## **New Journal of Chemistry**

## **Electronic Supplementary Information**

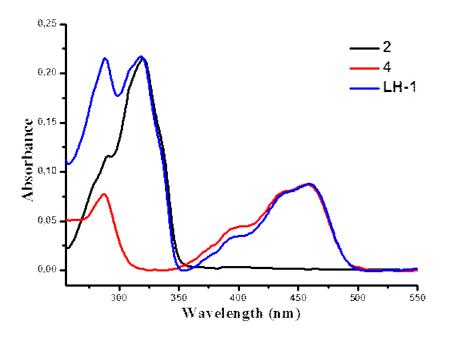
## Synthesis and Use of "Clickable" Bay-region Tetrasubstituted Perylene tetracarboxylicacid tetraesters and a Perylene monoimide diester as Energy Acceptors

Edanur Aydin, Bilal Nisanci, Murat Acar, Arif Dastan, and Ozgur Altan Bozdemir\*

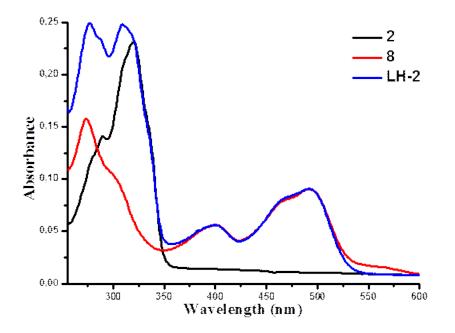
Department of Chemistry, Ataturk University, Erzurum, 25240, TURKEY

E-mail: oaltanbozdemir@atauni.edu.tr

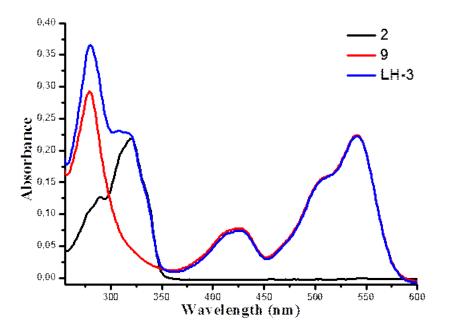
**UV-Vis Absorption and Fluorescence Spectra:** 



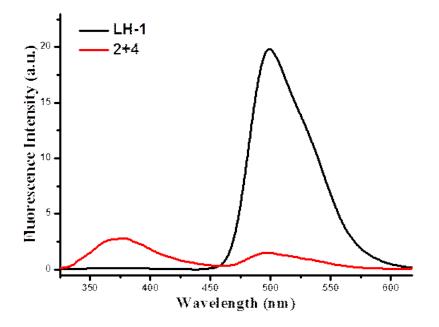
**Fig. S1:** Absorbance spectra of compounds **2**, **4** and **LH-1** in CHCl<sub>3</sub>. The concentrations of compounds **2** and **4** were adjusted so that they have equal absorbances at 320 nm and 459 nm with **LH-1**.



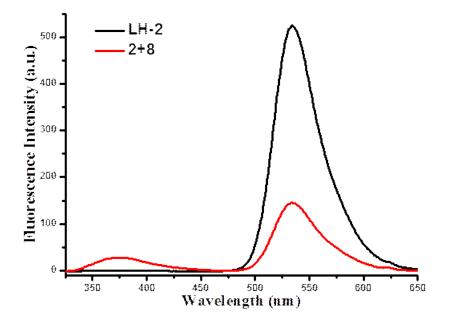
**Fig. S2:** Absorbance spectra of compounds **2**, **8** and **LH-2** in CHCl<sub>3</sub>. The concentrations of compounds **2** and **8** were adjusted so that they have equal absorbances at 320 nm and 492 nm with **LH-2**.



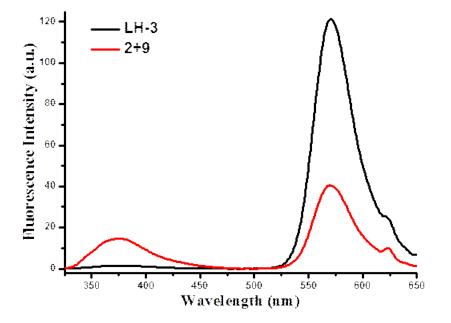
**Fig. S3:** Absorbance spectra of compounds **2**, **9** and **LH-3** in CHCl<sub>3</sub>. The concentrations of compounds **2** and **9** were adjusted so that they have equal absorbances at 320 nm and 540 nm with **LH-3**.



**Fig. S4:** Fluorescence emission spectra of the mixture of compounds **2** and **4**, and **LH-1** upon excitation at 315 nm in CHCl<sub>3</sub>. The concentrations of compounds **2** and **4** in the mixture were adjusted so that they have equal absorbances at 320 nm and 459 nm with **LH-1**.

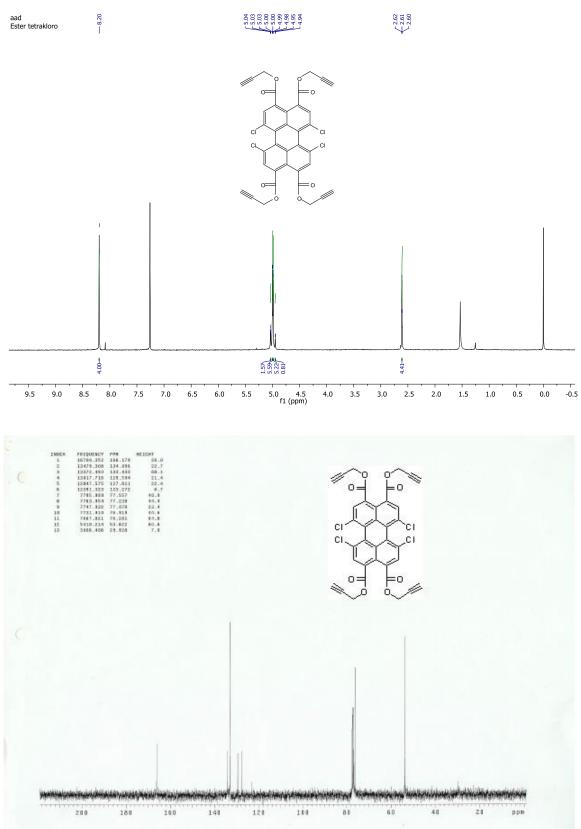


**Fig. S5:** Fluorescence emission spectra of the mixture of compounds **2** and **8**, and **LH-2** upon excitation at 315 nm in CHCl<sub>3</sub>. The concentrations of compounds **2** and **8** in the mixture were adjusted so that they have equal absorbances at 320 nm and 492 nm with **LH-2**.

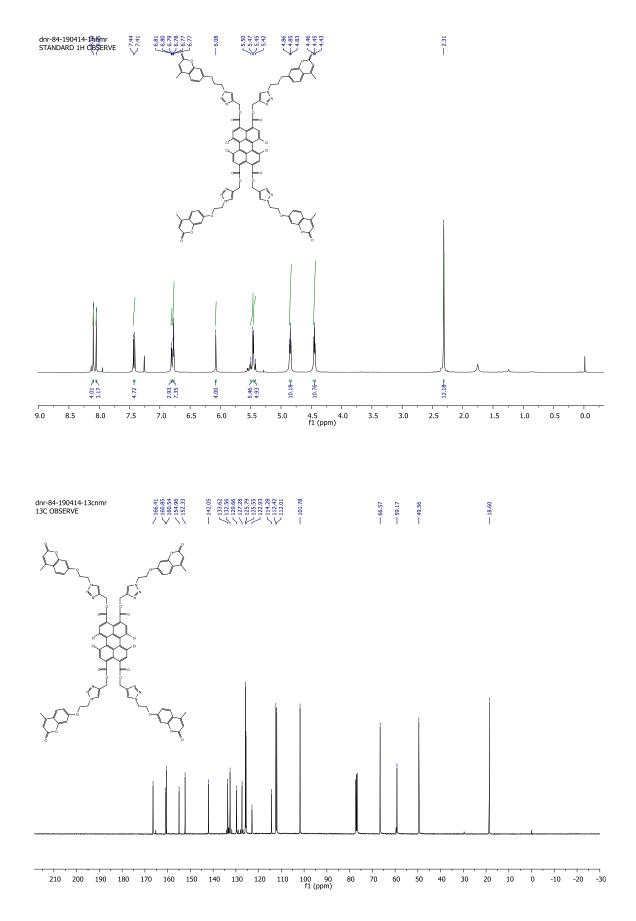


**Fig. S6:** Fluorescence emission spectra of a mixture of compounds **2** and **9**, and **LH-3** upon excitation at 315 nm in CHCl<sub>3</sub>. The concentrations of compounds **2** and **9** in the mixture were adjusted so that they have equal absorbances at 320 nm and 540 nm with **LH-3**.

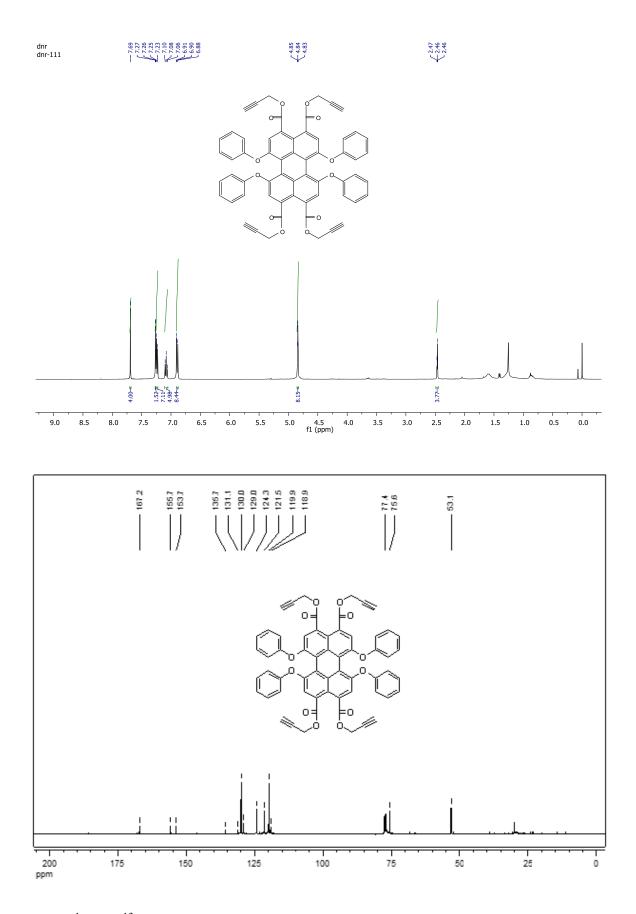
## <sup>1</sup>H, <sup>13</sup>C NMR, and HR-MS Spectra:



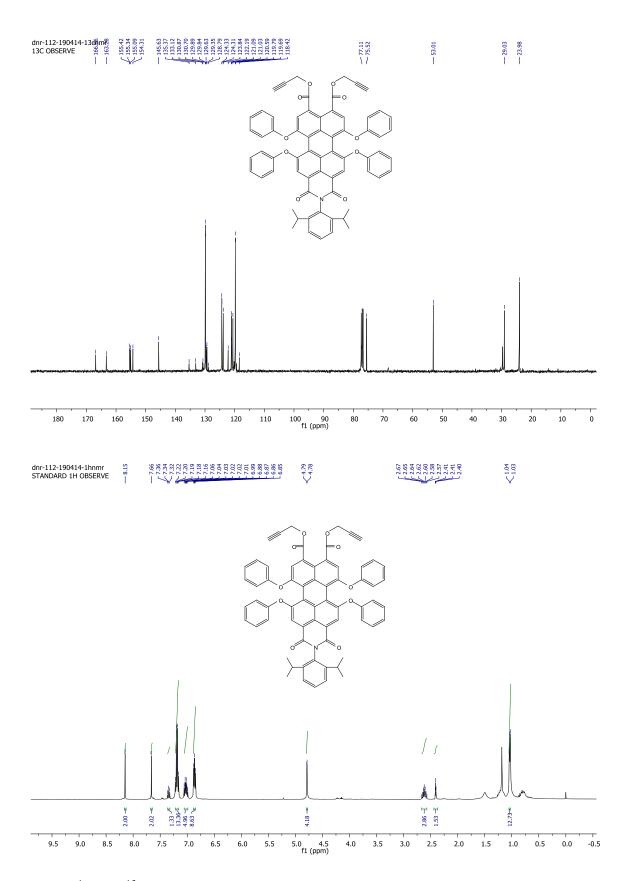
**Fig. S7:** <sup>1</sup>H and <sup>13</sup>C NMR spectra of compound **4**.



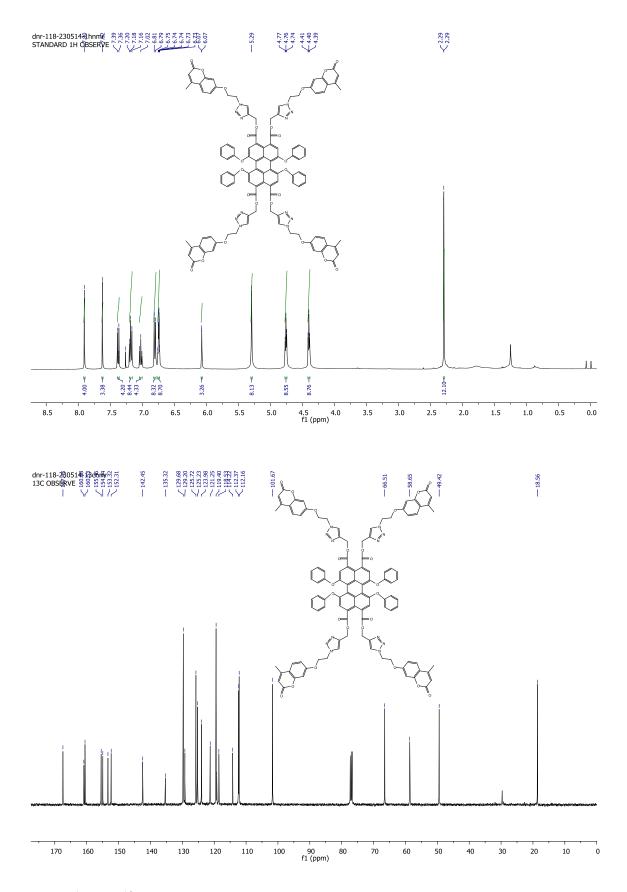
**Fig. S8:**  $^{1}$ H and  $^{13}$ C NMR spectra of **LH-1**.



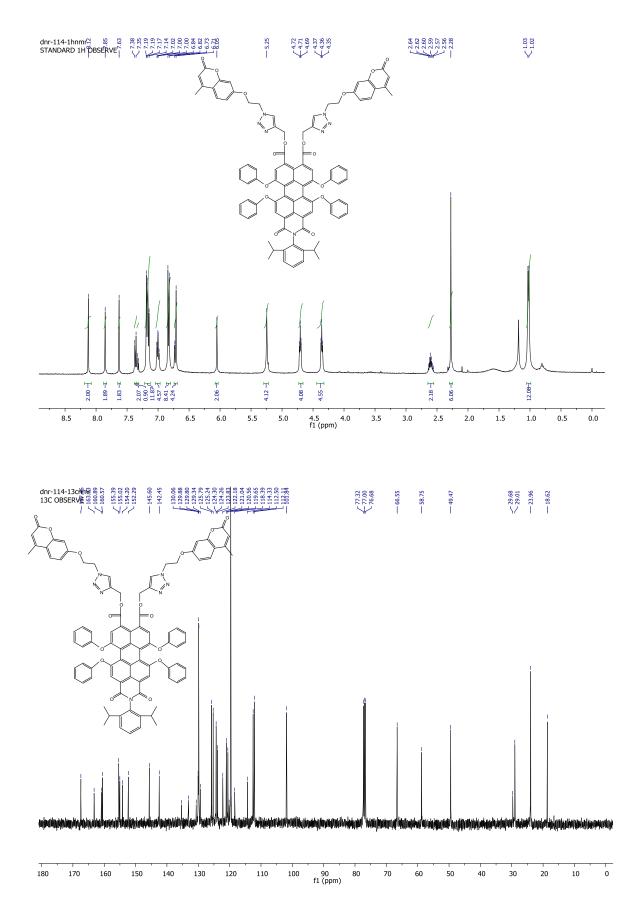
**Fig. S9:** <sup>1</sup>H and <sup>13</sup>C NMR spectra of compound **8**.



**Fig. S10:** <sup>1</sup>H and <sup>13</sup>C NMR spectra of compound **9**.



**Fig. S11:** <sup>1</sup>H and <sup>13</sup>C NMR spectra of **LH-2**.



**Fig. S12:** <sup>1</sup>H and <sup>13</sup>C NMR spectra of **LH-3**.

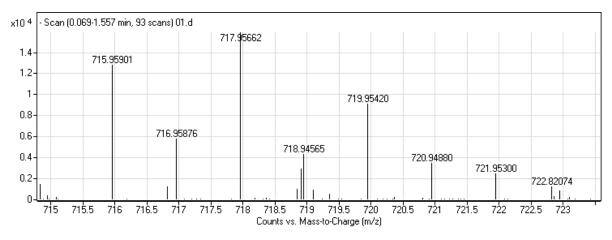


Fig. S13: HR-ESI mass spectrum of compound 4.

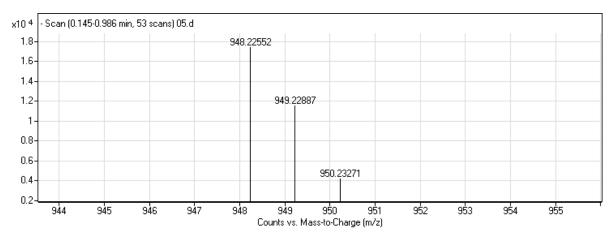


Fig. S14: HR-ESI mass spectrum of compound 8.

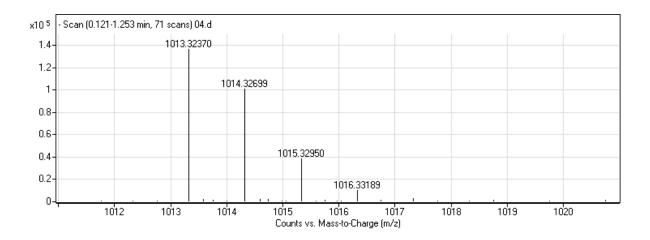


Fig. S15: HR-ESI mass spectrum of compound 9.

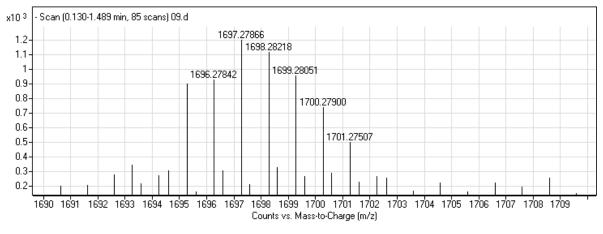


Fig. S16: HR-ESI mass spectrum of LH-1.

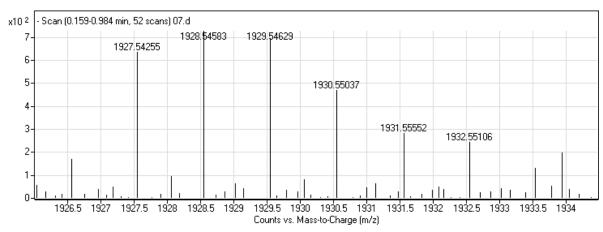


Fig. S17: HR-ESI mass spectrum of LH-2.

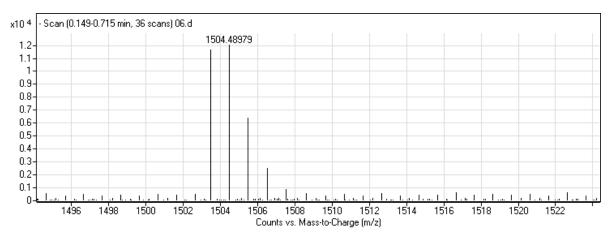


Fig. S18: HR-ESI mass spectrum of LH-3.

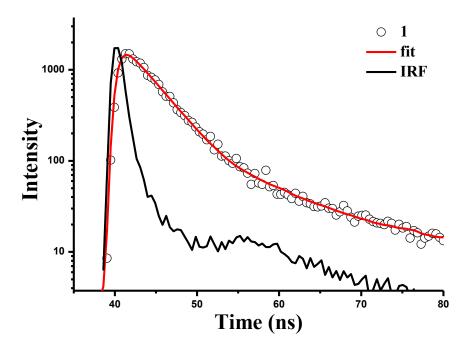


Fig. S19: Time-dependent fluorescence decay spectra of 1. IRF (instrument response function)

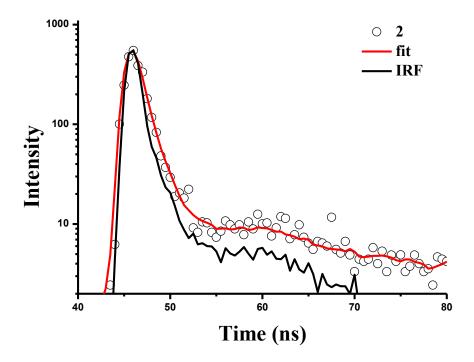


Fig. S20: Time-dependent fluorescence decay spectra of 2. IRF (instrument response function)

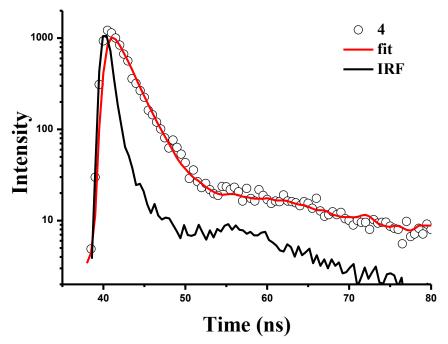


Fig. S21: Time-dependent fluorescence decay spectra of 4. IRF (instrument response function)

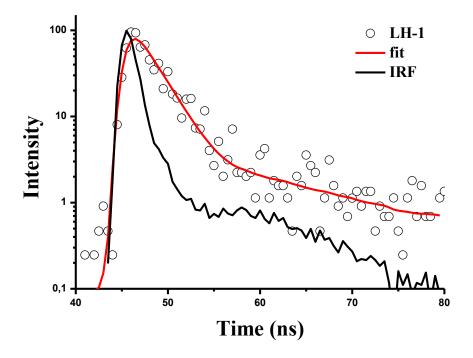


Fig. S22: Time-dependent fluorescence decay spectra of LH-1. IRF (instrument response function)

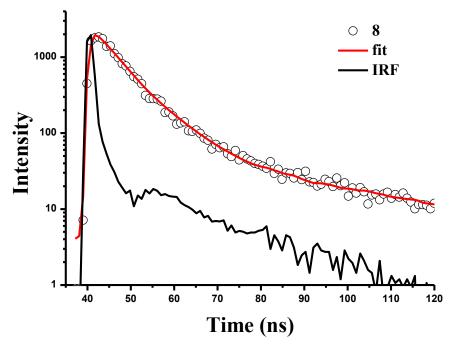


Fig. S23: Time-dependent fluorescence decay spectra of 8. IRF (instrument response function)

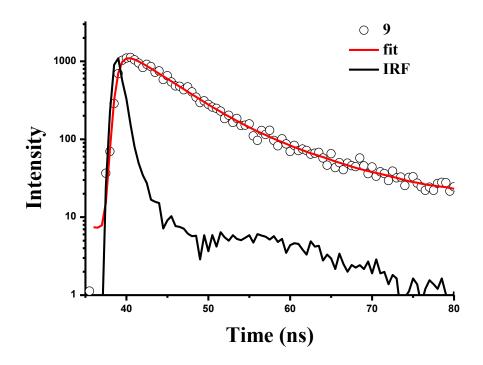


Fig. S24: Time-dependent fluorescence decay spectra of 9. IRF (instrument response function)

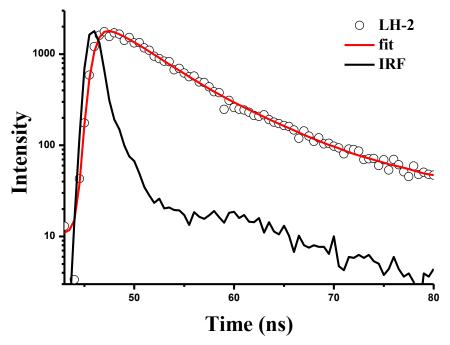


Fig. S25: Time-dependent fluorescence decay spectra of LH-2. IRF (instrument response function)

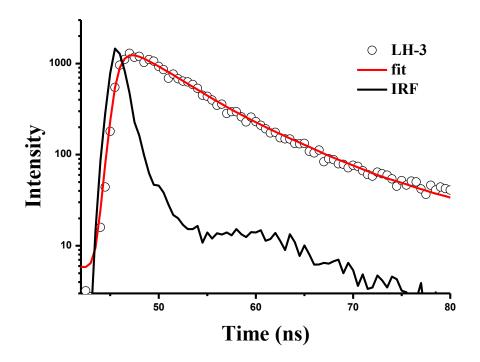


Fig. S26: Time-dependent fluorescence decay spectra of LH-3. IRF (instrument response function)