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Supporting Information

for

"Scorpion" shape mono s(carboxy)Porphyrin-(Bodipy)$_2$: a novel triazine bridged triad, synthesis, characterization and its dye sensitized solar cell (DSSC) applications

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Table S1. Coordinates of gas phase geometry optimized structure of **3 PorCOOH-(BDP)$_2$** calculated by DFT at the B3LYP / 6-31G(d) level. E = - 4921.639274 Hartree / particle.

	x	y	z
C	-2.587653000	11.525254000	0.694461000
C	-2.014369000	10.649565000	1.554500000
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C	-1.797635000	17.577058000	0.609878000
C	-2.401957000	16.519589000	-0.017229000
C	-2.050067000	15.319978000	0.686144000
N	-1.237268000	15.704481000	1.729185000
C	-1.058960000	17.068481000	1.730742000
C	-2.463896000	14.017330000	0.368180000
C	1.776000000	17.170719000	5.537242000
C	1.199364000	18.046605000	4.679946000
C	0.456513000	17.243166000	3.711233000
N	0.569156000	15.911545000	3.992576000
C	1.374181000	15.838491000	5.095772000
C	-0.286604000	17.802909000	2.647502000
C	1.256387000	11.089905000	5.407632000
C	1.853237000	12.148040000	6.041884000
C	1.413815000	13.356634000	5.407129000
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C	0.418001000	11.608981000	4.365596000
C	-0.376997000	10.874189000	3.467618000
C	1.792873000	14.664088000	5.753384000
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C	-5.141977000	13.623235000	-3.014447000
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C	-3.395382000	13.879734000	-0.807244000
C	2.728085000	14.799959000	6.926205000
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C	4.976513000	14.930559000	7.819700000
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H	-2.442777000	-8.428281000	3.816736000
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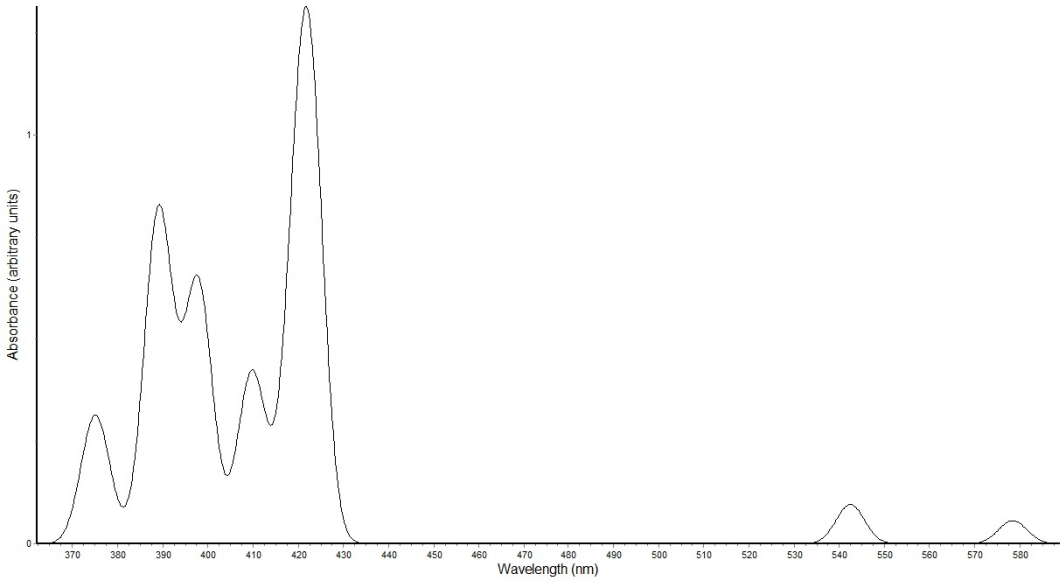

Figure S1. Theoretically calculated UV-vis absorption spectra of **3 PorCOOH-(BDP)$_2$.**

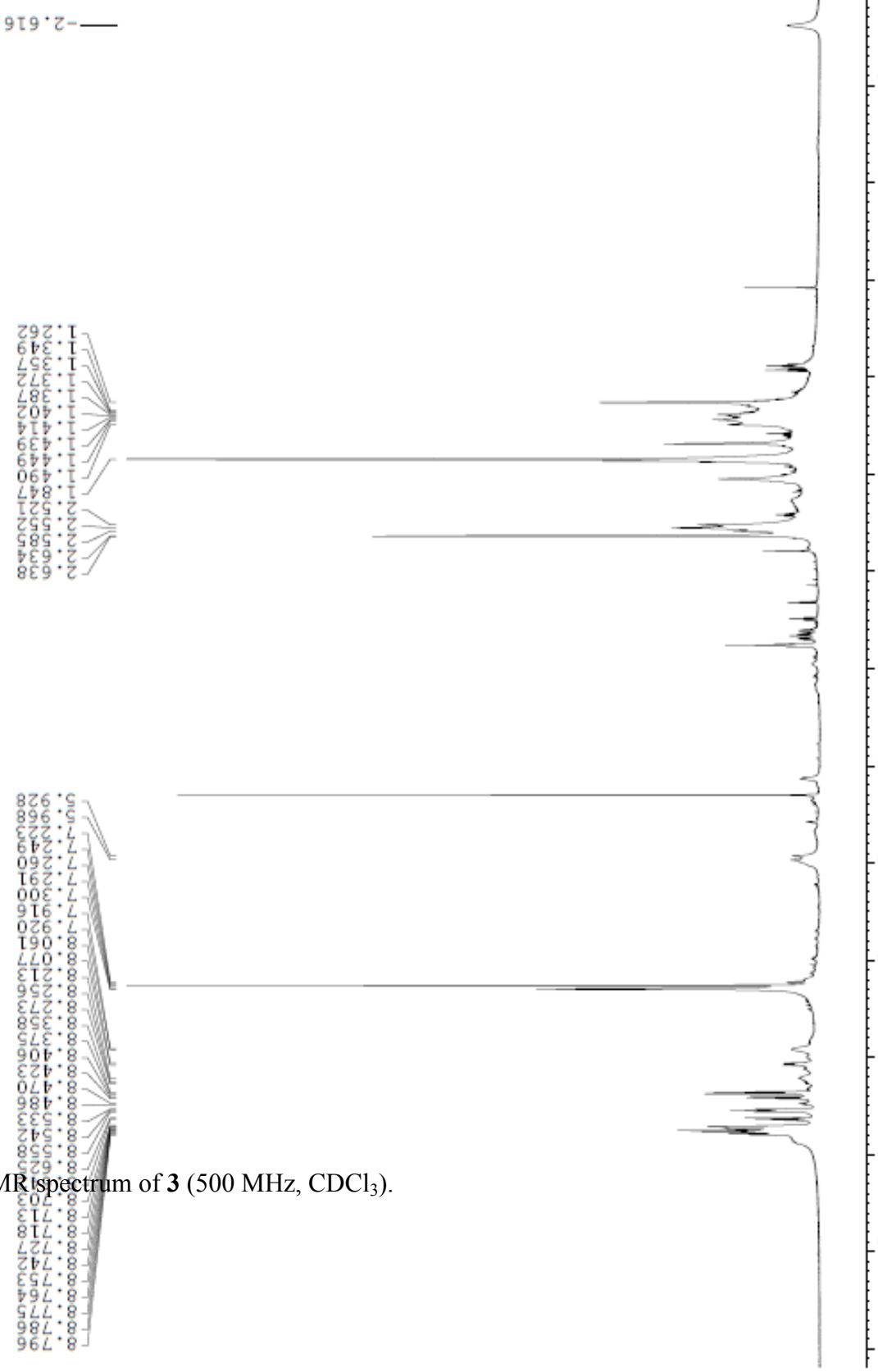

Figure S2. ^{1}H NMR spectrum of **3** (500 MHz, $CDCl_3$).

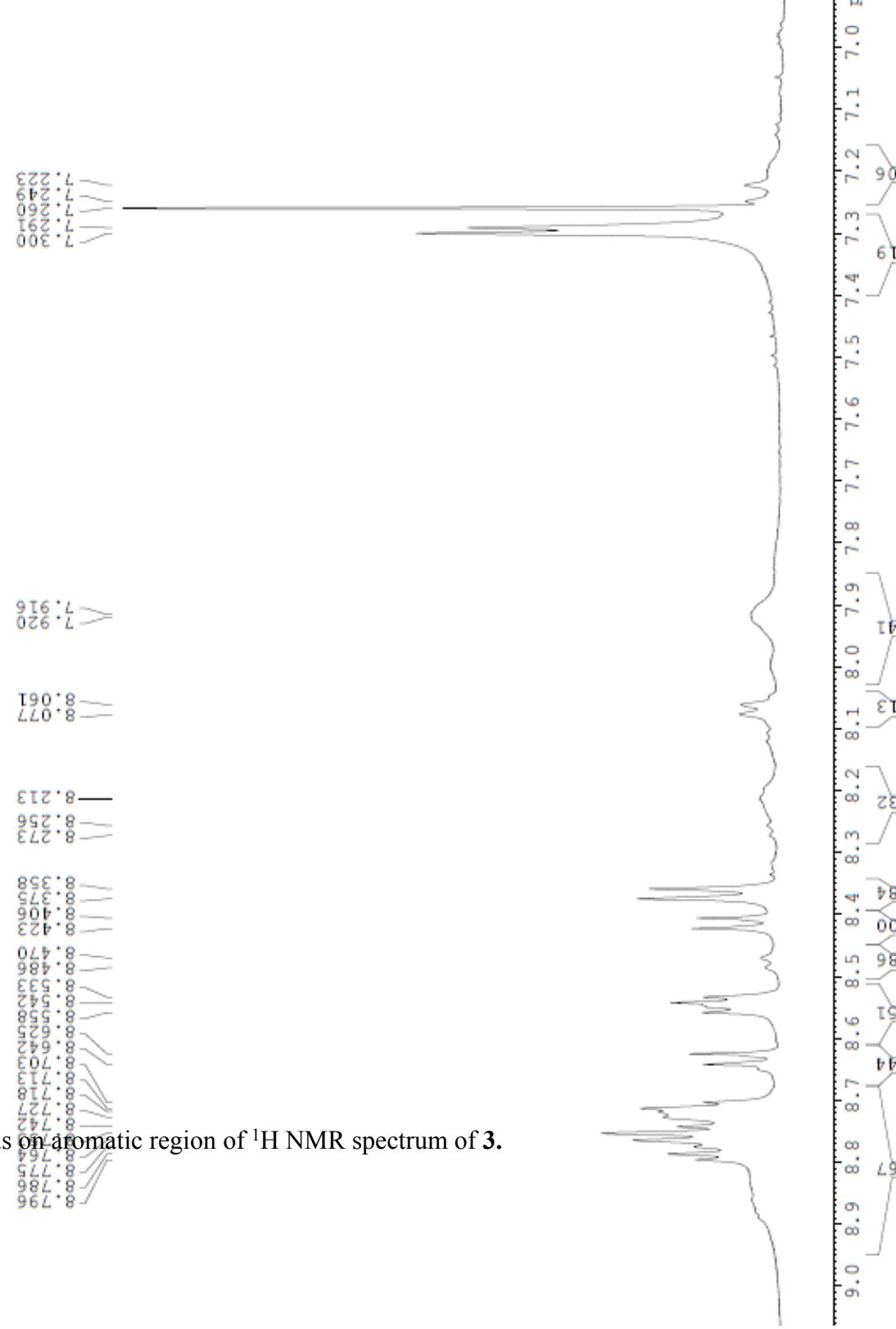

Figure S3. Focus on aromatic region of ^{1}H NMR spectrum of **3.**

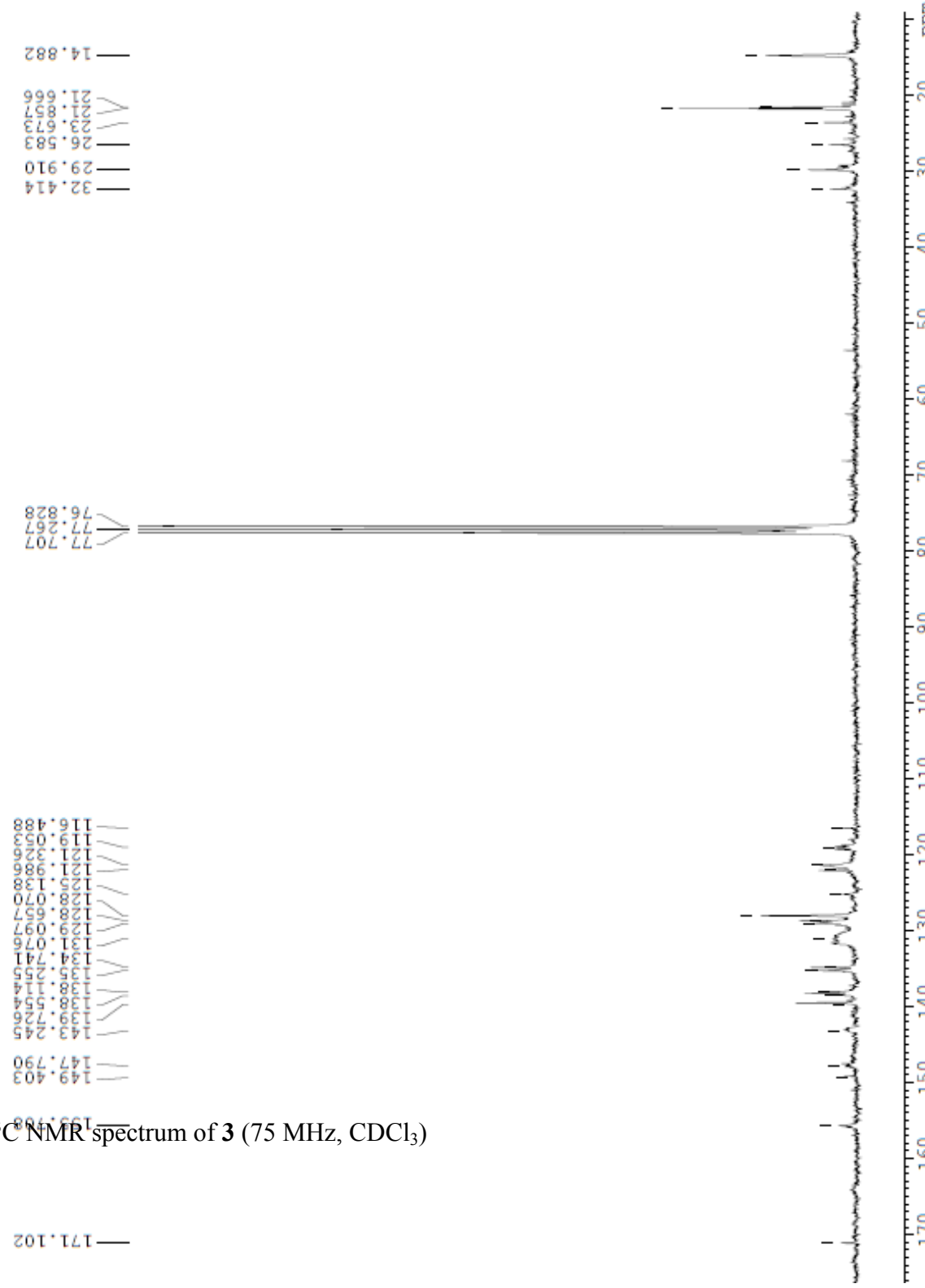

Figure S4. ^{13}C NMR spectrum of **3** (75 MHz, $CDCl_3$)

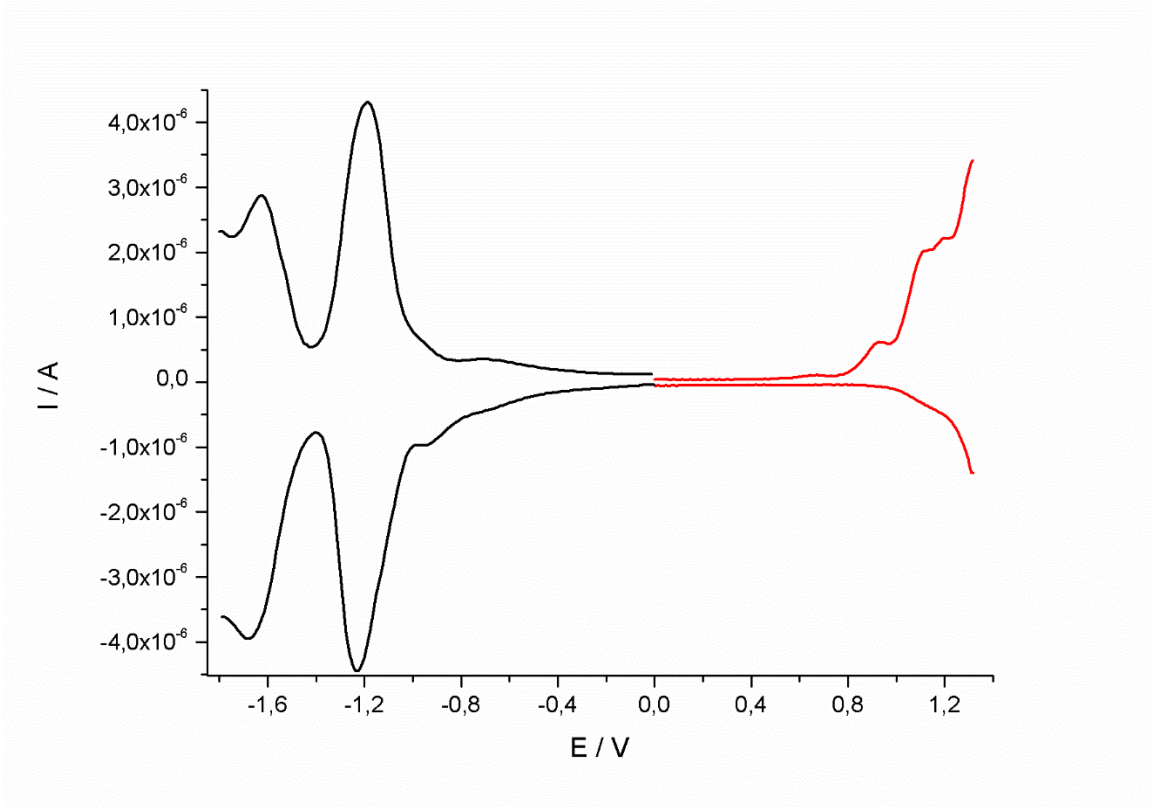

Figure S5. Square-wave voltammogram of **3**. The ferrocene/ferrocenium (Fc/Fc^{+}) redox couple wave (not shown) is found to be at 0.56 V. Voltage is reported *vs* SCE.

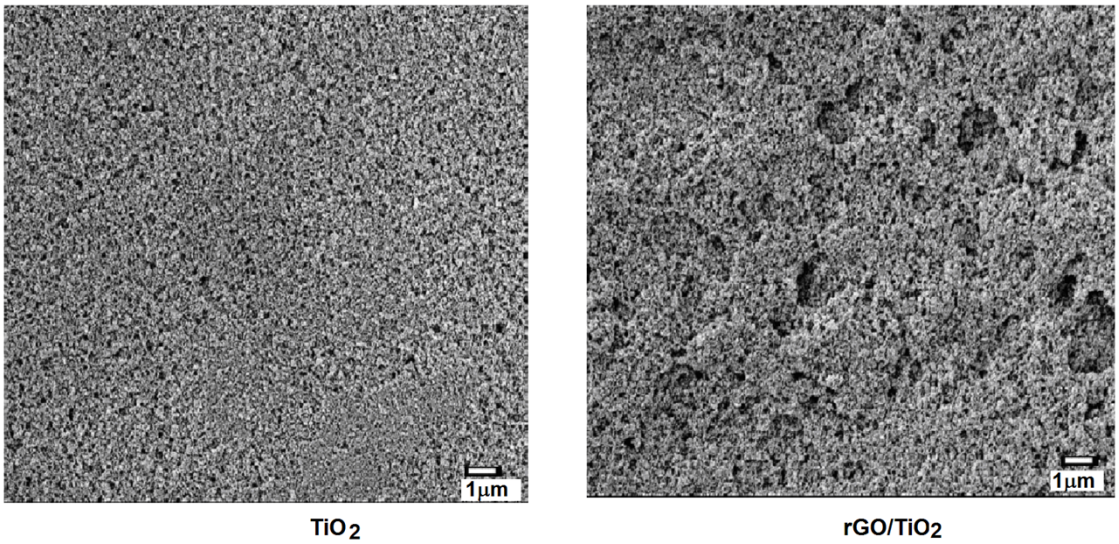

Figure S6. SEM images of TiO_2 (left) and rGO/TiO_2 (right) films.

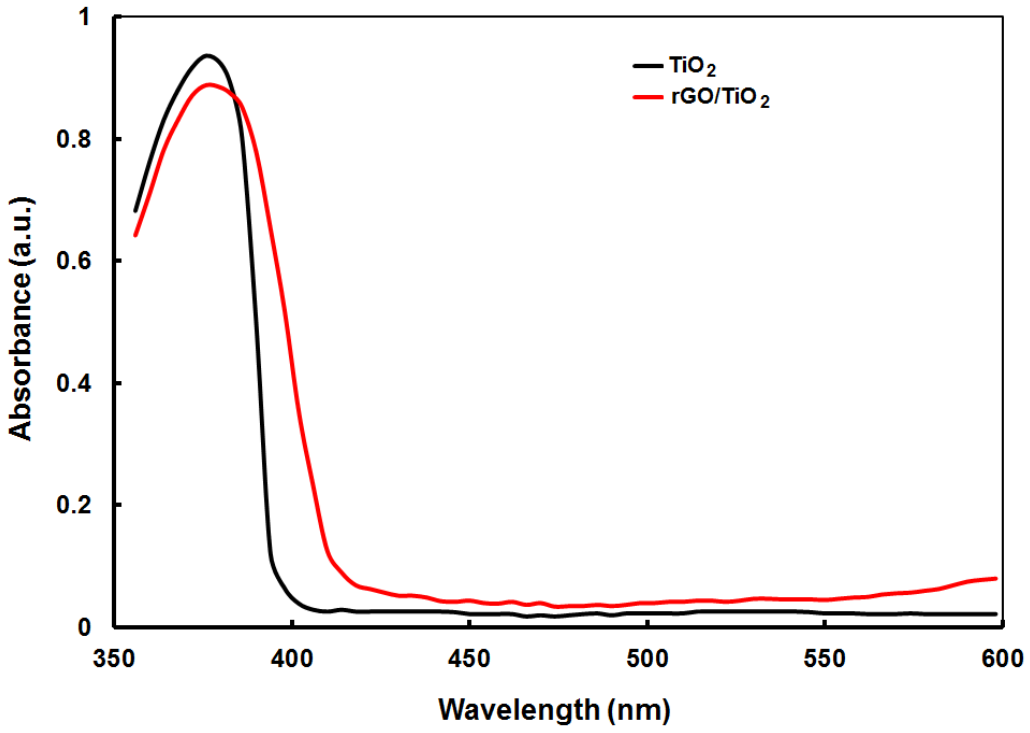

Figure S7. UV-visible absorption spectra of TiO_2 (black line) and rGO/TiO_2 (red line) films

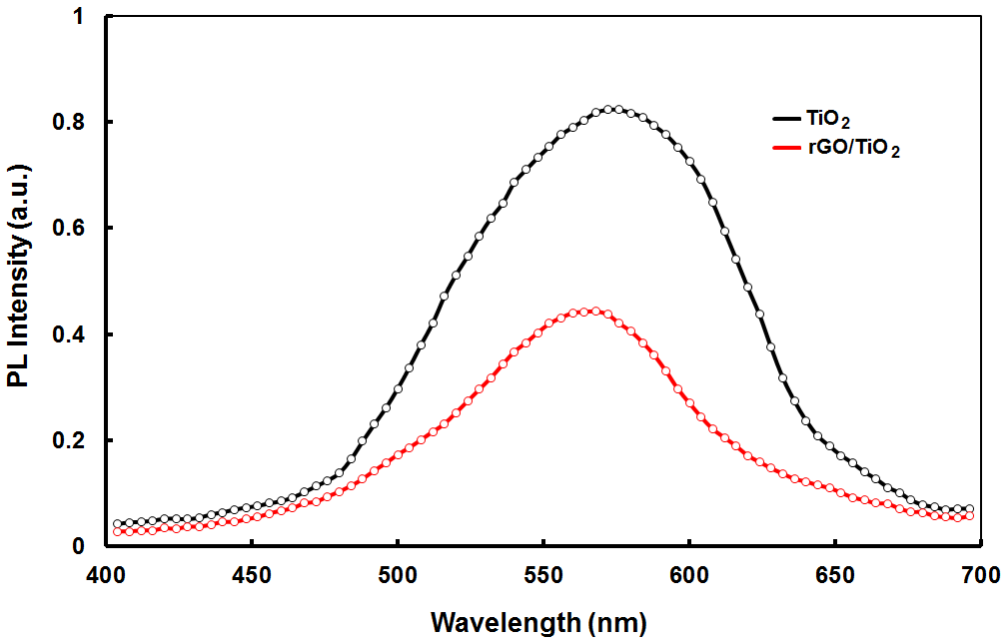

Figure S8. PL spectra of TiO_2 (black line) and rGO/TiO_2 (red line) films.

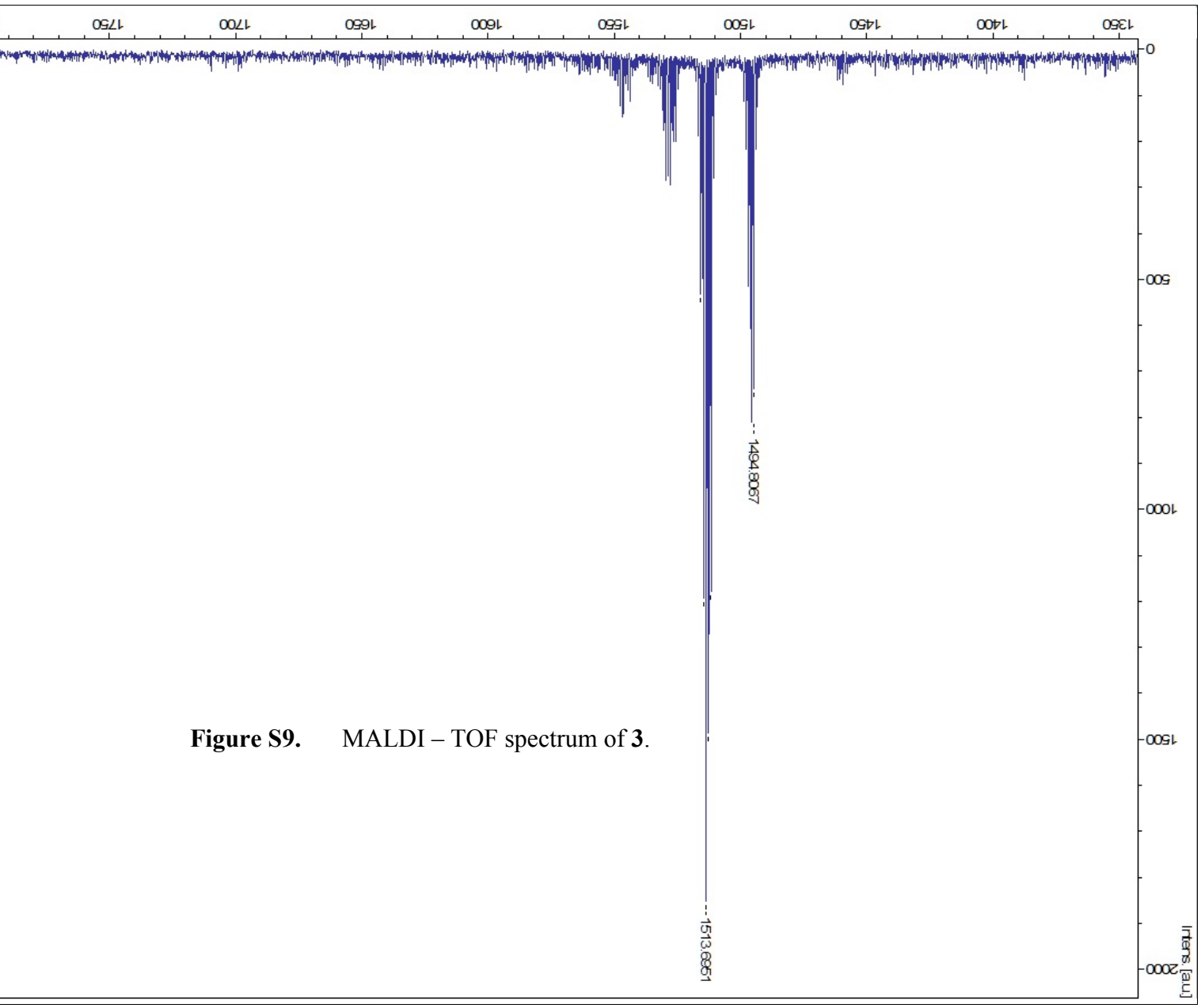

Figure S9. MALDI – TOF spectrum of **3**.