Electronic Supplementary Material (ESI) for Nanoscale Advances.

Supporting Information for:

Nanoscale lipid vesicles functionalized with nitro-aniline derivative for photoinduced nitric oxide (NO) delivery

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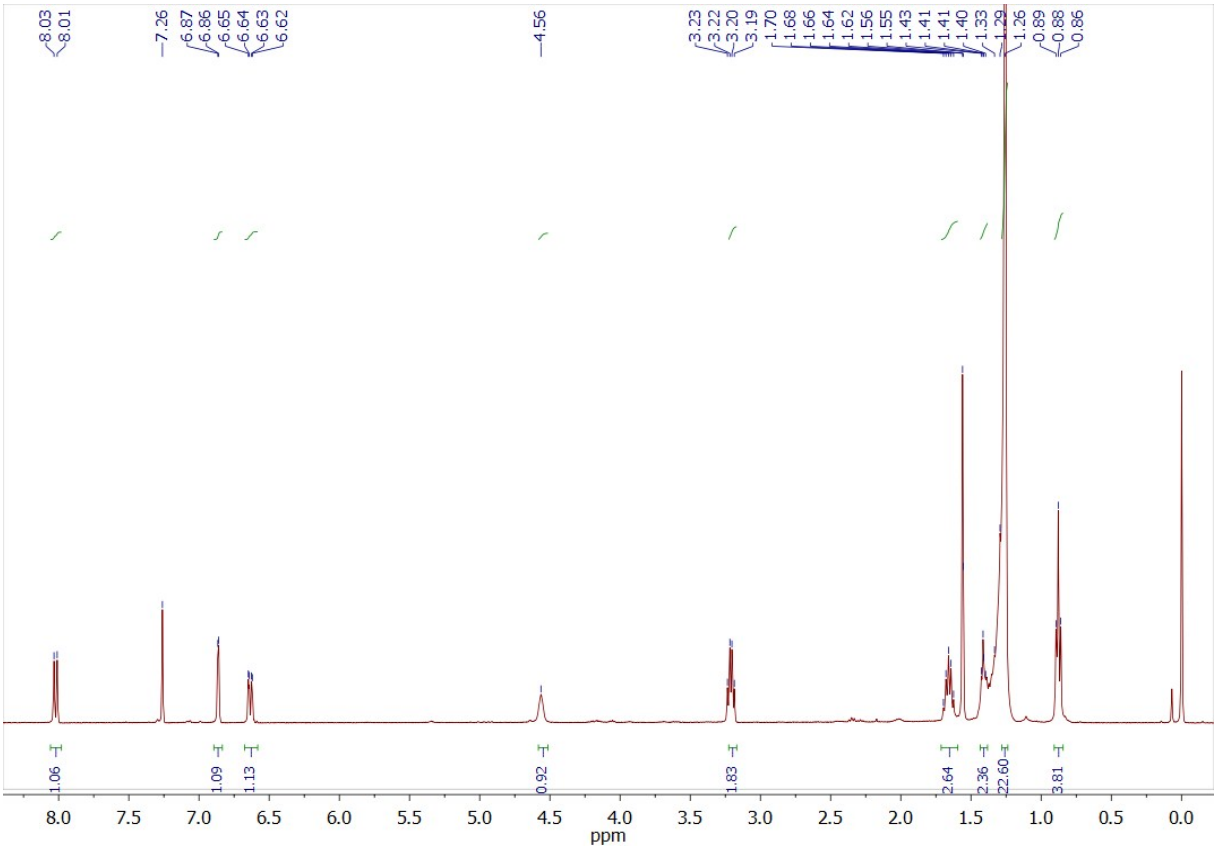


Figure S1: ^{1}H-NMR spectrum of **AMP-NTA**

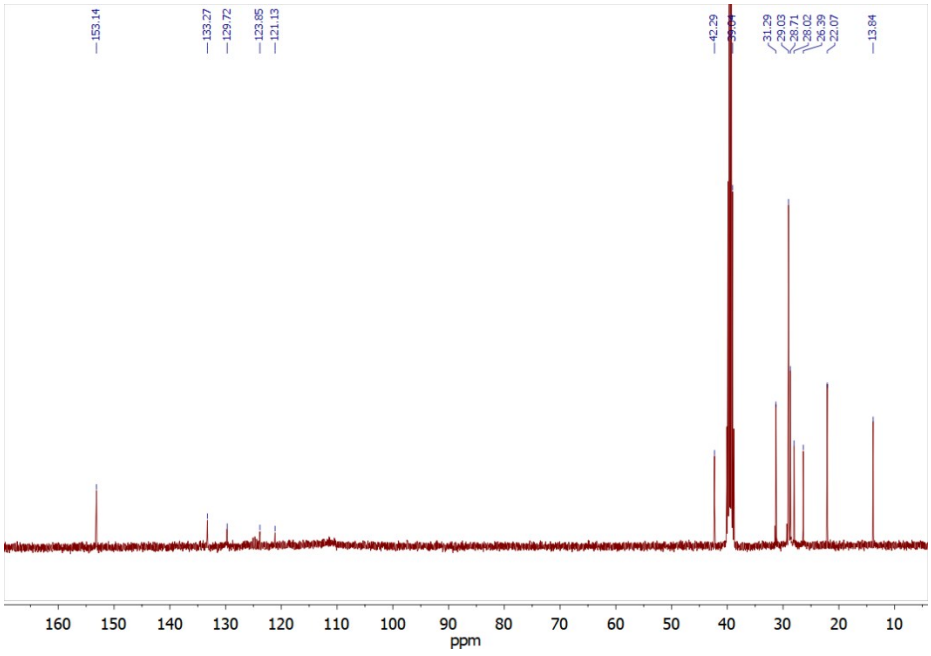


Figure S2: ^{13}C-NMR spectrum of **AMP-NTA**

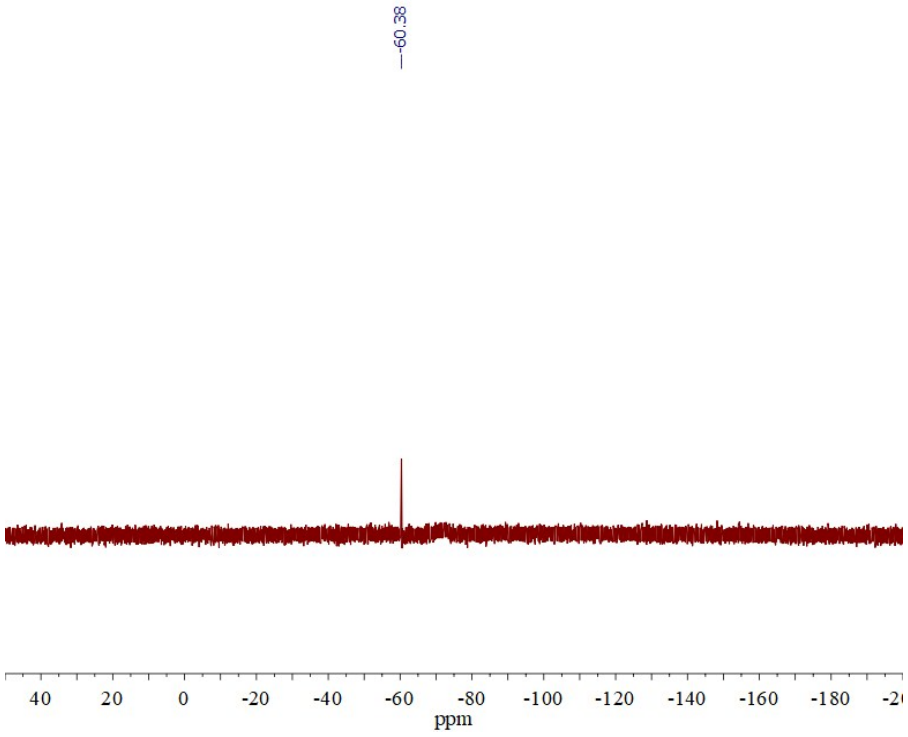
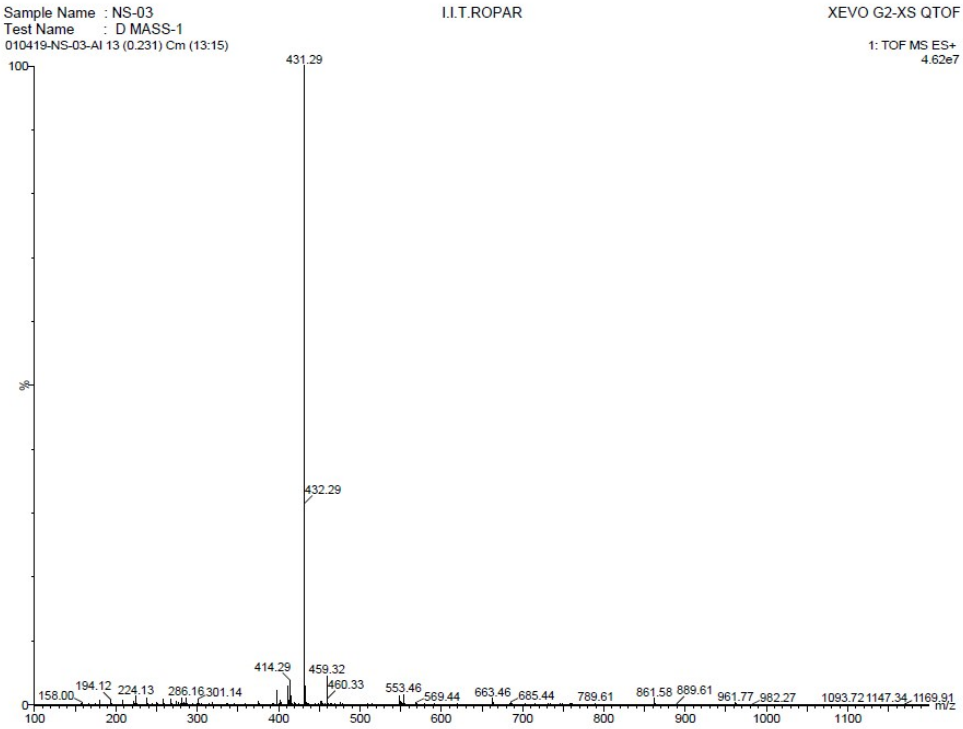
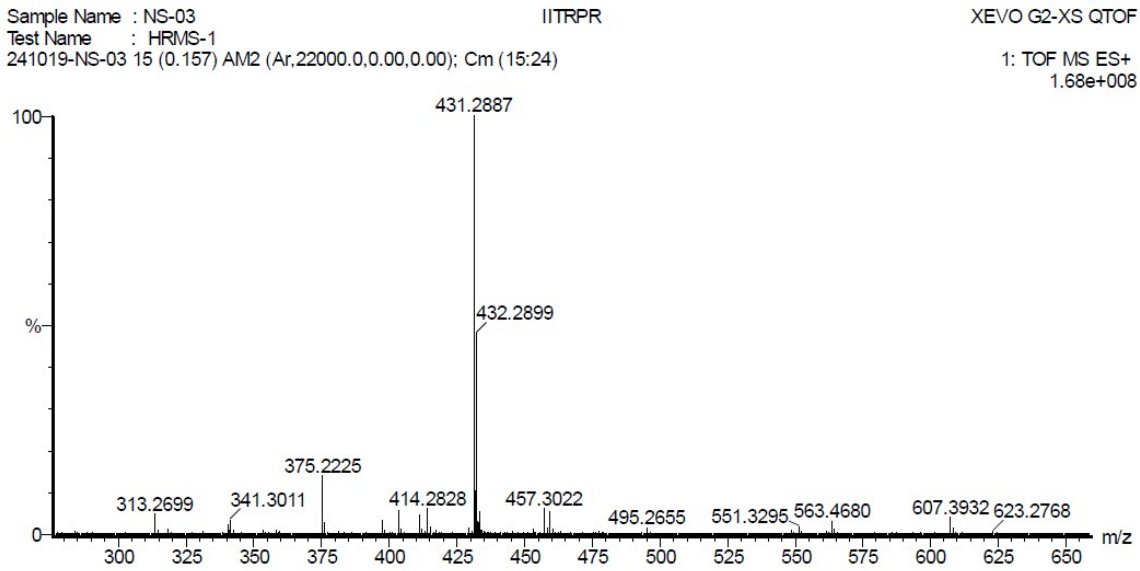


Figure S3: ^{19}F-NMR spectrum of **AMP-NTA**



Monoisotopic Mass, Even Electron Ions
30 formula(e) evaluated with 1 results within limits (up to 50 best isotopic matches for each mass)
Elements Used:
C: 11-25 H: 11-40 N: 0-2 O: 1-3 F: 0-3



Minimum:				-1.5				
Maximum:		5.0	25.0	50.0				
Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
431.2887	431.2885	0.2	0.5	4.5	1053.1	n/a	n/a	C23 H38 N2 O2 F3

Figure S4: (a) ESI- Mass spectrum of **AMP-NTA** (b) HR- Mass spectrum of **AMP-NTA**

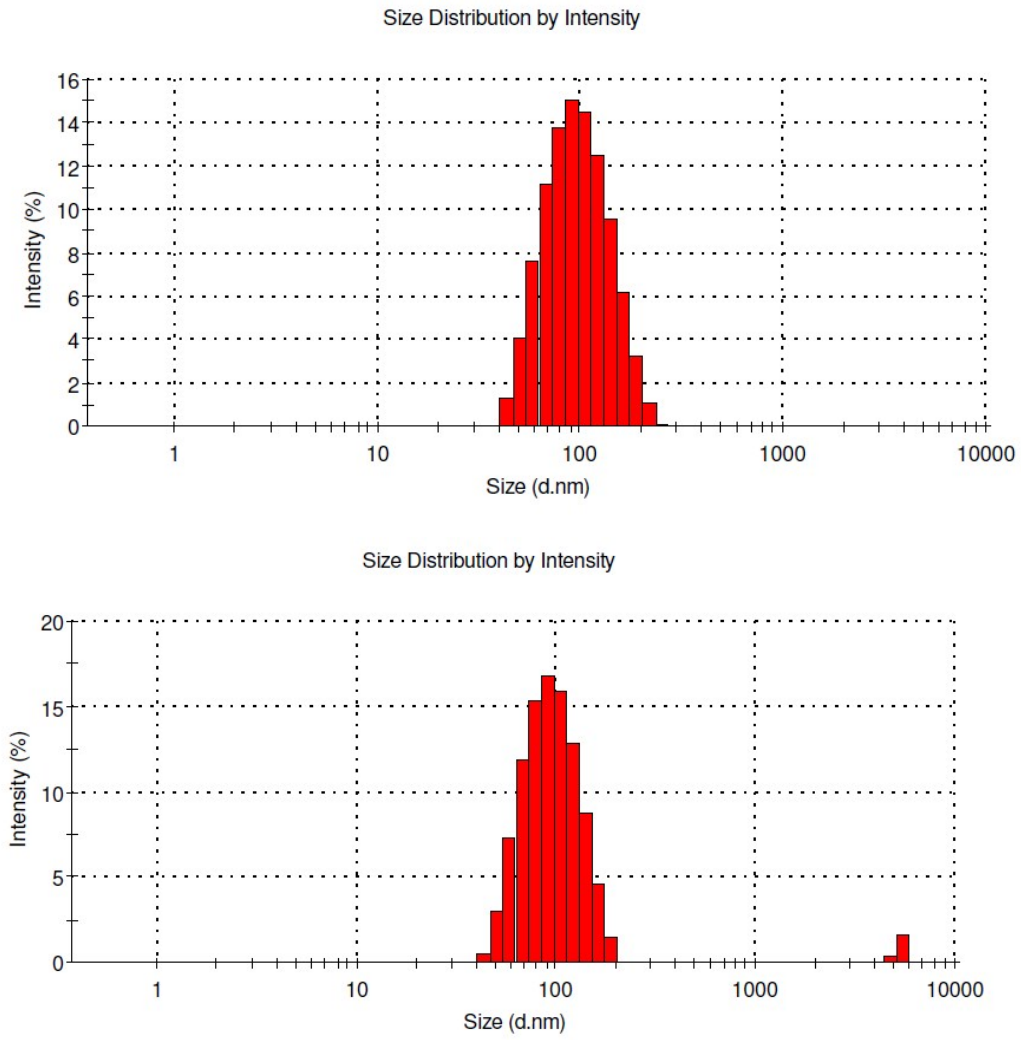


Figure S5: Particle Size analysis of (A) before and (B) after irradiation of **Ves-NTA** with light at 410 nm.

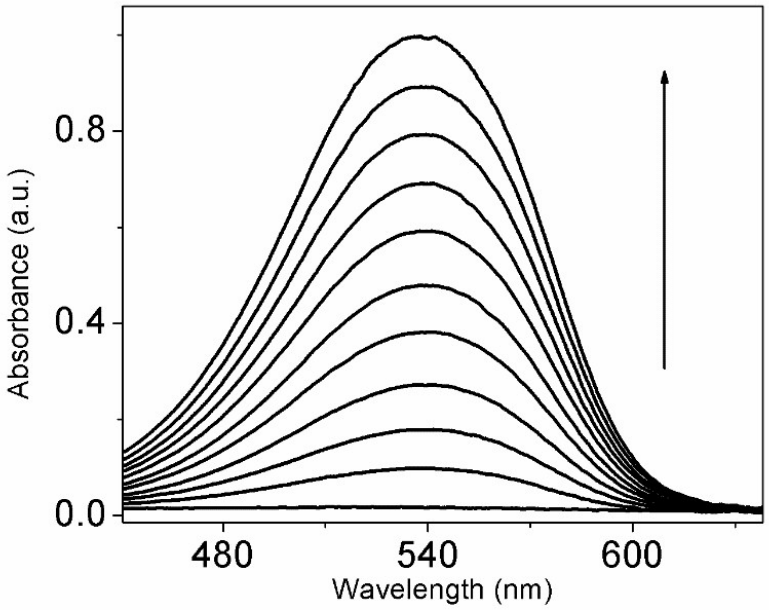


Figure S6: UV-vis absorbtion spectra of the formation of Azo-dye when Griess reagent (100 µL) was treated with $NaNO_2$.

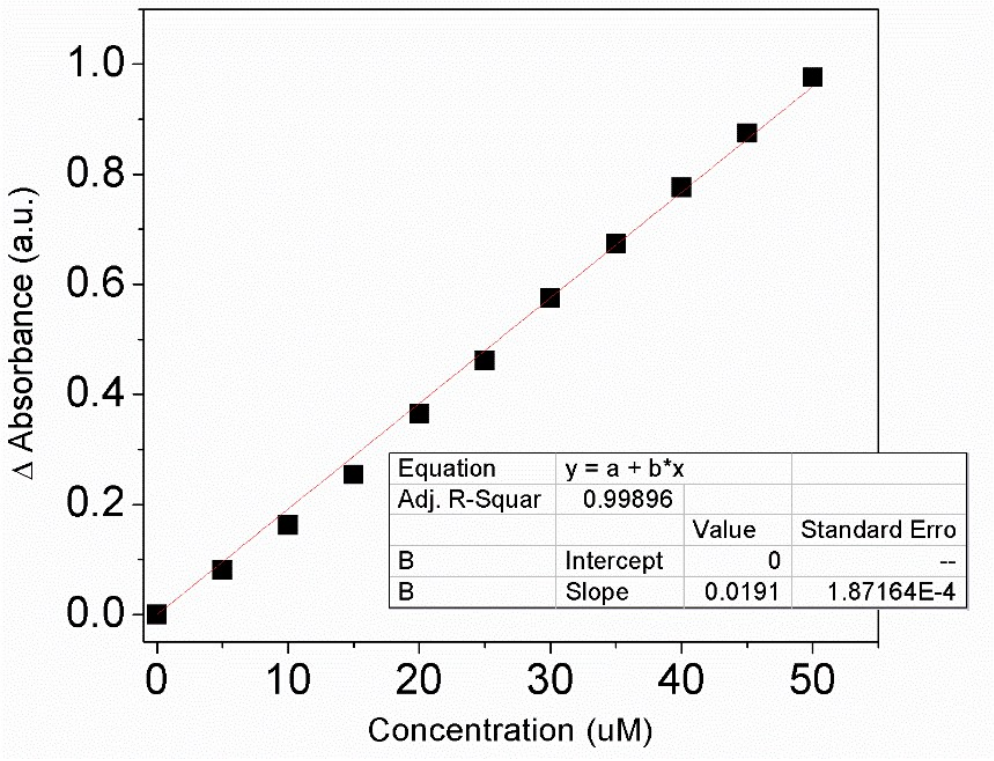
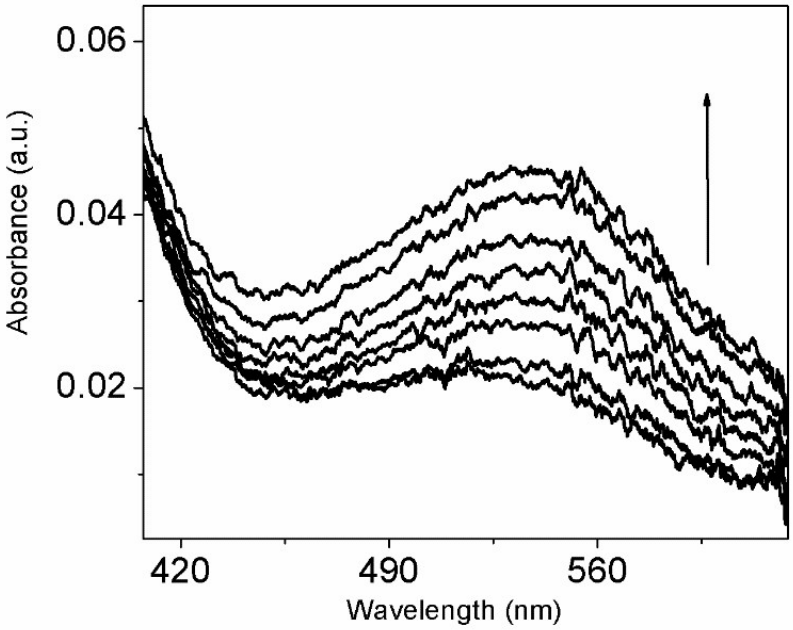
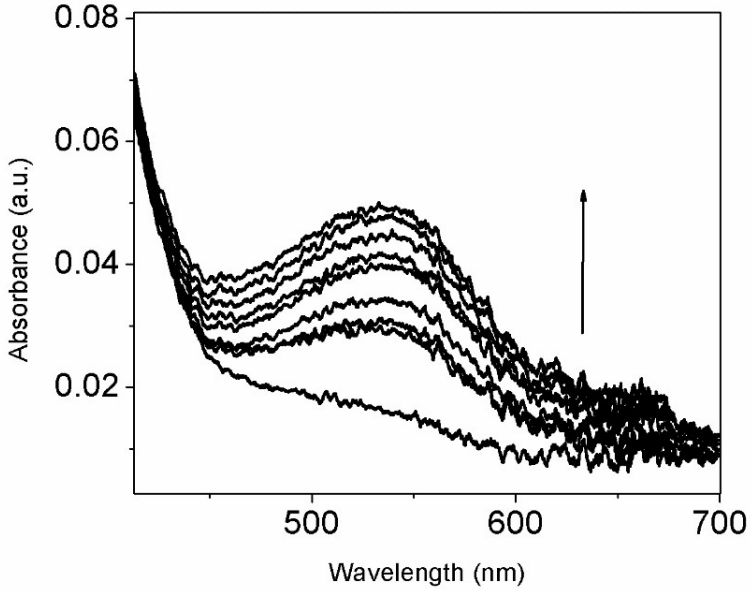


Figure S7. Standardisation curve of griess assay with different concentrations of $NaNO_2$ (5µM - 50µM) to quantify the amount of NO released from **Ves-NTA**.

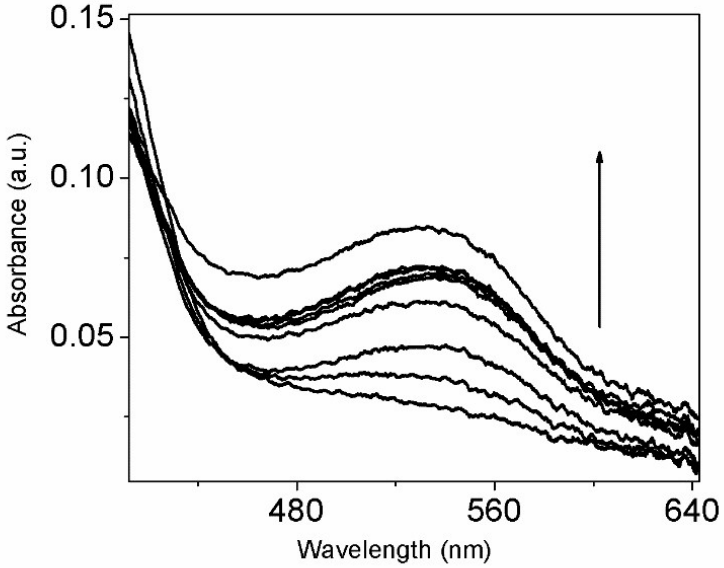
(A)


0.06
0.04
0.02
Absorbance (a.u.)
420
490
560
Wavelength (nm)

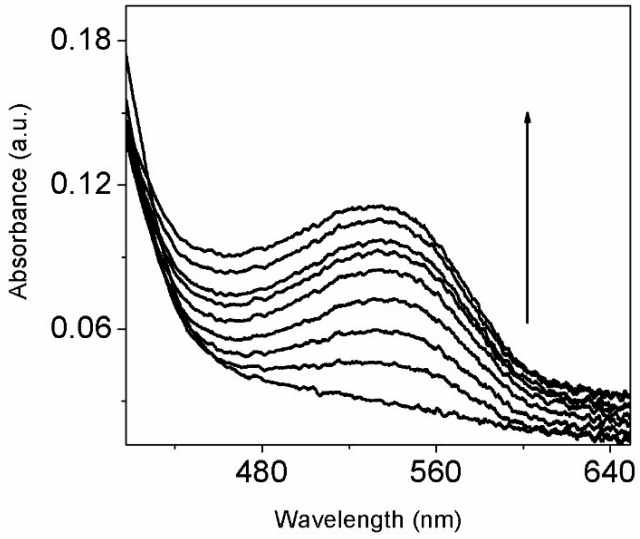
(B)


0.08
0.06
0.04
0.02
Absorbance (a.u.)
500
600
700
Wavelength (nm)

(C)


0.15
0.10
0.05
Absorbance (a.u.)
480
560
640
Wavelength (nm)

(D)


0.18
0.12
0.06
Absorbance (a.u.)
480
560
640
Wavelength (nm)

(E)

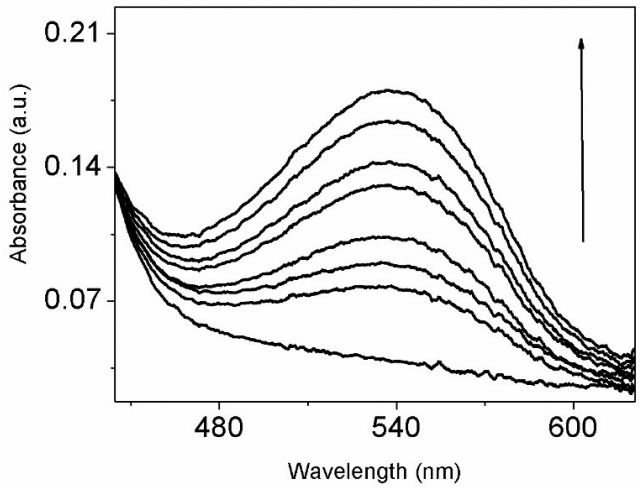


Figure S8. Greiss Assay with different concentrations of **AMP-NTA** (A) 5µM (B) 12.5µM (C) 25µM (D) 37.5µM (E) 50 µM present in **Ves-NTA** with the addition of 500 µl of Greiss reagent (800mg/20ml).

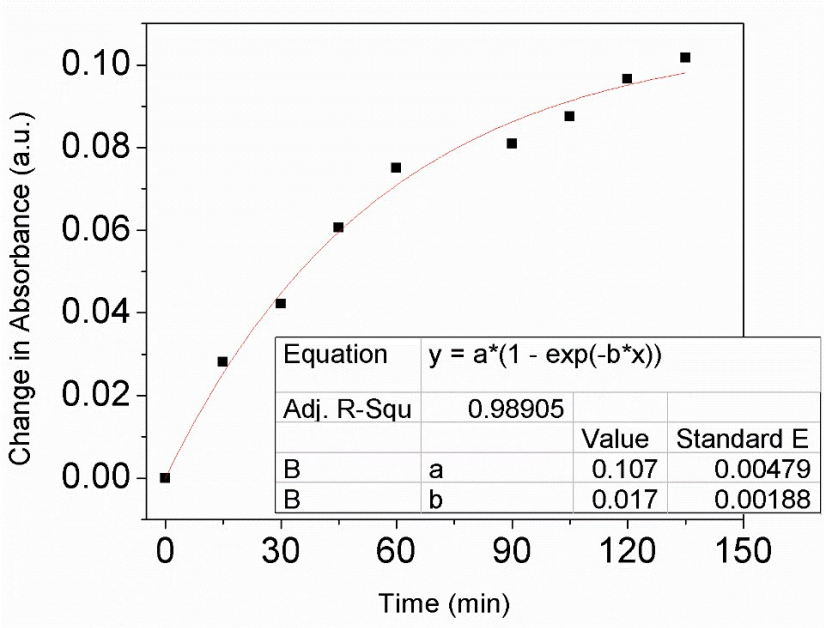


Figure S9: Time dependent changes in absorbance at λ = 500 nm for **Ves-NTA** upon irradiation with light . (The plot used for the determination of rate of NO release (K_{NO}) for **Ves-NTA**)

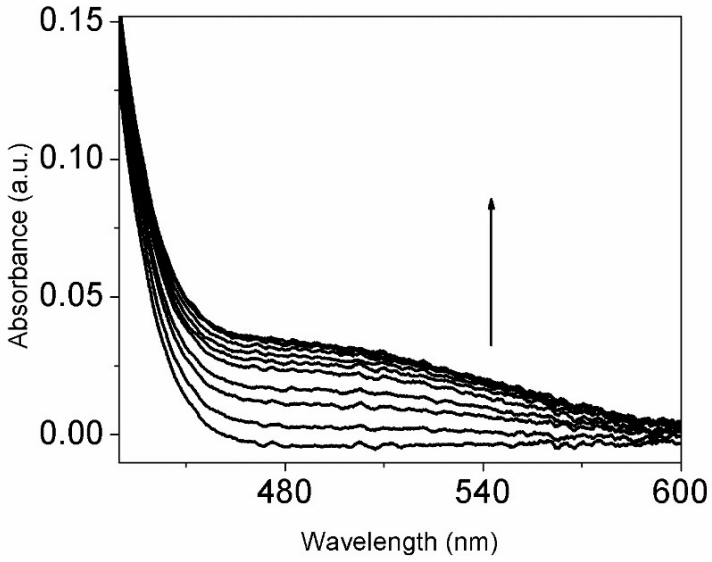


Figure S10: UV-Vis spectrum for the formation of azo-dye when Griess reagent (20 µl) was treated with **AMP-NTA** (35µM) in presence of light.

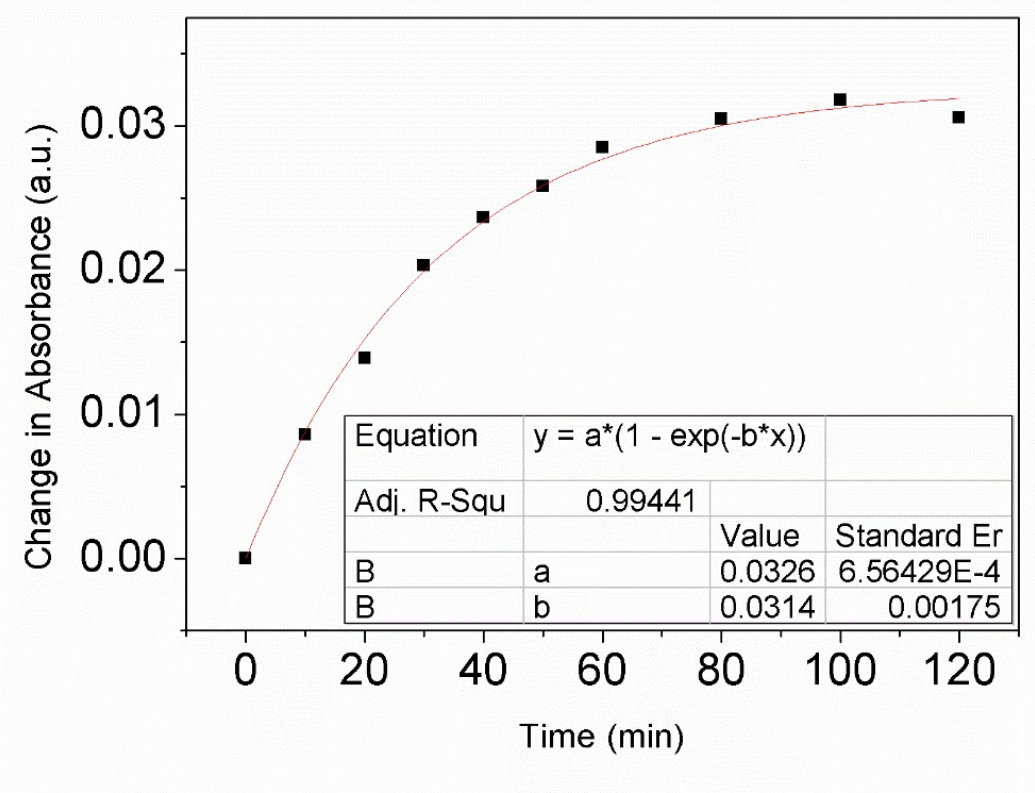


Figure S11: Time dependent changes in absorbance at λ = 500 nm for **AMP-NTA** upon irradiation with light .

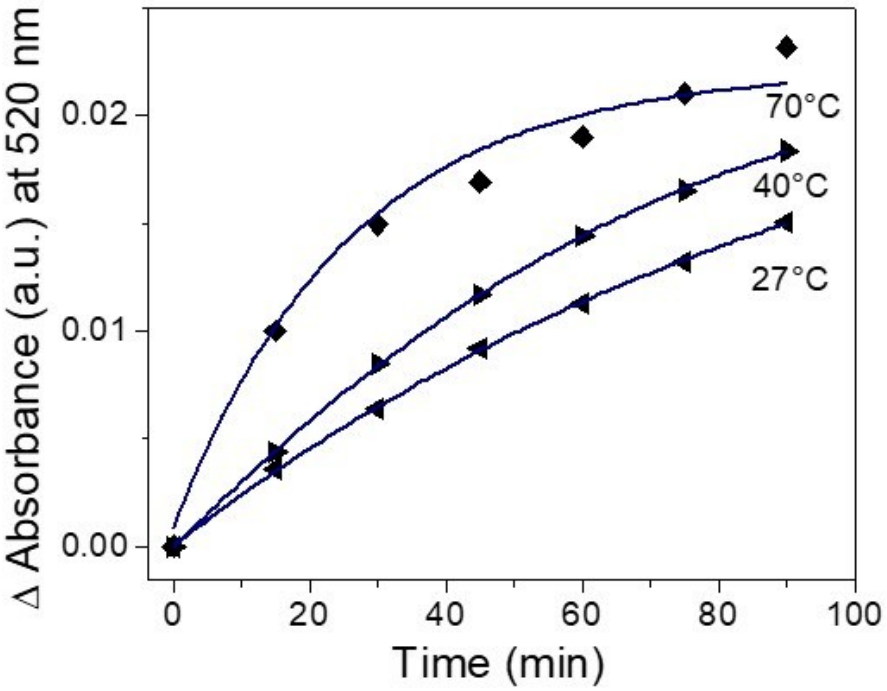


Figure S12: Effect of temperature on the rate of NO release monitored by Griess assay.

Tabel S1: Effect of temperature on the rate of NO release.

S.No	Temperature	Rate of NO release (K_{NO})	Half-Life (t ½) mins
1	27°C	0.0090	77
2	40°C	0.0119	58
3	70°C	0.0420	17