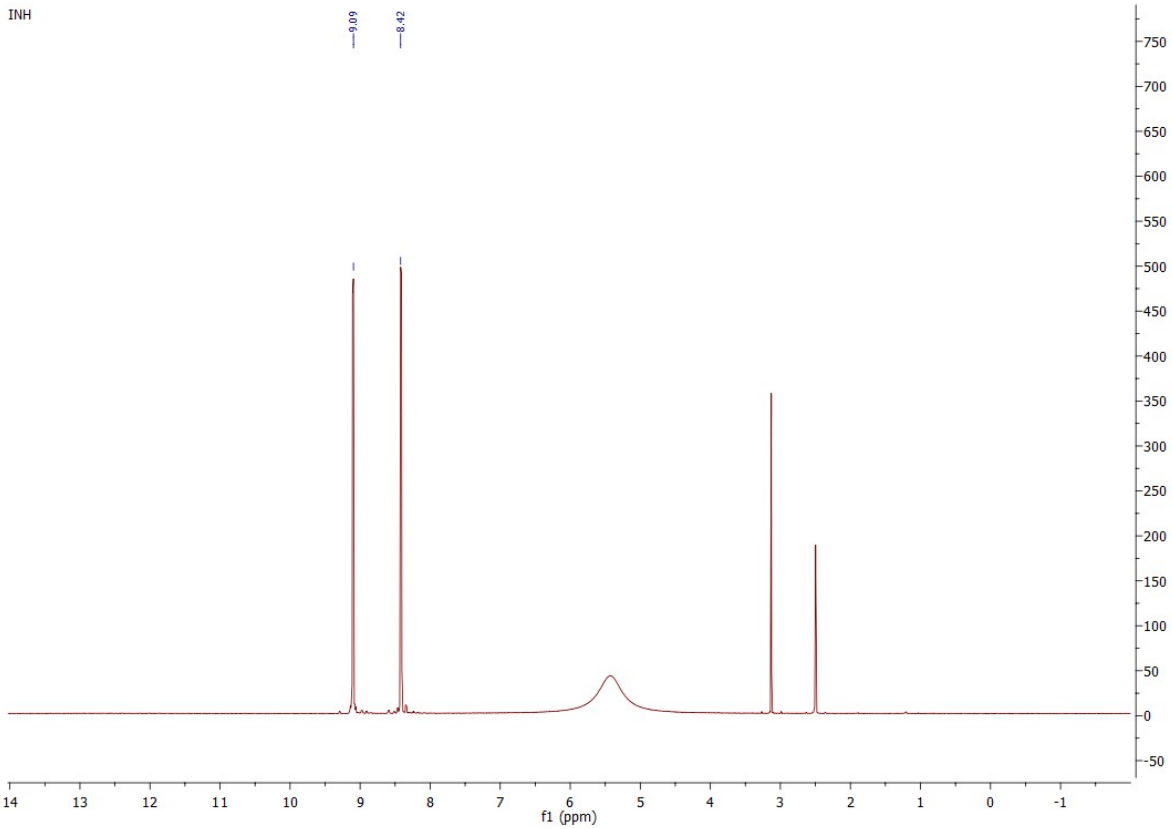

Figure S10. ^{1}H-NMR of INH in DMSO-d_6/DCl.

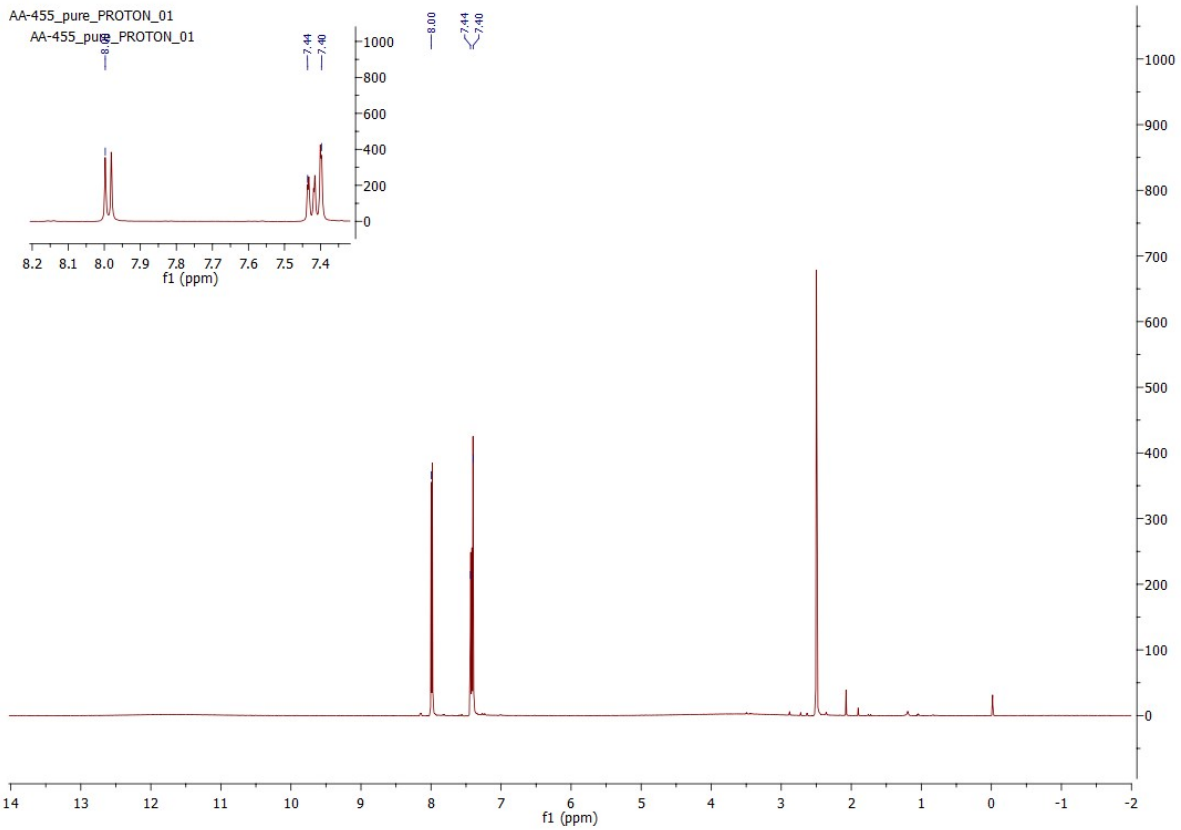

Figure S11. ^{1}H-NMR of $AZDH_4$ in DMSO-d_6.

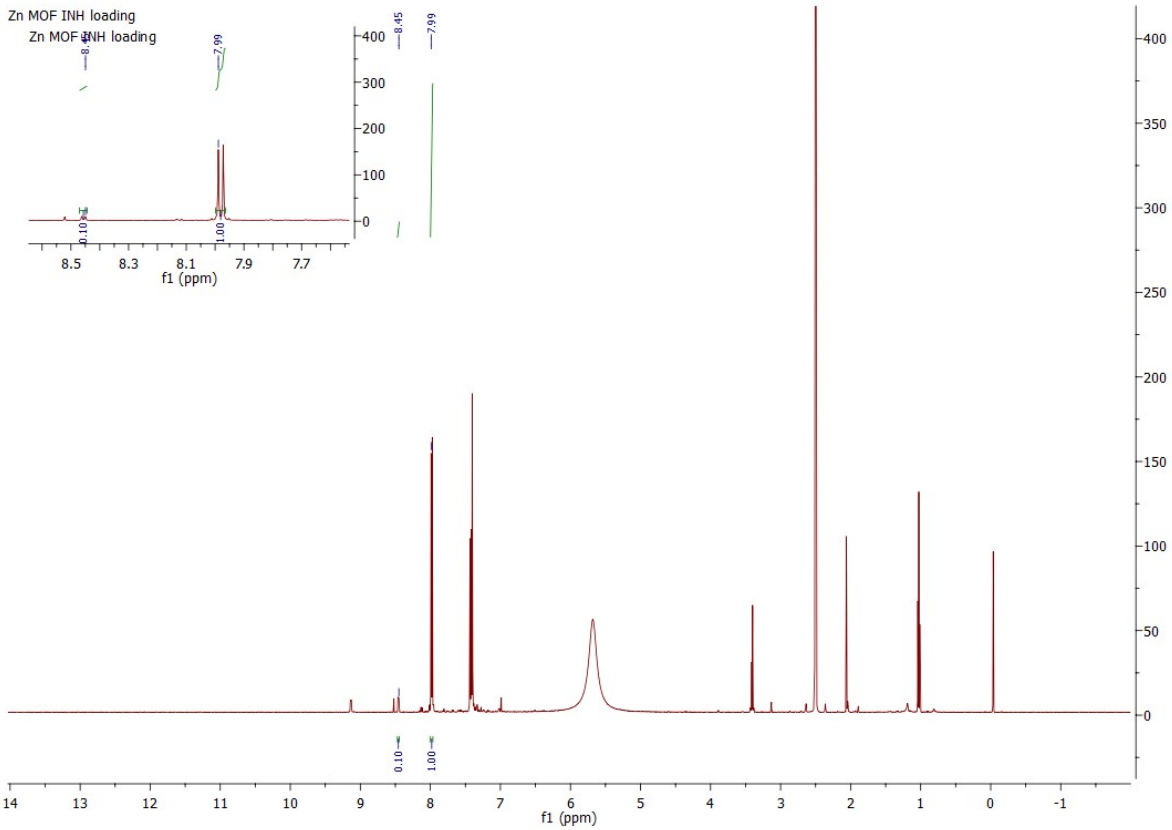

Figure S12. ^{1}H-NMR of digested **OnG6-Zn** after INH loading (3 days) in DMSO-d_6/DCl.

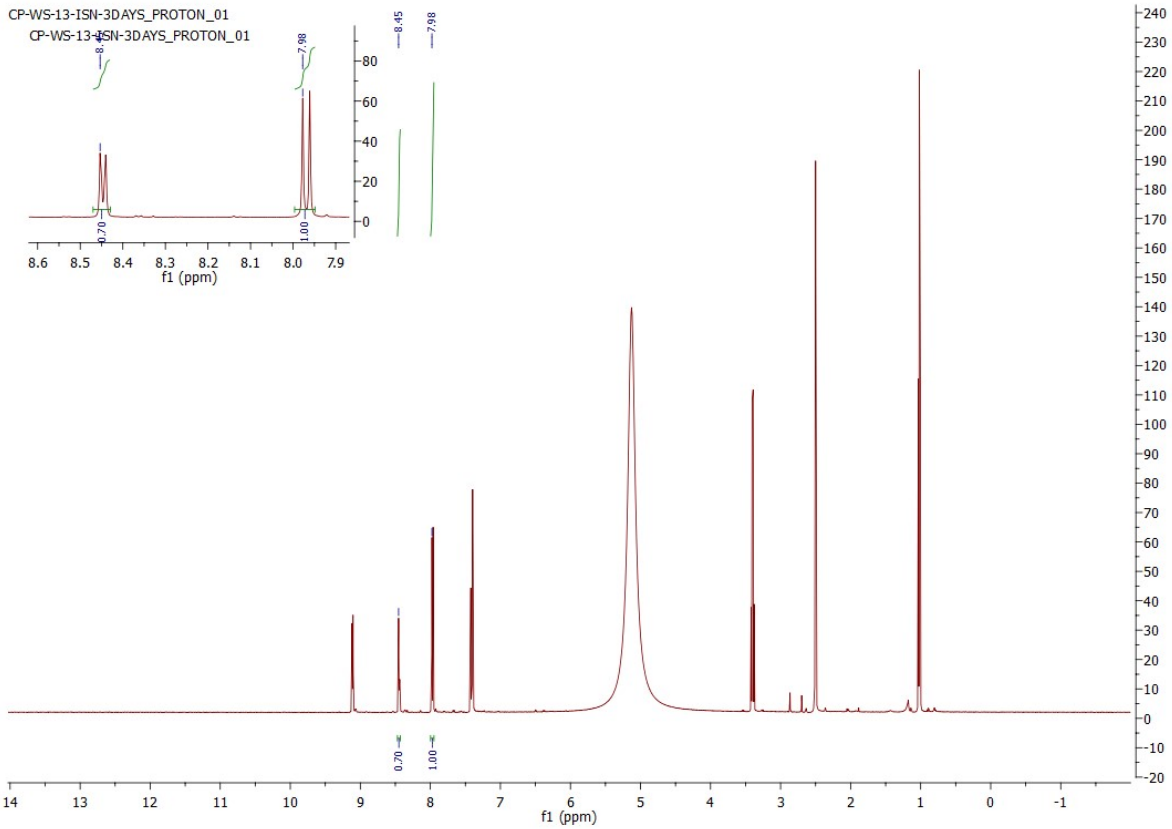

Figure S13. ^{1}H-NMR of digested **OnG6-Mg** after INH loading (3 days) in DMSO-d_6/DCl.

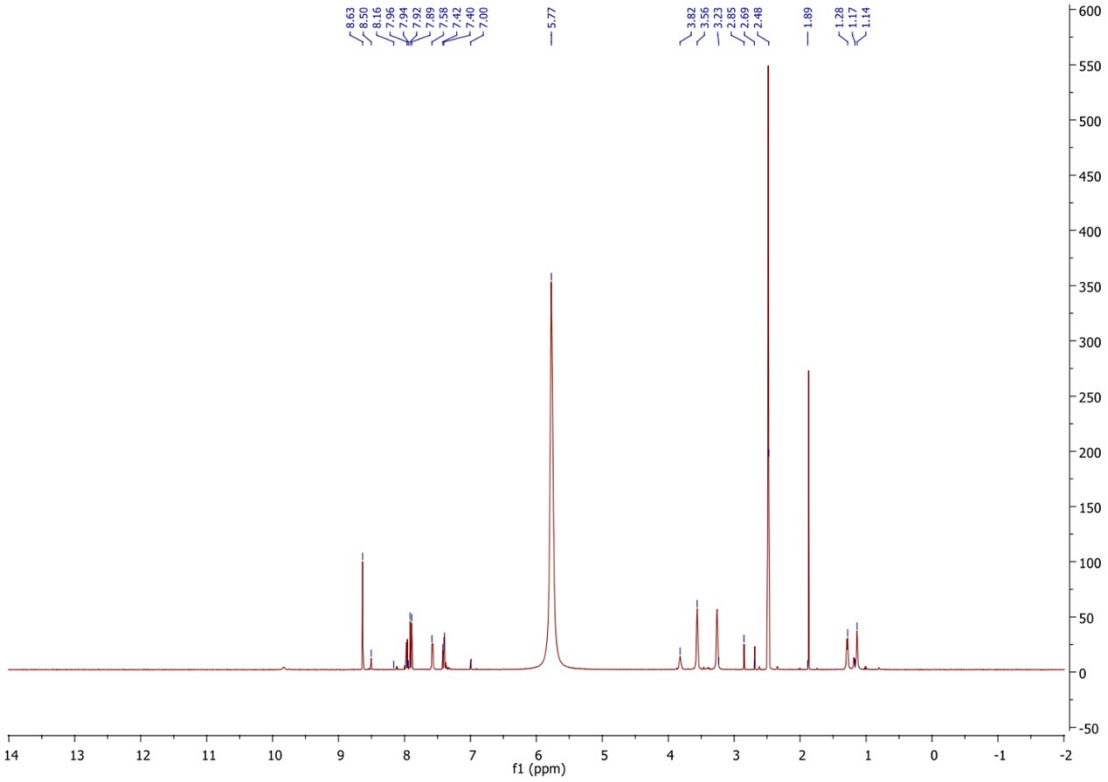

Figure S14. ^{1}H-NMR of digested **OnG6-Mg** after CIPRO loading (3 days) in DMSO-d_6/DCl.

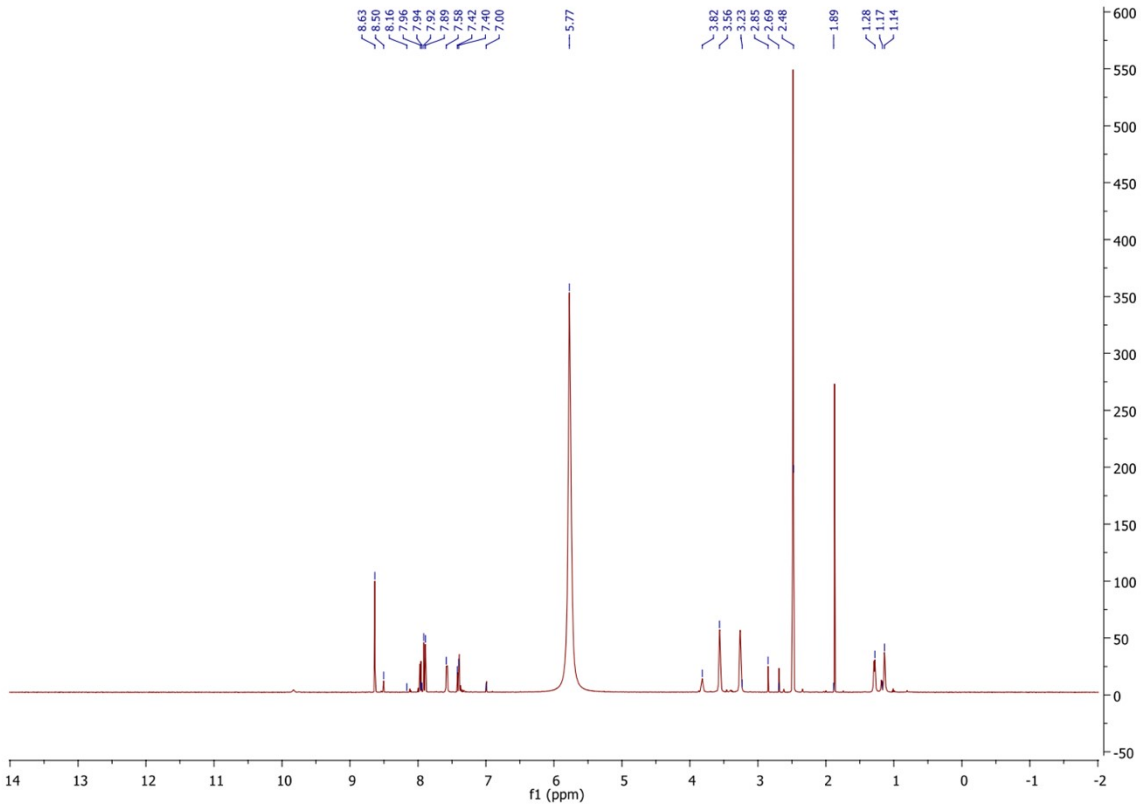

Figure S15. ^{1}H-NMR of digested **OnG6-Co** after CIPRO loading (3 days) in DMSO-d_6/DCl.