Electronic Supplementary Material (ESI) for RSC Advances.

Stimuli responsive reversible high contrast off-on fluorescence switching of simple aryl-ether amine based aggregation induced enhanced emission materials

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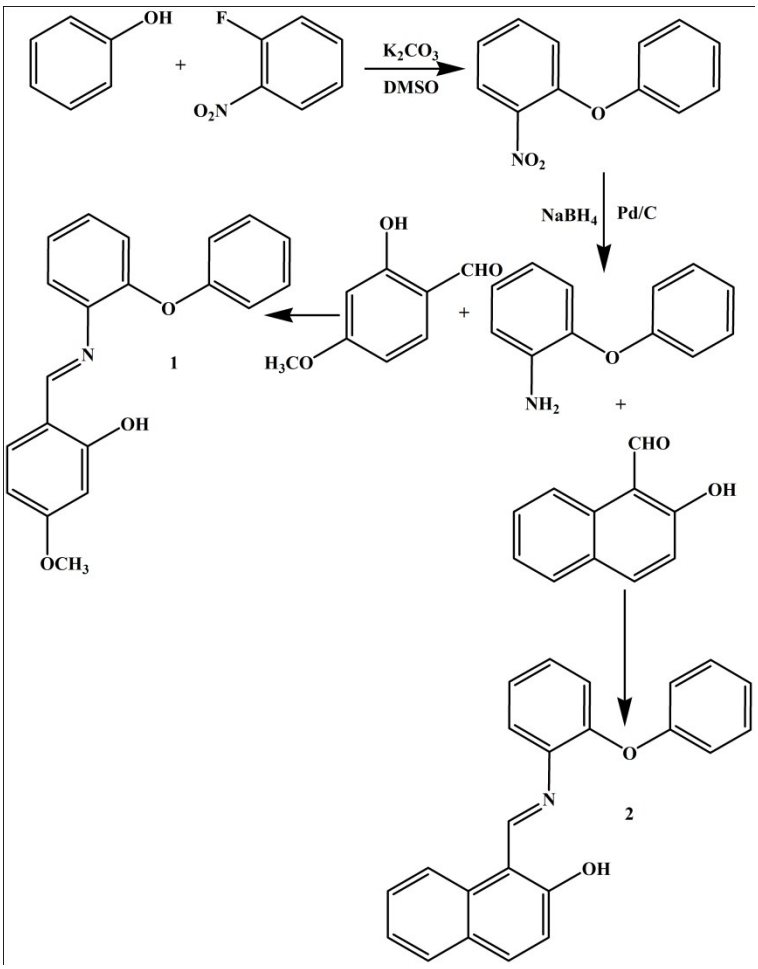
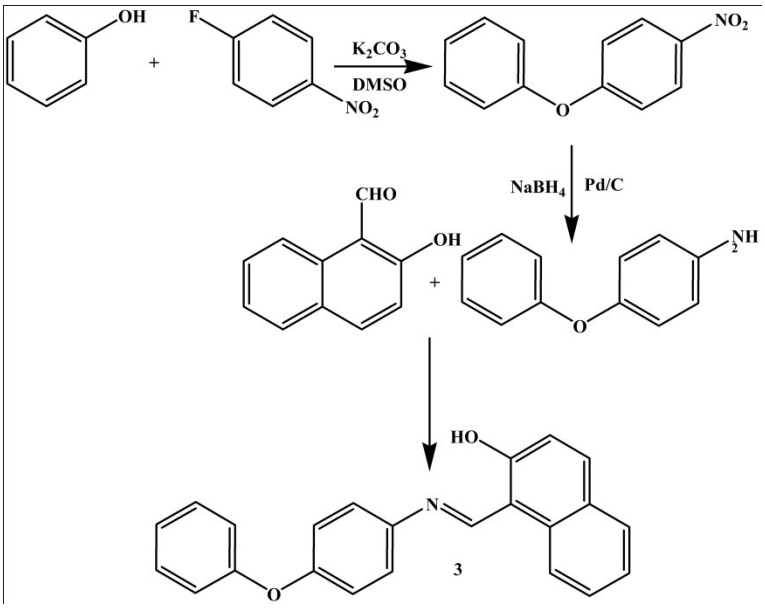
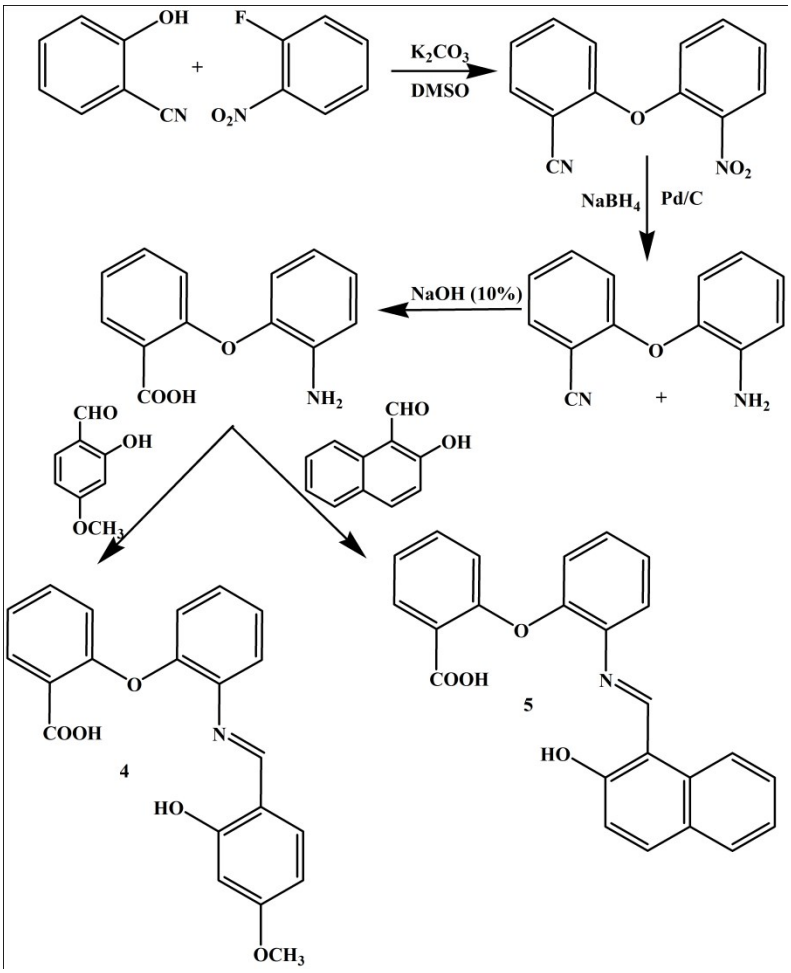


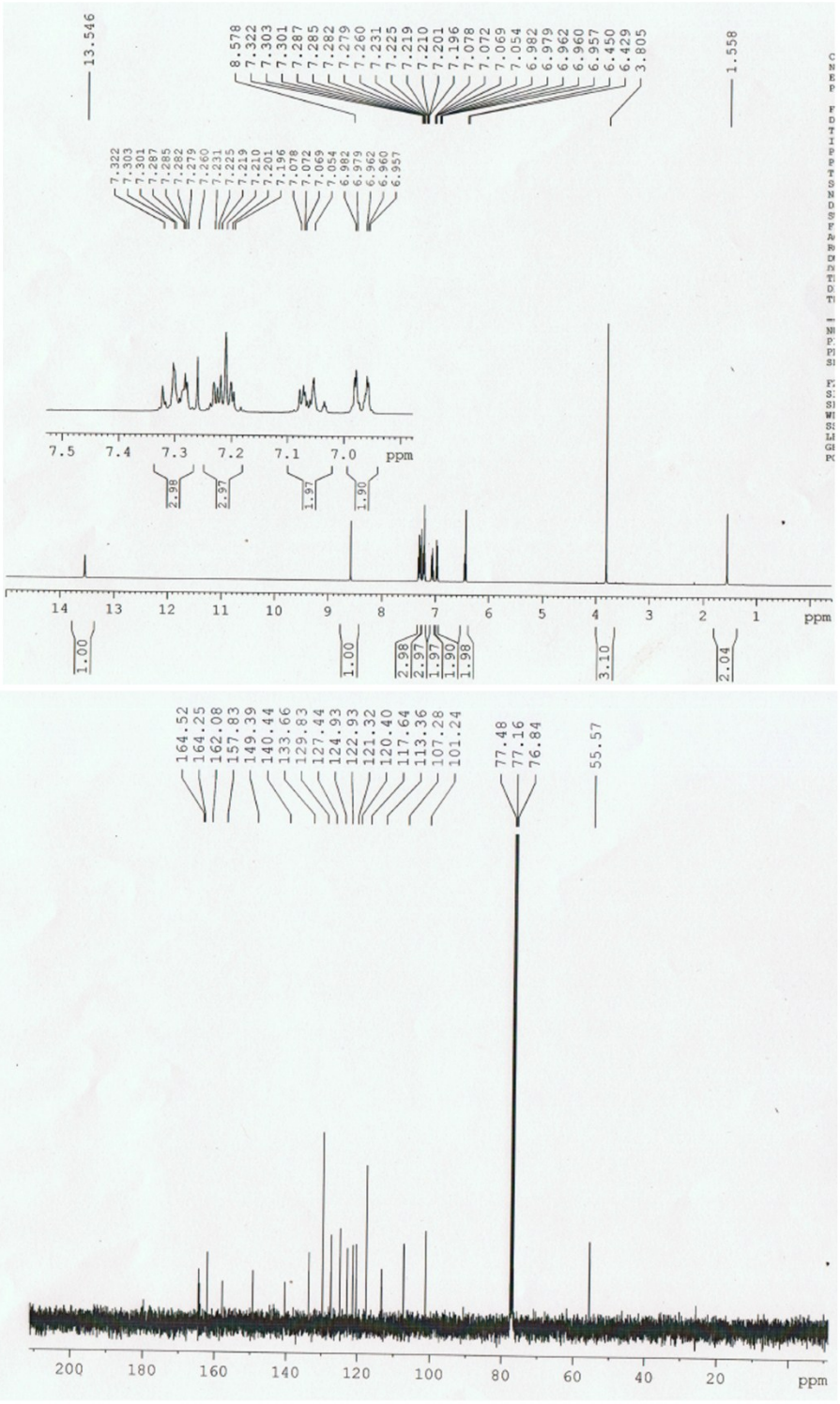
Scheme S1. Synthesis of 1 and 2 Schiff bases.



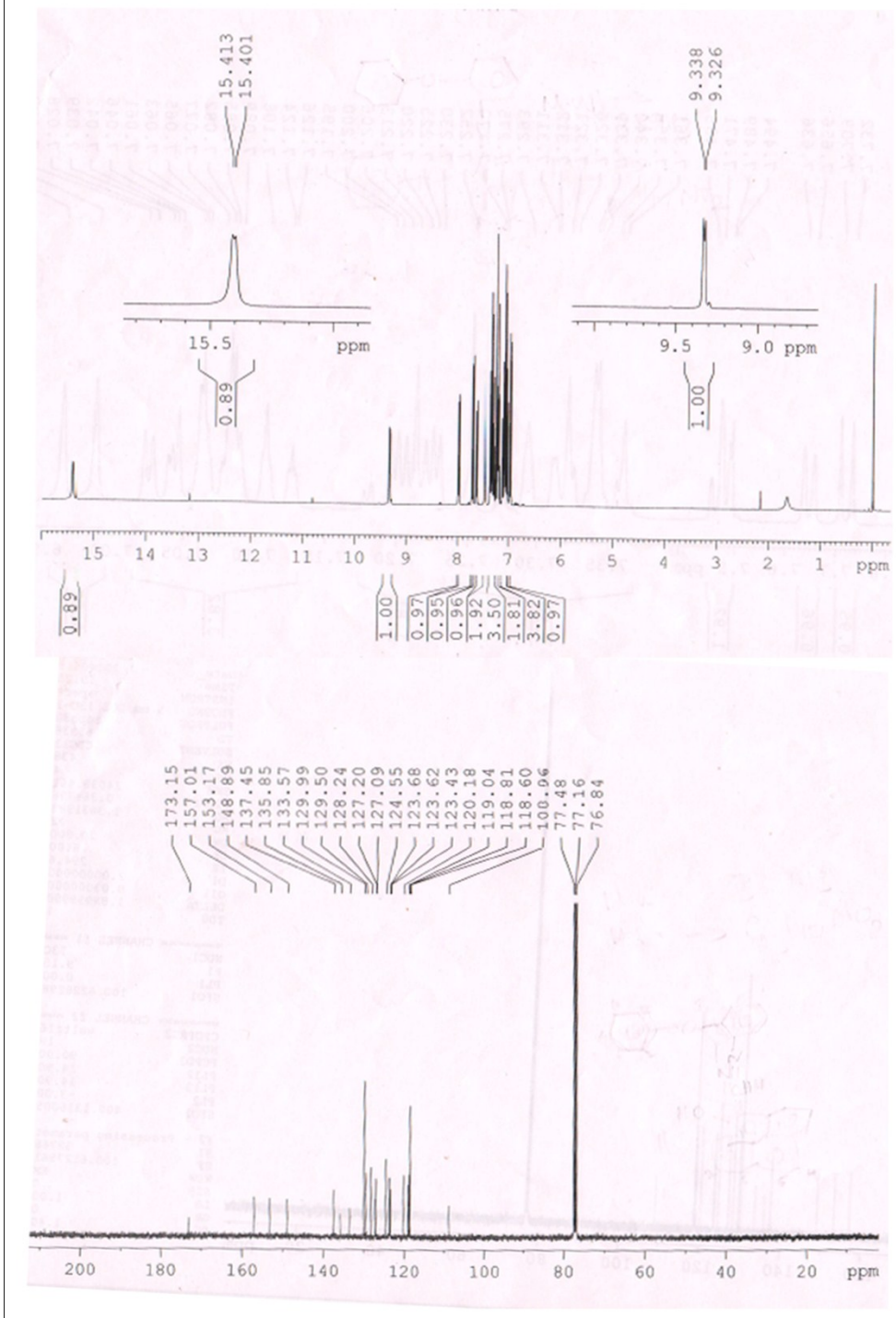
Scheme S1. Synthesis of 3.



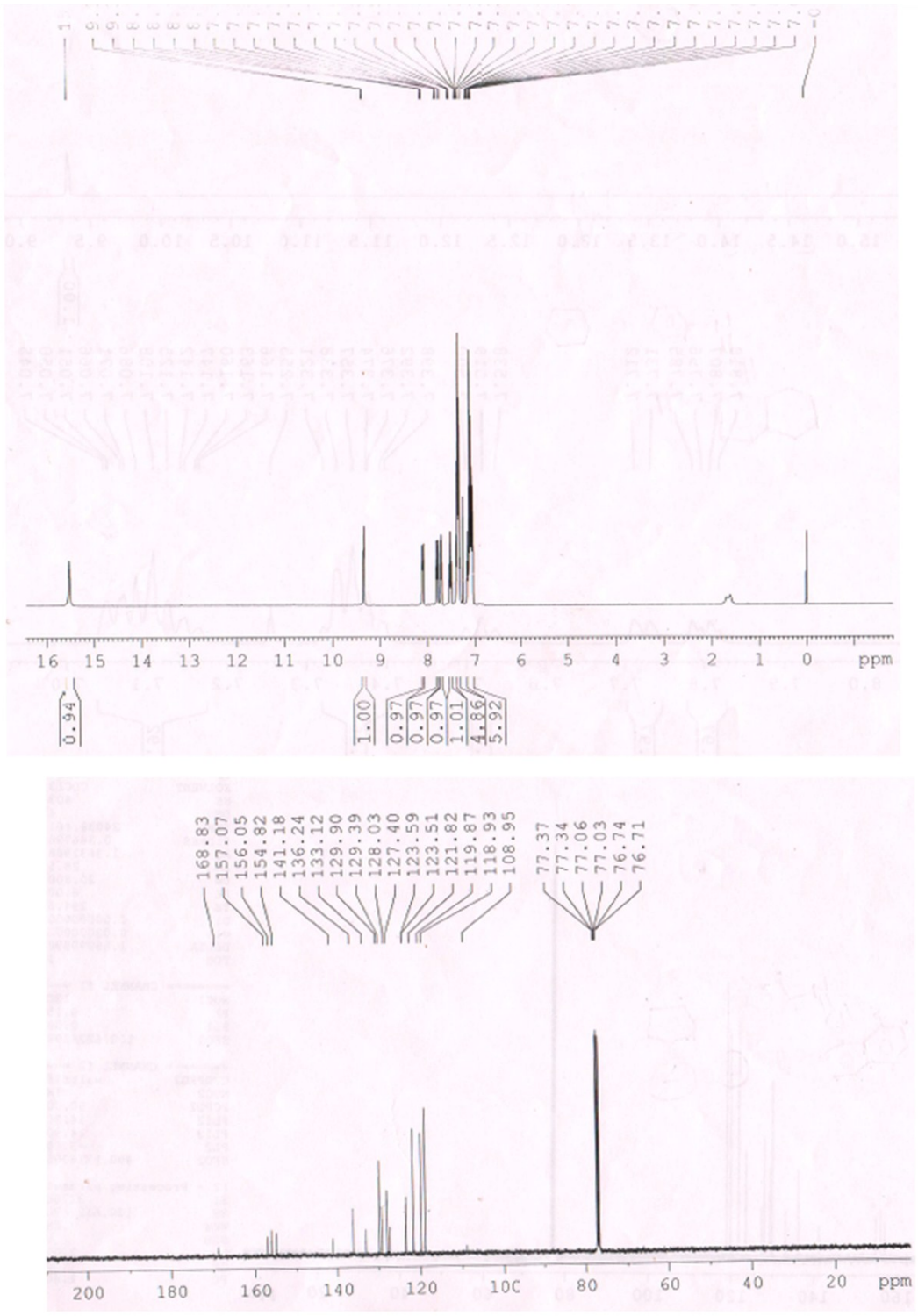
Scheme S1. Synthesis of 4 and 5.



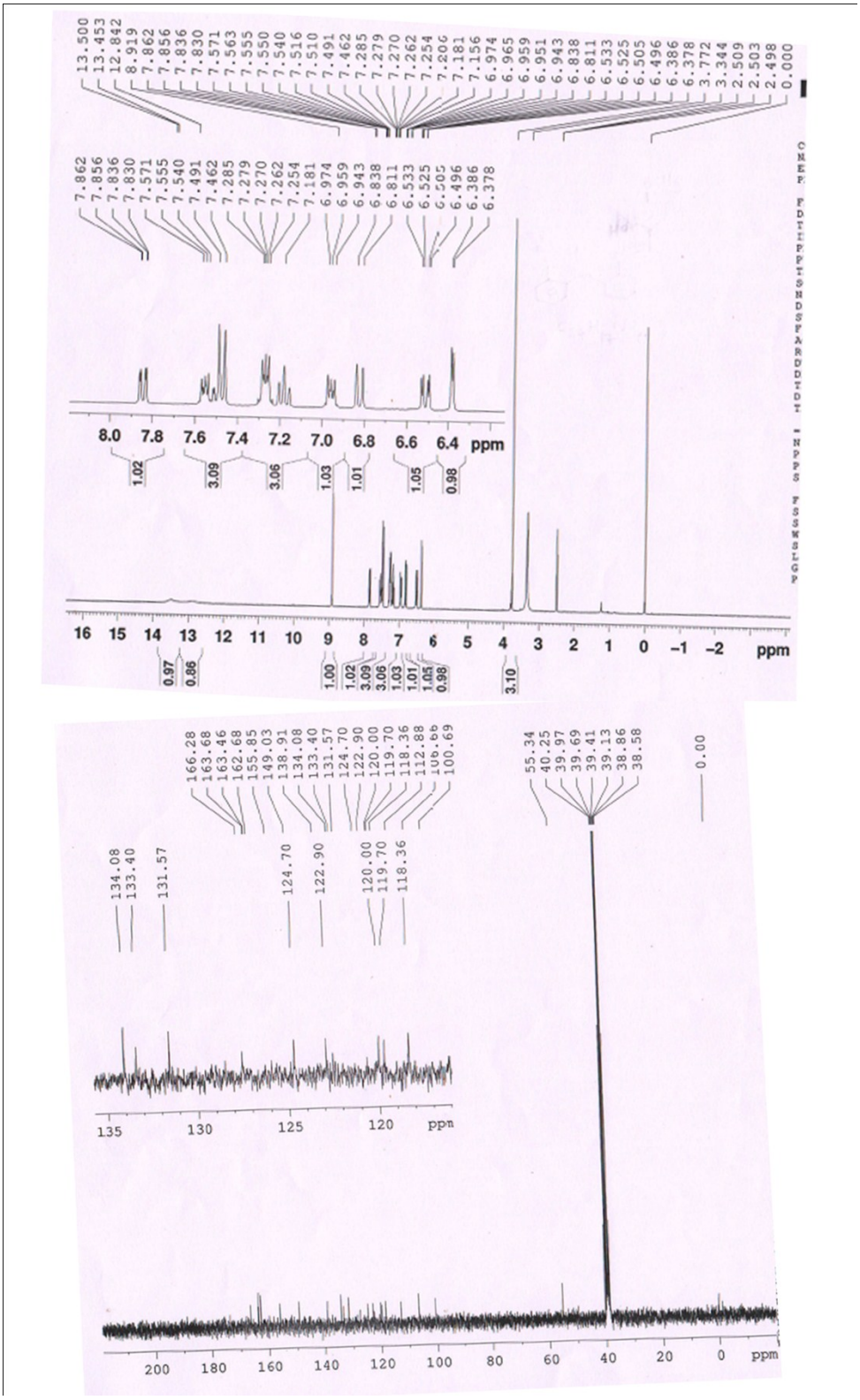
^{1}H and ^{13}C NMR spectra of 1.



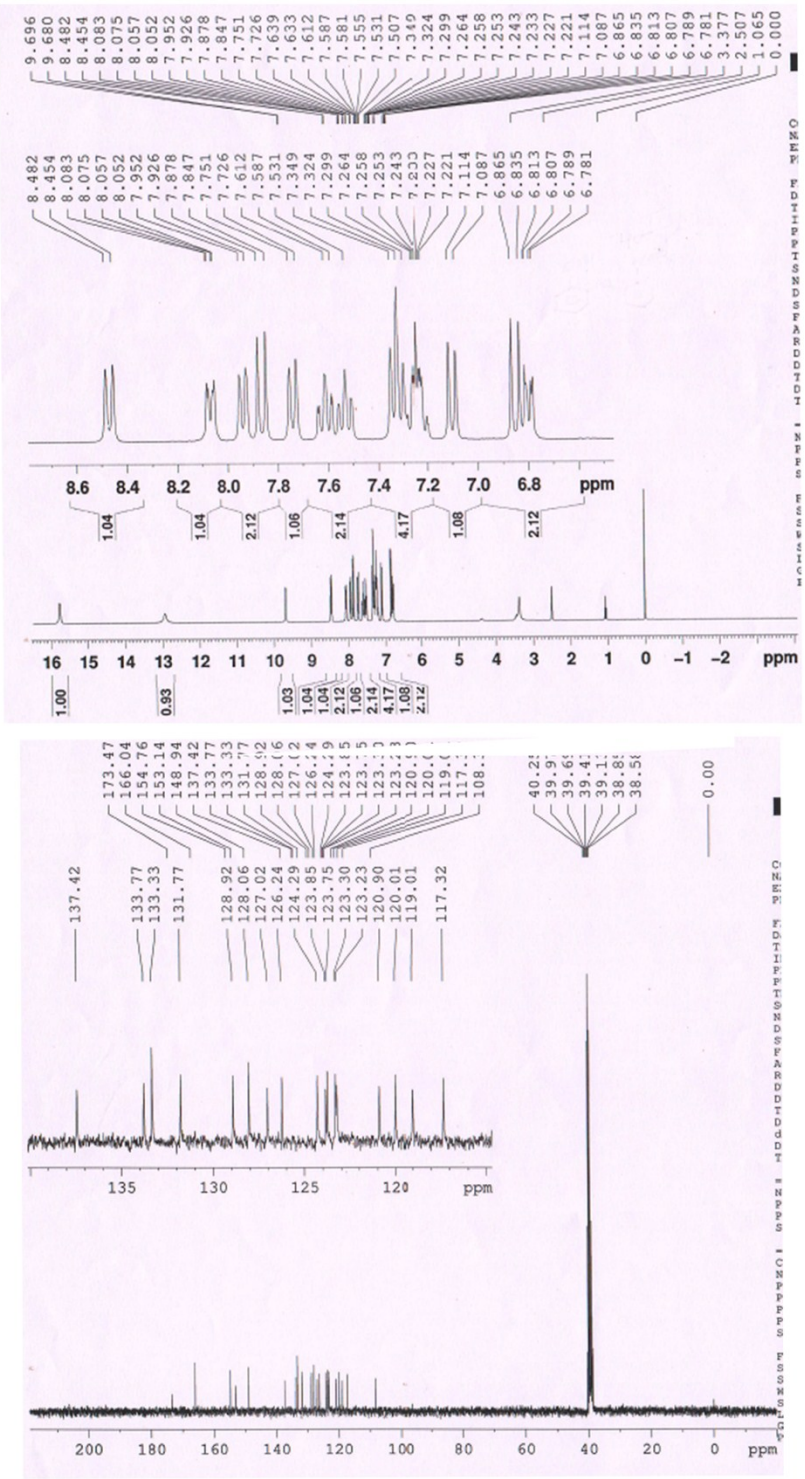
^{1}H and ^{13}C NMR spectra of 2.



^{1}H and ^{13}C NMR spectra of 3.



^{1}H and ^{13}C NMR spectra of 4.



^{1}H and ^{13}C NMR spectra of 5.

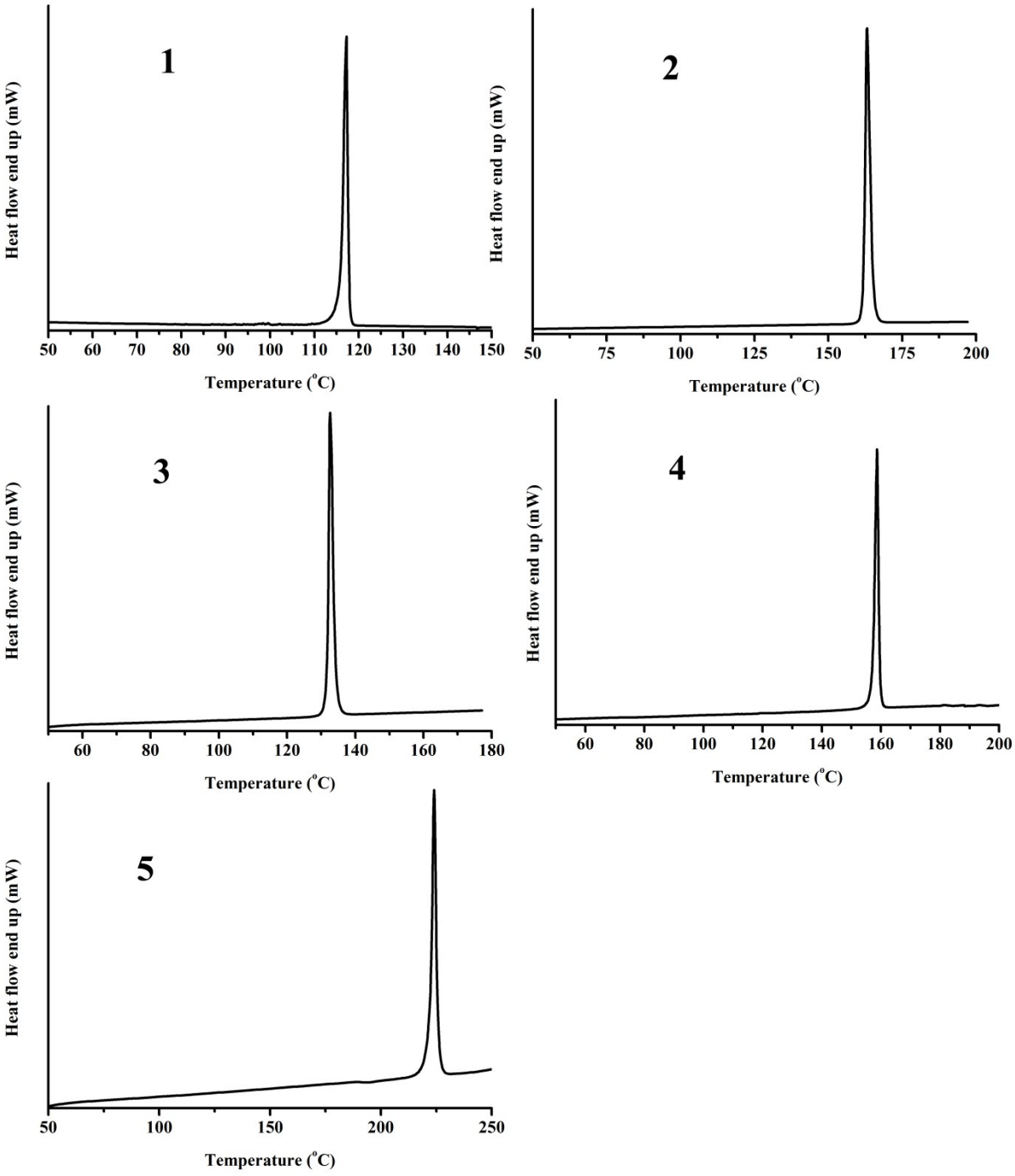


Figure S1. DSC spectra of 1-5.

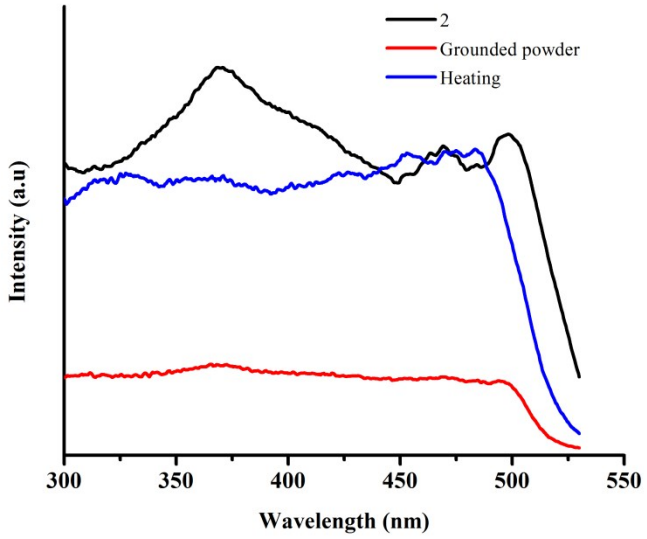


Figure S2. Excitation spectra of 2.

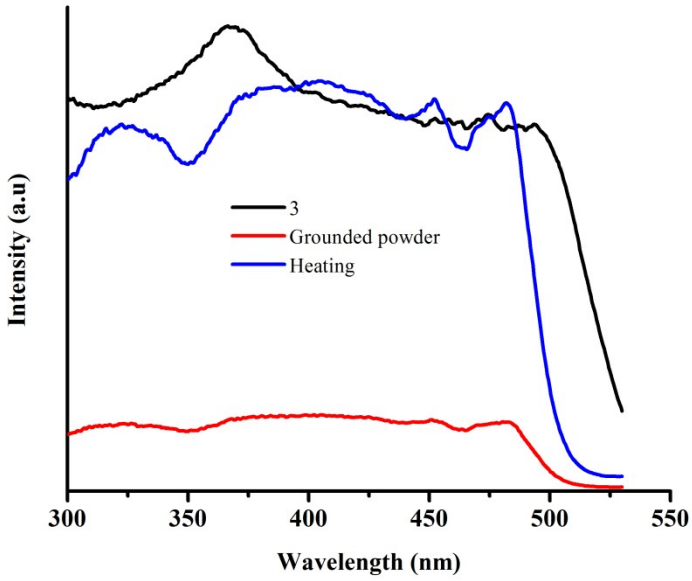


Figure S3. Excitation spectra of 3.

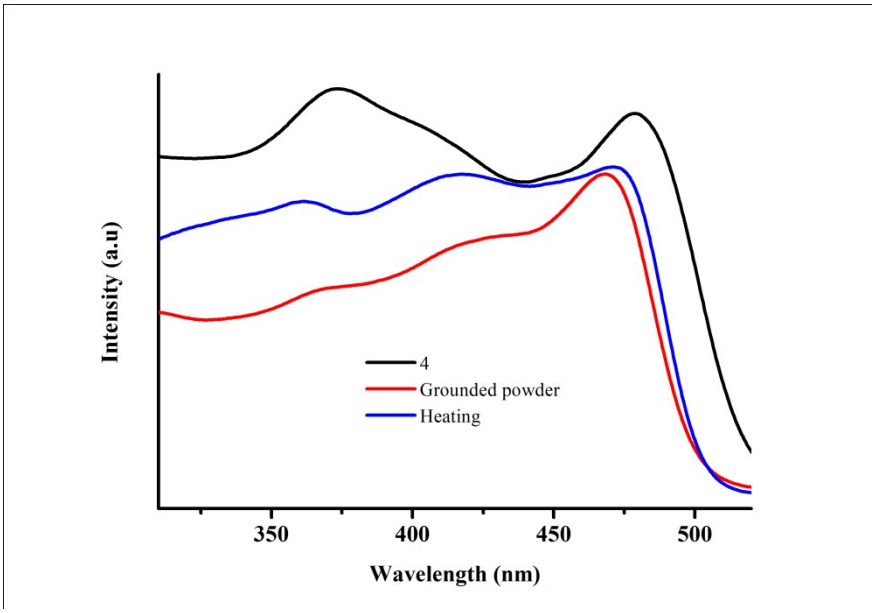


Figure S4. Excitation spectra of 4.

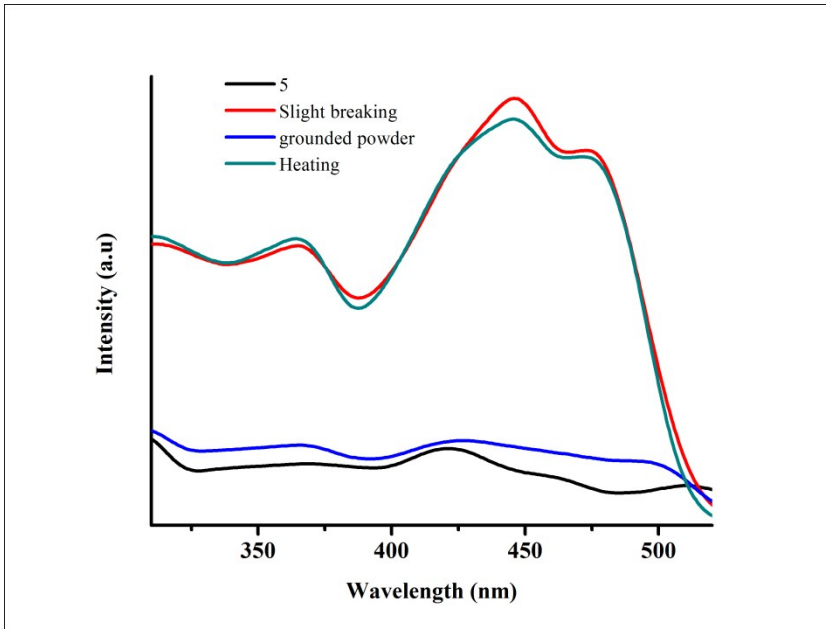


Figure S5. Excitation spectra of 5.

Crystal data and structure refinement for 1 (1418264).

Identification code	1	
Empirical formula	$C_{20}H_{17}NO_3$	
Formula weight	319.35	
Temperature	100(2) K	
Wavelength	0.610 Å	
Crystal system	Monoclinic	
Space group	$P2_1/c$	
Unit cell dimensions	a = 13.709(3) Å	α= 90°.
	b = 5.9810(12) Å	β= 102.86(3)°.
	c = 19.664(4) Å	γ = 90°.
Volume	1571.8(6) Å^3	
Z	4	
Density (calculated)	1.349 Mg/m^3	
Absorption coefficient	0.067 mm^{-1}	
F(000)	672	
Crystal size	0.217 x 0.083 x 0.082 mm^3	
Theta range for data collection	2.616 to 24.988°.	
Index ranges	-18<=h<=18, -8<=k<=8, -27<=l<=27	
Reflections collected	15118	
Independent reflections	4356 [R(int) = 0.0267]	
Completeness to theta = 21.469°	99.2 %	
Absorption correction	Empirical	
Max. and min. transmission	0.993 and 0.981	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	4356 / 0 / 219	
Goodness-of-fit on F^2	1.061	
Final R indices [I>2sigma(I)]	R1 = 0.0384, wR2 = 0.1098	
R indices (all data)	R1 = 0.0444, wR2 = 0.1138	
Largest diff. peak and hole	0.365 and -0.325 e.Å^{-3}	

Crystal data and structure refinement for 5 (1417738).

Identification code	5	
Empirical formula	$C_{24}H_{17}NO_4$	
Formula weight	383.38	
Temperature	100(2) K	
Wavelength	0.62998 Å	
Crystal system	Monoclinic	
Space group	$P2_1/c$	
Unit cell dimensions	a = 13.436(3) Å	α= 90°.
	b = 7.7720(16) Å	β= 93.00(3)°.
	c = 17.215(3) Å	γ = 90°.
Volume	1795.2(6) $Å^3$	
Z	4	
Density (calculated)	1.419 Mg/m^3	
Absorption coefficient	0.075 mm^{-1}	
F(000)	800	
Crystal size	0.075 x 0.075 x 0.005 mm^3	
Theta range for data collection	2.549 to 25.999°.	
Index ranges	-18<=h<=18, -10<=k<=10, -23<=l<=23	
Reflections collected	17633	
Independent reflections	4995 [R(int) = 0.0299]	
Completeness to theta = 22.209°	99.0 %	
Absorption correction	Empirical	
Max. and min. transmission	1.000 and 0.994	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	4995 / 0 / 264	
Goodness-of-fit on F^2	1.057	
Final R indices [I>2sigma(I)]	R1 = 0.0440, wR2 = 0.1243	
R indices (all data)	R1 = 0.0513, wR2 = 0.1295	
Largest diff. peak and hole	0.922 and -0.842 $e.Å^{-3}$	

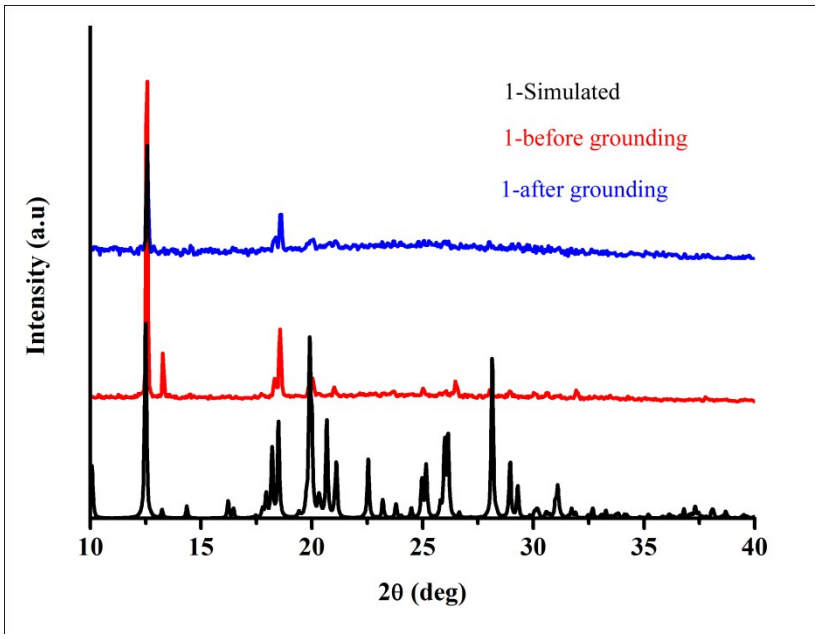


Fig. S6. PXRD pattern of 1.

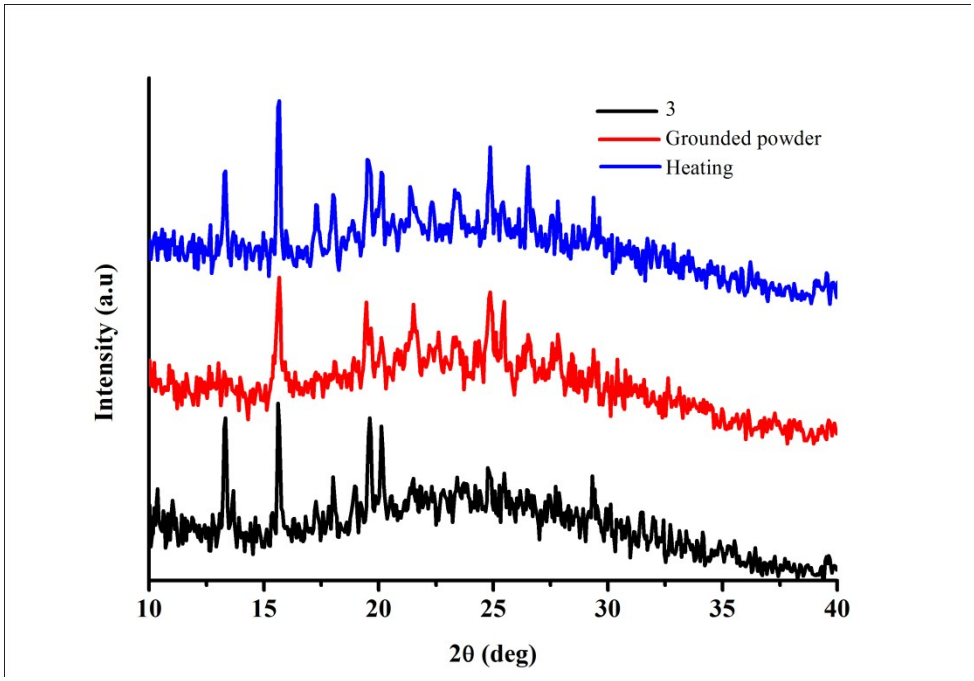


Fig. S7. PXRD pattern of 3.

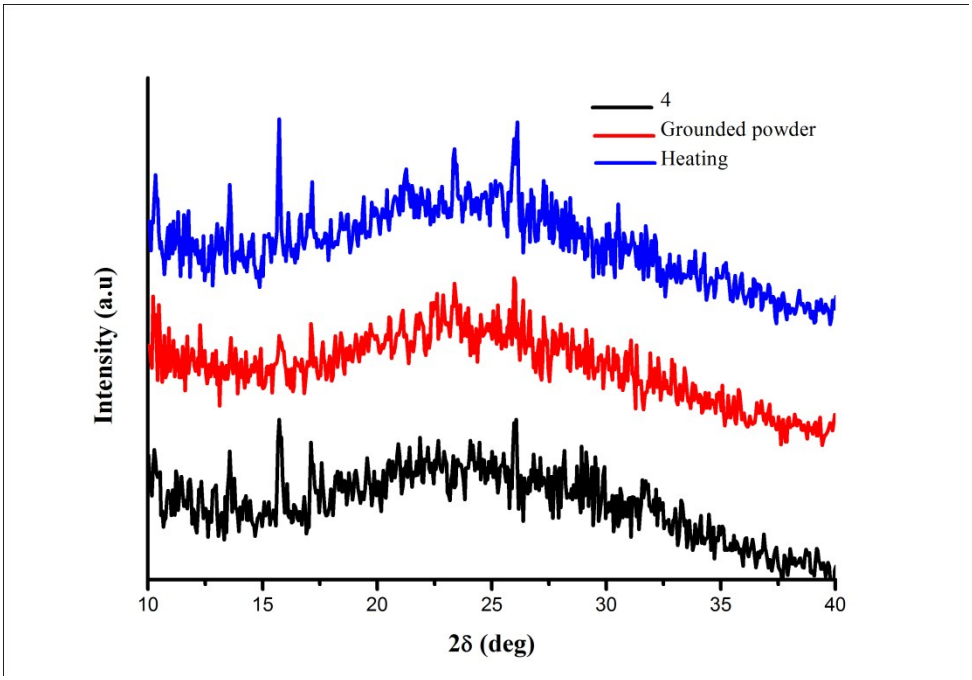


Fig. S8. PXRD pattern of 4.

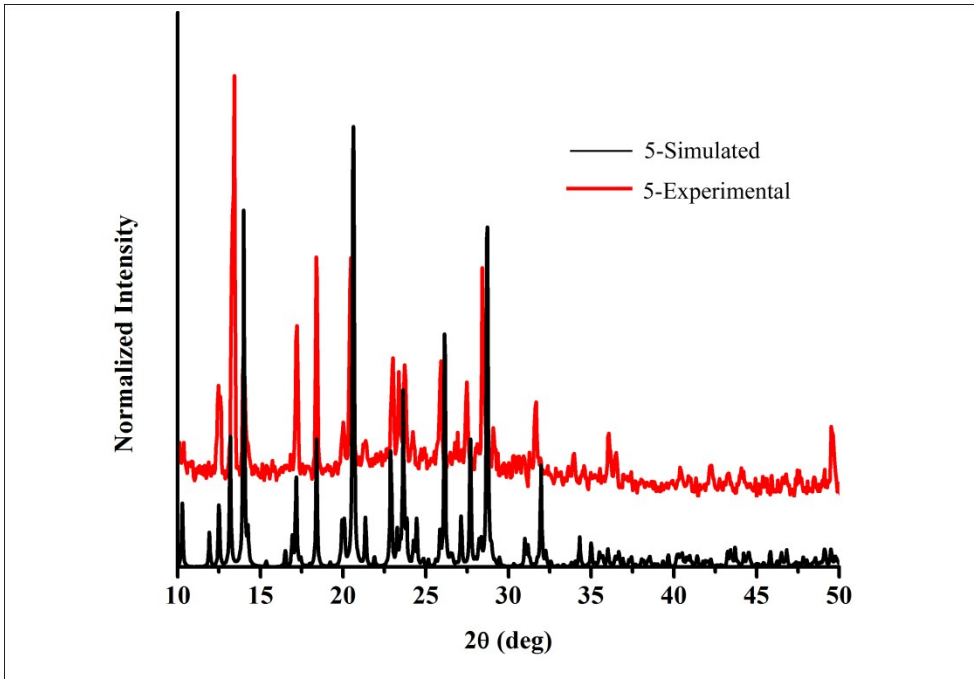


Fig. S9. PXRD pattern of 5.