

## ***Supporting Information***

### **SYNTHESIS OF INDOLINES VIA A PHOTOCATALYTIC INTRAMOLECULAR REDUCTIVE CYCLIZATION REACTION**

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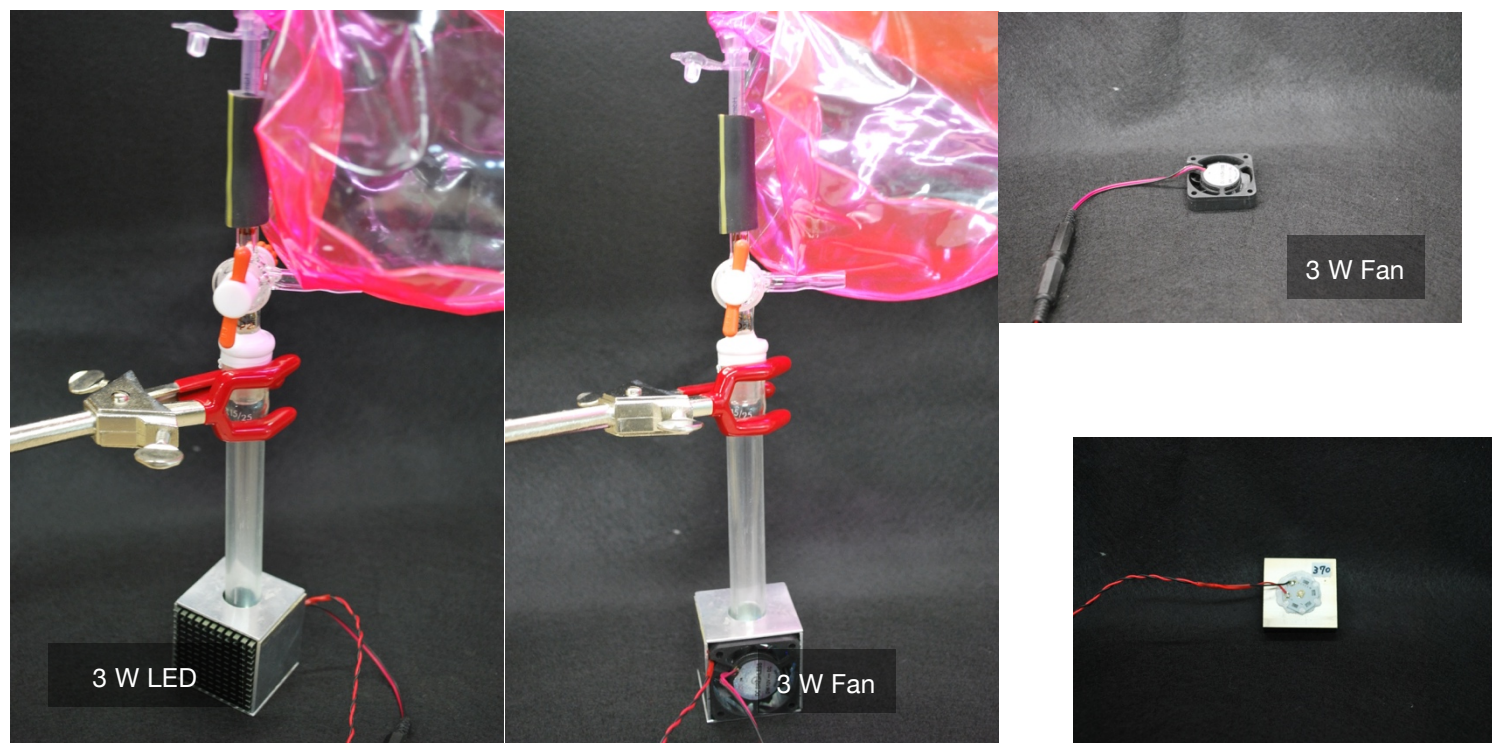
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## **General Information**

Unless otherwise noted, all reactants or reagents including dry solvents were obtained from commercial suppliers and used as received. Analytical thin-layer chromatography (TLC) was carried out using 0.25 mm commercial silica gel plates (Merck silica gel 60 F254). Flash column chromatography was performed with Kanto silica gel 60N (Spherical, Neutral, 40–50 mm). Visualization of the developed chromatogram was performed by UV lamp (254 nm) and phosphomolybdic acid or basic potassium permanganate stain. NMR spectra were recorded on a JEOL ECA 500 spectrometer (500 MHz for  $^1\text{H}$  NMR, 125 MHz for  $^{13}\text{C}$  NMR and 470 MHz for  $^{19}\text{F}$  NMR), and are internally referenced to residual protio solvent signals or TMS (note:  $\text{CDCl}_3$  referenced at  $\delta$  7.26 and 77.0 ppm respectively, TMS referenced at  $\delta$  0 and 0 ppm respectively). Data for  $^1\text{H}$  NMR are reported as follows: chemical shift ( $\delta$  ppm), multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet, br = broad, dd = doublet of doublets, ddd = doublet of doublet of doublets, td = triplet of doublets), coupling constant (Hz), integration, and assignment. Data for  $^{13}\text{C}$  NMR are reported in terms of chemical shifts ( $\delta$  ppm). High-resolution mass spectra (HRMS) were obtained on a JEOL JMS-T100TD and reported as  $m/z$  ( $\text{M}+\text{H}^+$ , relative intensity). IR spectra were recorded on a Perkin Elmer Spectrum 100 FTIR spectrometer and are reported in terms of frequency of absorption ( $\text{cm}^{-1}$ ). Melting points were measured on a Yanagimoto micro melting point apparatus without correlation.

### ***The reactor's LED and photochemical set up***

The experiments were performed using aluminum box (40 mm x 40 mm x 40 mm) equipped with a light-emitting diode (370 nm, 3 W LED) as a light source, with a fan (3W, 38 mm) (figure S1).



**Figure S1.** Photochemical set up.

# NMR spectra of 2I

