Supporting Information

New library of Iodo-quinoline derivatives obtained by an alternative synthetic pathway and their antimicrobial activity.

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Table of Contents

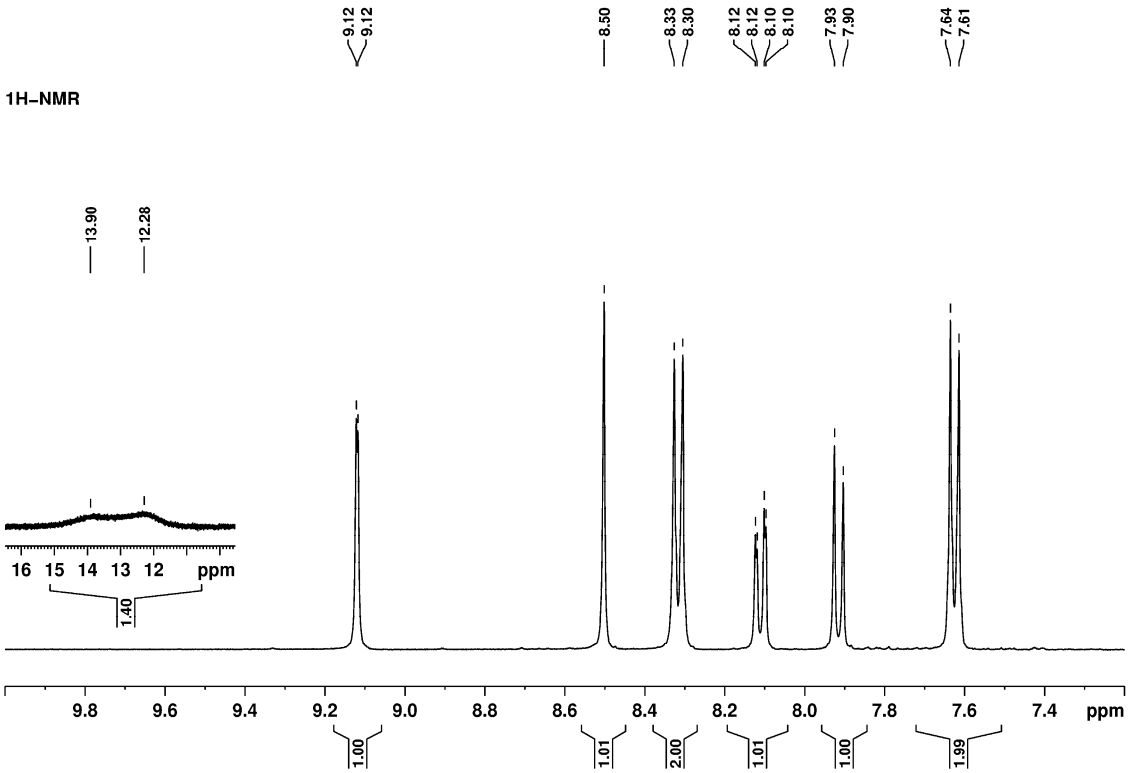


Figure S1.A. The ^{1}H-NMR spectrum corresponding to compound **4c**, recorded in DMSO-d_6, at 400.1 MHz.

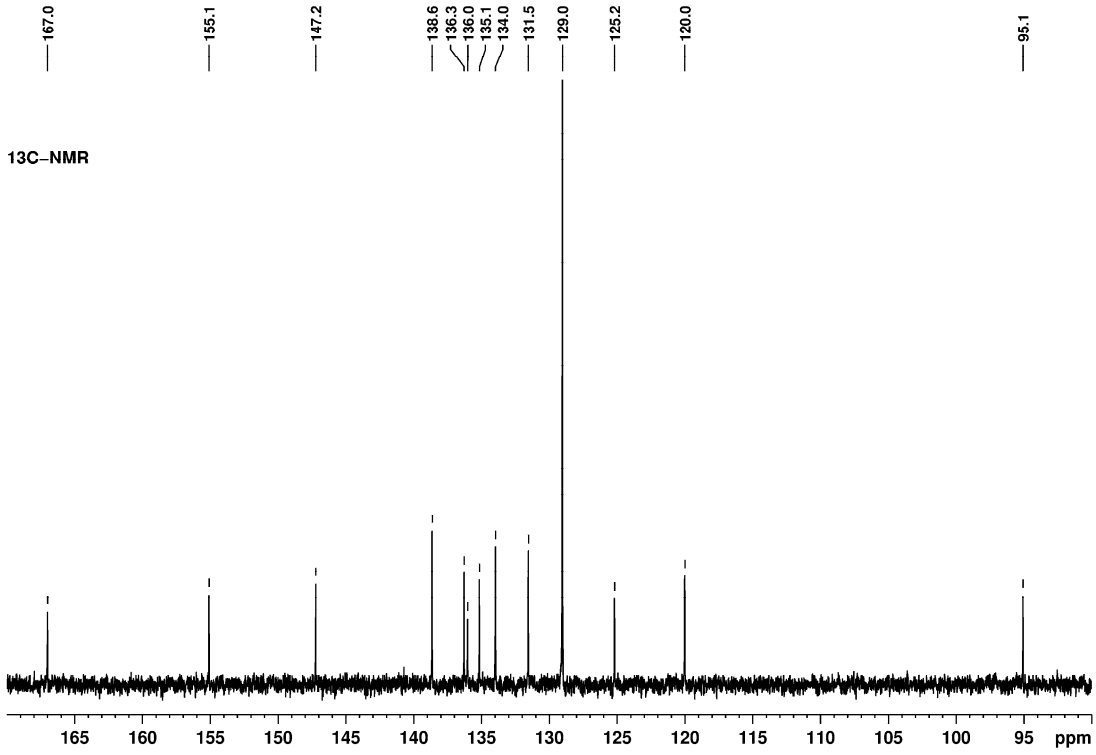


Figure S1.B. The ^{13}C-NMR spectrum corresponding to compound **4c**, recorded in DMSO-d_6, at 100.6 MHz.

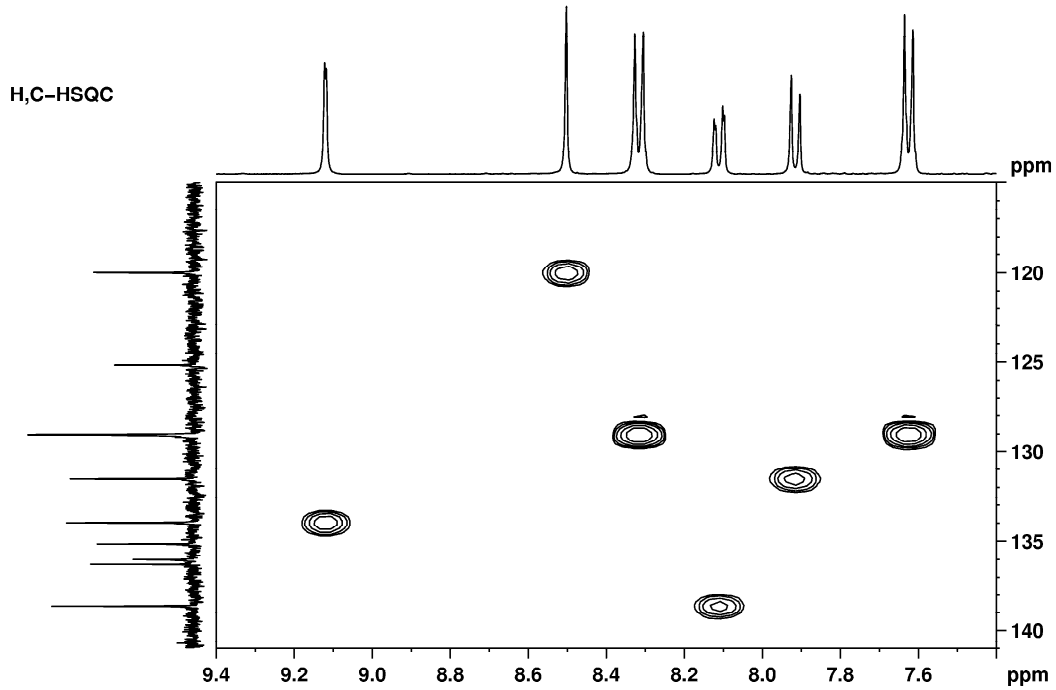


Figure S1.C. Detailed region of the H,C-HSQC spectrum corresponding to compound **4c**, showing the correlation signals for protonated carbons.

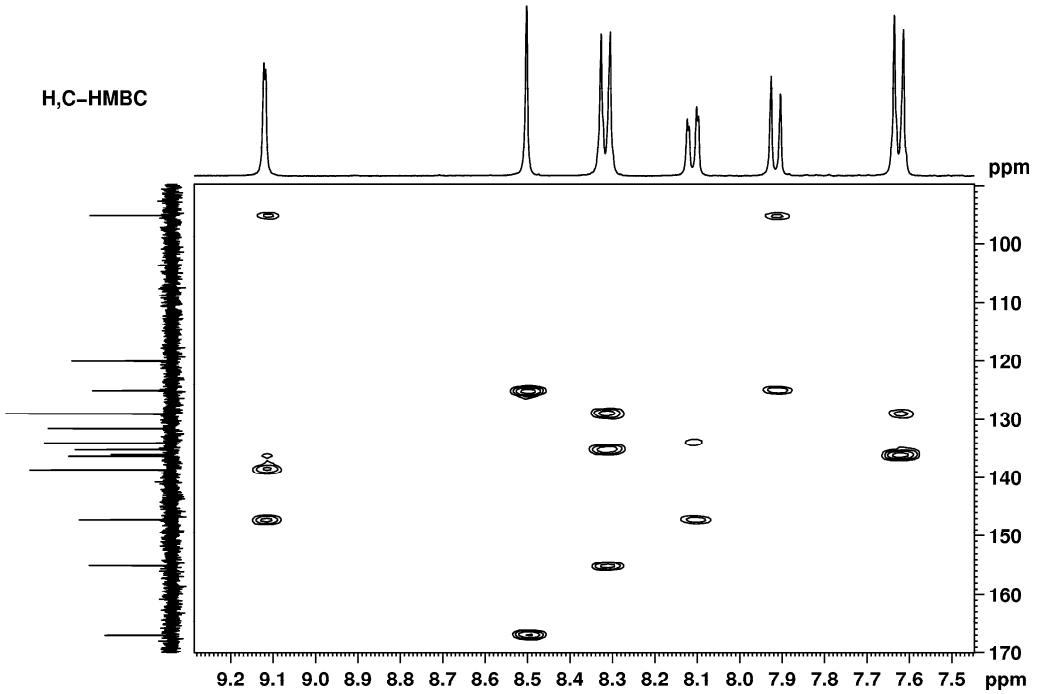


Figure S1.D. The H,C-HMBC spectrum corresponding to compound **4c**, showing 2 or 3 bonds correlation signals between protons and carbons, used mainly to assign quaternary carbons.

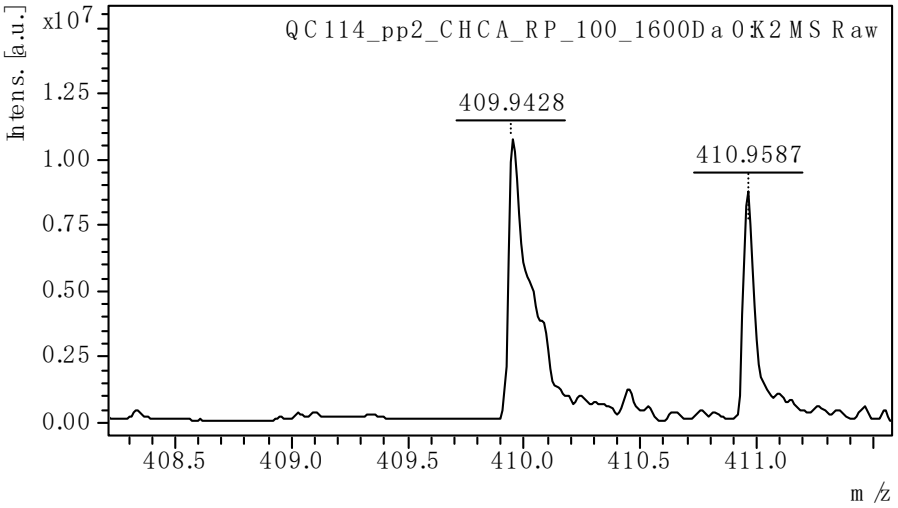


Figure S1. E. MALDI-MS spectra of compound **4c**.

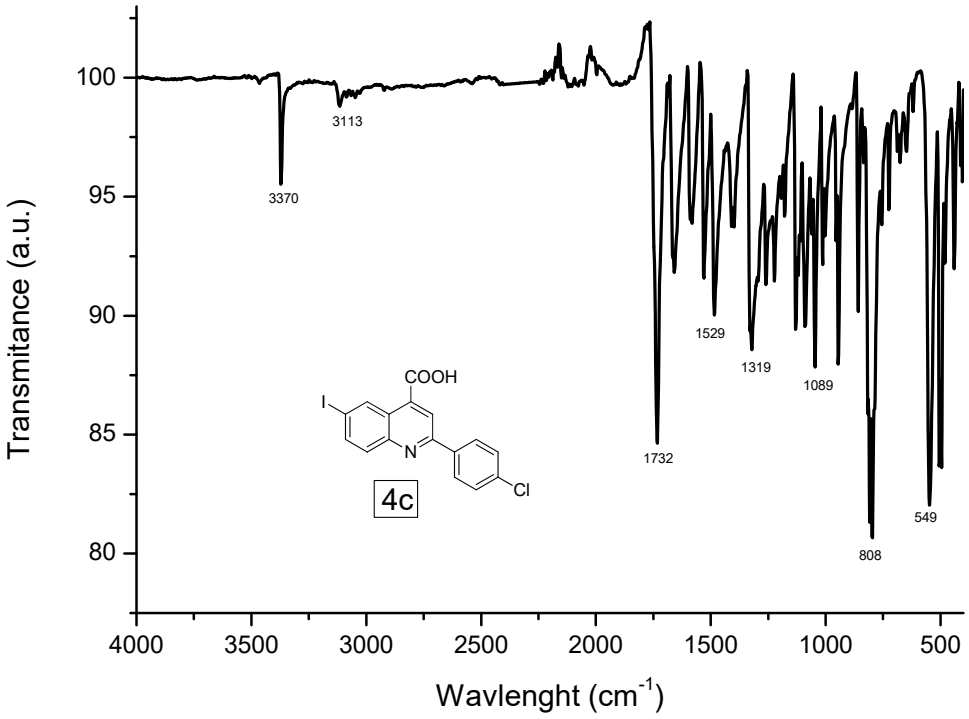


Figure S1.F. FT-IR spectrum of compound **4c**.

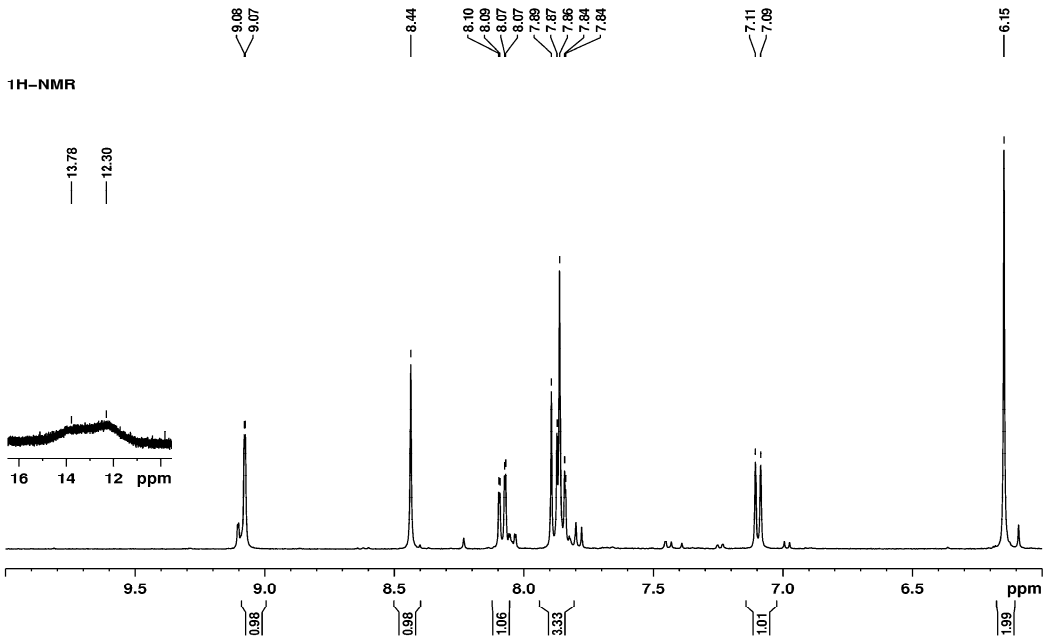


Figure S2.A. The ^{1}H-NMR spectrum corresponding to compound **4t**, recorded in DMSO-d_6, at 400.1 MHz.

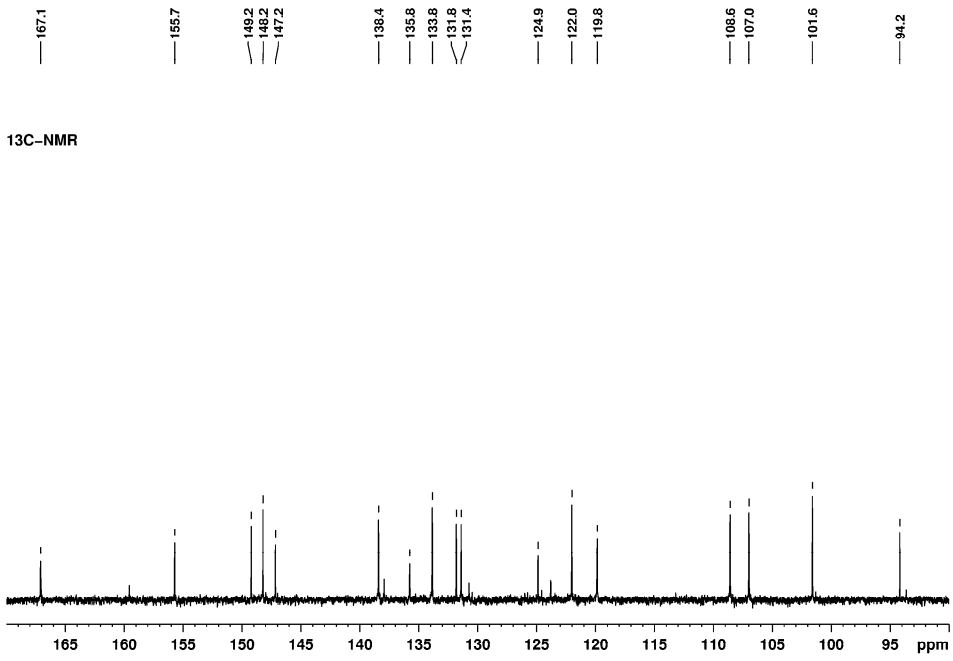


Figure S2.B. The ^{13}C-NMR spectrum corresponding to compound **4t**, recorded in DMSO-d_6, at 100.6 MHz.

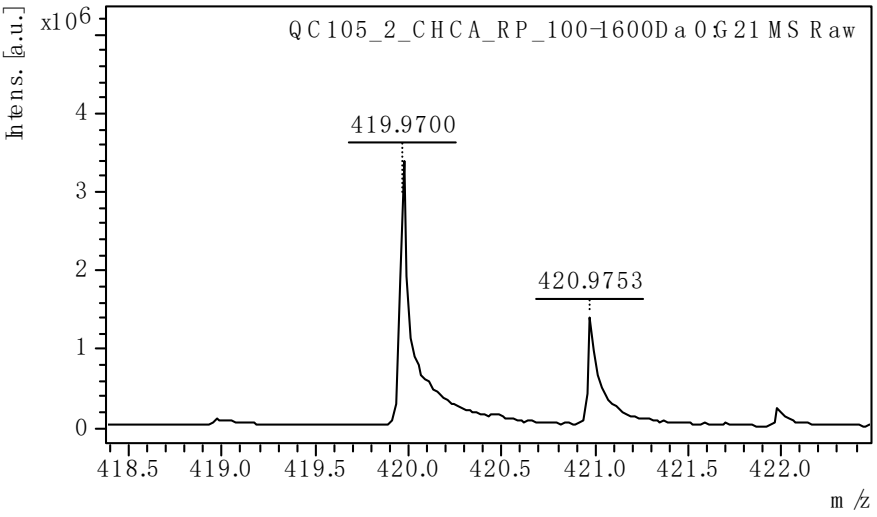


Figure S2.C. MALDI-MS spectrum of the compound **4t**.

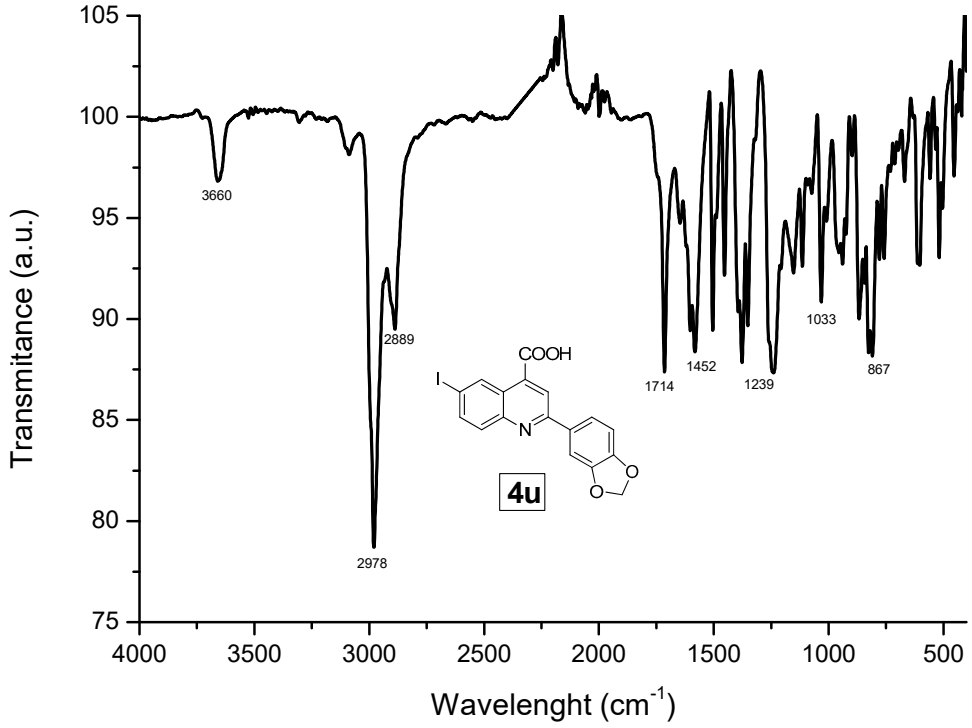


Figure S2.D. FT-IR spectrum of compound **4t.**

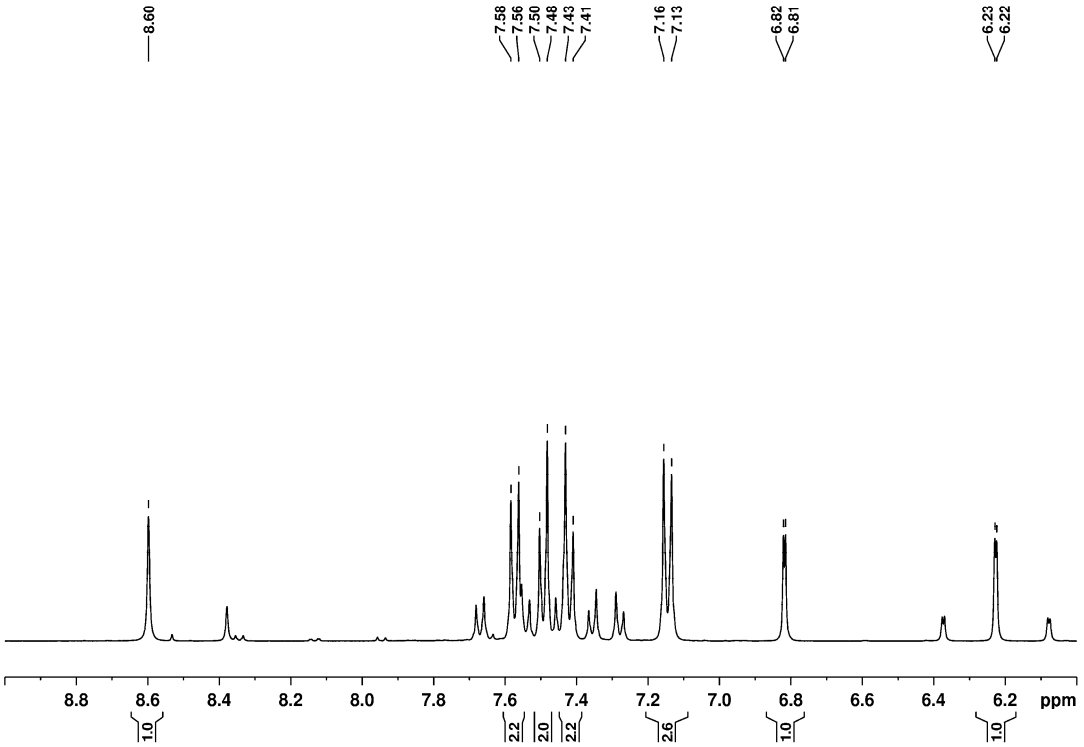


Figure S3.A. The ^{1}H-NMR spectrum corresponding to compound **8c**, recorded in DMSO-d_6, at 400.1 MHz.

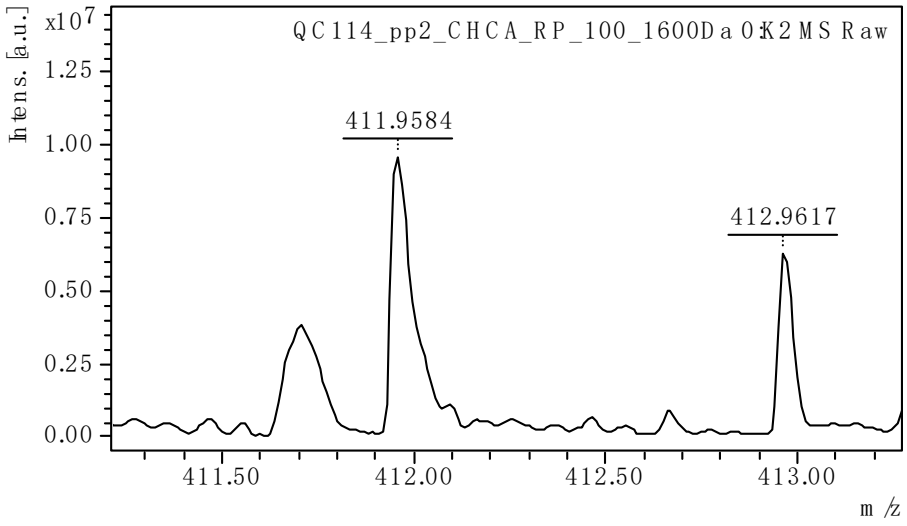


Figure S3.B. MALDI-MS spectra of compound **8c**.

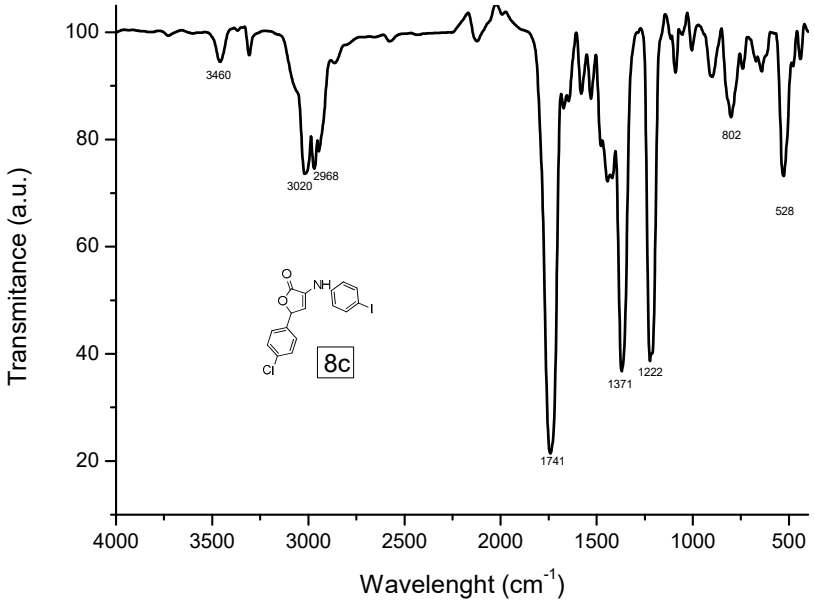


Figure S3.C. FT-IR spectrum of compound **8c.**

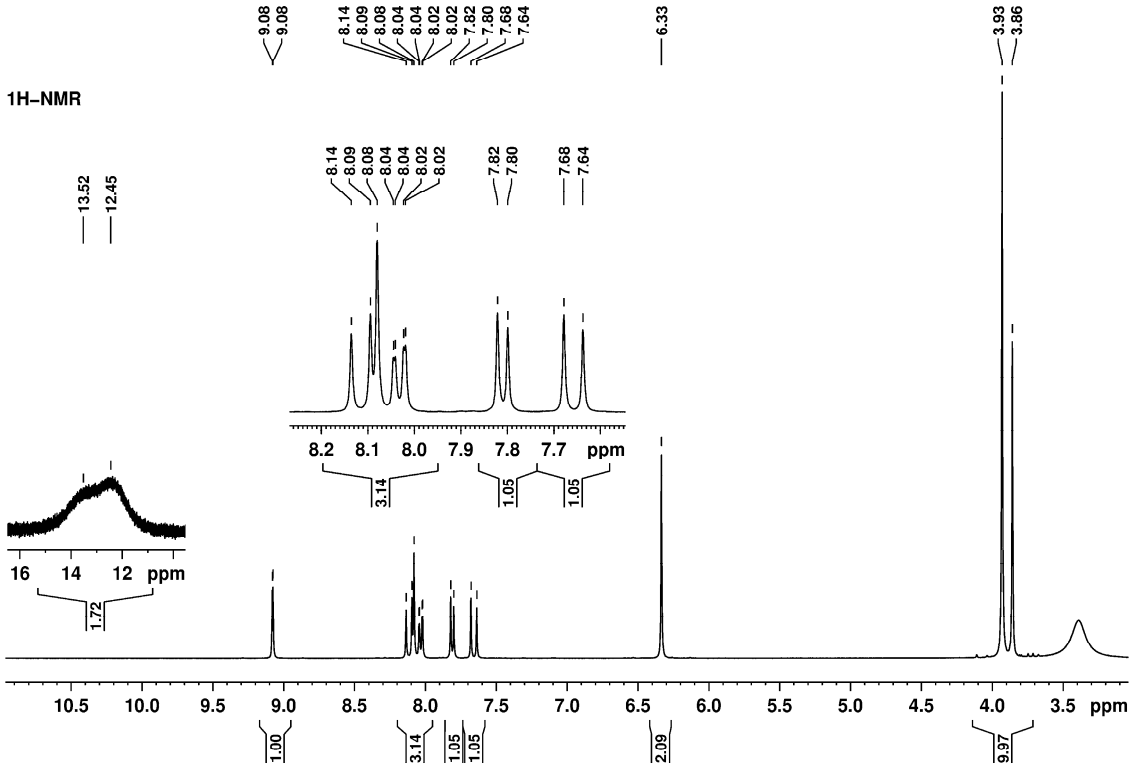


Figure S4.A. The ^{1}H-NMR spectrum corresponding to compound **5n**, recorded in DMSO-d_6, at 400.1 MHz.

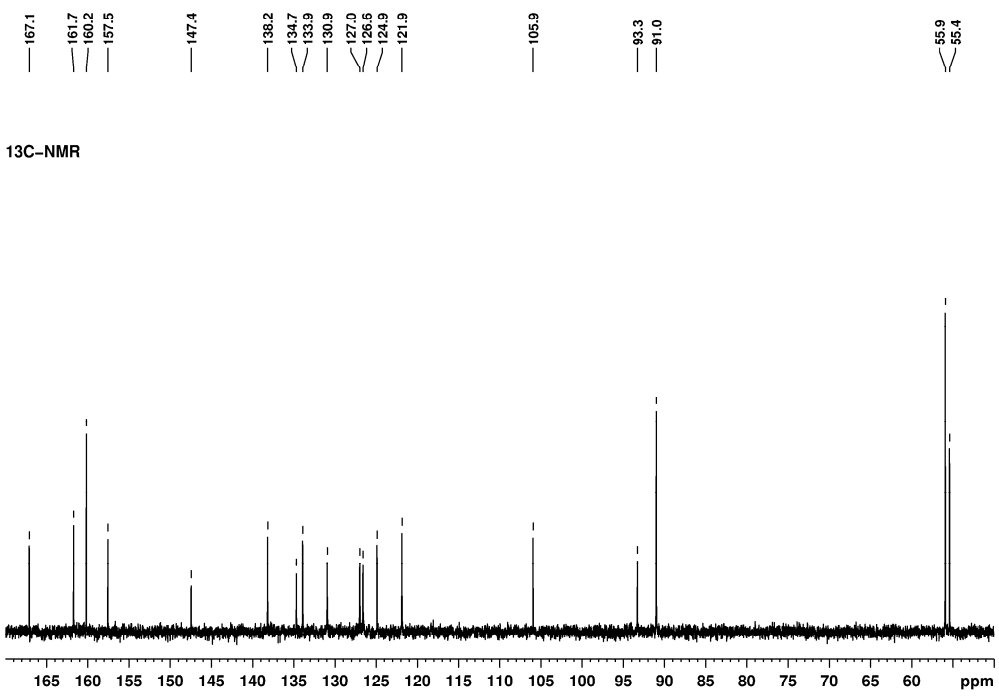


Figure S4.B. The ^{13}C-NMR spectrum corresponding to compound **5n**, recorded in DMSO-d$_6$, at 100.6 MHz.

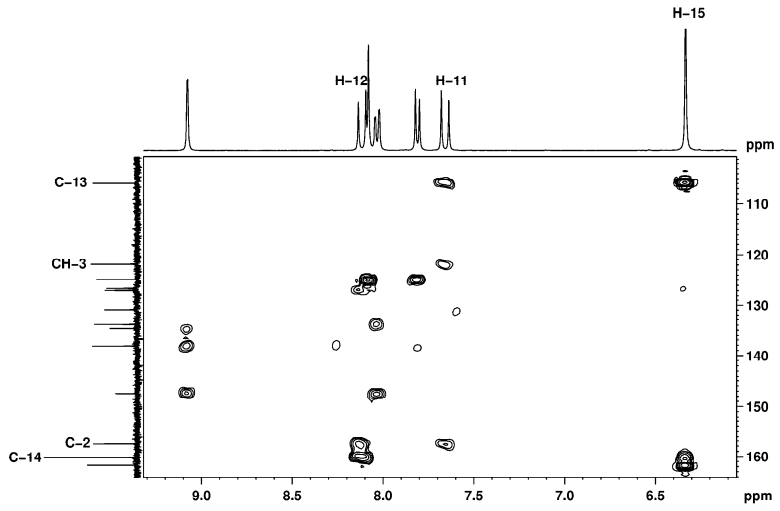


Figure S4.C. The H,C-HMBC spectrum corresponding to compound **5n**, recorded in DMSO-d$_6$, showing correlation signals between vinylic protons and either quinoline's CH-3 or benzaldehyde's C-14 carbon atoms.

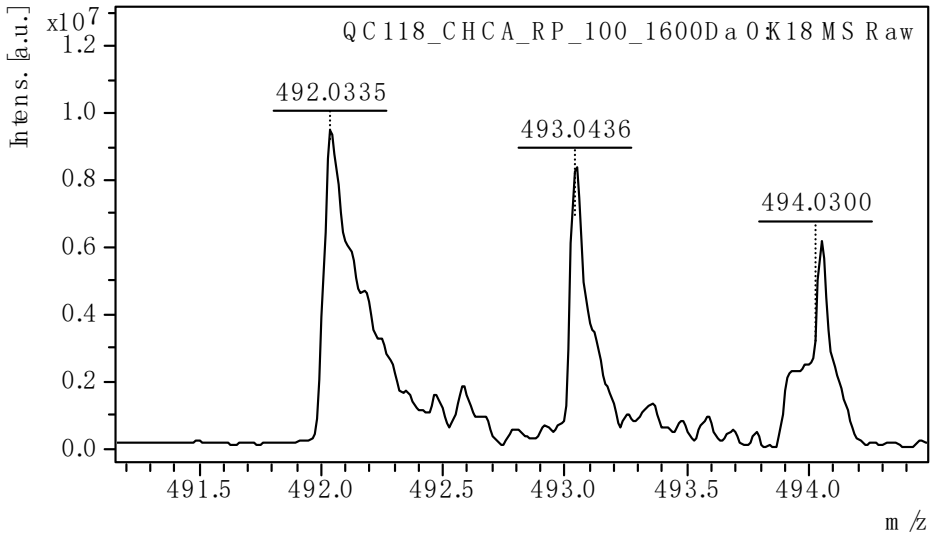


Figure S4.D. Maldi-MS spectrum corresponding to compound **5n**.

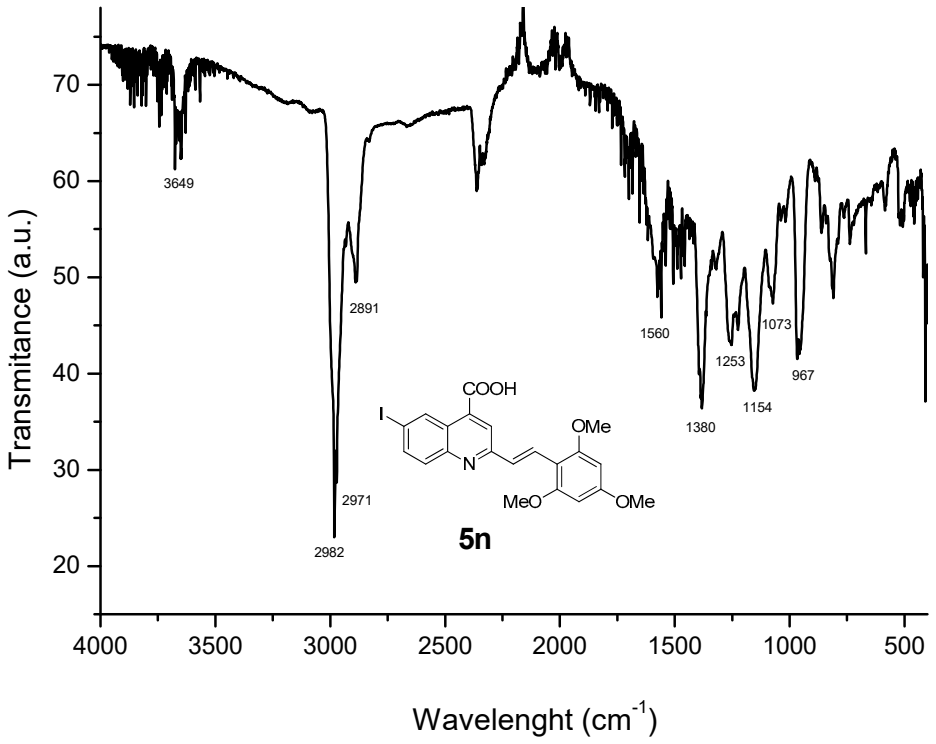


Figure S4.E. FT-IR spectrum of compound **5n**.

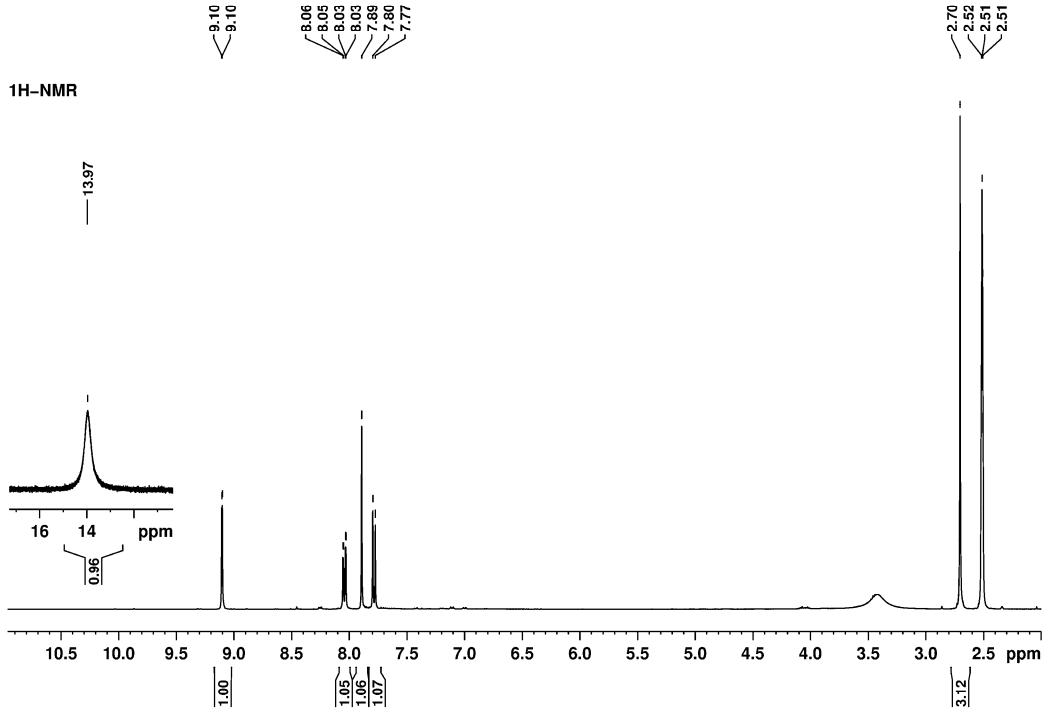


Figure S5.A. The ^{1}H-NMR spectrum corresponding to compound **7**, recorded in DMSO-d_6, at 600.1 MHz.

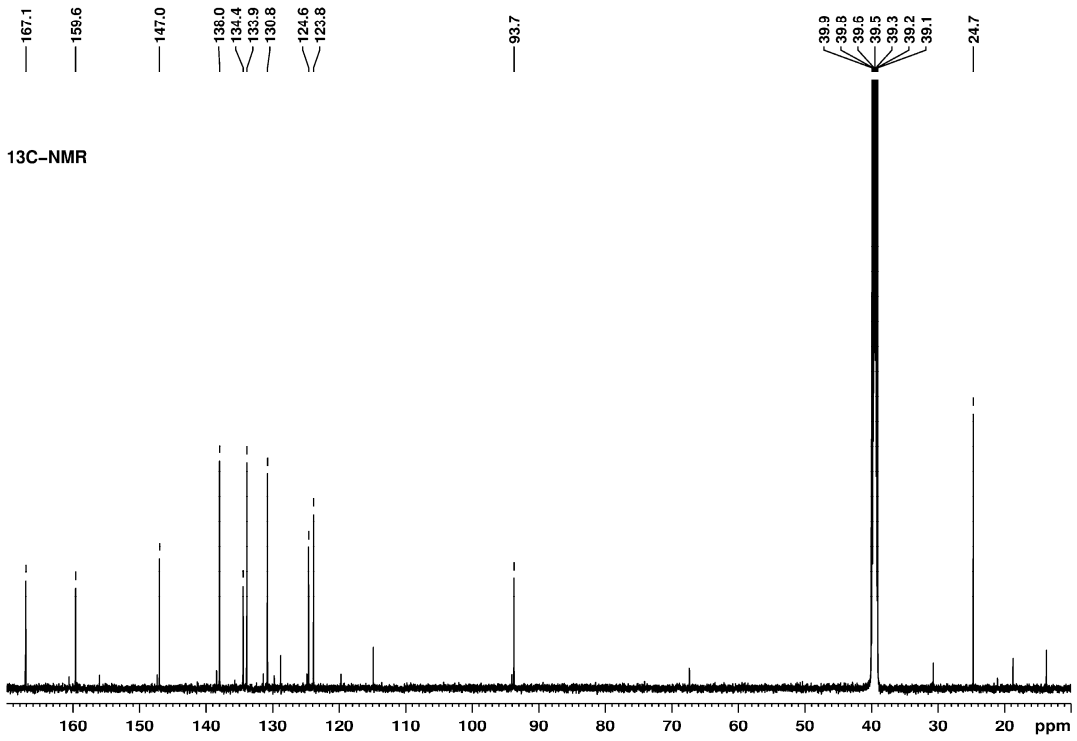


Figure S5.B. The ^{13}C-NMR spectrum corresponding to compound **7,** recorded in DMSO-d_6, at 150.9 MHz.

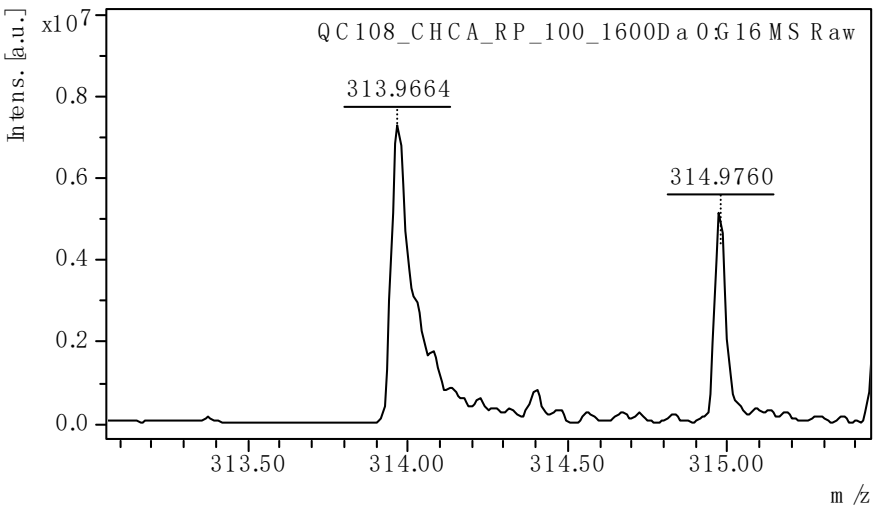


Figure S5.C. Maldi-MS spectrum corresponding to compound **7**.

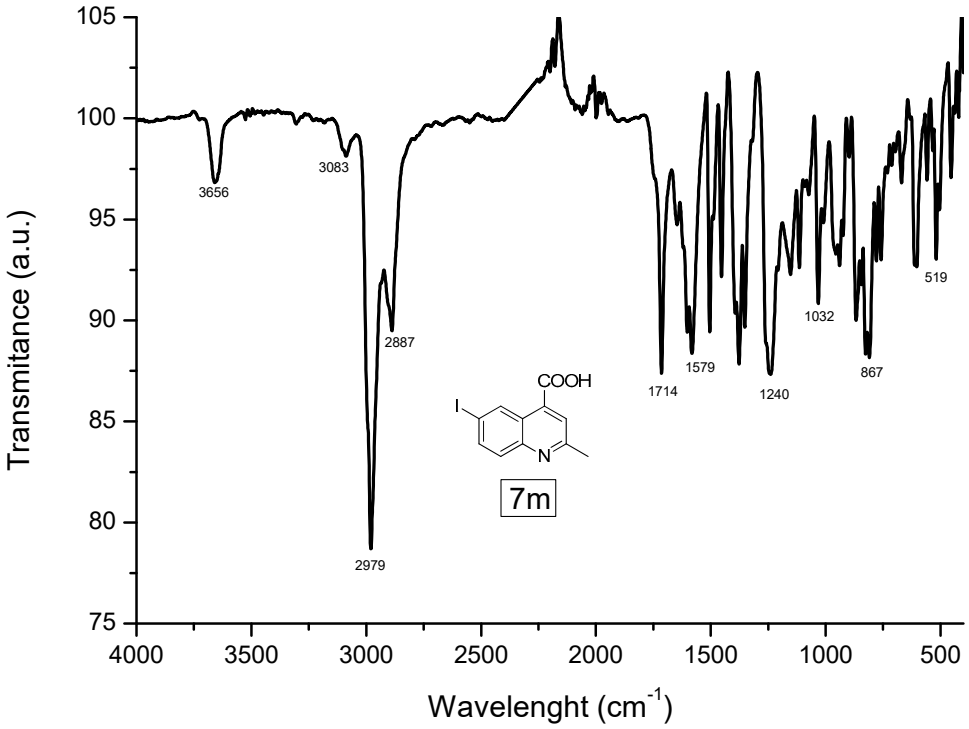
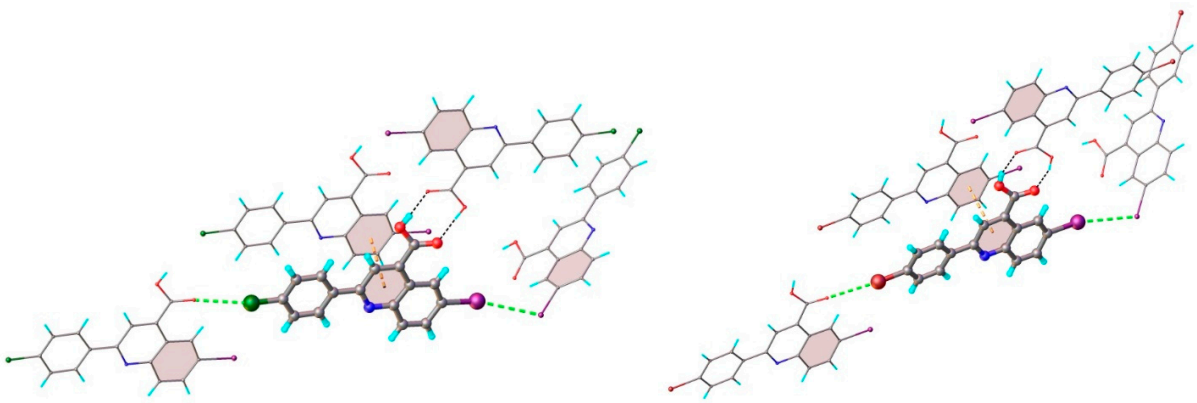


Figure S5.D. FT-IR spectrum of compound **7.**



a) b)

Figure S6. View of the asymmetric unit (large atoms and bonds radii) showing its interaction with adjacent molecules for **4c** (a) and **4d** (b). Hydrogen and halogen bonds are shown as dotted lines with black and green color, respectively.

H-bonds parameters:

For **4c**: O2-H---O1 [O2-H 0.84 Å, H···O1(–*x*, –*y*, 1 – *z*) 1.84 Å, O2···O1 2.683(3) Å, ∠O2HO1 177.2°.

For **4d**: O2-H---O1 [O2-H 0.86 Å, H···O1(–*x*, –*y*, 1 – *z*) 1.85 Å, O2···O1 2.674(6) Å, ∠O2HO1 160.6°.

For **4c**: [C14-Cl1···O1] C14-Cl1 1.744(1) Å, Cl1···O1(1 – x, *y* – 1, *z*) 3.211(1) Å, ∠C14Cl1O1 169.3(1)°.

Halogen bond parameters:

For **4d**: [C14-Br1···O1] C14-Br1 1.891(7) Å, Br1···O1(1 – x, *y* – 1, *z*) 3.314(5) Å, ∠C14Br1O1 162.2(4)°.

I···I contacts: 3.8052(1) (for **4c**)Å; 3.9115(8) Å (for **4d**);

Centroid-to-centroid distances (orange dotted lines): 3.5512 Å (for **4c**); 3.5878(1) Å (for **4d**);

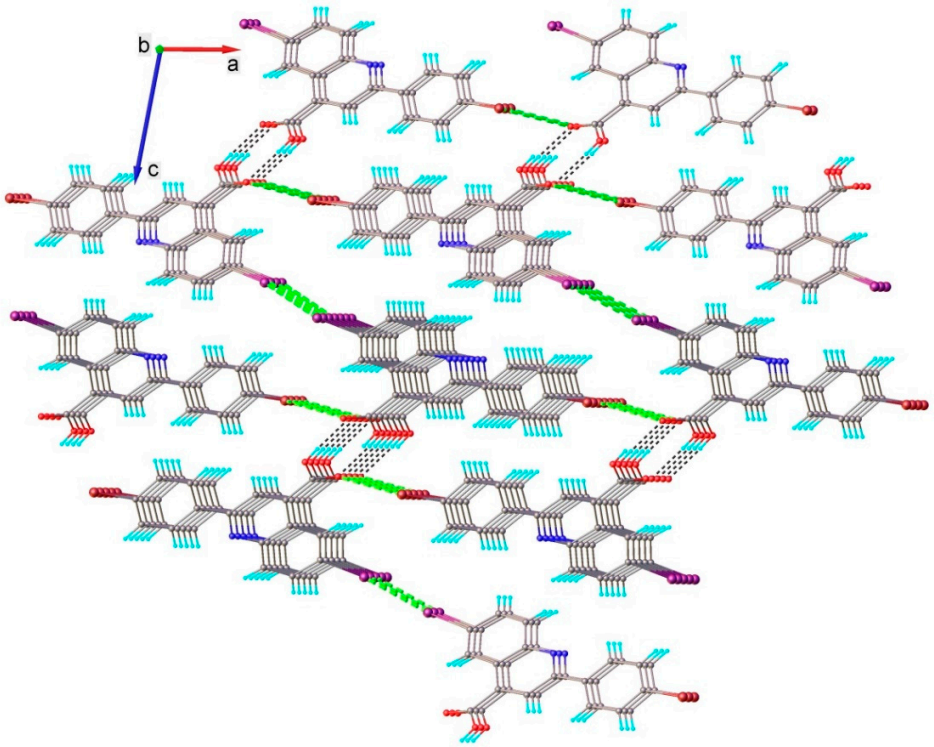


Figure S7. Crystal packing viewed along *b* axis for **4d**.