

## **Design of New Photosensitizers and Controlled Singlet Oxygen Generation for Photodynamic Therapy**

Esra Tanrıverdi Eçik\*, Onur Bulut, Hasan Huseyin Kazan, Elif Şenkuytu and Bünyemin  
Çoşut

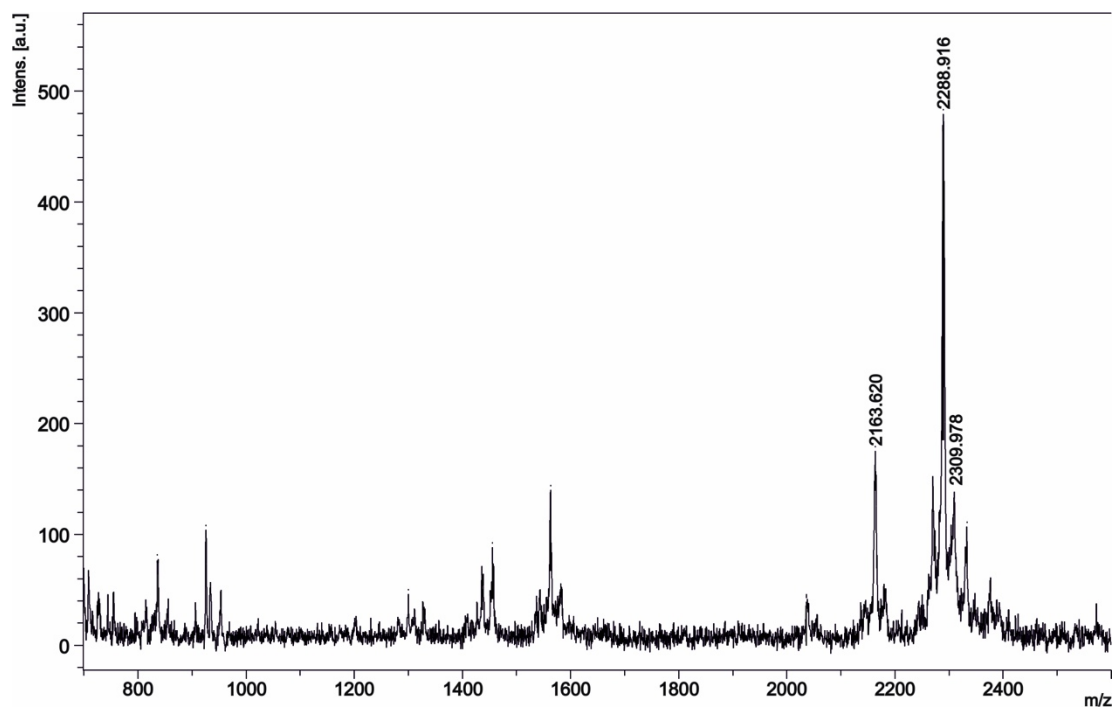


Figure S1: Mass spectrum of compound 5

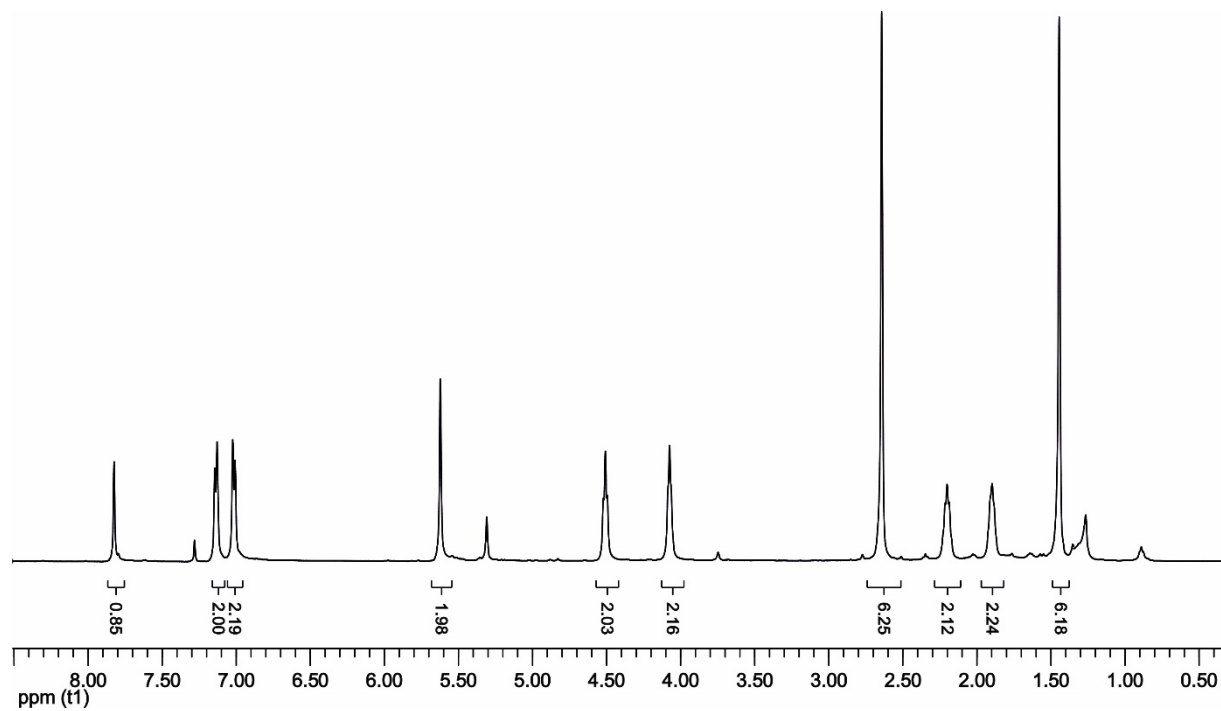
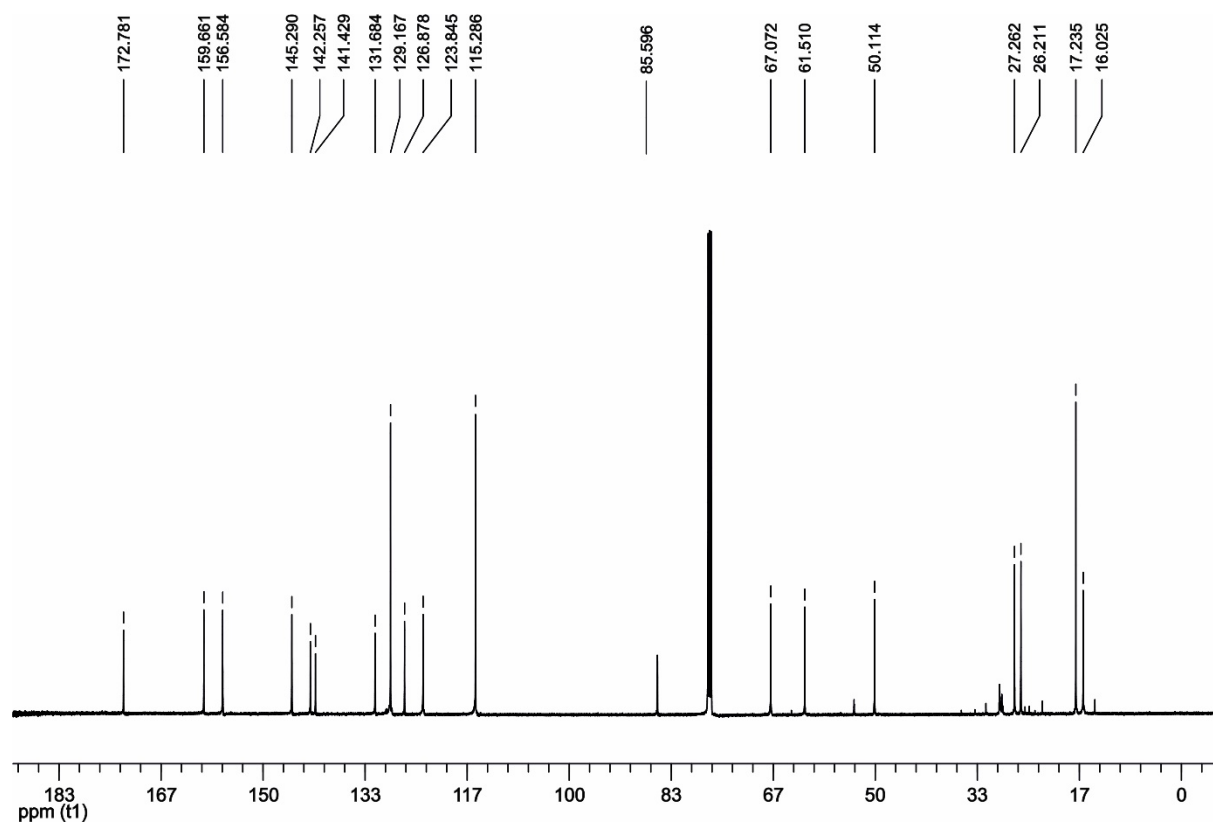
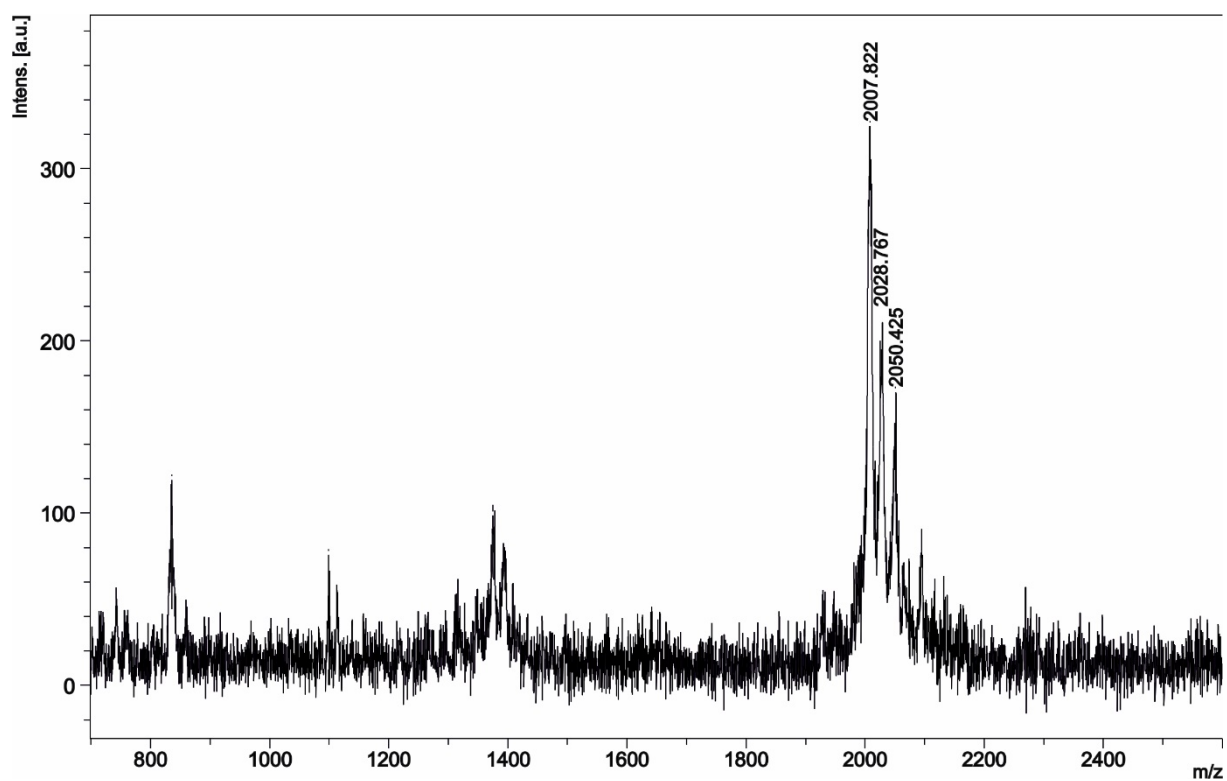


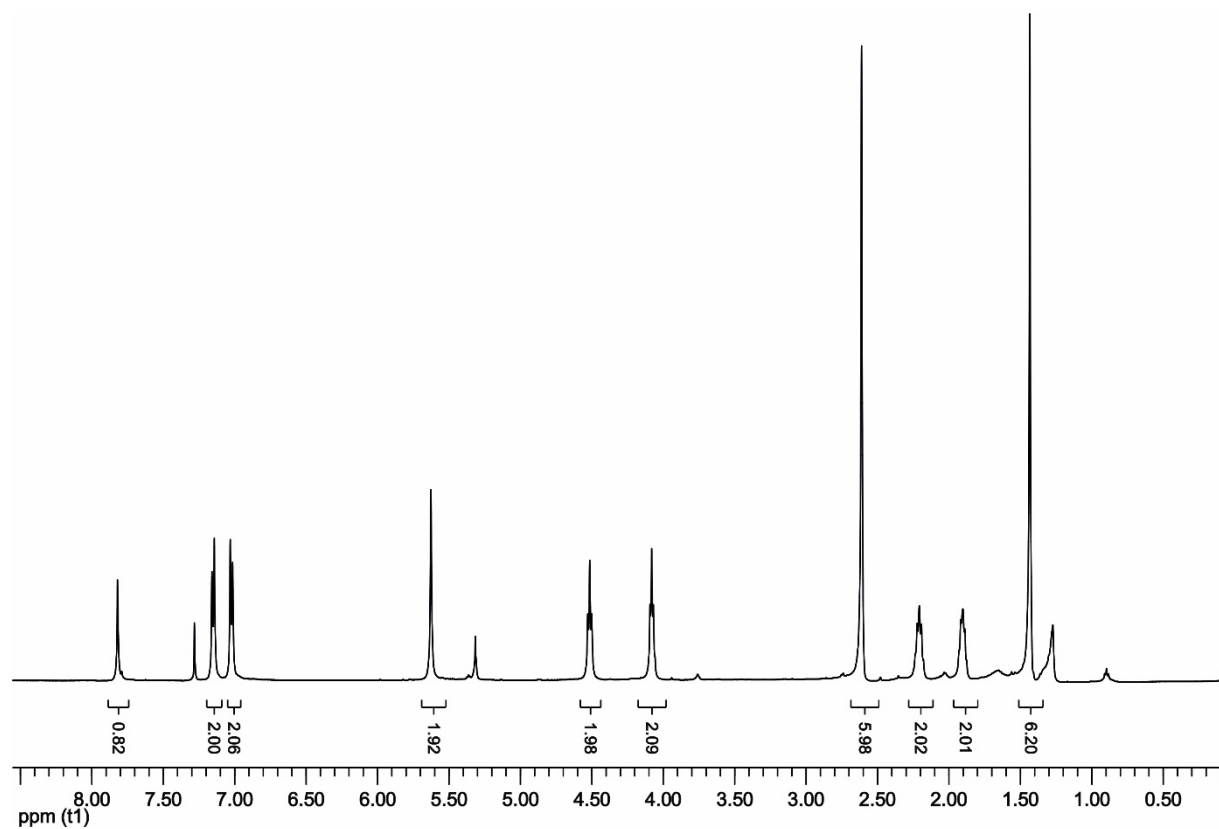
Figure S2:  $^1\text{H}$  NMR spectrum of compound 5



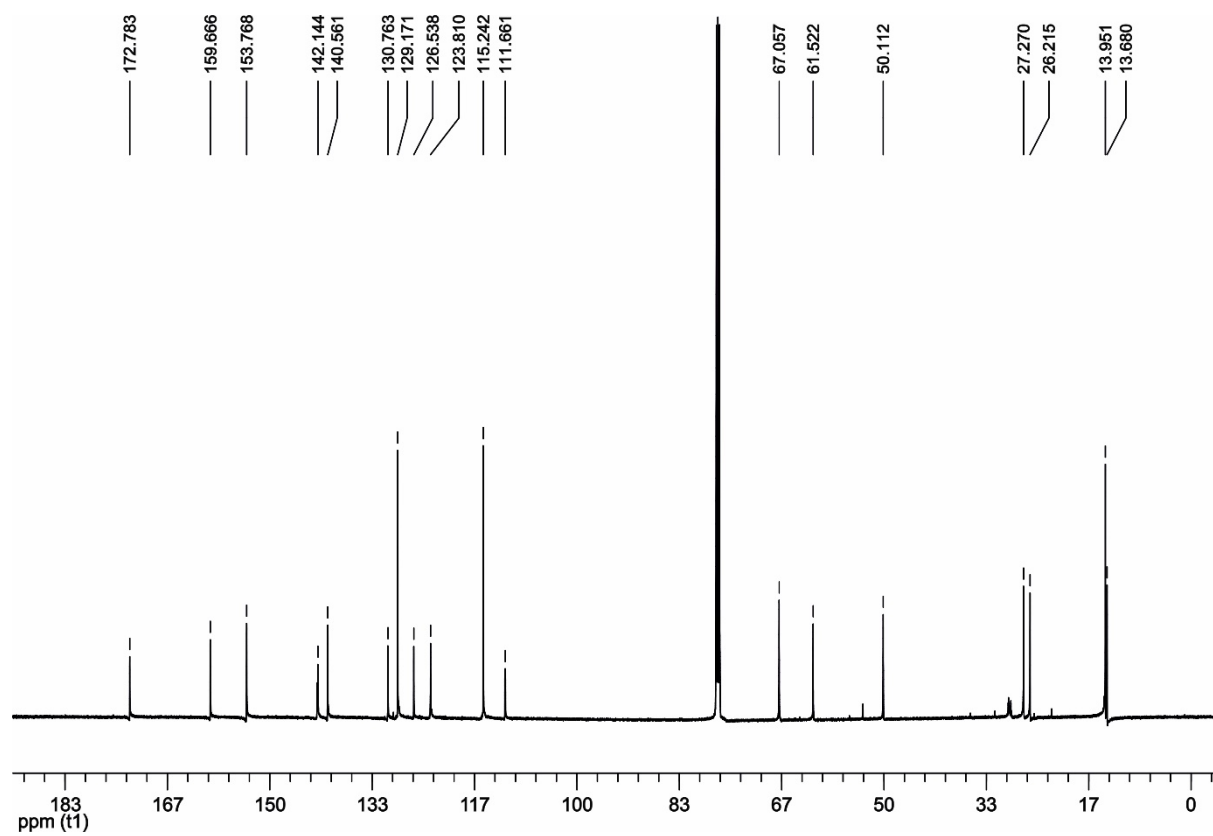
**Figure S3:**  $^{13}\text{C}$  NMR spectrum of compound



**Figure S4:** Mass spectrum of compound **6**



**Figure S5:** <sup>1</sup>H NMR spectrum of compound **6**



**Figure S6:**  $^{13}\text{C}$  NMR spectrum of compound 6

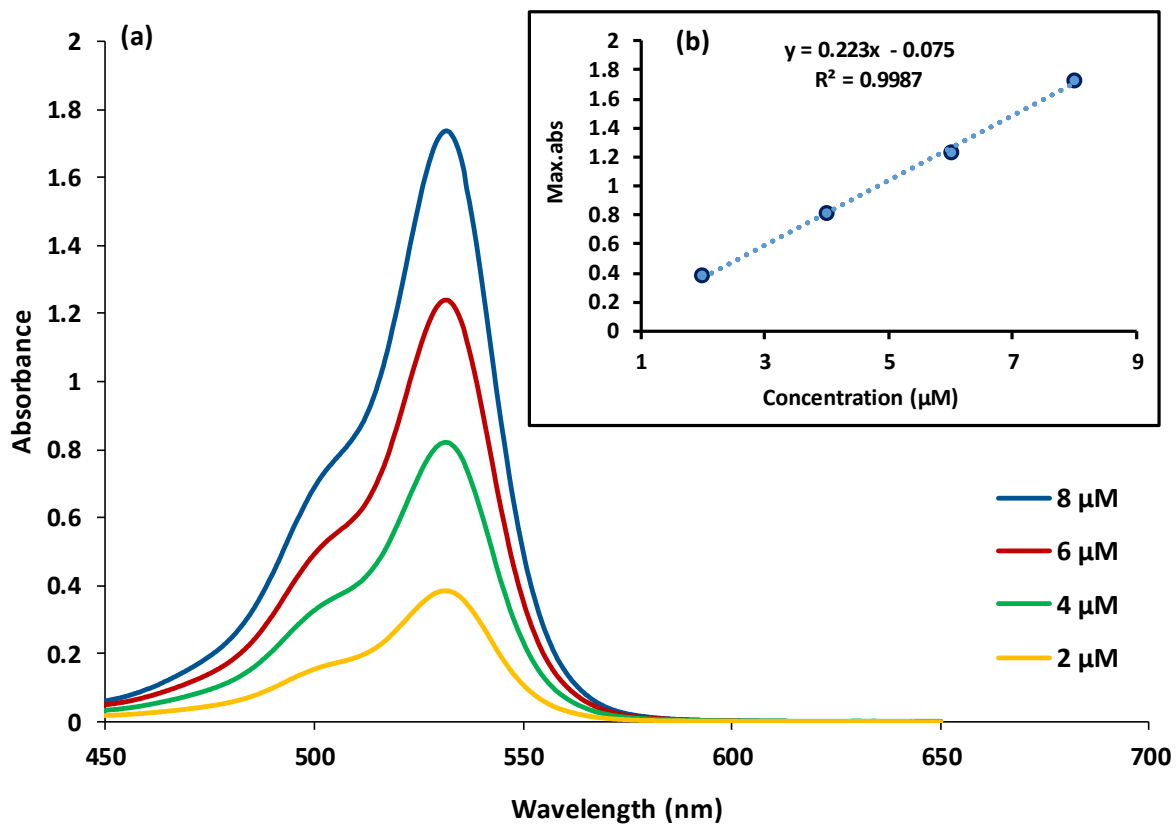


Figure S7: Absorbance spectrum of 5 in ethanol at different concentration.

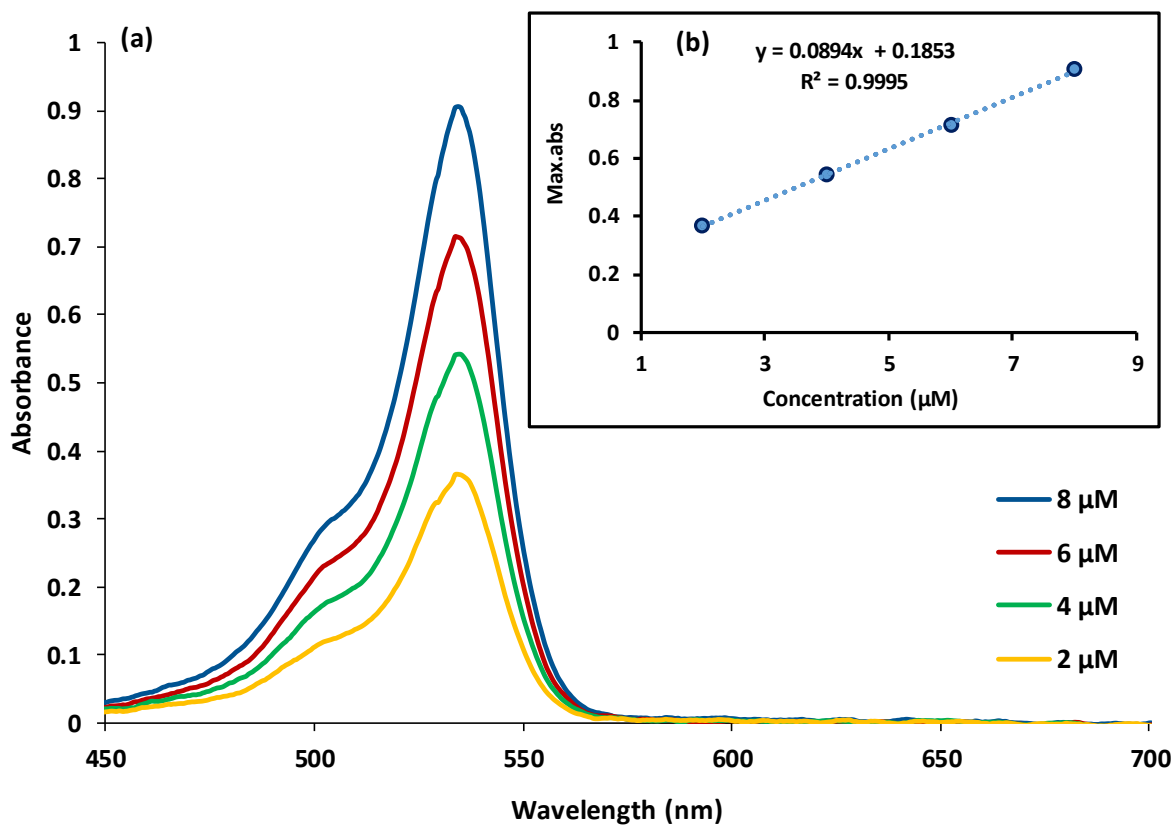
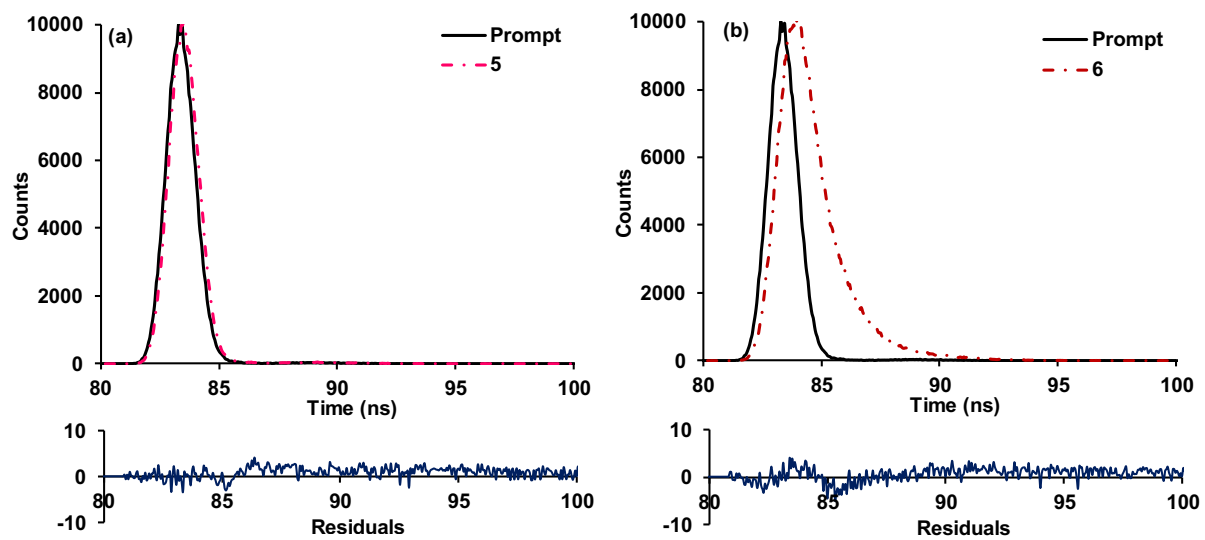
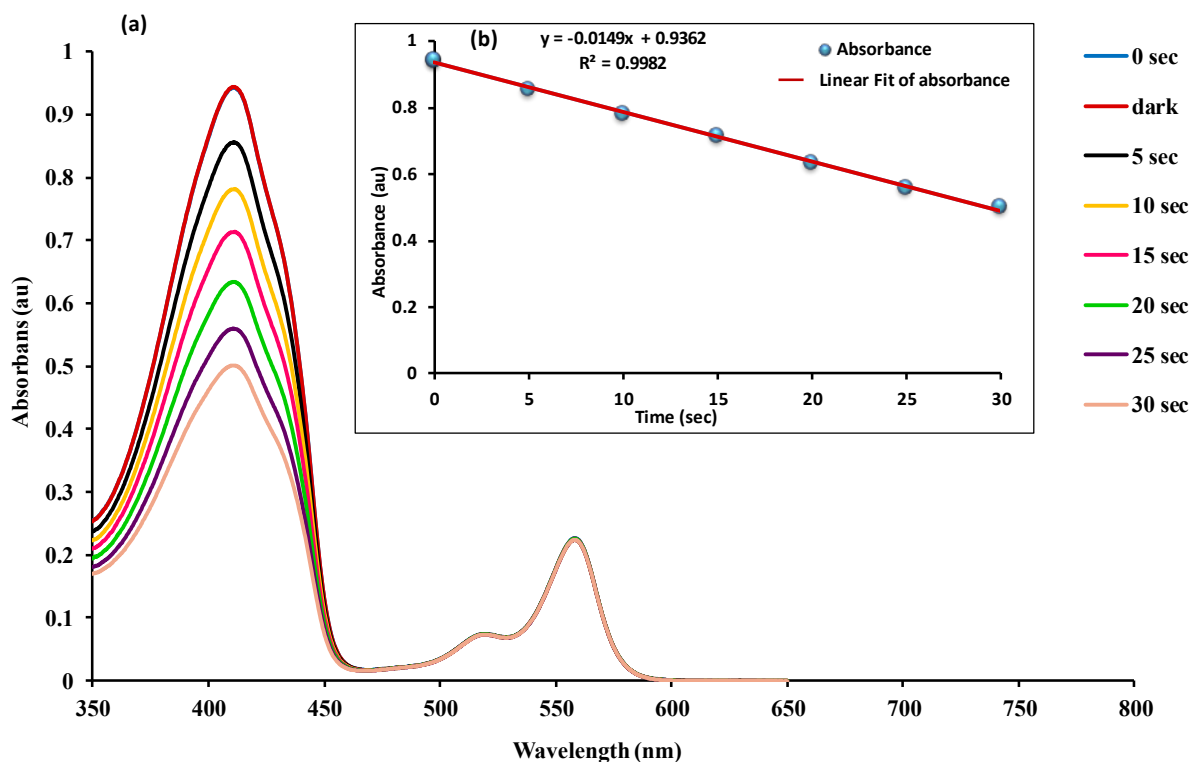


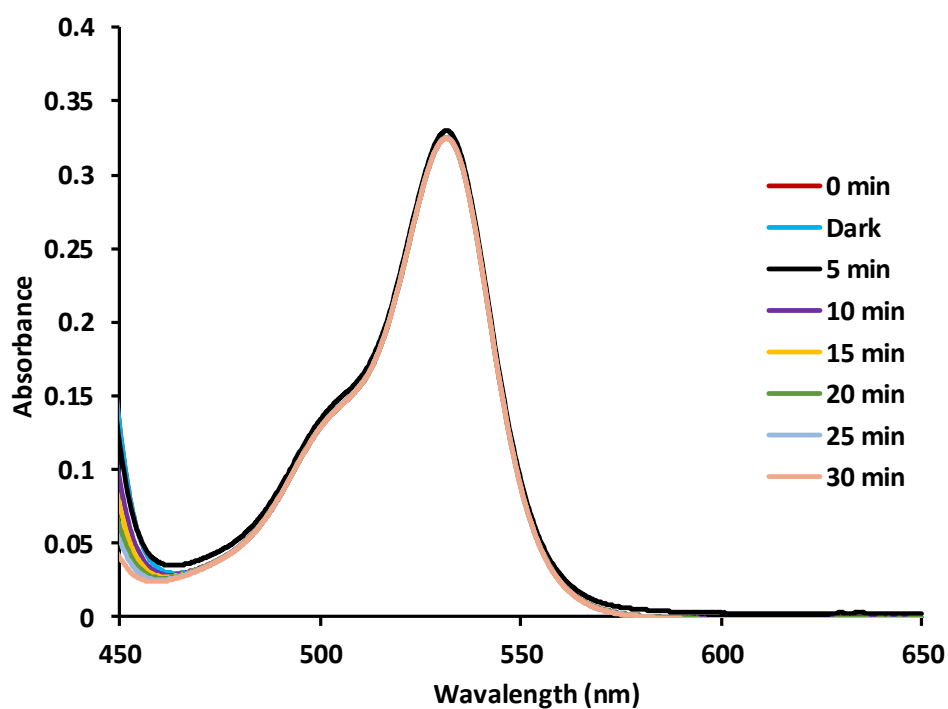
Figure S8: Absorbance spectrum of 6 in ethanol at different concentration.



**Figure S9:** Fluorescence decay profiles of **5** and **6** in the presence using laser excitation source of 390 nm.

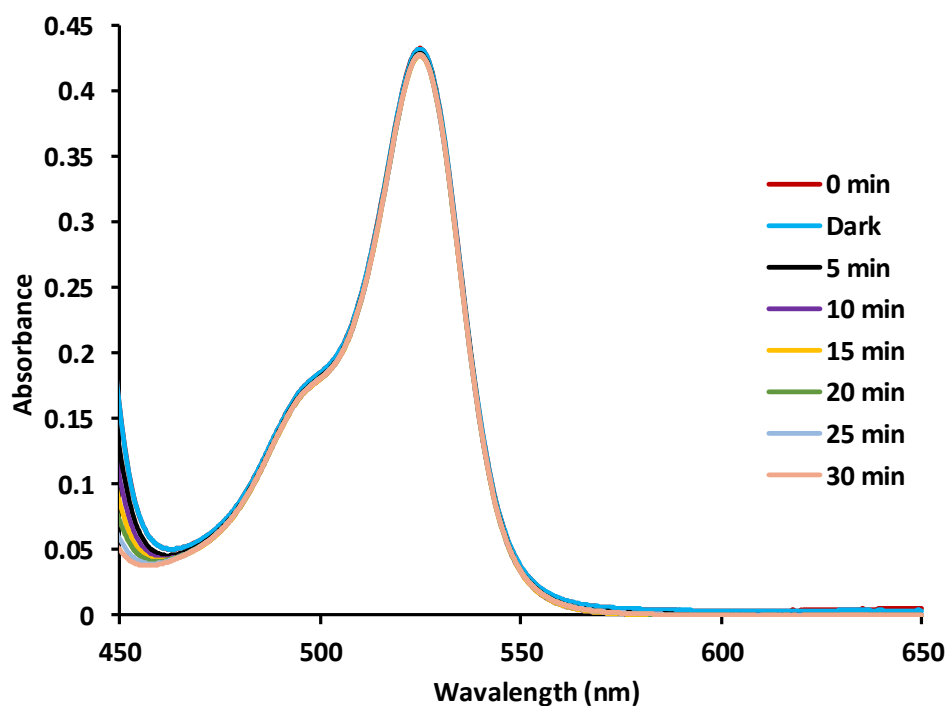


**Figure S10 (a)** Decrease in absorbance spectrum of trap molecule DBPF in the presence of RB (2.0 μM) in ethanol. **(b)** Absorbance decrease of DPBF at 414 nm with time in ethanol in the presence of RB.

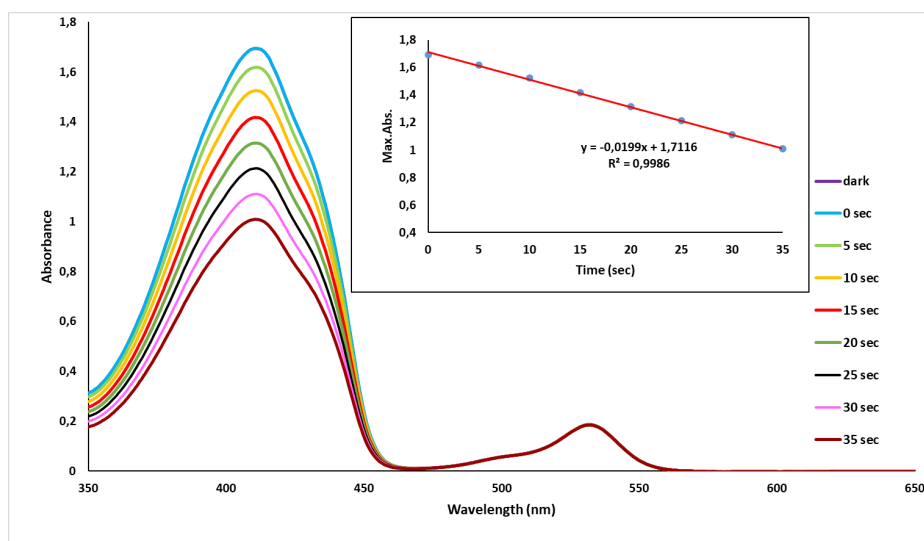


**Figure S11.** Absorbance spectrum of compound 5 (2.0 μM) for photodegradation study in ethanol under the light source (Green Led, λ= 516 nm, 2.1 mW cm<sup>-2</sup>)

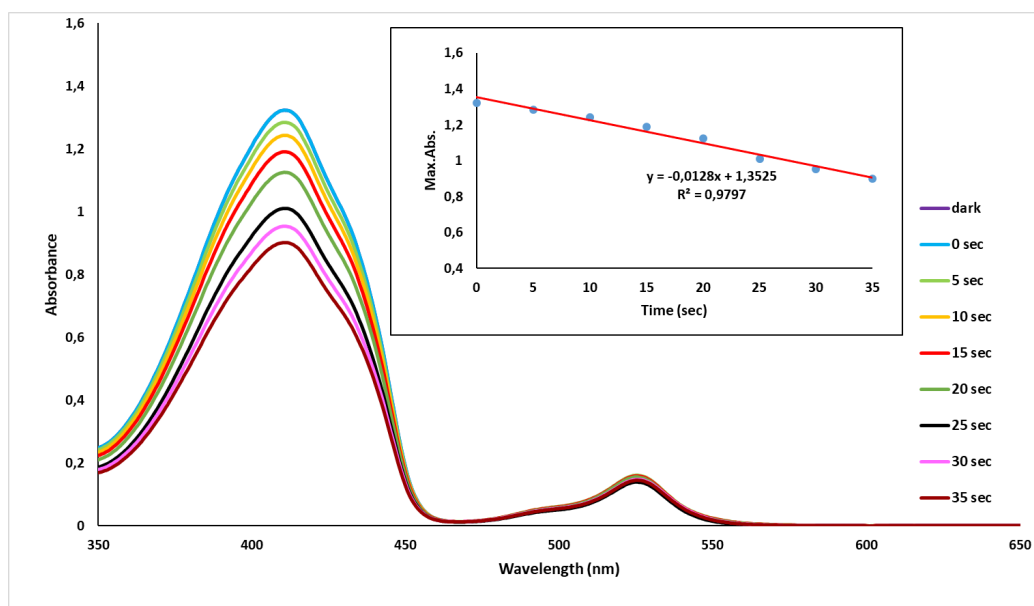




**Figure S12.** Absorbance spectrum of compound **6** (2.0  $\mu\text{M}$ ) for photodegradation study in ethanol under the light source (Green Led,  $\lambda = 516 \text{ nm}$ ,  $2.1 \text{ mW cm}^{-2}$ )



**Figure S13.** Decrease in absorbance spectrum of DPBF in the presence of compound **2** (2.0  $\mu\text{M}$ ) in ethanol.



**Figure S14.** Decrease in absorbance spectrum of DPBF in the presence of compound **3** (2.0 μM) in ethanol.