

Supporting Information

A bifunctional [Ch][Triz] ionic liquid catalyst for CO₂ transformation into quinazoline-2,4(1H,3H)-diones under mild conditions

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- 1 □ ¹³C NMR spectra of [Ch][Triz], and the intermediate of [Ch][Triz] exposed to CO₂, Figure S1.
- 2 □ ¹H NMR spectra of the as-synthesized ILs, Figure S2-S6.
- 3 □ ¹H NMR spectra of the products, Figure S7-S11.

1. ^{13}C NMR spectra of $[\text{Ch}][\text{Triz}]$, and the intermediate of $[\text{Ch}][\text{Triz}]$ exposed to CO_2 , Figure S1

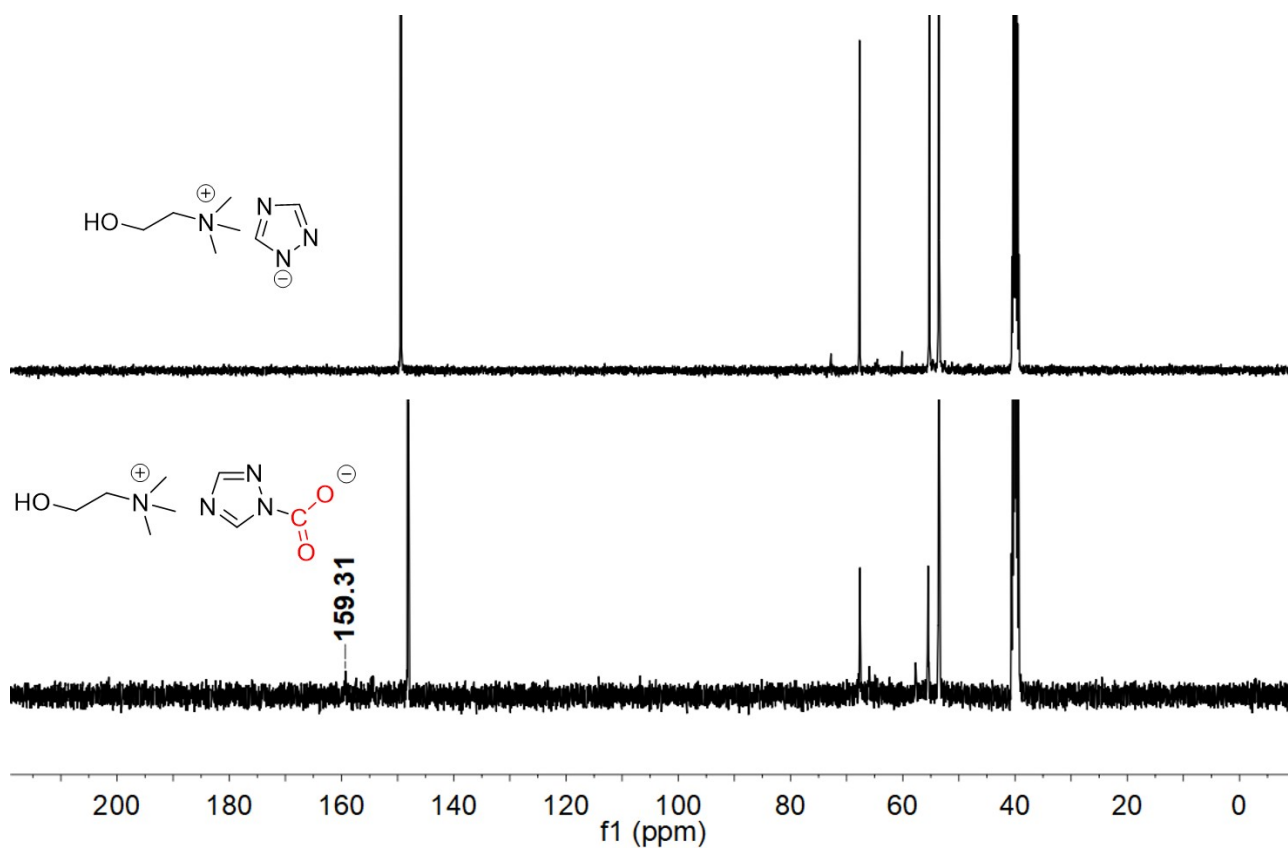


Figure S1. The ^{13}C NMR spectra of $[\text{Ch}][\text{Triz}]$, and the intermediate of $[\text{Ch}][\text{Triz}]$ exposed to atmospheric pressure CO_2 at $50\text{ }^\circ\text{C}$ for 24 h, (DMSO- d_6 , 298 K).

2. ^1H NMR spectra of as-synthesized ILs, Figure S2-S6

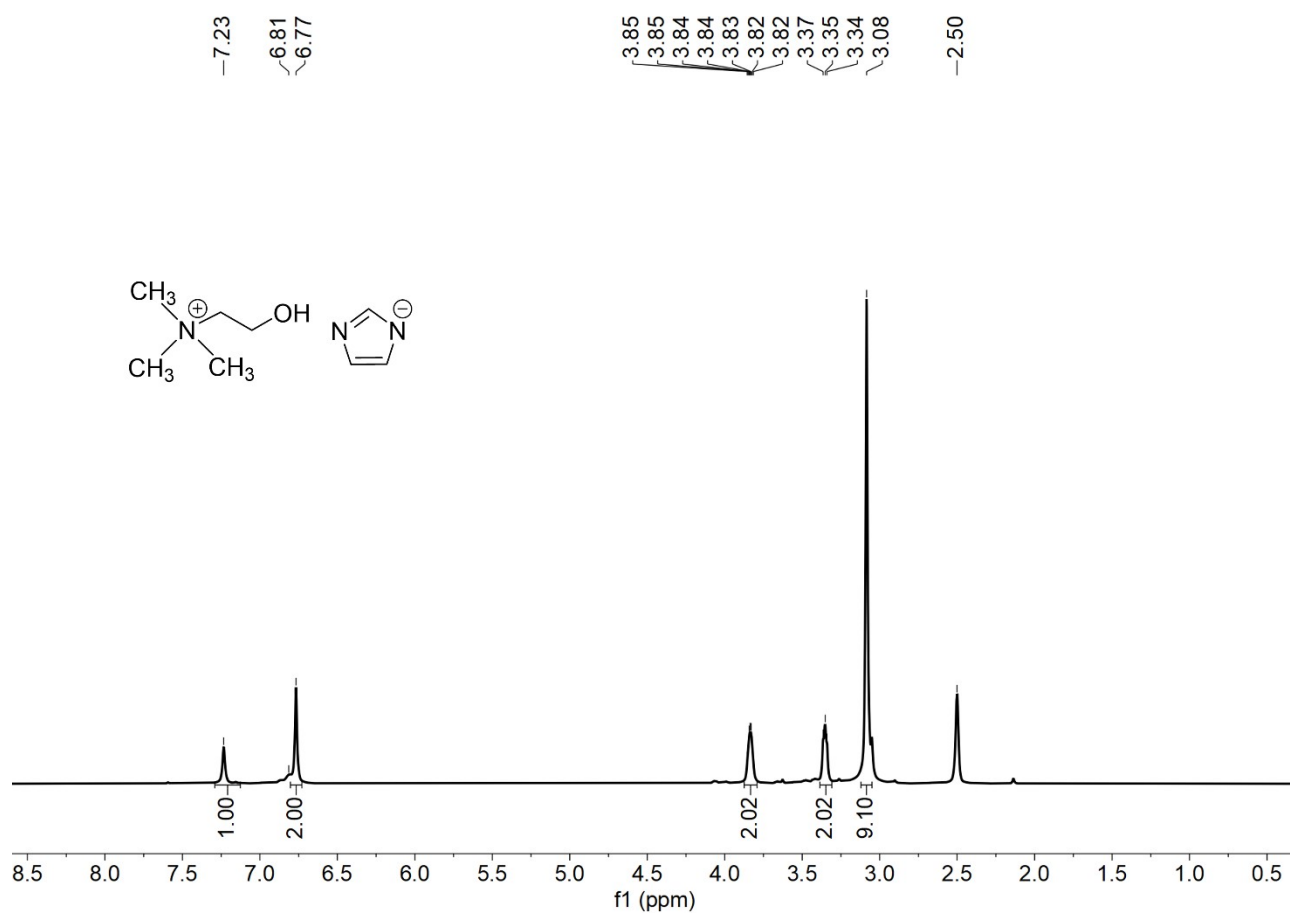


Figure S2. ^1H NMR spectra of [Ch][Im]

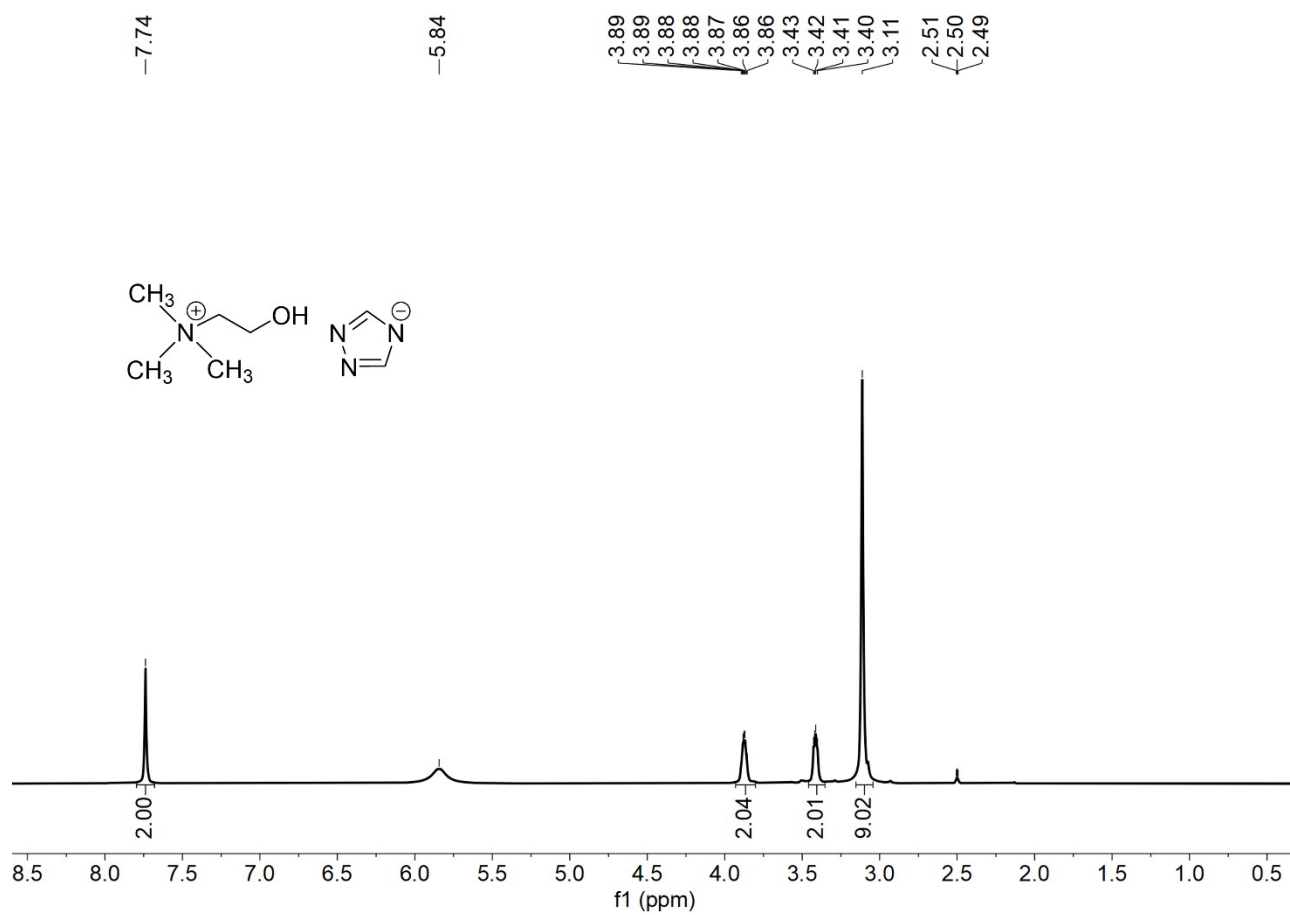


Figure S3. ¹H NMR spectra of [Ch][Triz]

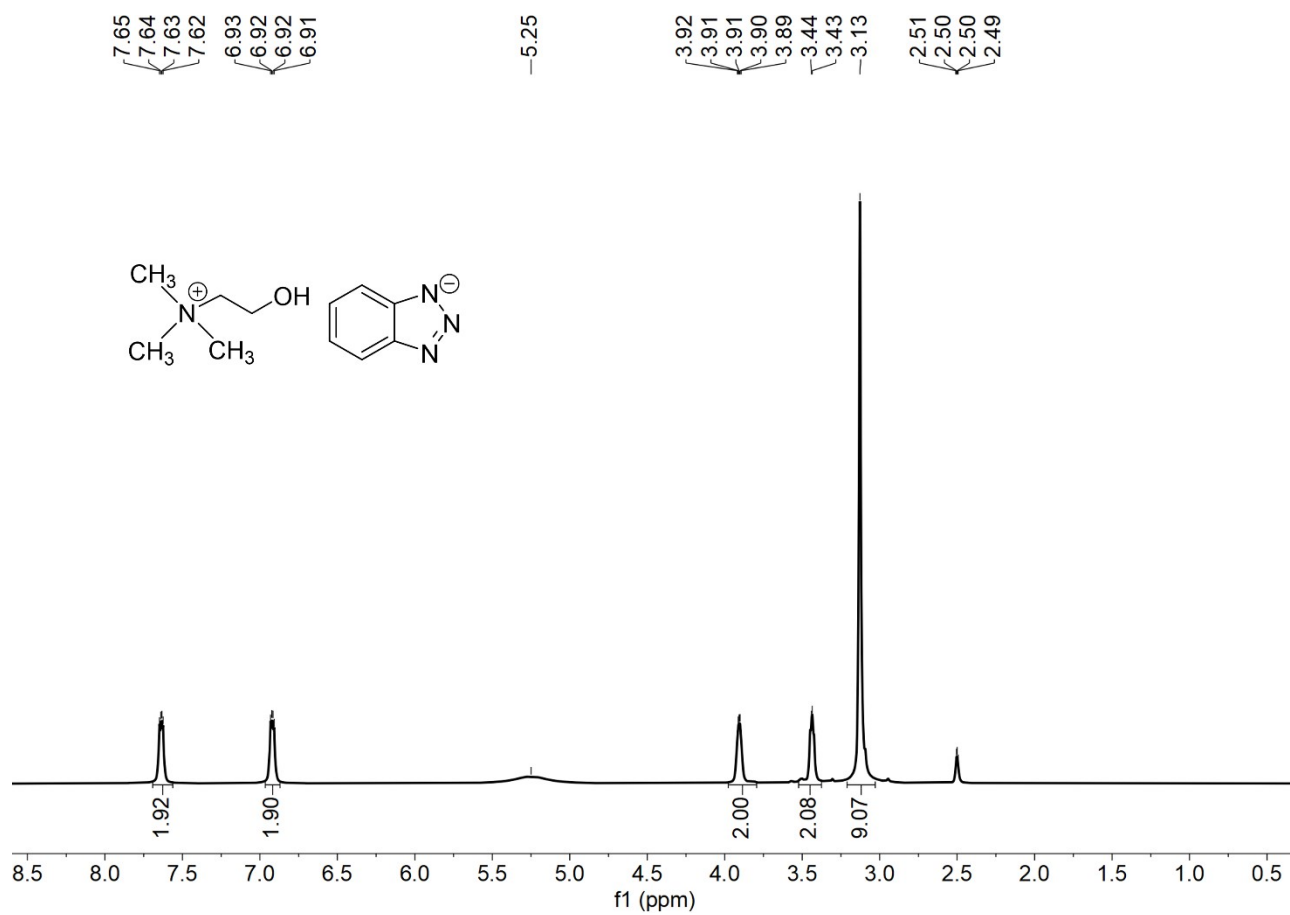


Figure S4. ¹H NMR spectra of [Ch][Bentriz]

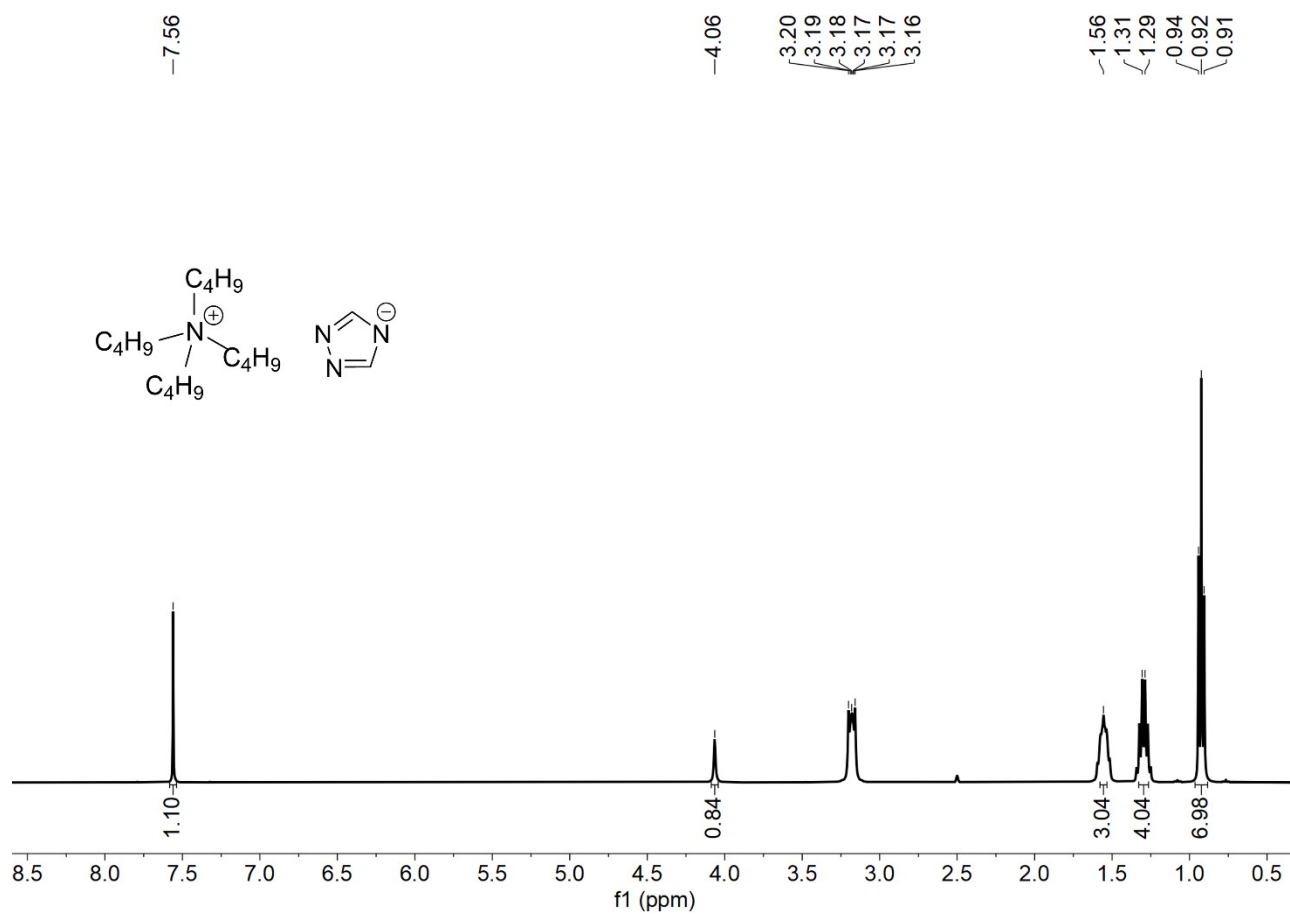


Figure S5. ¹H NMR spectra of [N₄₄₄₄][Triz]

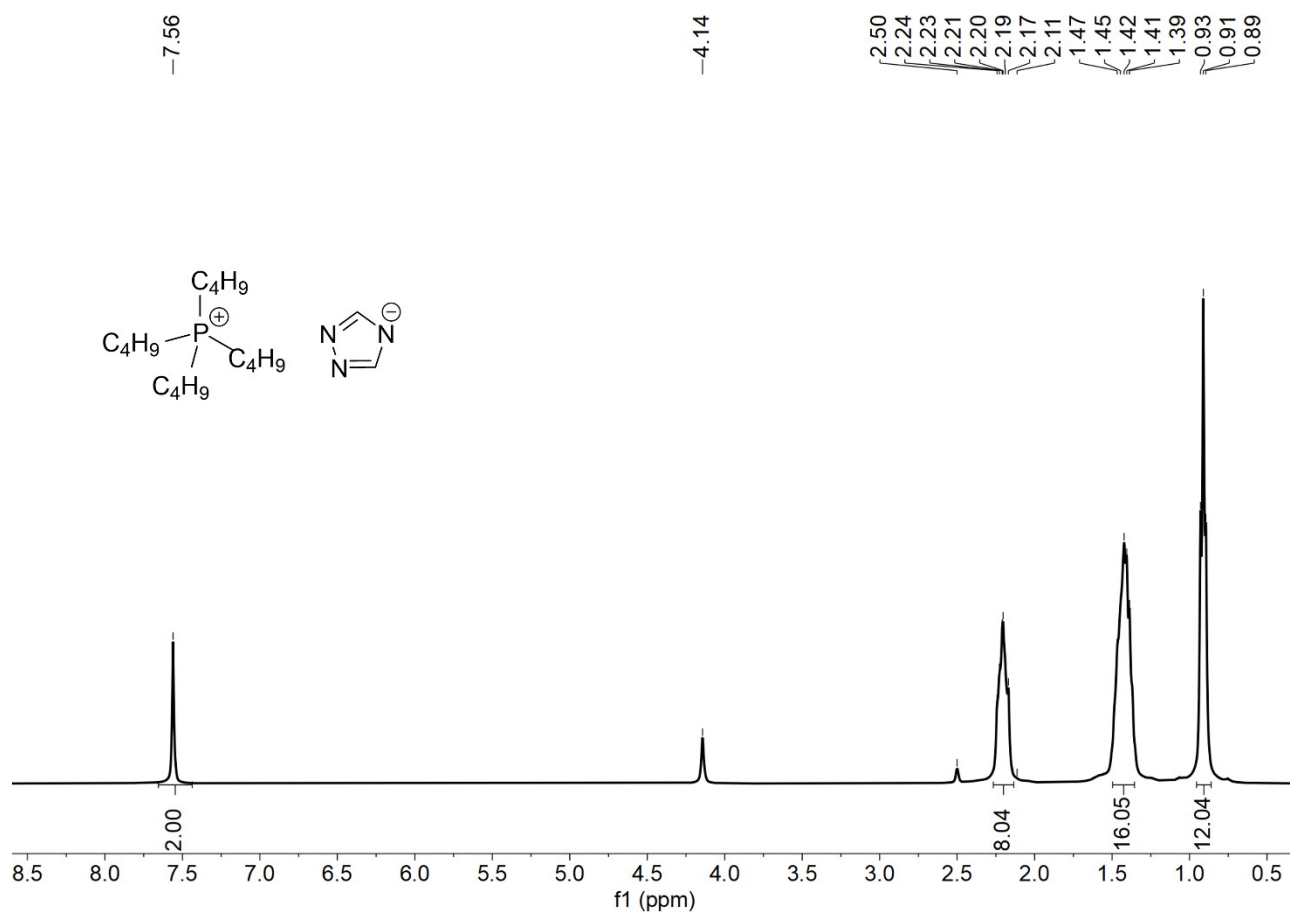


Figure S6. ¹H NMR spectra of [P₄₄₄₄][Triz]

3. ¹H NMR spectra of the products, Figure S7-S11

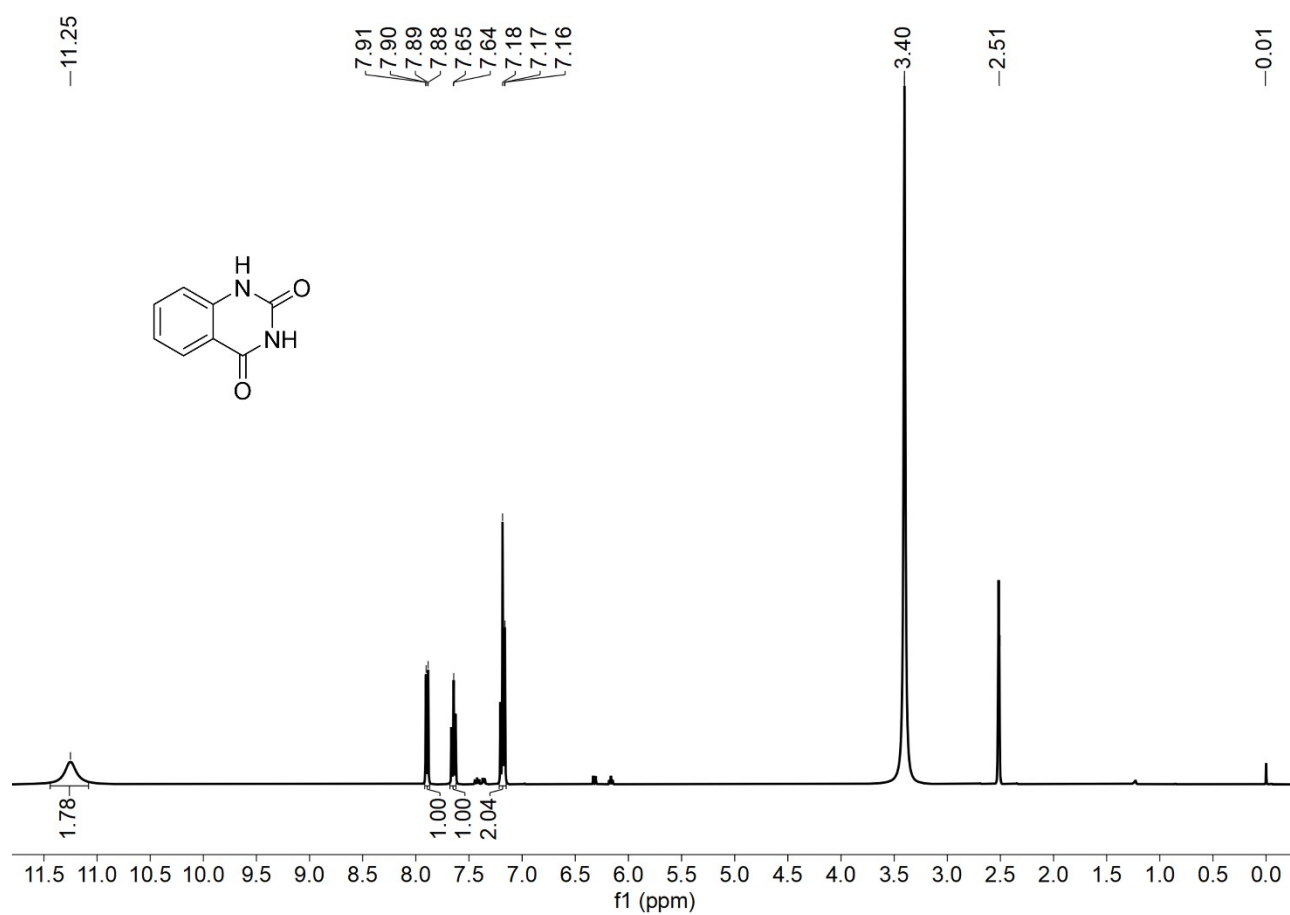


Figure S7. ¹H NMR spectra of quinazoline-2,4(1H,3H)-dione

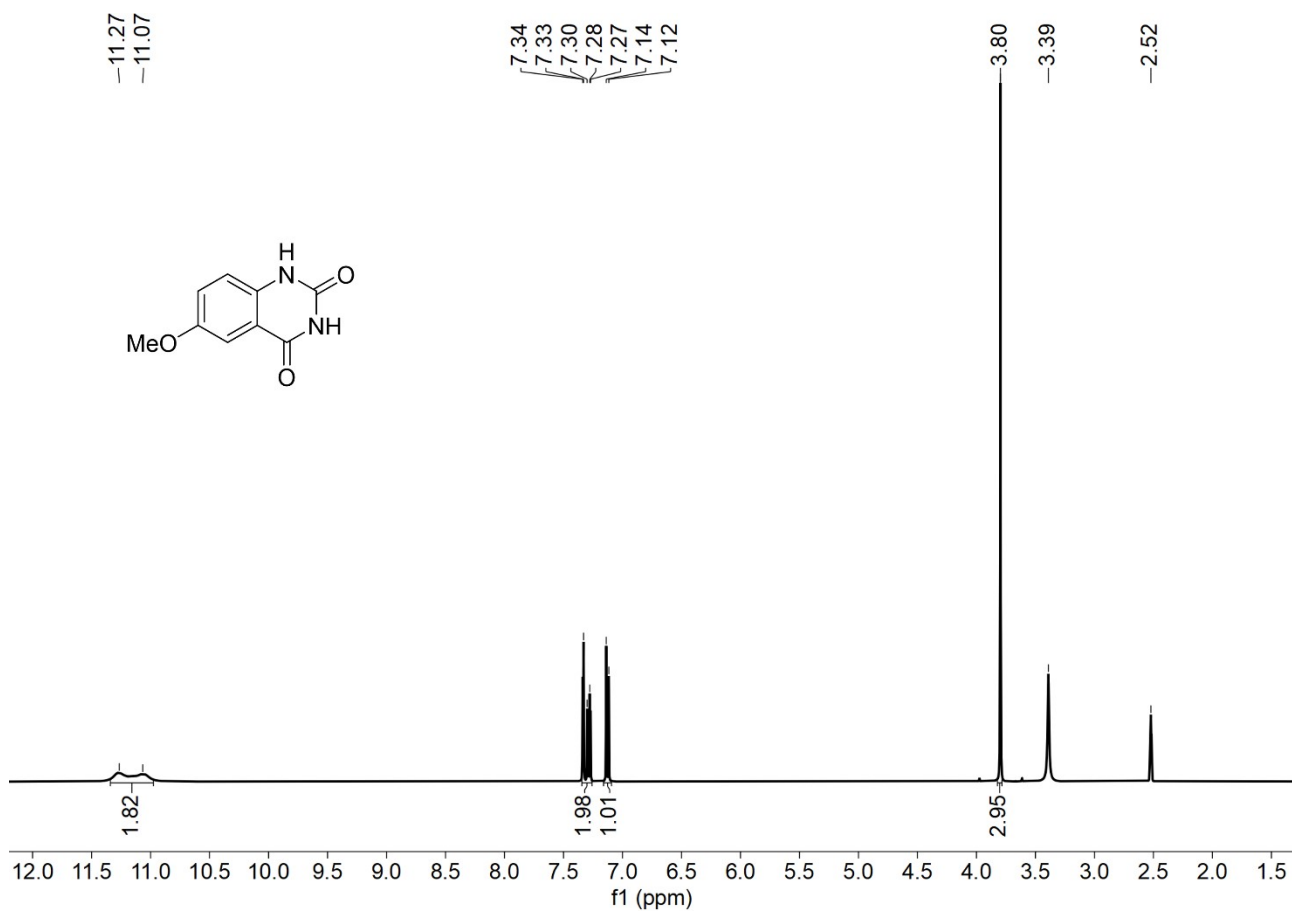


Figure S8. ¹H NMR spectra of 7-methoxy-quinazoline-2,4(1H,3H)-dione

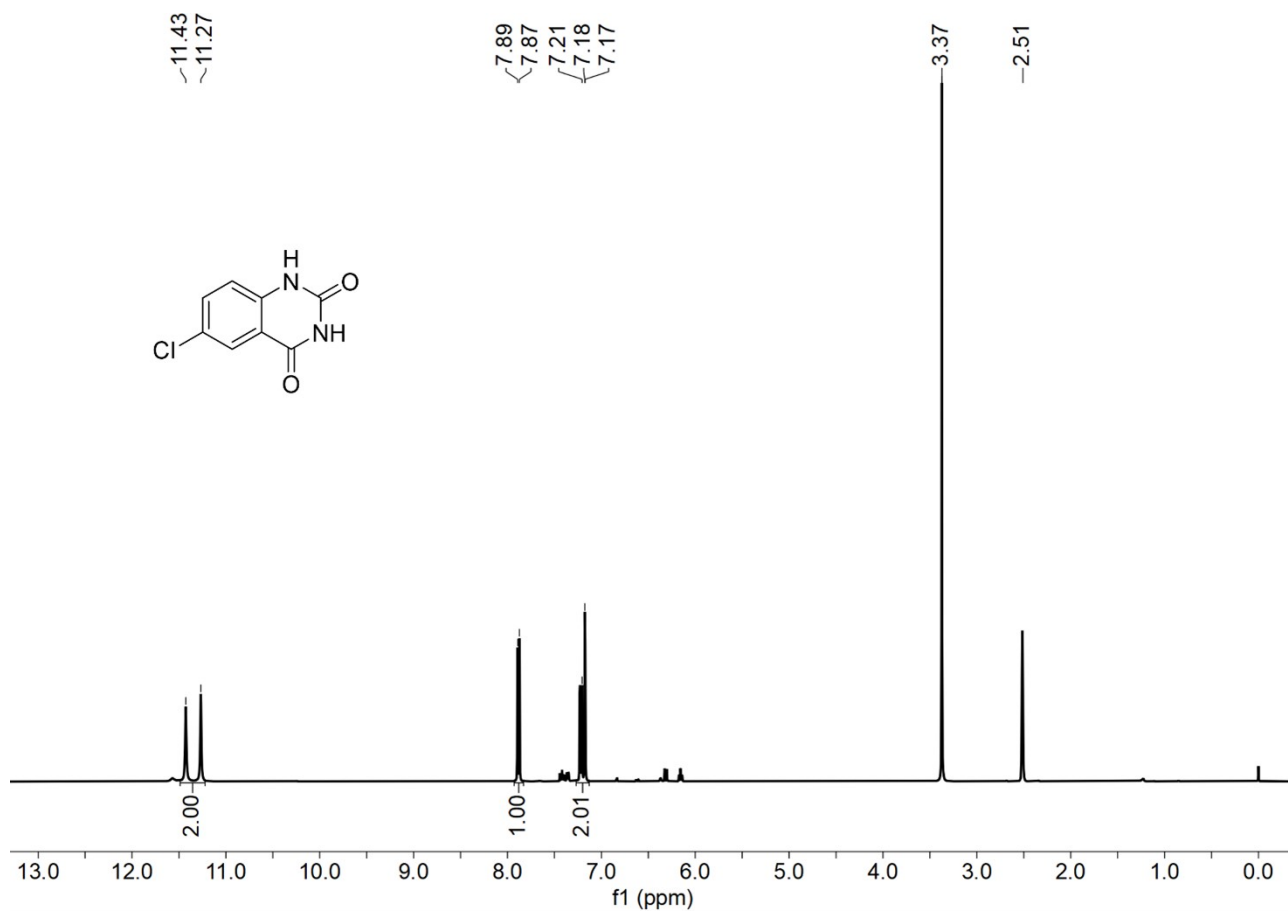


Figure S9. ¹H NMR spectra of 7-chlorine-quinazoline-2,4(1H,3H)-dione

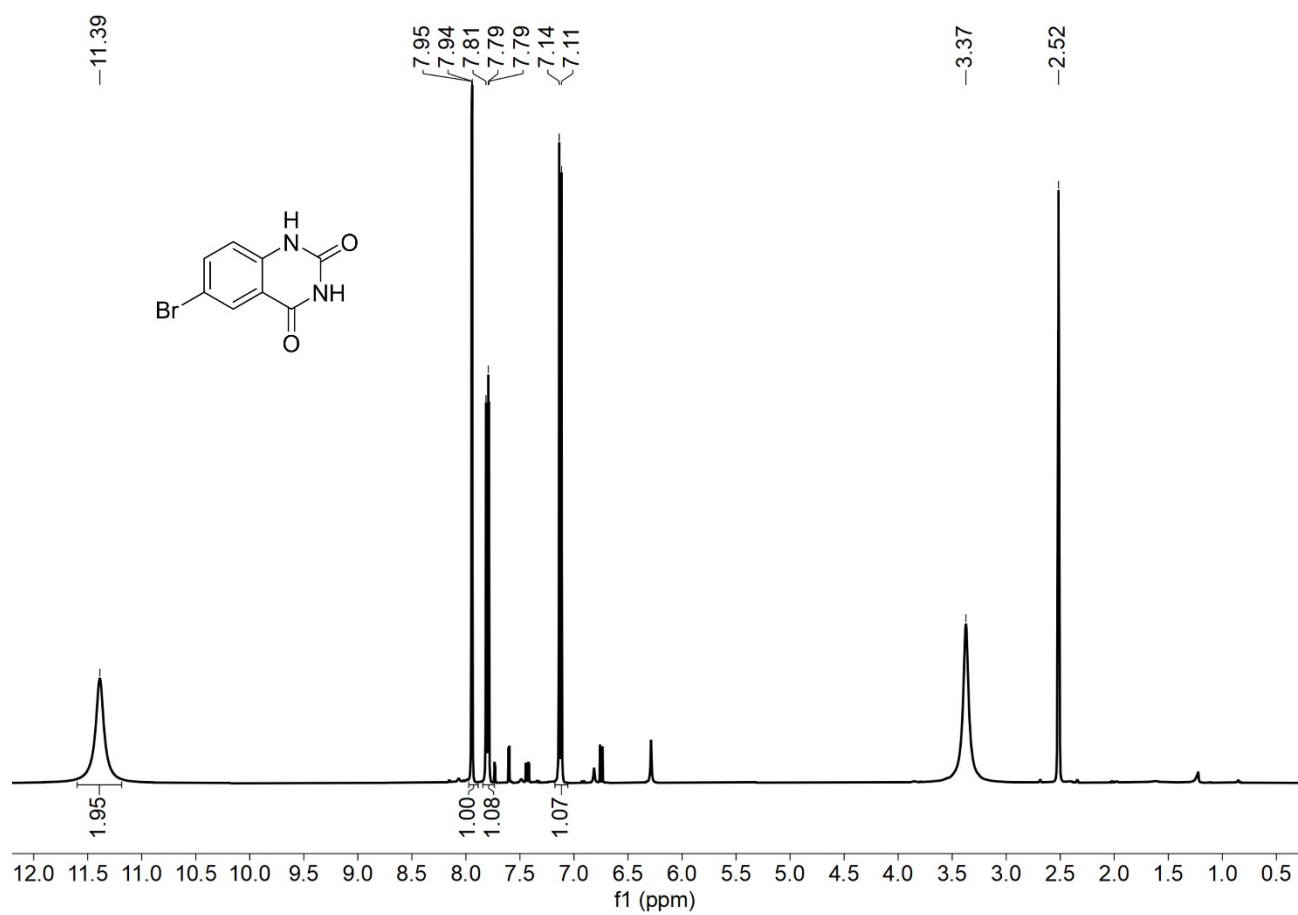


Figure S10. ¹H NMR spectra of 7-bromine-quinazoline-2,4(1H,3H)-dione

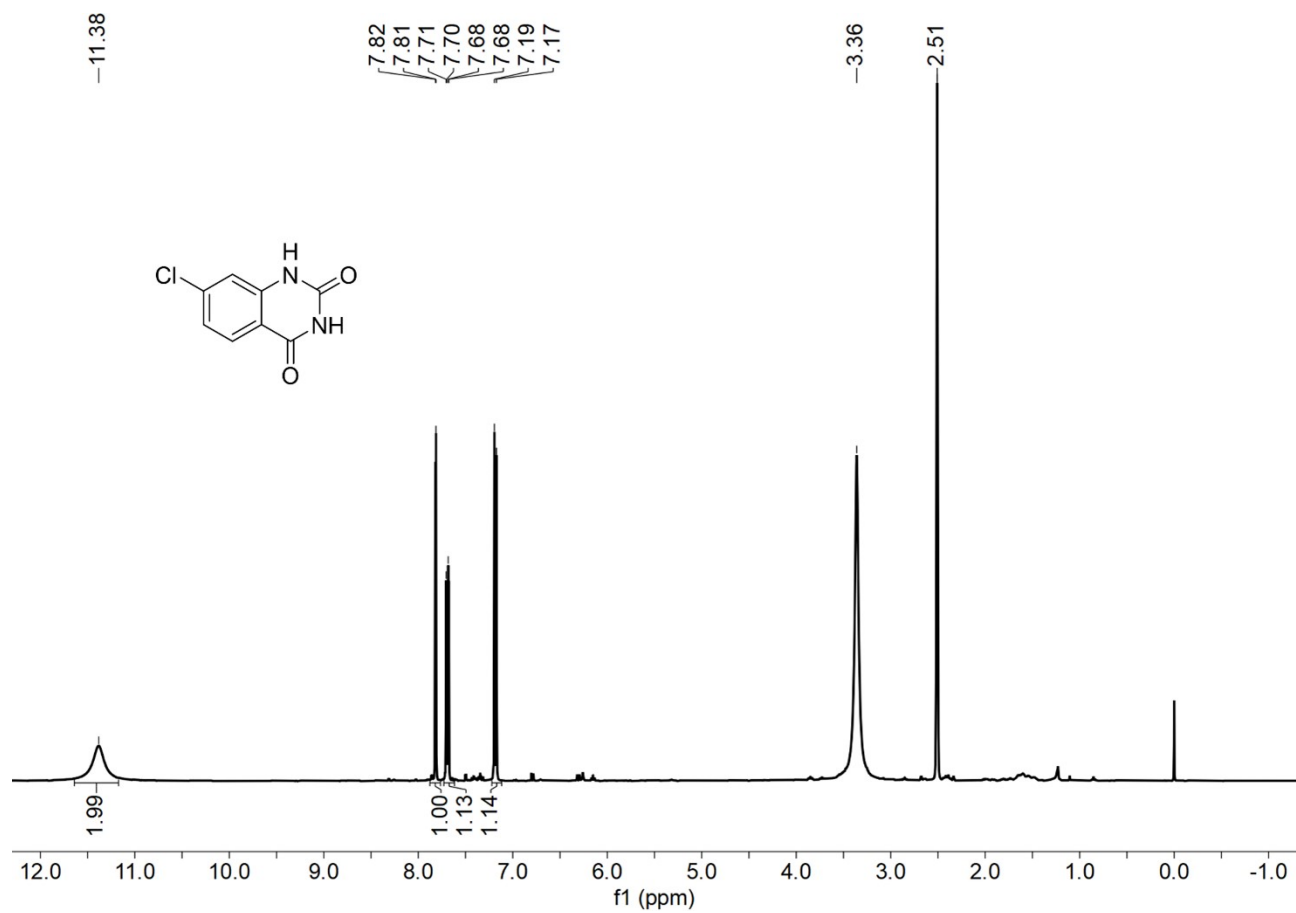


Figure S11. ¹H NMR spectra of 6-chlorine-quinazoline-2,4(1H,3H)-dione