

## SUPPORTING INFORMATION

### Diacetylene Based Colorimetric Radiation Sensors for the Detection and Measurement of Gamma Radiation during Blood Irradiation

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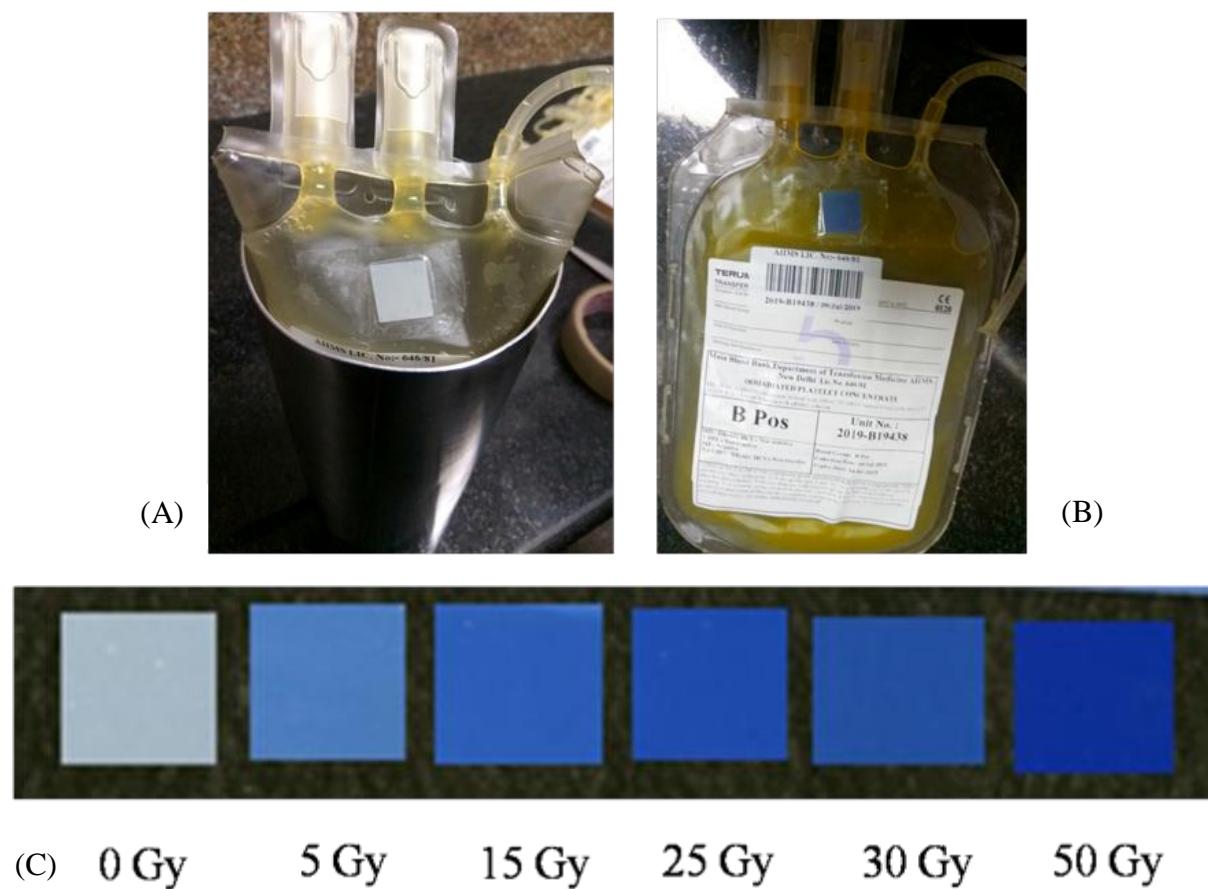


Figure S1: Photographs of the developed film dosimeter pasted on platlet bag which is placed in a cylindrical canister positioned on a turntable of the blood irradiator a) before irradiation b) after irradiation. The distinct color transition fom white to blue pre irradiation (A) and post irradiation (B) can be distinctly seen by naked eyes. (C) The color gradient with increasing gamma radiation doses from 0 to 50 Gy.

## Copies of $^1\text{H}$ , $^{13}\text{C}$ NMR and HRMS

PCDA- AN 1



## ***N*-phenylpentacosa-10,12-diynamide**

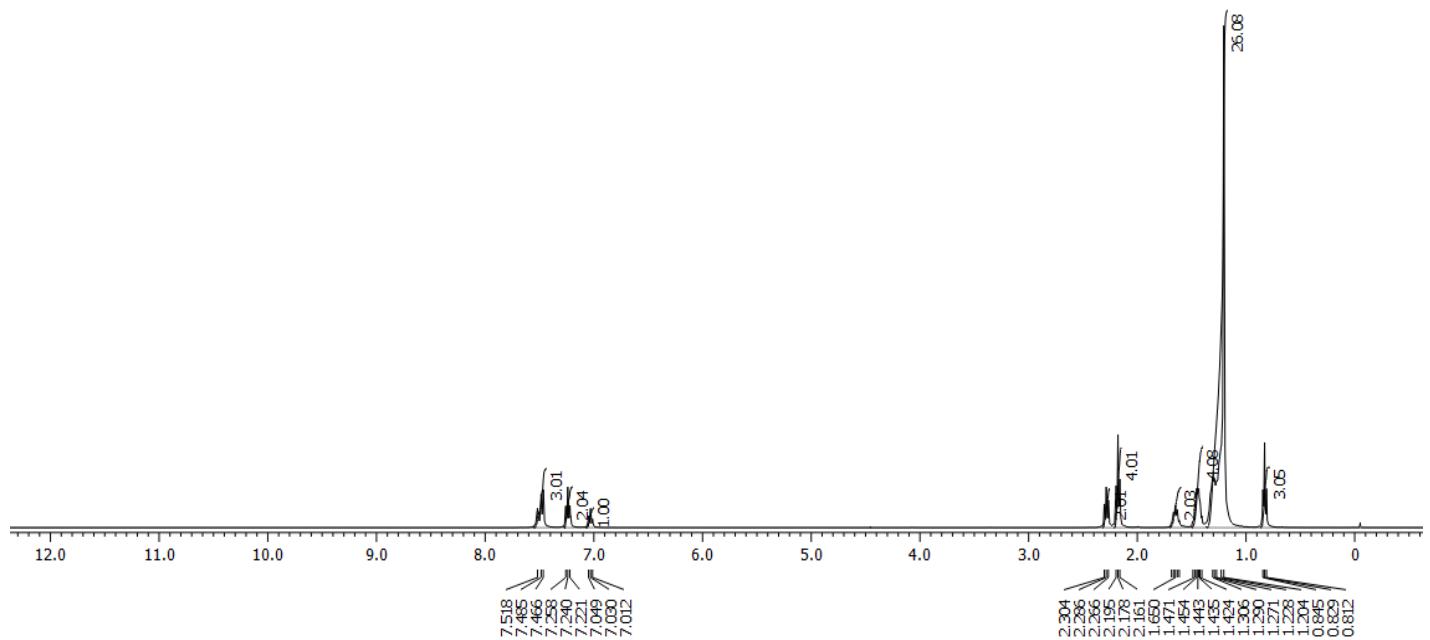


Figure S2.i:  $^1\text{H}$  NMR spectra of *N*-phenylpentacosa-10,12-diynamide

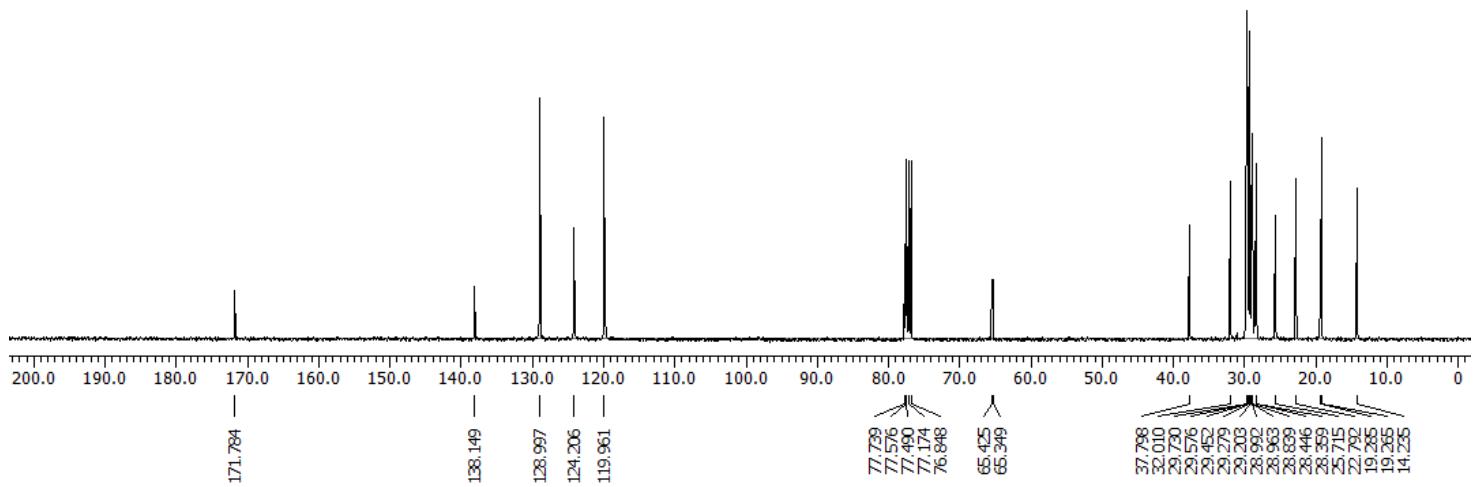


Figure S2.ii:  $^{13}\text{C}$  NMR spectra of *N*-phenylpentacosa-10,12-diynamide

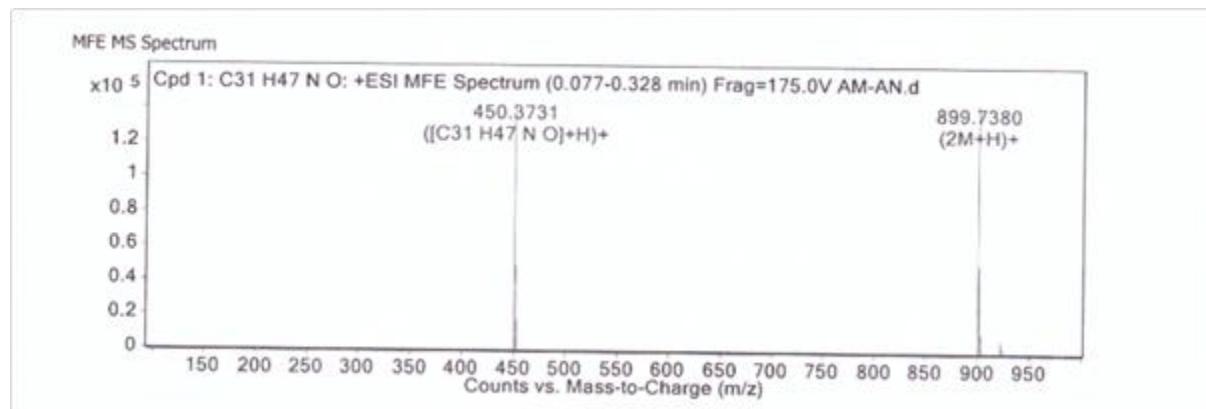


Figure S2.iii: HRMS spectra of *N*-phenylpentacosa-10,12-diynamide

**PCDA- TNAP 2**

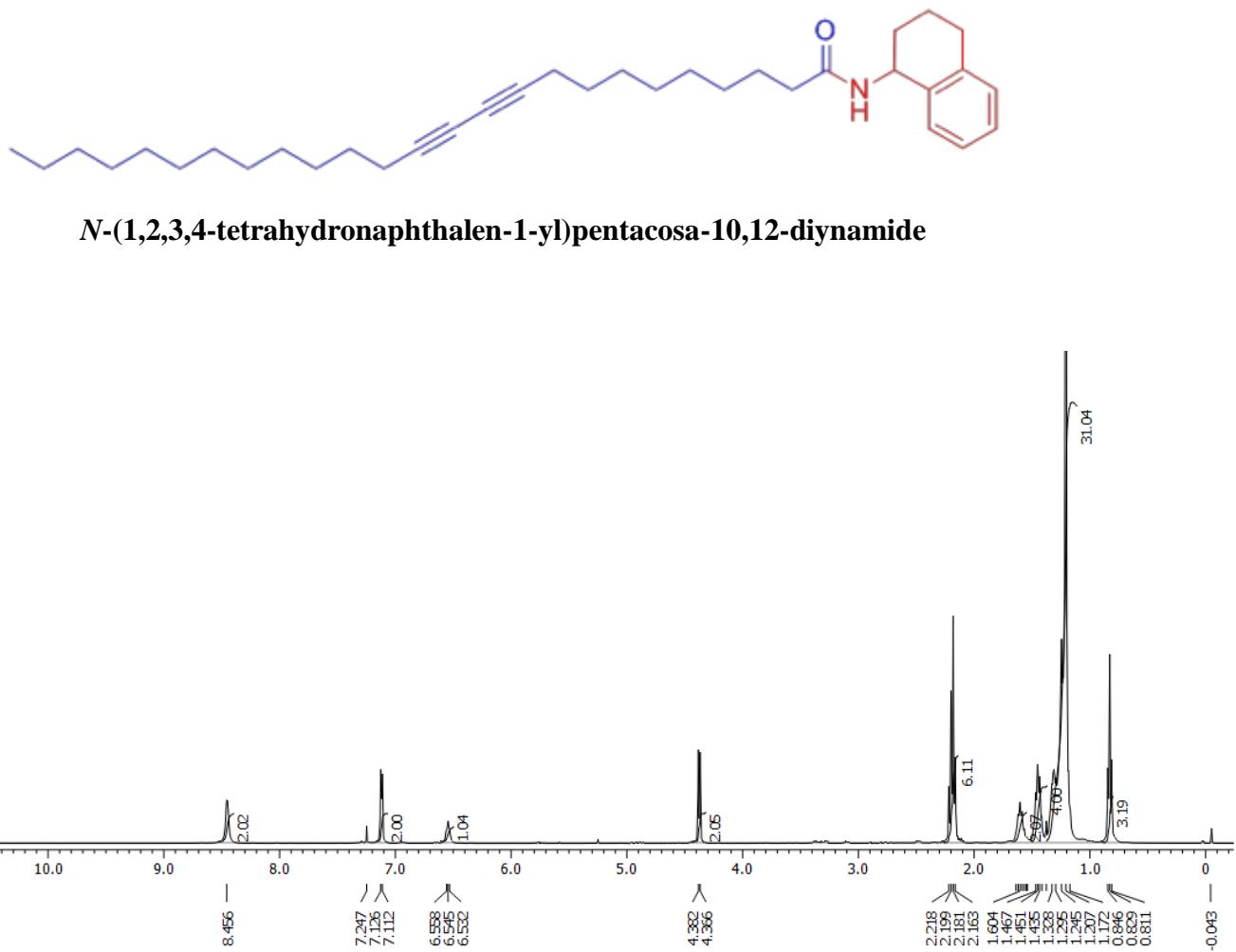


Figure S3.i: <sup>1</sup>H NMR spectra of *N*-(1,2,3,4-tetrahydronaphthalen-1-yl)pentacosa-10,12-diynamide

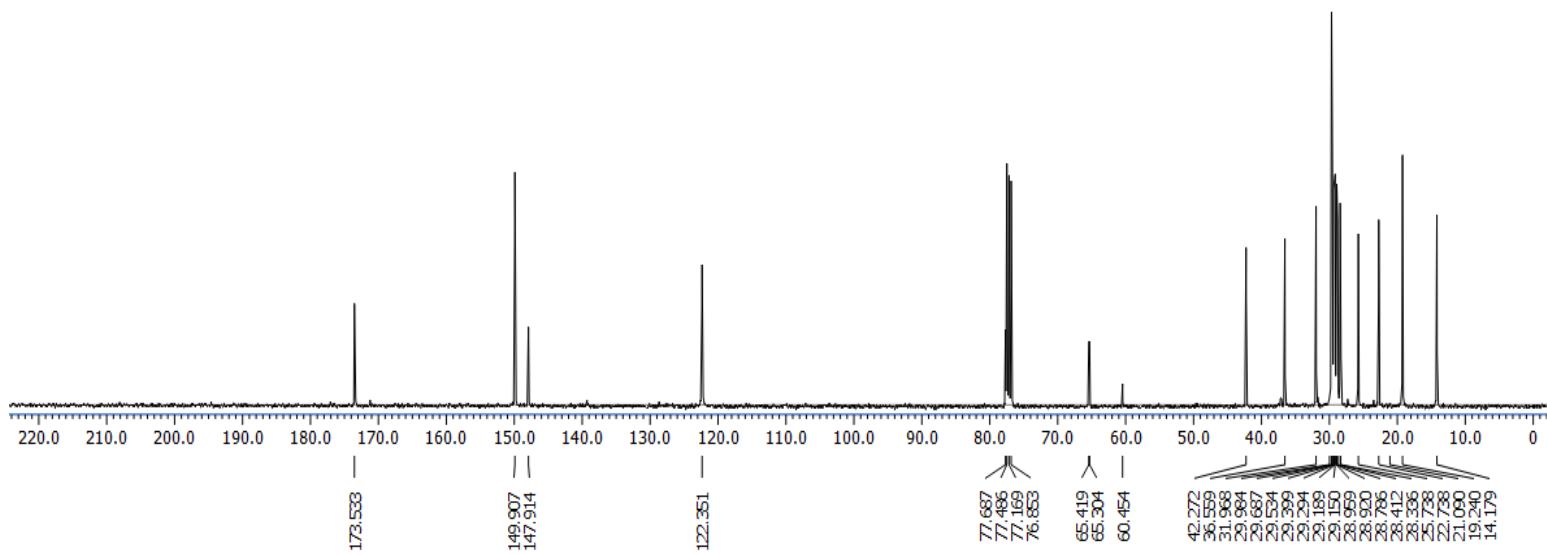


Figure S3.ii:  $^{13}\text{C}$  NMR spectra of *N*-(1,2,3,4-tetrahydronaphthalen-1-yl)pentacosa-10,12-diynamide

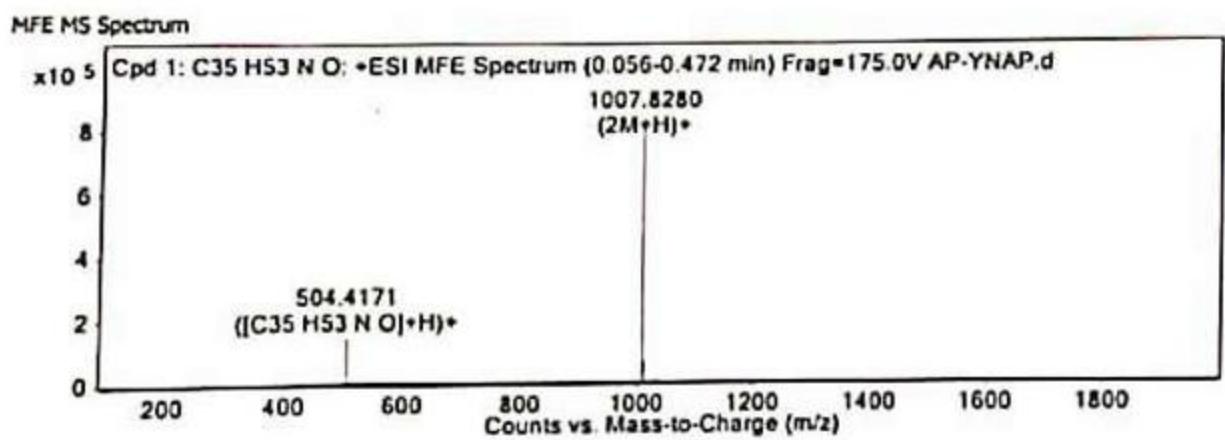


Figure S3.iii: HRMS spectra of *N*-(1,2,3,4-tetrahydronaphthalen-1-yl)pentacosa-10,12-diynamide

**PCDA- NAP 3**

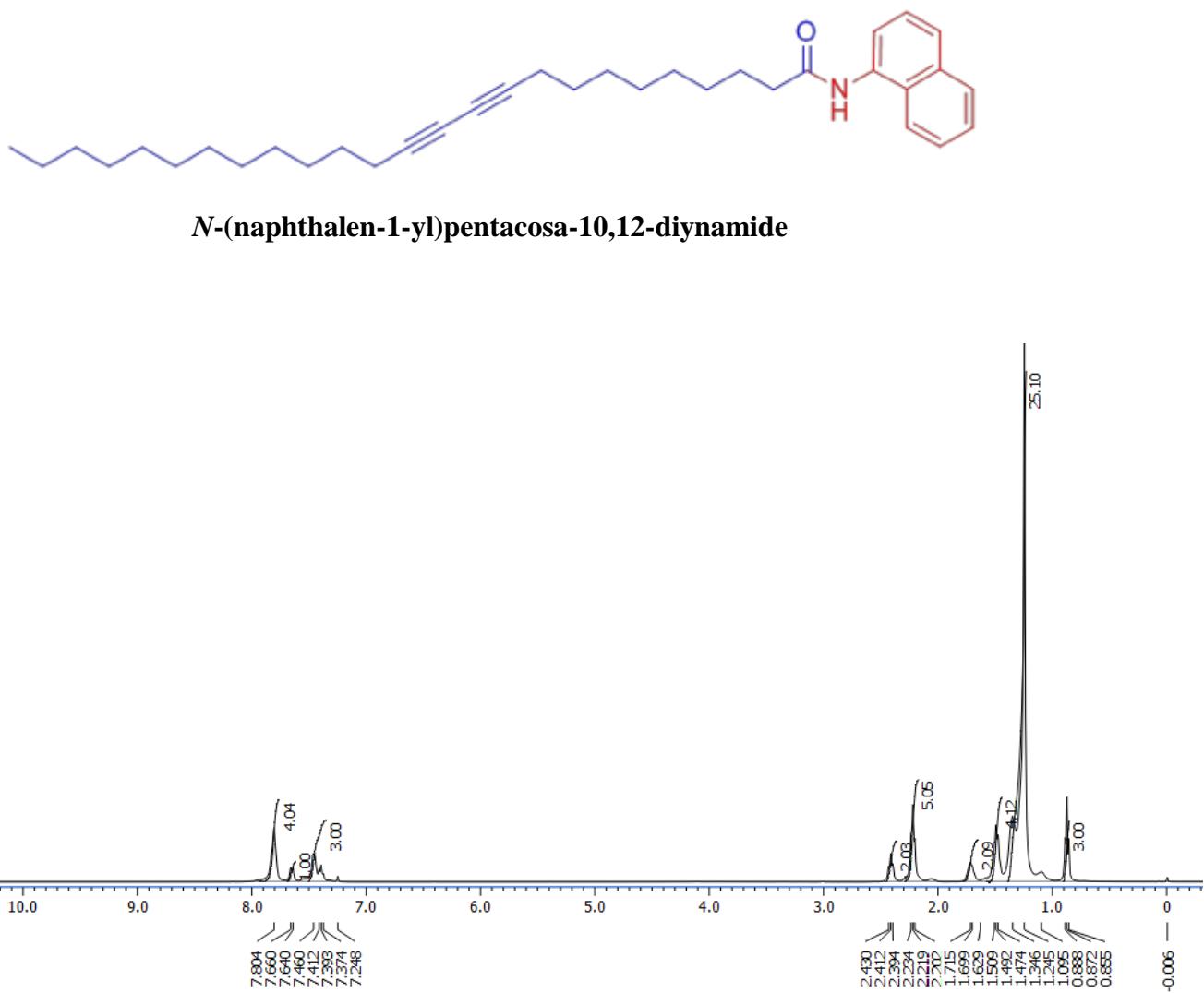


Figure S4.i: <sup>1</sup>H NMR spectra of *N*-(naphthalen-1-yl)pentacosa-10,12-diynamide

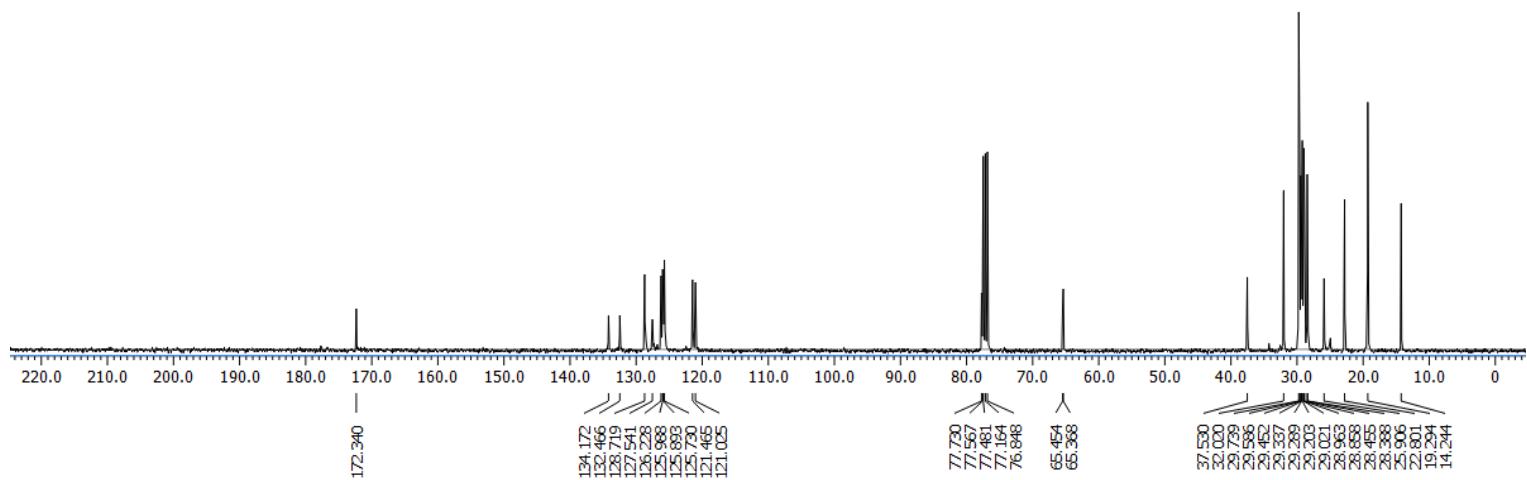


Figure S4.ii:  $^{13}\text{C}$  NMR spectra of *N*-(naphthalen-1-yl)pentacosa-10,12-dynamide

### HRMS

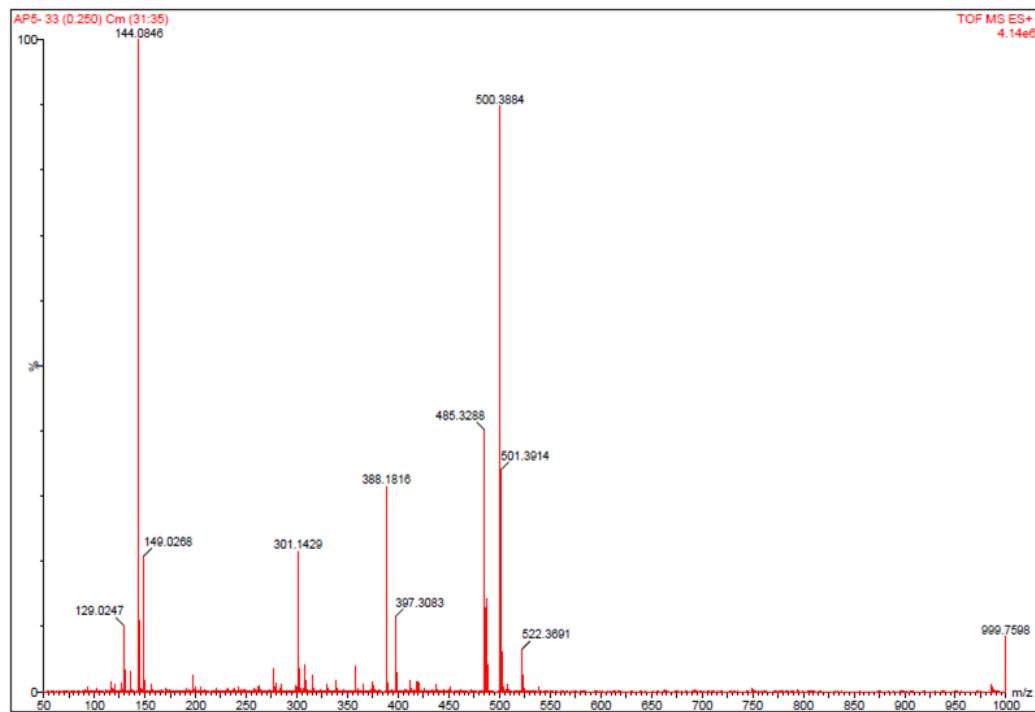
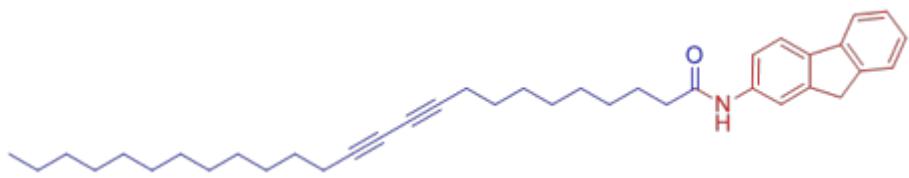


Figure S4.iii: HRMS spectra of *N*-(naphthalen-1-yl)pentacosa-10,12-dynamide

PCDA- AFL 4



### **N-(9H-fluoren-2-yl)pentacosa-10,12-diynamide**

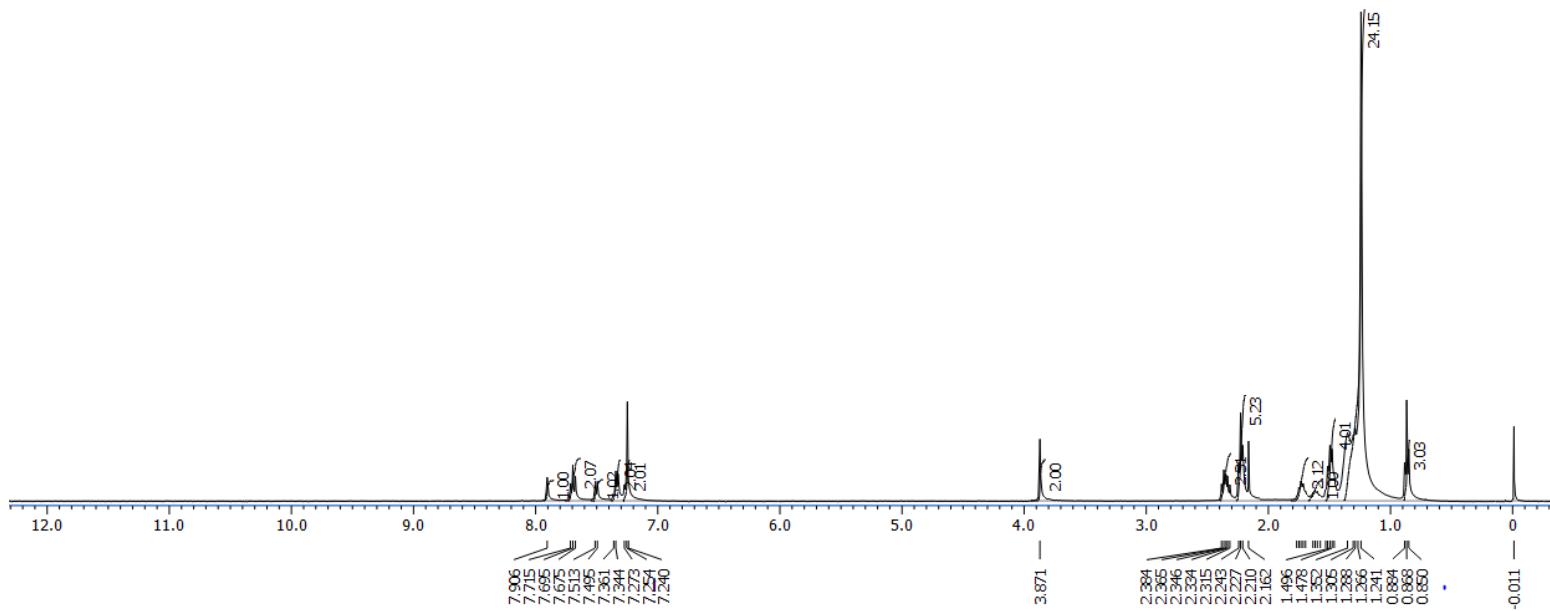


Figure S5.i:  $^1\text{H}$  NMR spectra of *N*-(9*H*-fluoren-2-yl)pentacosa-10,12-diynamide

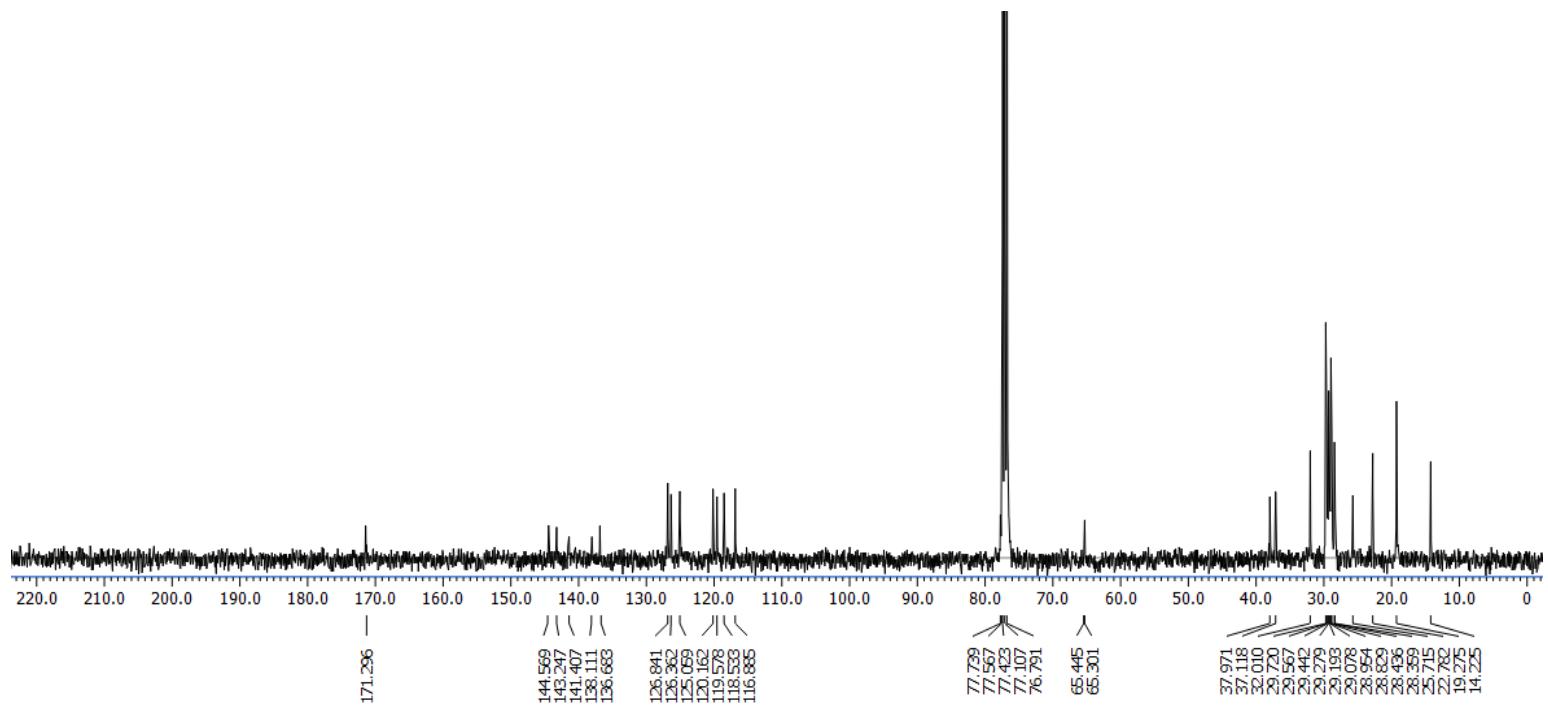


Figure S5.ii: <sup>13</sup>C NMR spectra of *N*-(9*H*-fluoren-2-yl)pentacosa-10,12-dynamide

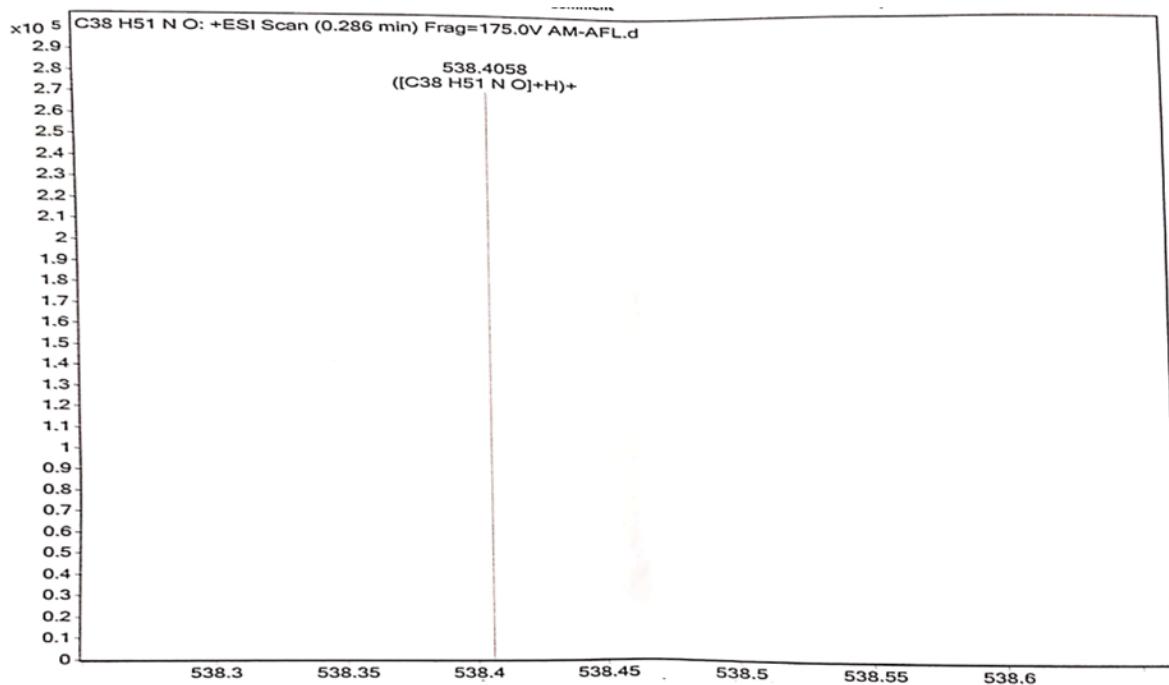


Figure S5.iii: HRMS spectra of *N*-(9*H*-fluoren-2-yl)pentacosa-10,12-dynamide