

## Supporting Information

### Photooxidation of 1,5-dihydroxynaphthalene with iridium complexes as singlet oxygen sensitizers

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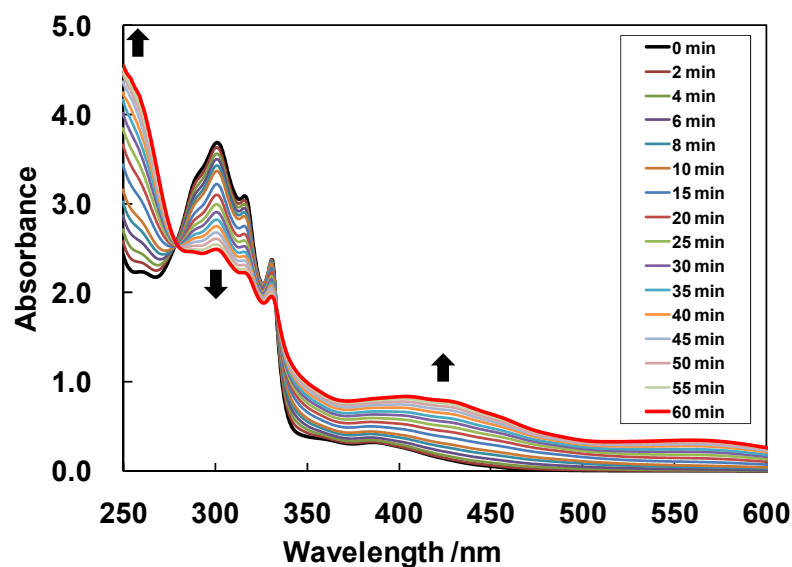


Fig. S1. Spectral change for the photooxidation of DHN using complex 2 as a sensitizer.

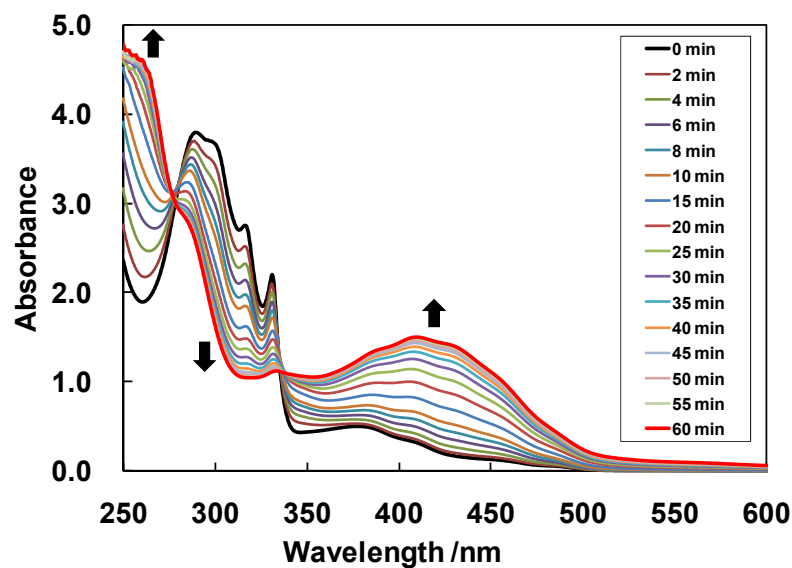


Fig. S2. Spectral change for the photooxidation of DHN using complex 3 as a sensitizer.

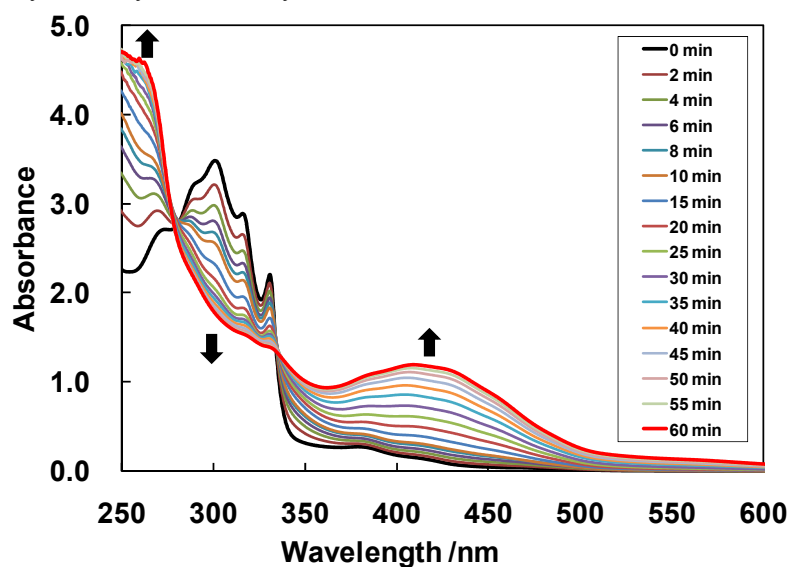


Fig. S3. Spectral change for the photooxidation of DHN using complex 4 as a sensitizer.

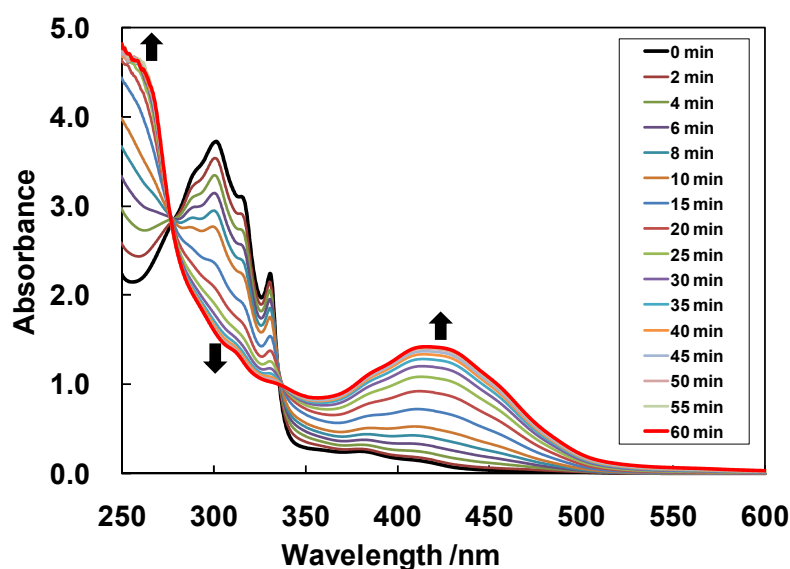


Fig. S4. Spectral change for the photooxidation of DHN using complex 5 as a sensitizer.

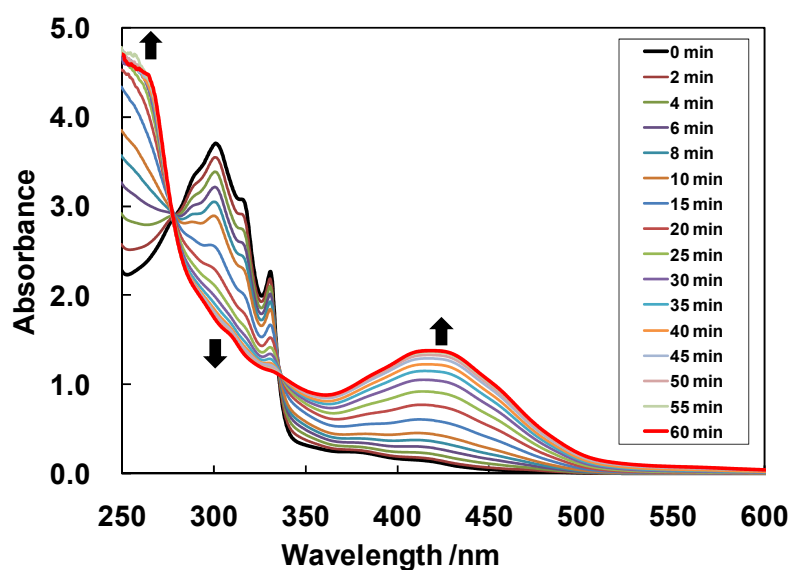


Fig. S5. Spectral change for the photooxidation of DHN using complex 6 as a sensitizer.

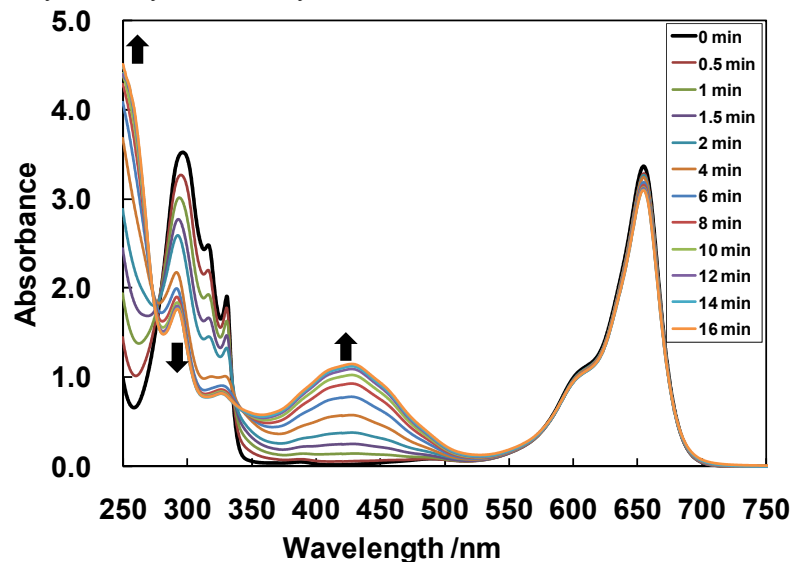


Fig. S6. Spectral change for the photooxidation of DHN using methylene blue (MB) as a sensitizer.

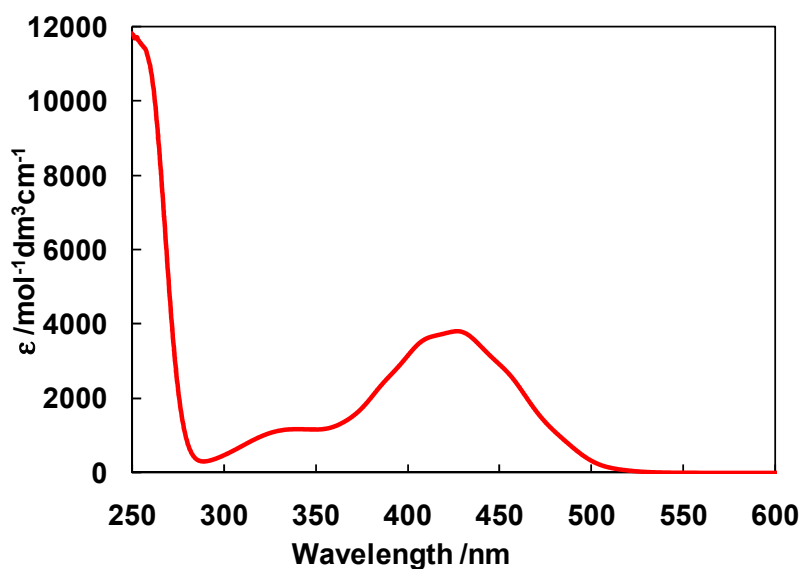


Fig. S7. UV-Vis absorption spectrum of Juglone in CH<sub>2</sub>Cl<sub>2</sub>-MeOH (9:1).

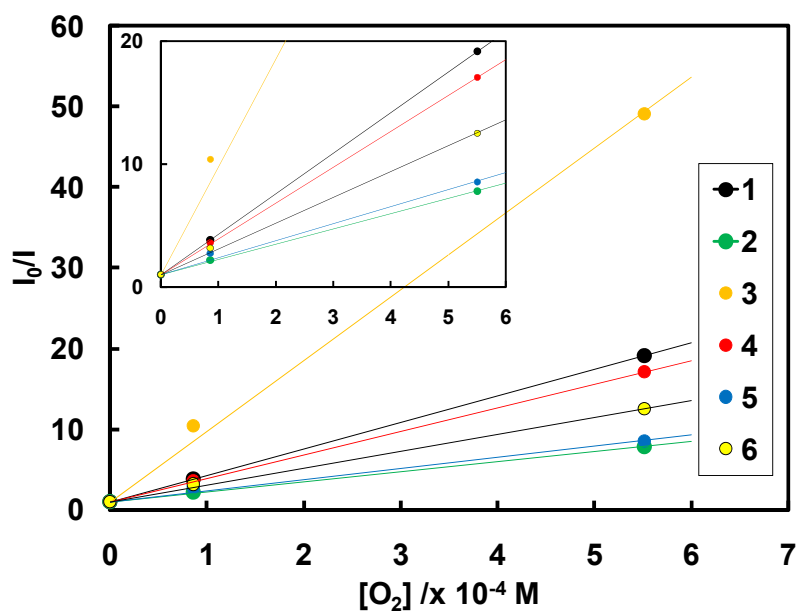


Fig. S8. Stern-Volmer plot for the quenching of sensitizer phosphorescence by oxygen.

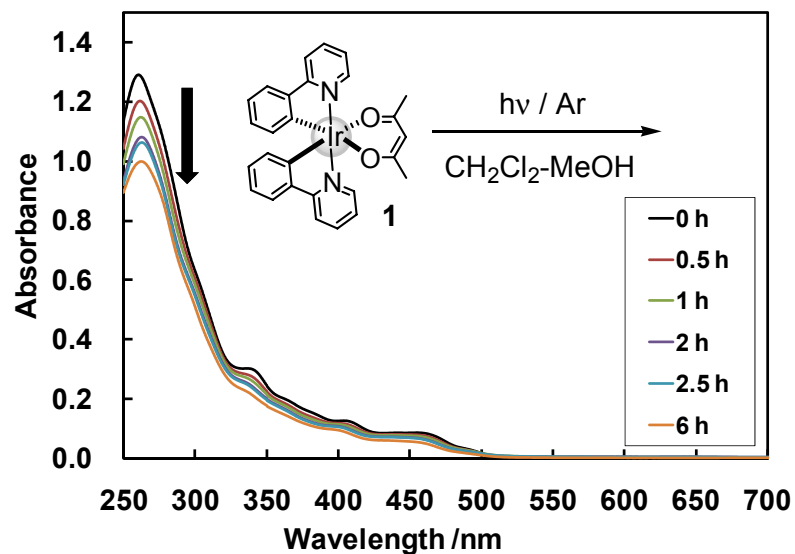


Fig. S9. Absorption spectral change of complex 1 upon irradiation ( $\lambda > 350$  nm) under Ar.

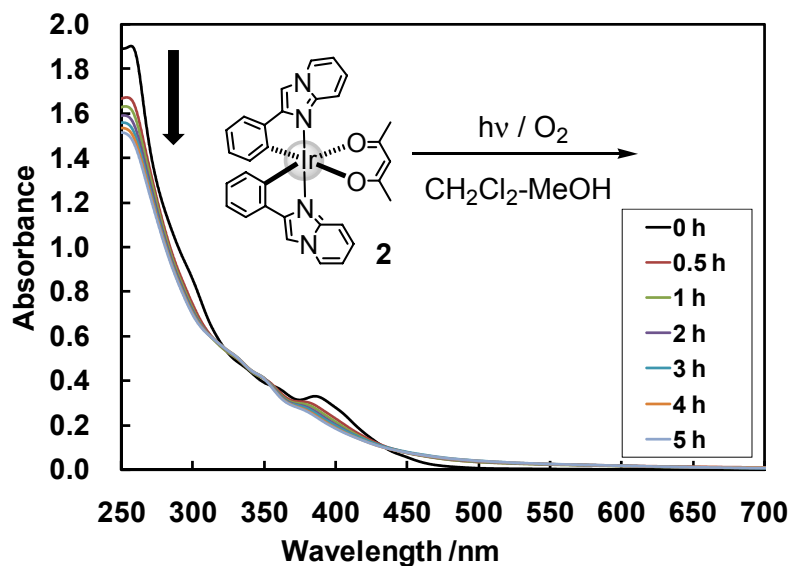
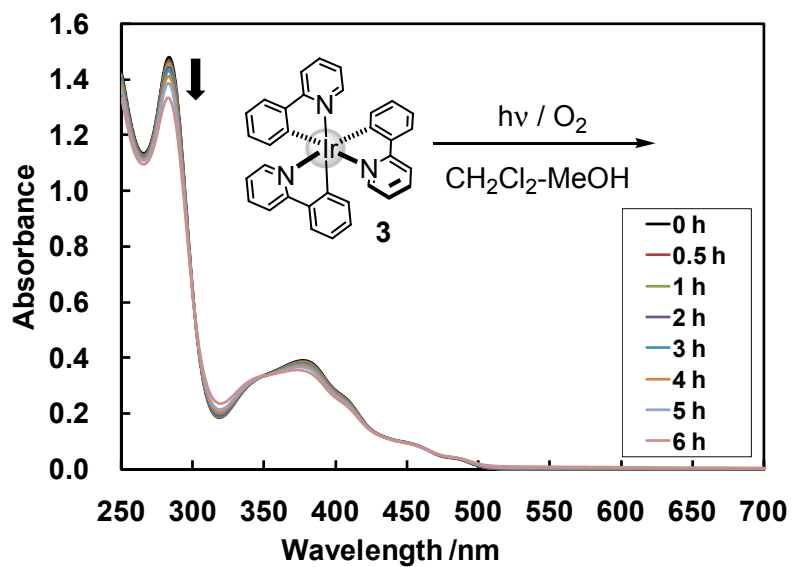
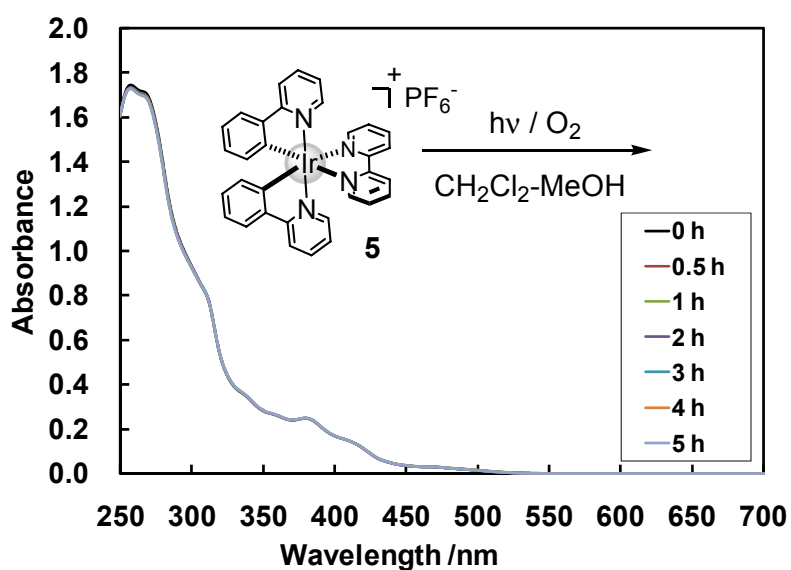


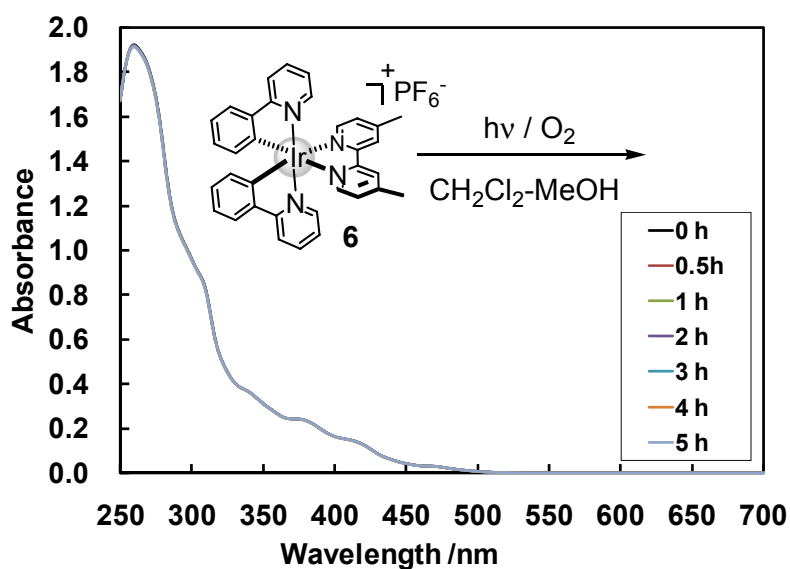
Fig. S10. Absorption spectral change of complex 2 upon irradiation ( $\lambda > 350$  nm) under O<sub>2</sub>.



**Fig. S11.** Absorption spectral change of complex **3** upon irradiation ( $\lambda > 350$  nm) under  $O_2$ .



**Fig. S12.** Absorption spectral change of complex **5** upon irradiation ( $\lambda > 350$  nm) under  $O_2$ .



**Fig. S13.** Absorption spectral change of complex **6** upon irradiation ( $\lambda > 350$  nm) under  $O_2$ .