

Supplementary Information

Photosensitizing CNTs by organotin(IV) compounds: Generation of reactive oxygen species and degradation of Amoxicillin

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S1.1 Synthesis of BSAL-EA

In a single-neck round bottom flask, ethanolamine (24.55 mmol, 1.50 g) was added to 5-bromosalicylaldehyde (24.55 mmol, 4.93 g) dissolved in 100 mL methanol. The reaction mixture was heated to reflux for 24 h and the contents were cooled to room temperature. The solvent was removed under a vacuum to afford a yellow solid. The product was filtered, washed with hexane and diethyl ether to remove the impurities, dried and stored under dry conditions. Yield: 90.80% (22.24 mmol, 5.43 g), Melting point: 90-92°C; FT-IR (KBr) cm^{-1} : 3300-2950 (br, OH, intramolecular hydrogen-bonded), 1633 (C=N), 1495(C-C), 1076, 1010 (C-O), 725 (C-Br). $^1\text{H-NMR}$ (500 MHz, CDCl_3): δ (ppm) 1.63 (1H, s, Alk-OH), 3.69 (2H, t, $^3J = 5.0$ Hz, H⁹), 3.85 (2H, t, $^3J = 5.0$ Hz, H⁸), 6.78 (1H, d, $^3J = 8.5$ Hz, H³), 7.30 (1H, dd, H²), 7.32 (1H, d, H⁶), 8.24 (1H, s, H⁷), 13.22 (1H, s, Ar-OH); $^{13}\text{C NMR}$ (125 MHz, CDCl_3): δ (ppm) 61.6 (C⁹), 61.9 (C⁸), 110.1 (C¹), 119.1 (C³), 120.0 (C⁵), 133.6 (C⁶), 135.1 (C²), 160.3 (C⁷), 165.7 (C⁴); ESI-MS (m/z): 244.36 ($\text{M}+\text{H}$)⁺, 246.36 ($\text{M}+2+\text{H}$)⁺. Anal. Calcd for $\text{C}_9\text{H}_{10}\text{NO}_2\text{Br}$ C, 44.29; H, 4.13; N, 5.74; Found: C, 44.28; H, 4.12; N, 5.76.

S1.2 Characterization of Schiff base BSAL-DAP

Melting point: 92°C. Yield: 92.30% (34.62 mmol, 3.12 g) FT-IR (ATR) cm^{-1} : 3132 (broad, OH), 2900-2800 (CH), 1629 (C=N), 1478 (C-C), 1273 (C-N), 1162 (C-O), 620 (C-Br). $^1\text{H-NMR}$ (500 MHz, CDCl_3): δ (ppm) 2.11 (1H, s, Alk-OH), 3.80 (4H, m, H⁸), 4.28 (1H, m, H⁹), 6.86-6.88 (2H, d, $^3J = 10$ Hz, H³), 7.39 (4H, m, H^{2,6}), 8.34 (2H, s, H⁷), 13.08 (2H, s, OH); $^{13}\text{C-NMR}$ (125 MHz, CDCl_3): δ (ppm) 63.22 (C⁸), 70.28 (C⁹), 110.30 (C¹), 119.09 (C³), 119.98 (C⁵), 133.69 (C⁶), 135.35 (C²), 160.09 (C⁷), 166.30 (C⁴); ESI-MS (m/z): 454.96 ($\text{M}+\text{H}$)⁺, 456.96 ($\text{M}+2+\text{H}$)⁺, 458.96 ($\text{M}+4+\text{H}$)⁺. Anal. Calcd for $\text{C}_{17}\text{H}_{16}\text{N}_2\text{O}_3\text{Br}_2$; C, 44.76; H, 3.54; N, 6.14; Found: C, 44.32; H, 3.79; N, 6.32.

S1.3 Characterization of Sn(IV) compound 1

Melting point: 202°C. Yield: 86.87% (3.5 mmol, 1.39 g). FT-IR (ATR) cm^{-1} : 2922, 2881, 2835 (CH), 1624 (C=N), 1452 (C-C), 1052 (C-O), 778 (C-Br), 688 (Sn-C), 596 (Sn-O), 523 (Sn-N). $^1\text{H-NMR}$ (500 MHz, CDCl_3): δ (ppm) 0.65 (s, 12H, H^{10,11}, $^3J(^1\text{H}-{}^{117}\text{Sn}) = 74$ Hz, $^3J(^1\text{H}-{}^{119}\text{Sn}) =$

77 Hz), 3.69 (4H, t, $^3J=5$ Hz, H⁹), 4.08 (4H, t, $^3J=5.0$ Hz, H⁸), 6.62-6.64 (2H, d, $^3J=10$ Hz, H³), 7.22 (2H, d, $^4J=2.5$ Hz, H⁶), 7.35-7.38 (2H, dd, $^3J=8.5$ Hz, $^4J=2$ Hz, H²), 8.33 (2H, s, H⁷); ^{13}C -NMR (125 MHz, CDCl_3): δ (ppm) 0.15 (C^{10,11}), 60.26 (C⁹), 62.58 (C⁸), 106.87 (C¹), 118.49 (C³), 124.82 (C⁵), 136.05 (C⁶), 138.90 (C²), 168.30 (C⁷), 170.51 (C⁴); ^{119}Sn NMR (186 MHz, CDCl_3): δ (ppm) -154.91; ESI-MS (m/z): 815.81 ($\text{M}+\text{H}+\text{CH}_3\text{OH}$)⁺. Anal. Calcd for $\text{C}_{22}\text{H}_{28}\text{N}_2\text{O}_4\text{Br}_2\text{Sn}_2$; C, 33.80; H, 3.61; N, 3.58; Found: C, 34.34; H, 3.75; N, 3.83.

S1.4 Characterization of Sn(IV) compound 2

Melting point: 189 °C. Yield: 88.99% (1.95 mmol, 1.86 g). FT-IR (ATR) cm^{-1} : 2915, 2839 (C-H), 1633 (C=N), 1455 (C-C), 1170 (C-O), 780 (C-Br), 687 (Sn-C), 578 (Sn-O), 536 (Sn-N). ^1H NMR (500 MHz, CDCl_3): δ (ppm) 0.59 (s, 6H, H¹⁷), 0.70 (s, 6H, H¹⁸), 3.74 (m, 4H, H⁸), 4.20 (m, 1H, H⁹), 6.62-6.64 (d, 1H, $^3J=10$ Hz, H¹¹), 6.84-6.86 (d, 2H, $^3J=10.0$ Hz, H³), 7.21 (d, 1H, $^4J=2.5$ Hz, H¹²), 7.38 (m, 5H, H^{2,6,14}), 8.33 (s, 2H, H⁷), 13.39 (s, 1H, H¹⁶). ^{13}C NMR (125 MHz, CDCl_3): δ (ppm) 0.73 (C¹⁷), 1.93 (C¹⁸), 63.07 (C⁸), 65.81 (C^{8'}), 72.22 (C⁹), 107.73 (C¹³), 110.87 (C¹), 119.10 (C³), 119.80 (C⁵), 120.85 (C¹¹), 125.51 (C¹⁵), 134.27 (C⁶), 135.86 (C²), 136.69 (C¹²), 139.79 (C¹⁴), 161.04 (C⁷), 166.20 (C⁴), 171.46 (C¹⁰), 196.34 (C¹⁶). ^{119}Sn NMR (186 MHz, CDCl_3): δ (ppm) -148.88, -465.04; ESI-MS (m/z): 950.94 ($\text{M}+\text{H}$)⁺, 952.93 ($\text{M}+2+\text{H}$)⁺, 954.93 ($\text{M}+4+\text{H}$)⁺. Anal. Calcd for $\text{C}_{28}\text{H}_{29}\text{N}_2\text{O}_5\text{Br}_3\text{Sn}_2$; C, 35.38; H, 3.07; N, 2.95; Found: C, 35.42; H, 3.12; N, 2.65.

S1.5 Characterization of 1@CNT and 2@CNT

1@CNT: Yield: 84% (168 mg). FT-IR cm^{-1} : 2986- 2830 (C-H), 1620 (C=N), 1510 (C-C), 1049 (C-O), 769 (C-Br), 677 (Sn-C), 593 (Sn-O), 517 (Sn-N); 2@CNT: Yield: 77% (154 mg). FT-IR cm^{-1} : 2952- 2839 (C-H), 1625 (C=N), 1520 (C-C), 1103 (C-O), 782 (C-Br), 688 (Sn-C), 634 (Sn-O), 537 (Sn-N).

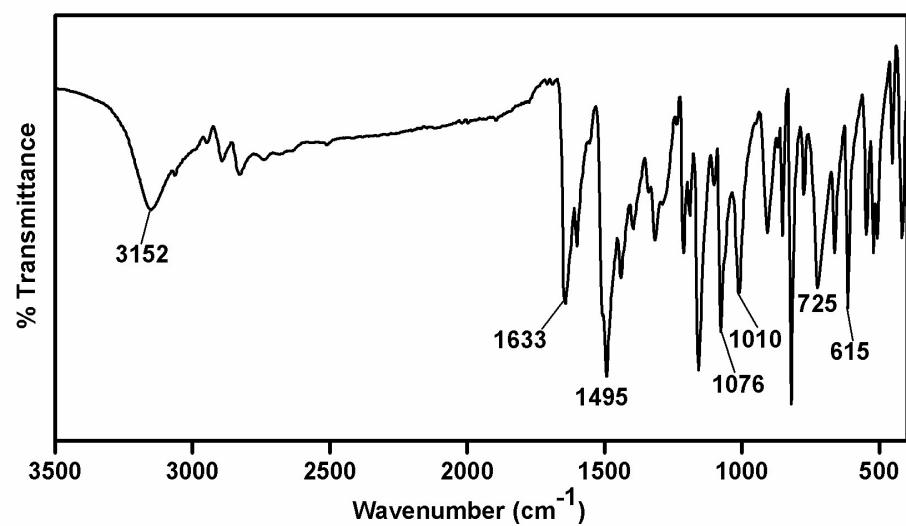


Figure S1 FT-IR spectrum of BSAL-EA

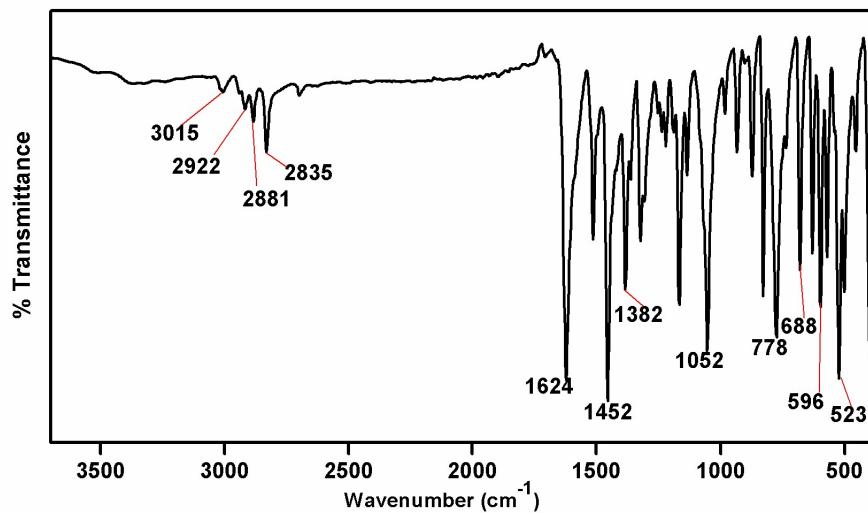


Fig. S2 FT-IR spectrum of $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

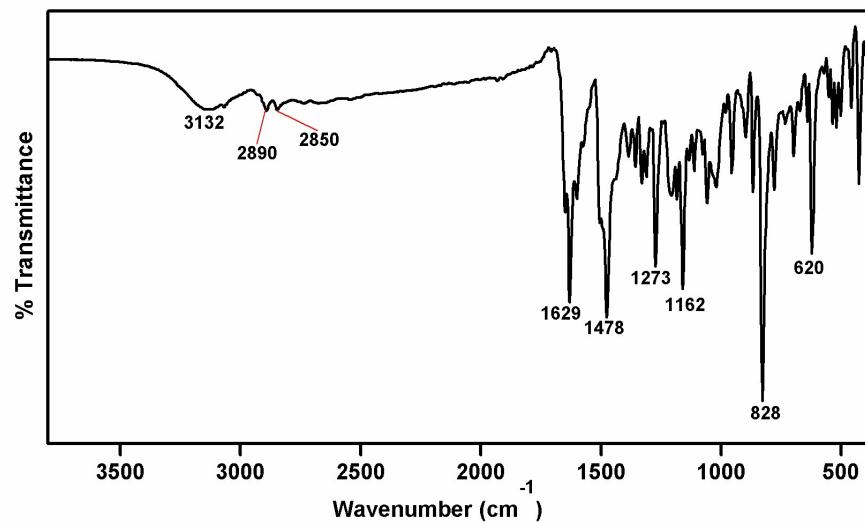


Fig. S3 FT-IR spectrum of BSAL-DAP

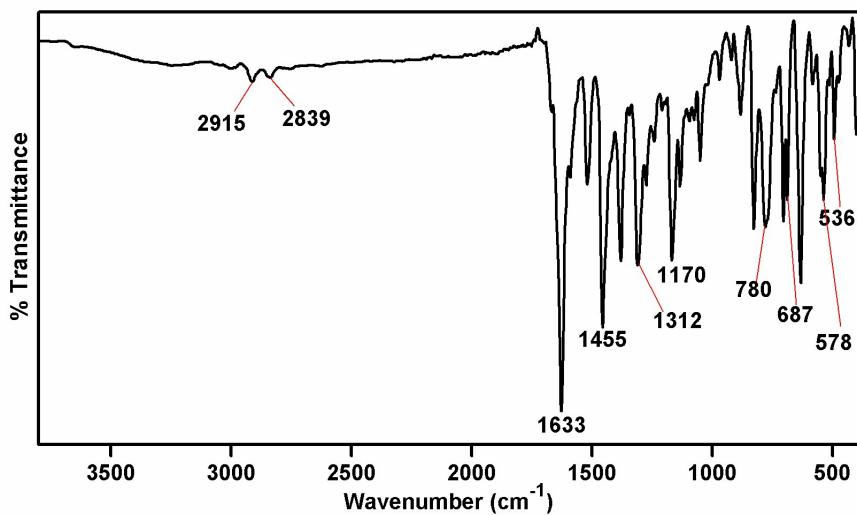


Fig. S4 FT-IR spectrum of $[\text{Me}_2\text{Sn}_2(\text{BSAL-DAP})(\text{BSAL})]$

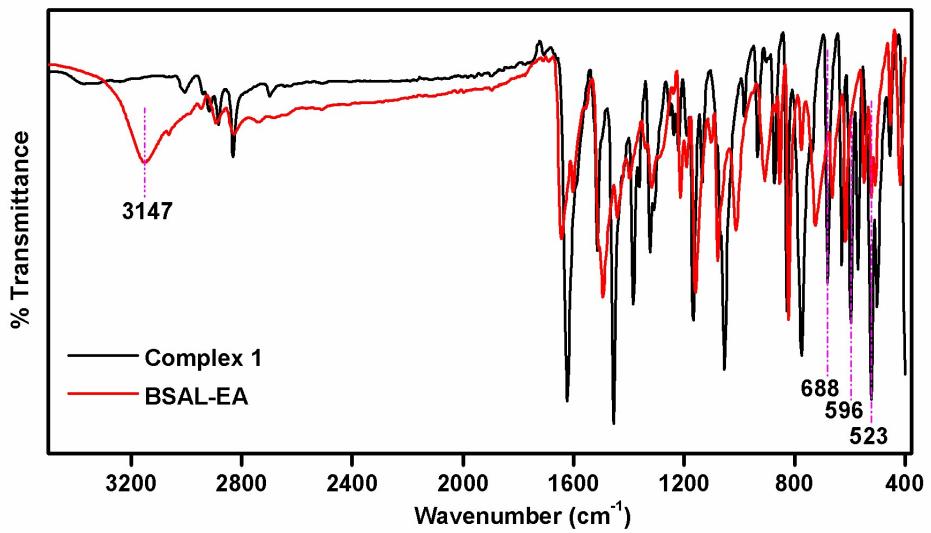


Fig. S5 FT-IR spectrum comparison of BSAL-EA and $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

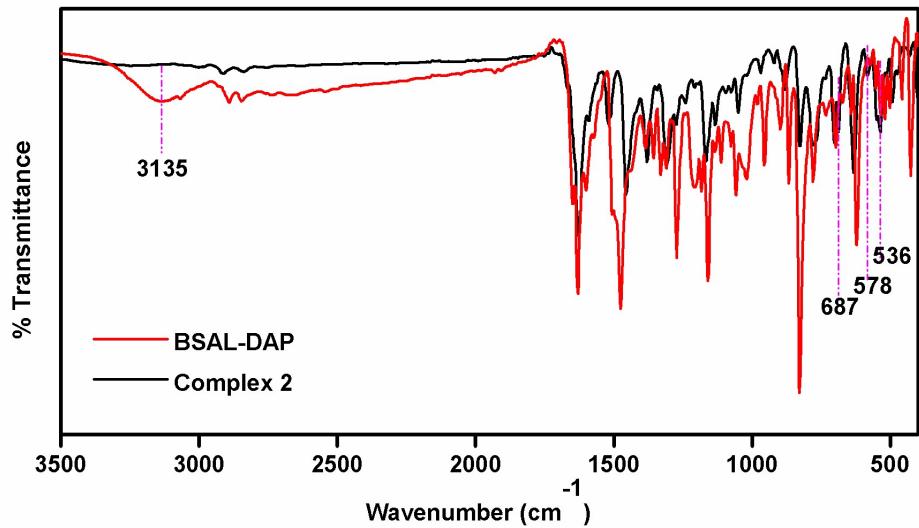


Fig. S6 FT-IR spectrum comparison of BSAL-DAP and $[\text{Me}_2\text{Sn}_2(\text{BSAL-DAP})(\text{BSAL})]$

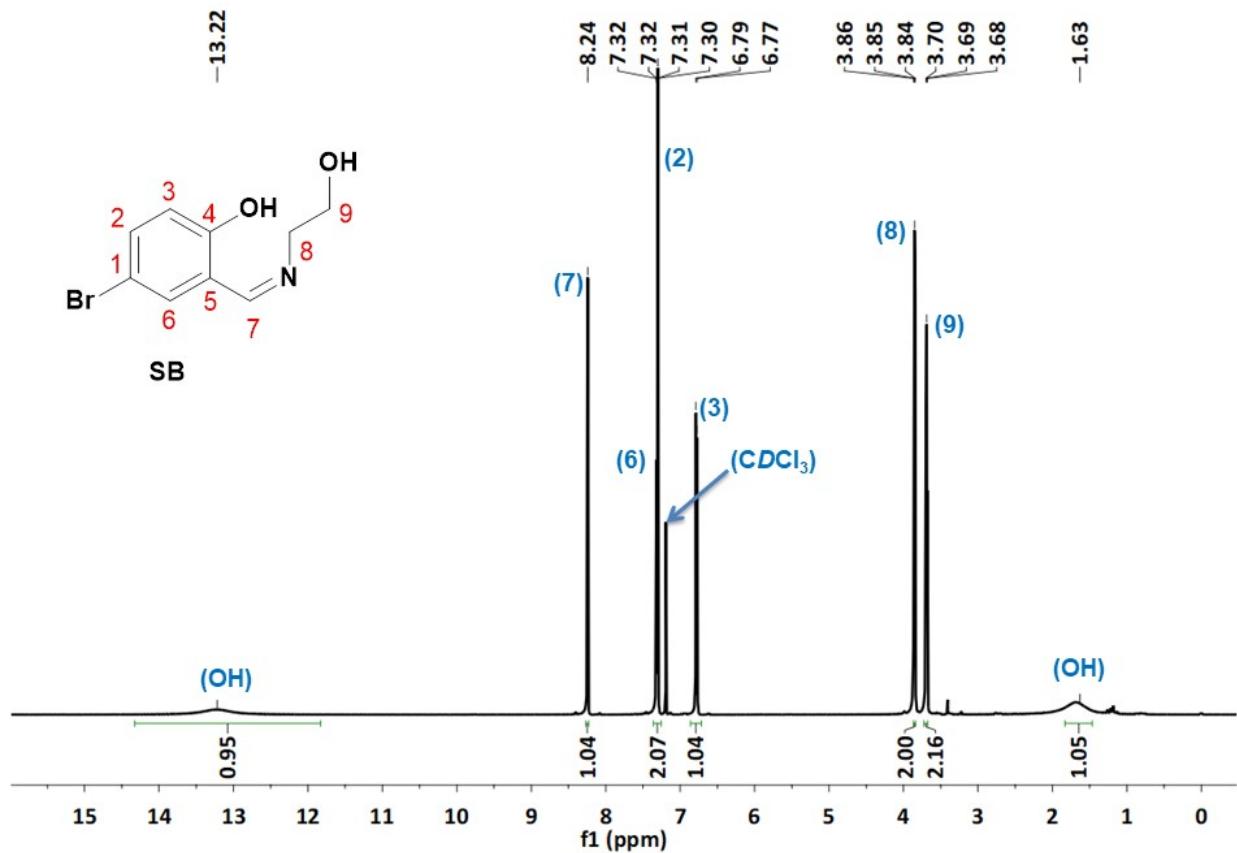


Figure S7 ^1H -NMR spectrum (500 MHz, CDCl₃) BSAL-EA.

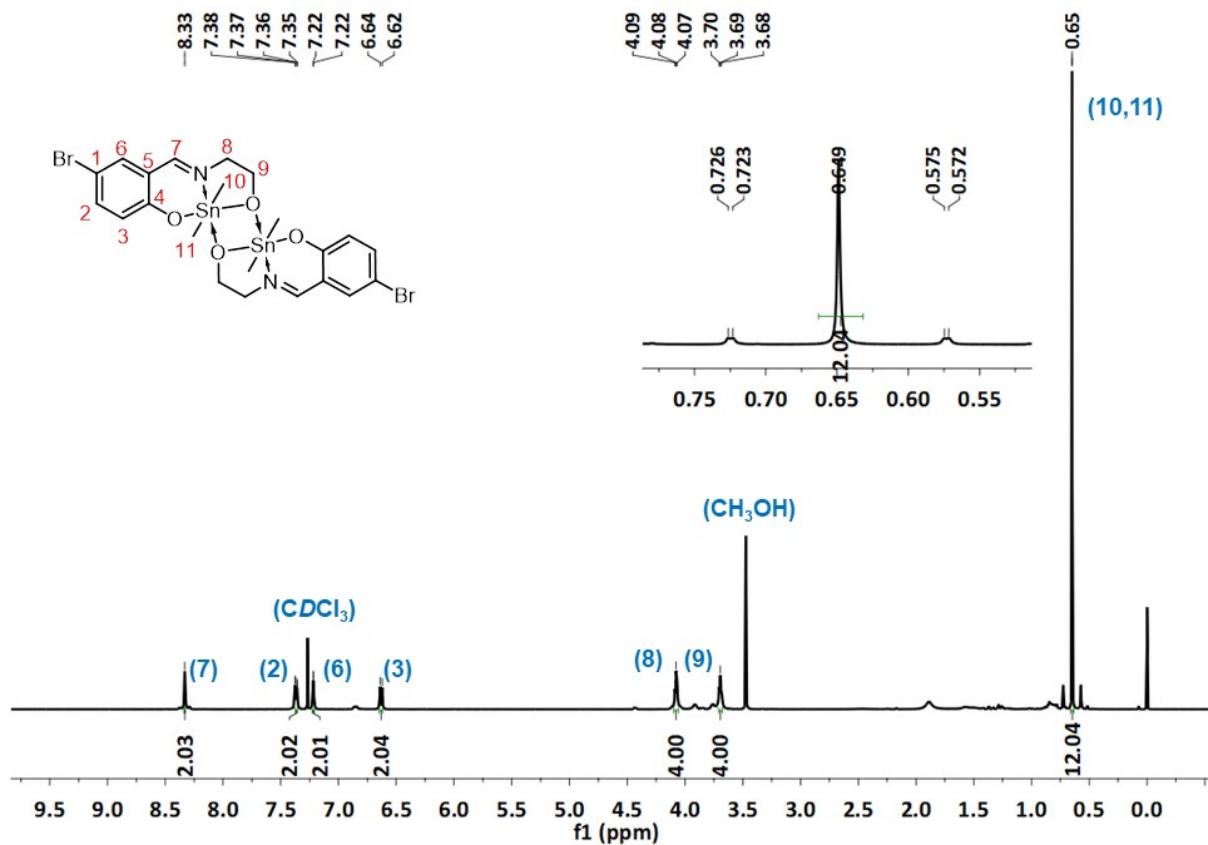


Fig. S8 ^1H -NMR spectrum (500 MHz, CDCl_3) of $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

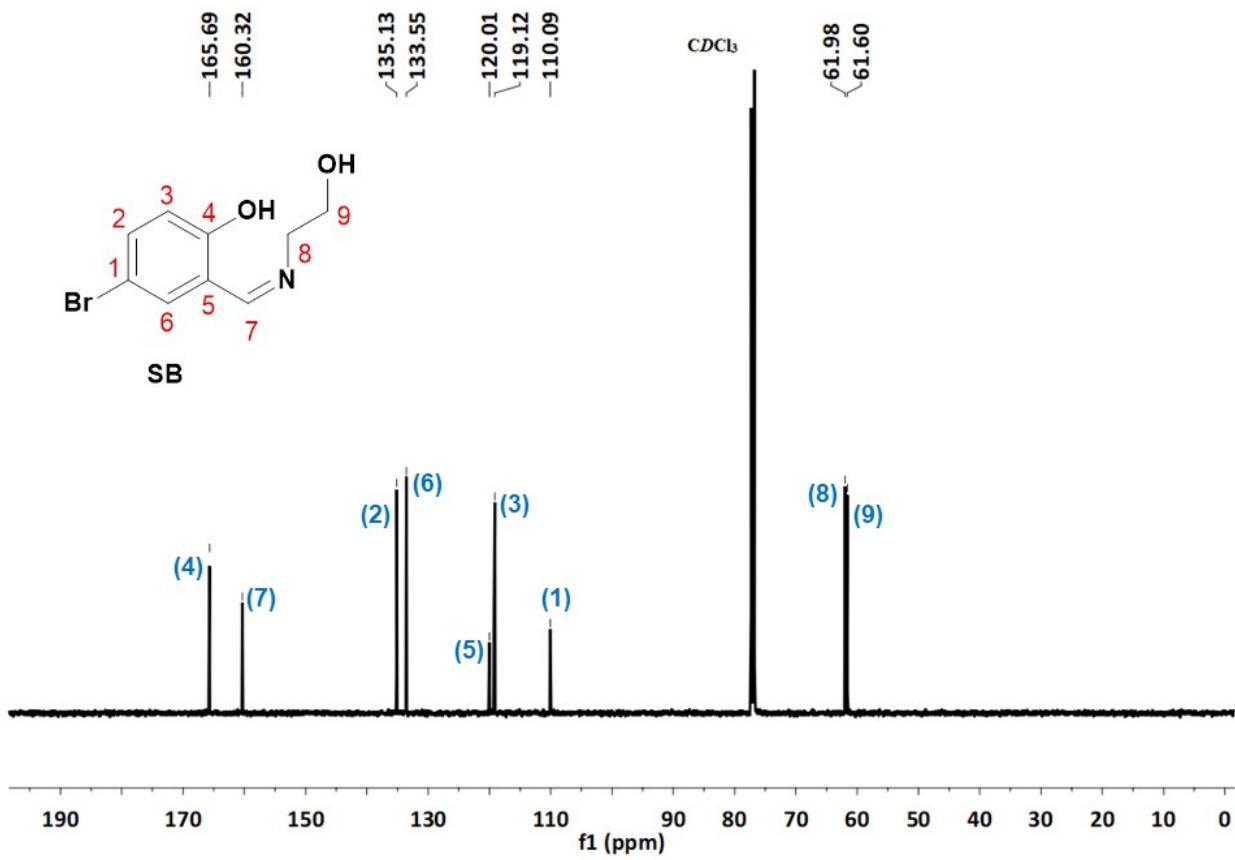


Figure S9 ^{13}C -NMR spectrum (125 MHz, CDCl₃) BSAL-EA.

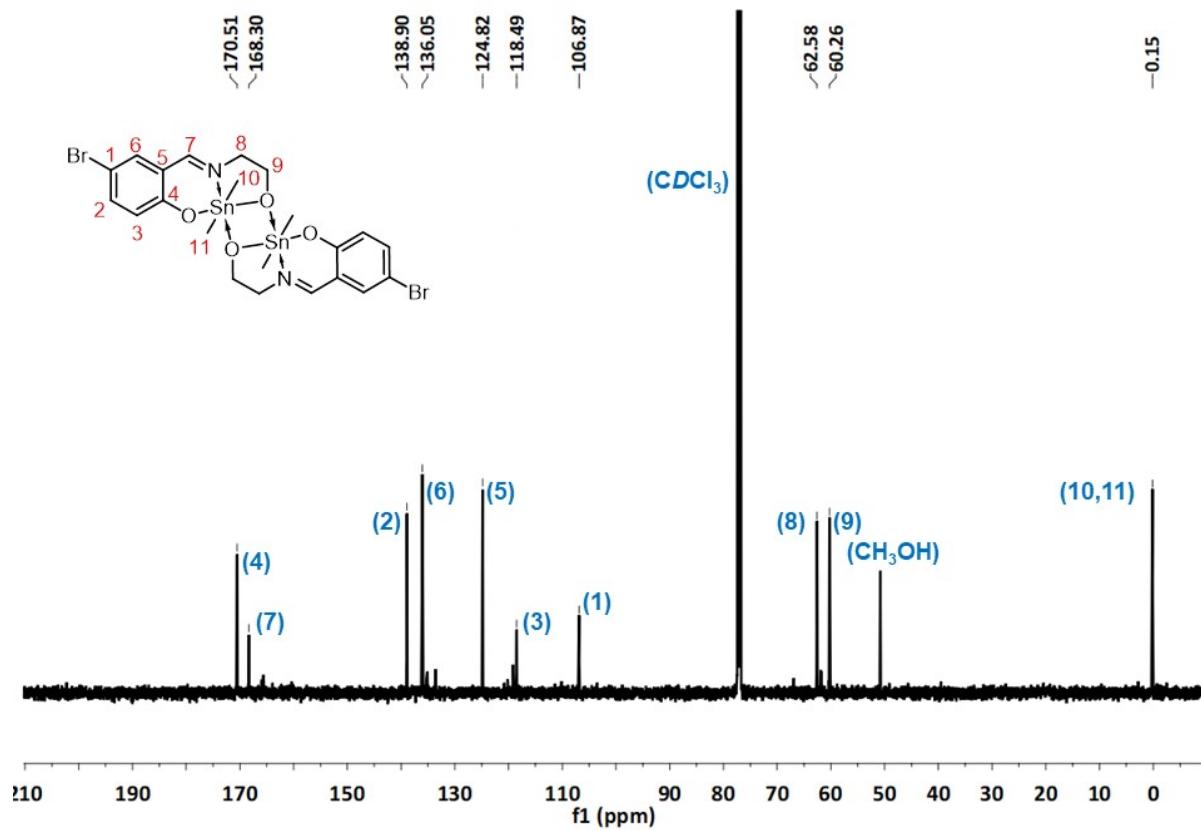


Fig. S10 ^{13}C NMR spectrum (125 MHz, CDCl_3) of $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

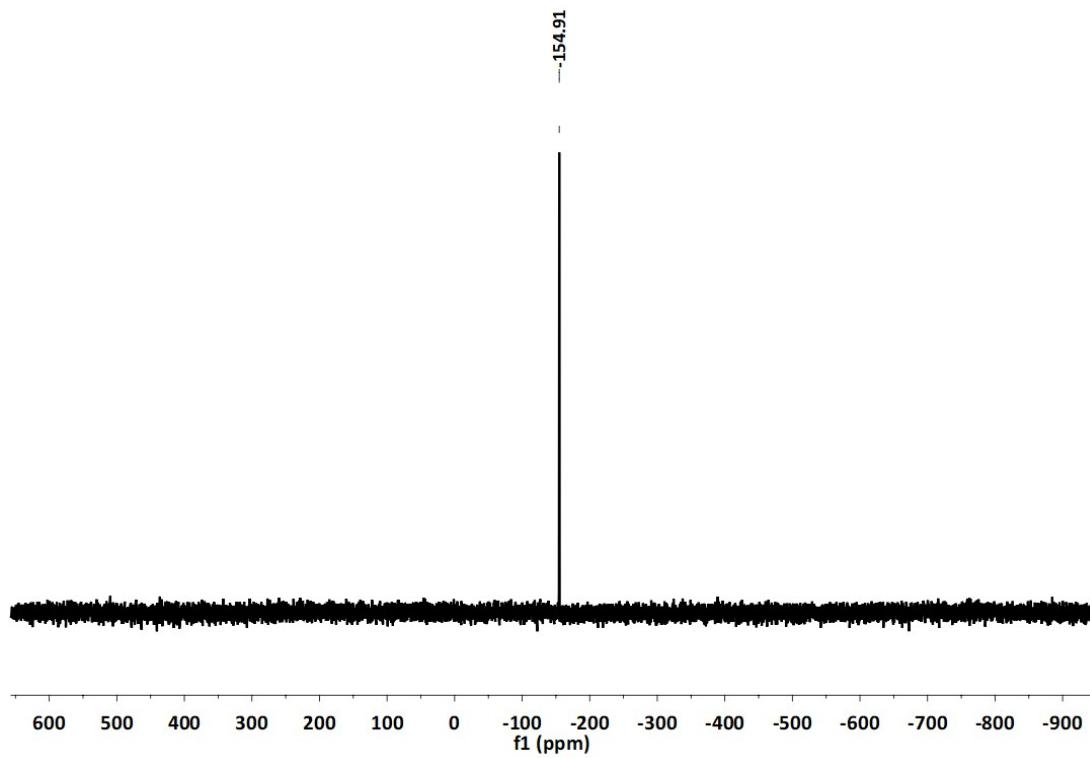


Fig. S11 ^{119}Sn NMR spectrum (186 MHz, CDCl_3) of $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

WATERS,Q-TOF MICROMASS (ESI-MS)
JYOTI SB 35 (0.533) Sm (SG, 2x3.00); Cm (16:47)

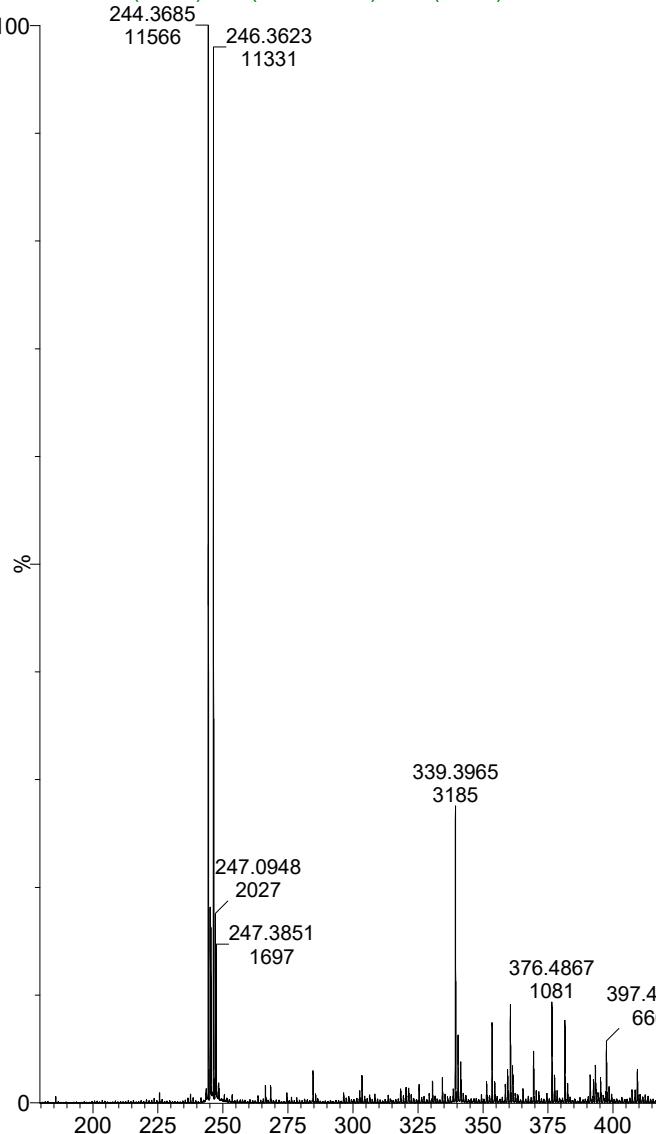


Figure S12 ESI-MS spectrum of Schiff base BSAL-EA.

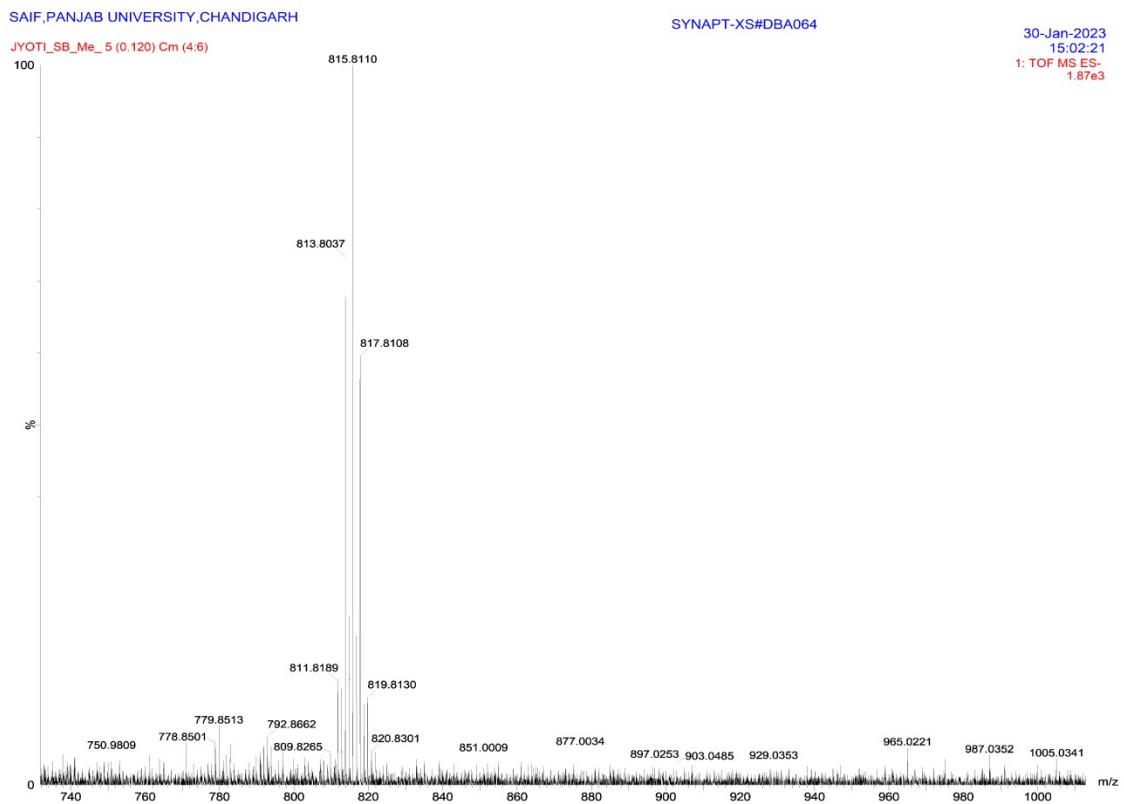


Fig. S13 ESI-MS spectrum of $[\text{Me}_2\text{Sn}(\text{SAL-EA})]_2$

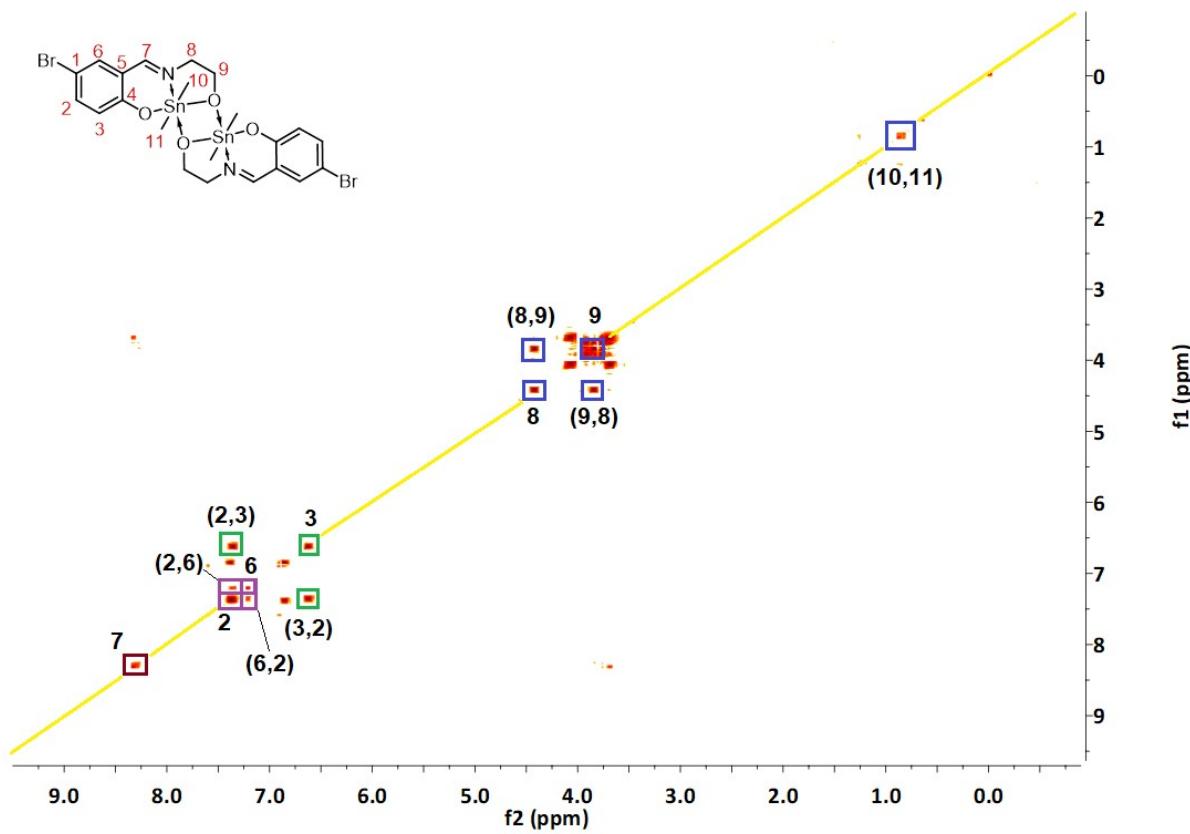


Fig. S14 (^1H - ^1H) COSY NMR of Sn compound 1.

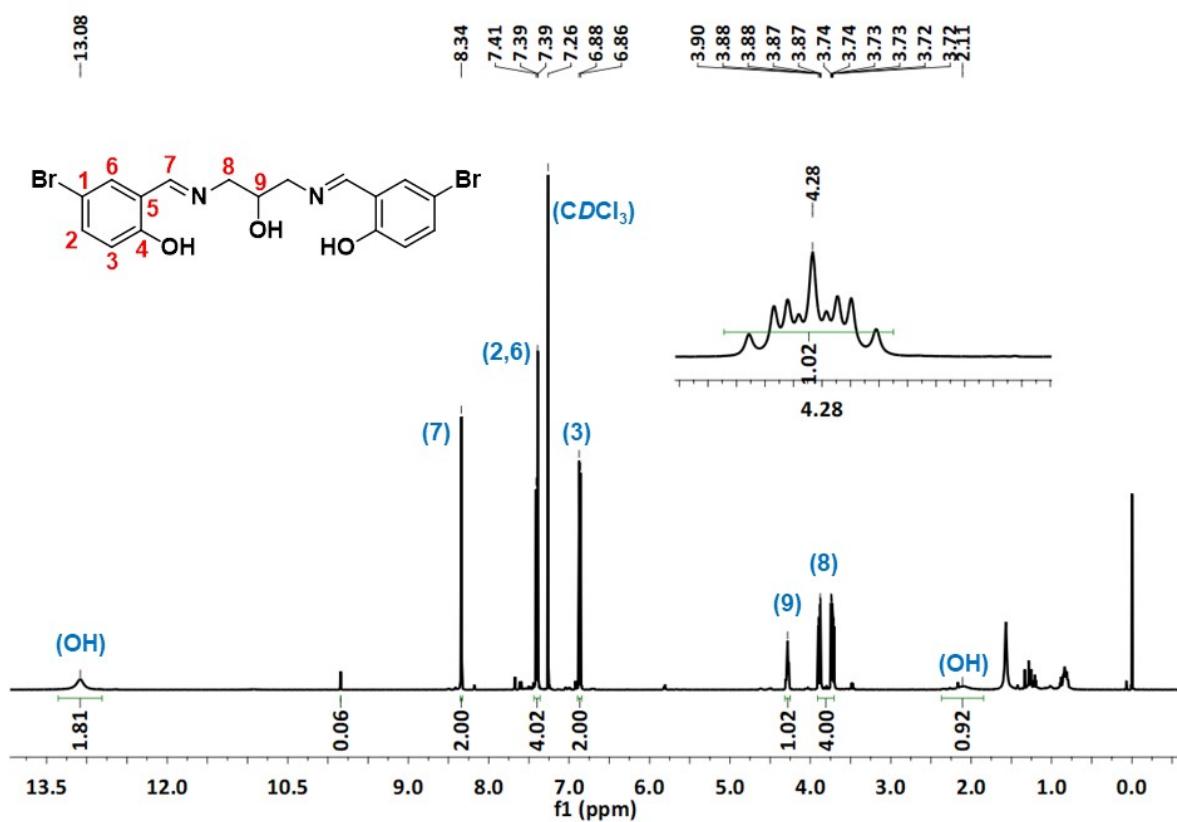
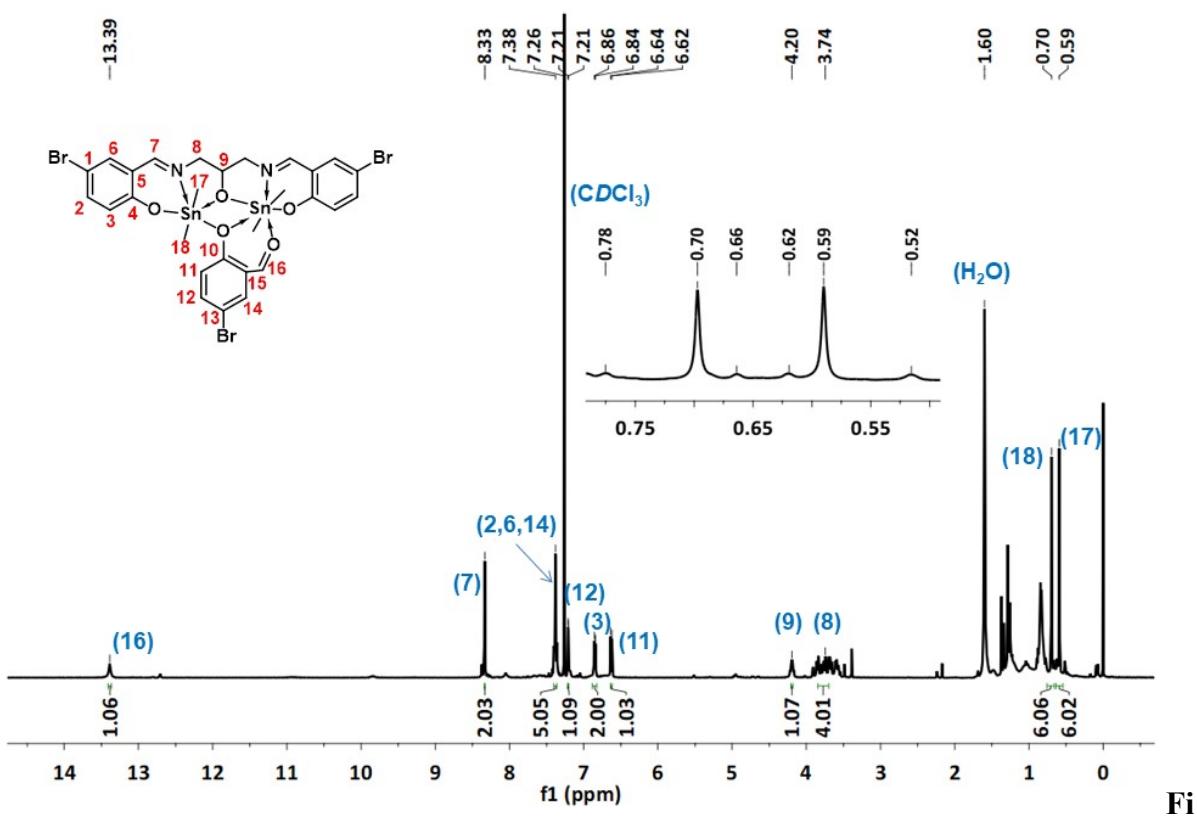


Fig. S15 ^1H -NMR spectrum (500 MHz, CDCl_3) of BSAL-DAP



g. S16 ^1H -NMR spectrum (500 MHz, CDCl_3) of $[\text{Me}_2\text{Sn}_2(\text{BSAL-DAP})(\text{BSAL})]$

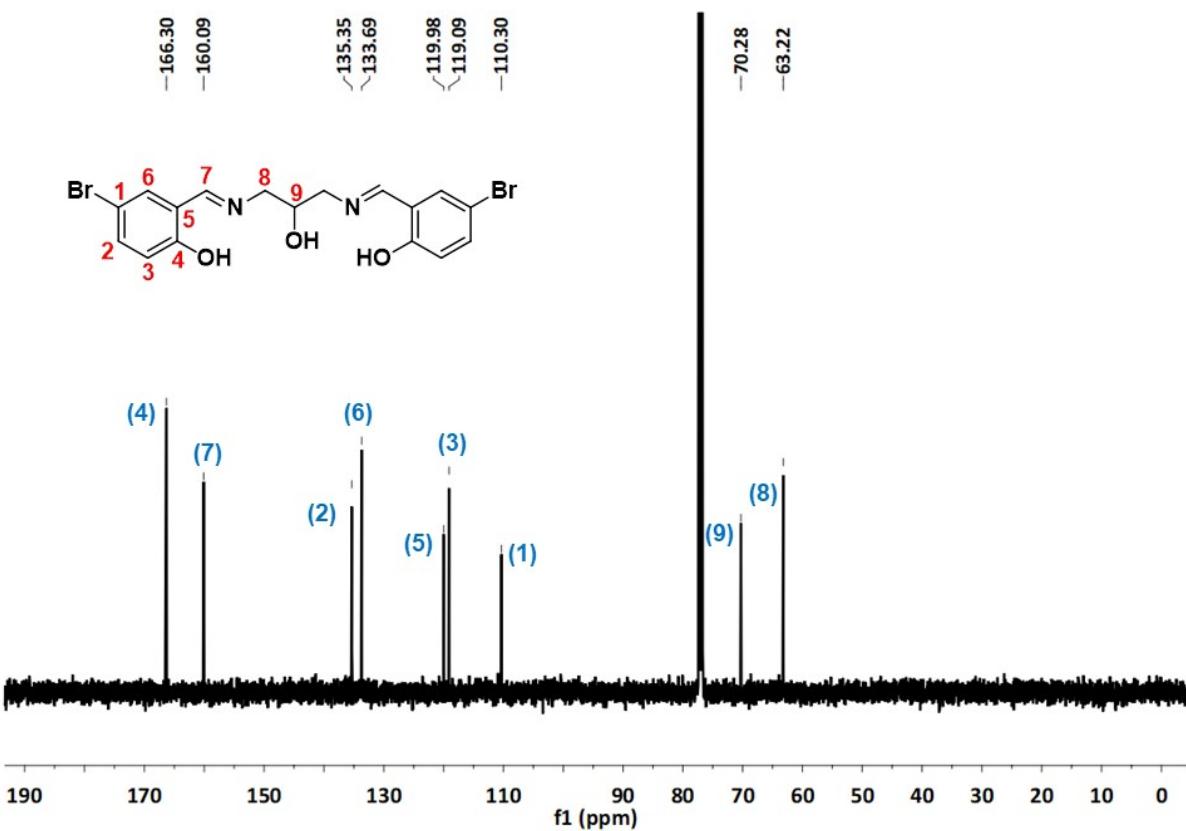


Fig. S17 ^{13}C NMR spectrum (125 MHz, CDCl_3) of BSAL-DAP

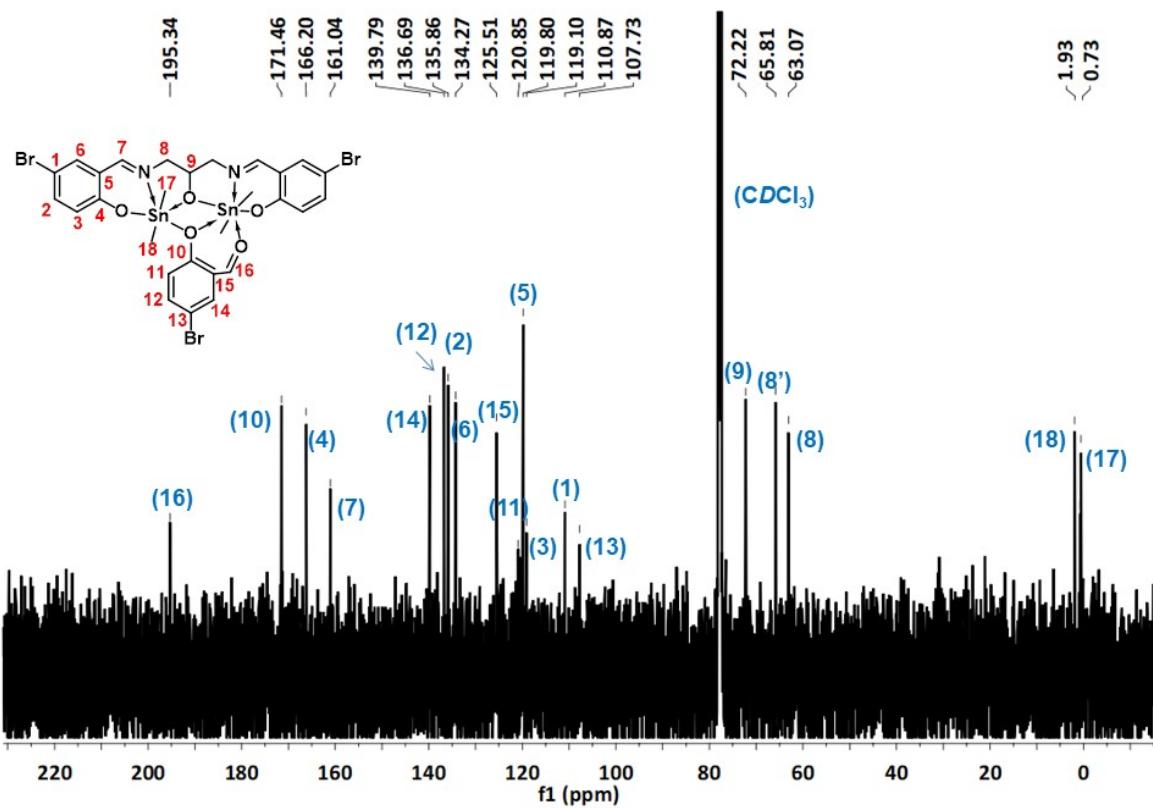


Fig. S18 ¹³C NMR spectrum (125 MHz, CDCl₃) of [Me₂Sn₂(BSAL-DAP)(BSAL)]

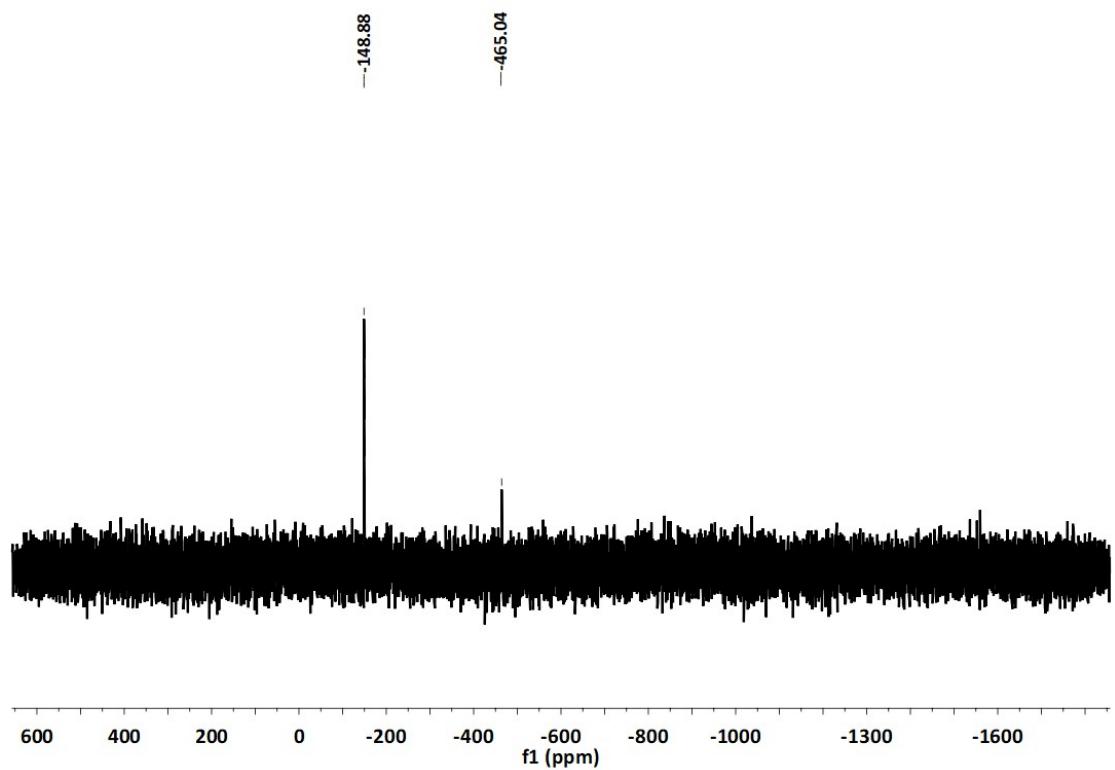


Fig. S19 ^{119}Sn NMR spectrum (186 MHz, CDCl_3) of $[\text{Me}_2\text{Sn}_2(\text{BSAL-DAP})(\text{BSAL})]$

SAIF,PANJAB UNIVERSITY,CHANDIGARH

SAHIL_SAL_DP_7 (0.128) Cr (6:8)

SYNAPT-XS#DBA064

14-May-2024
17:17:20

1: TOF MS ES-
2.03e5

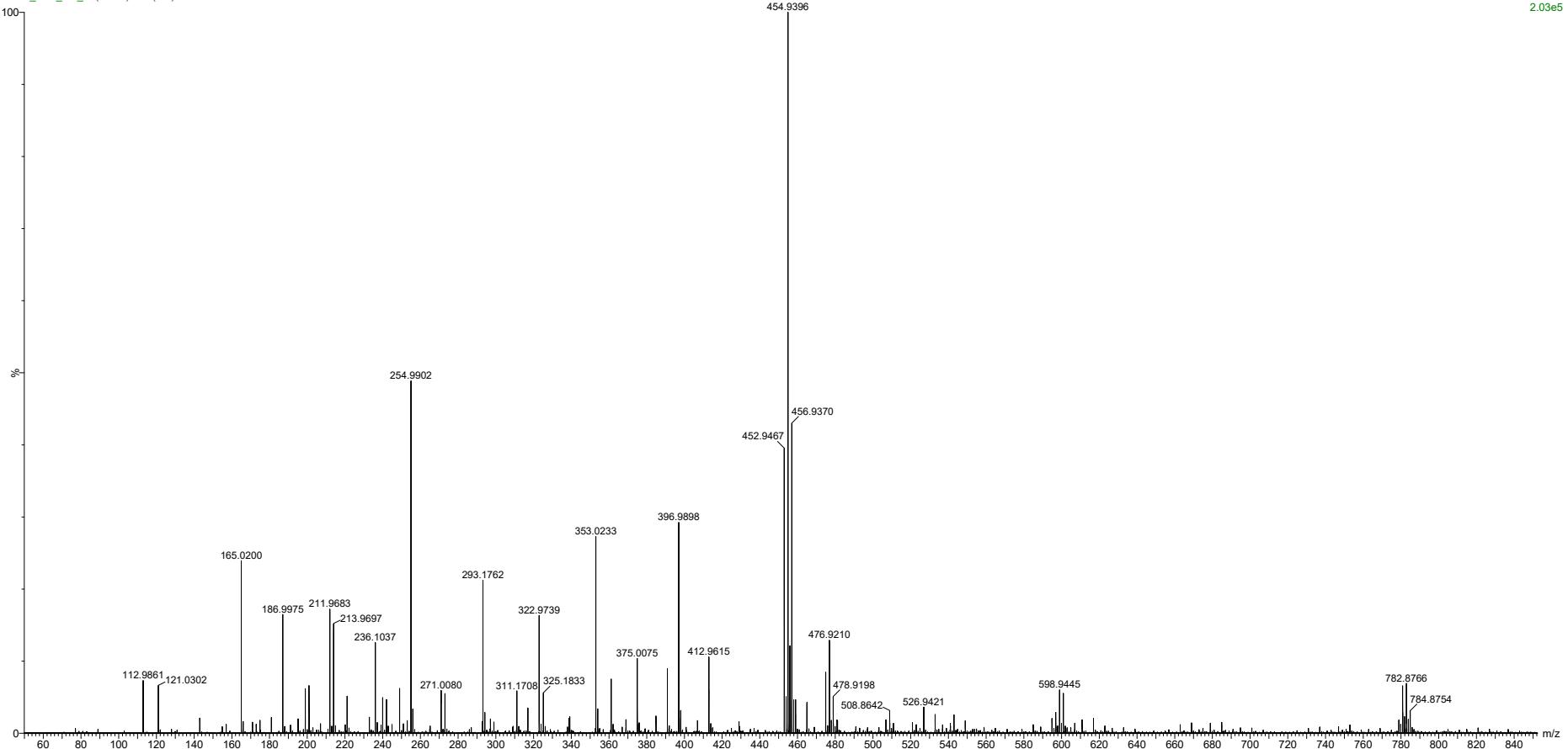


Fig. S20 ESI-MS spectrum of BSAL-DAP

SAIF,PANJAB UNIVERSITY,CHANDIGARH

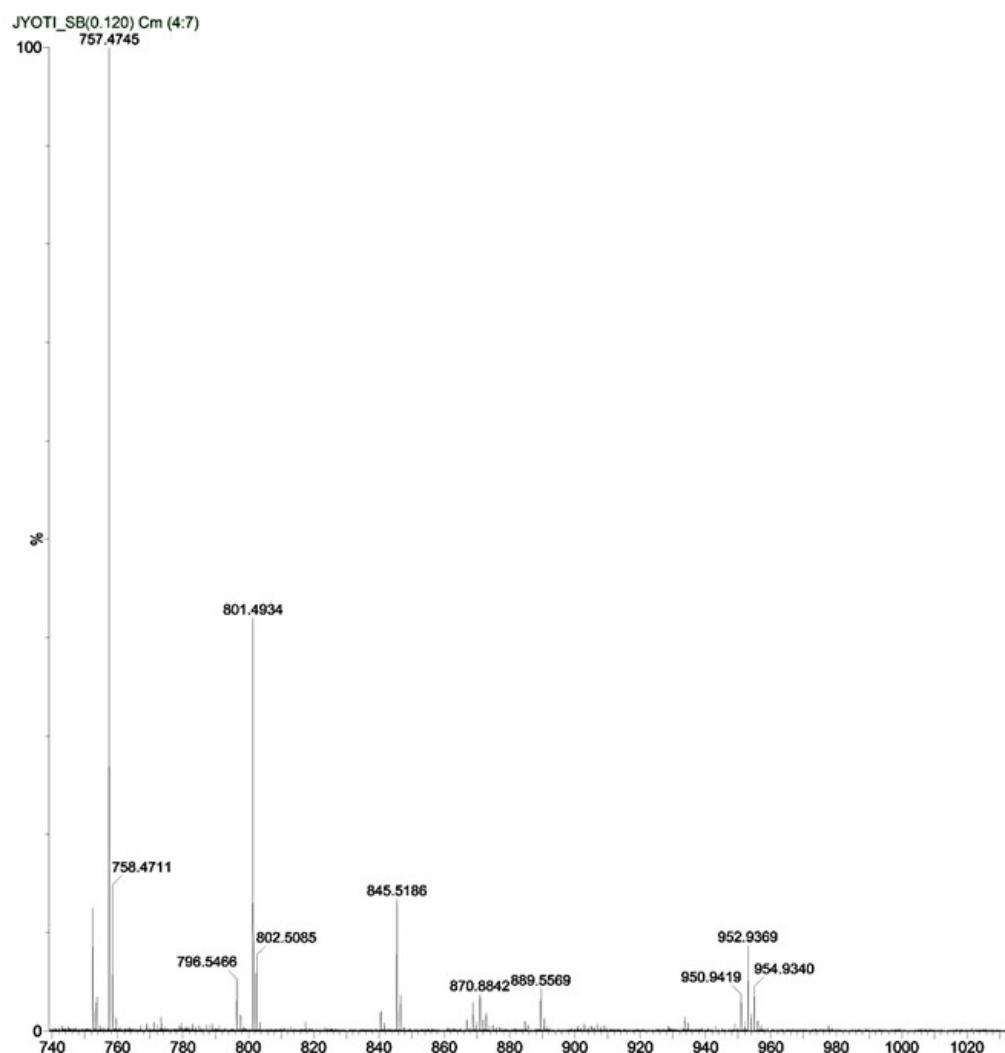


Fig. S21 ESI-MS spectrum of [Me₂Sn₂(BSAL-DAP)(BSAL)]

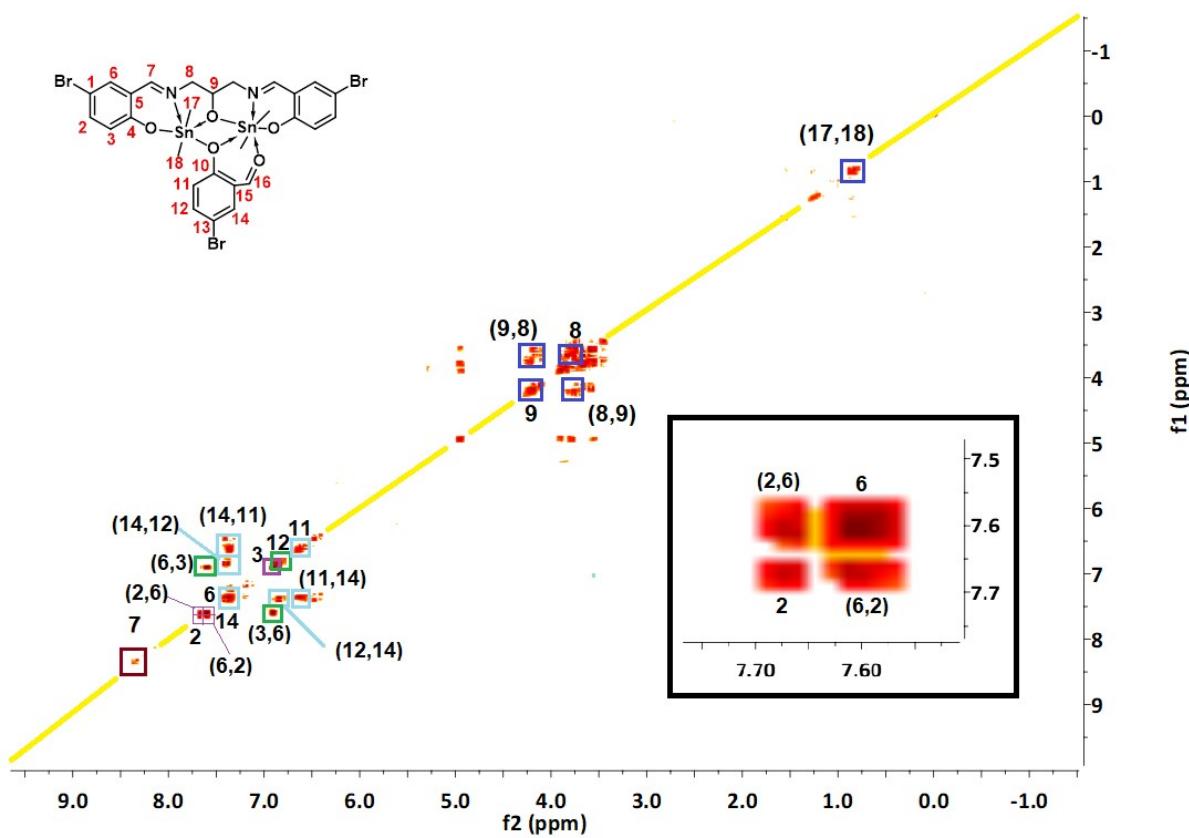


Fig. S22 (^1H - ^1H) COSY NMR of Sn compound 2.

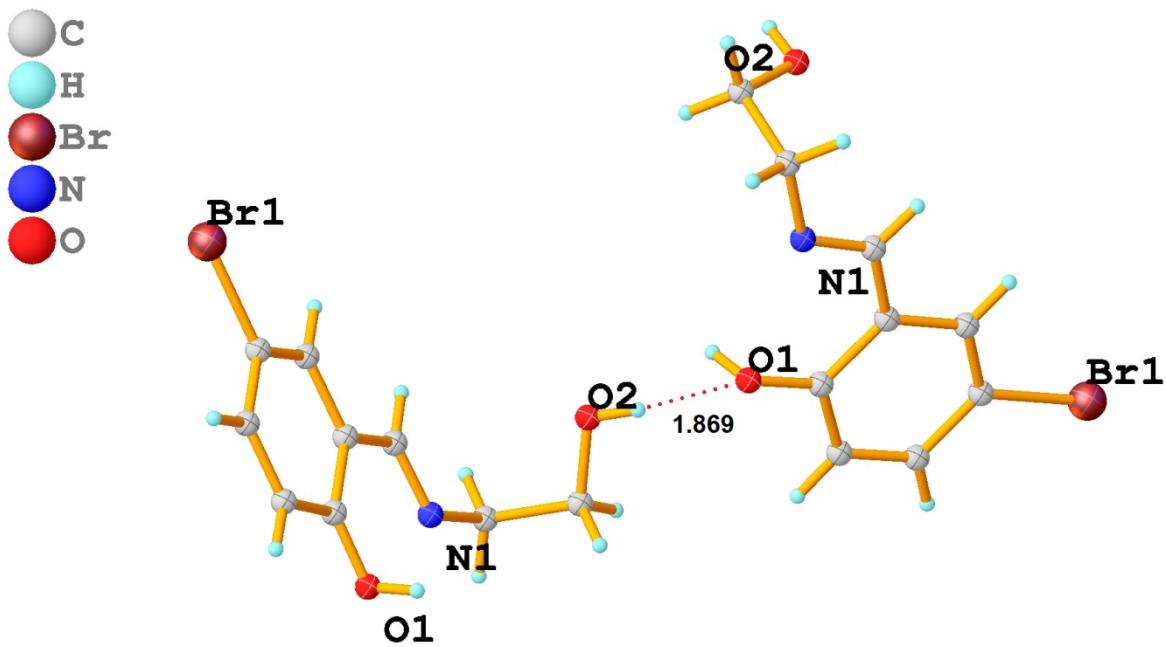


Fig. S23 ORTEP representation of BSAL-EA showing intermolecular hydrogen bonding,

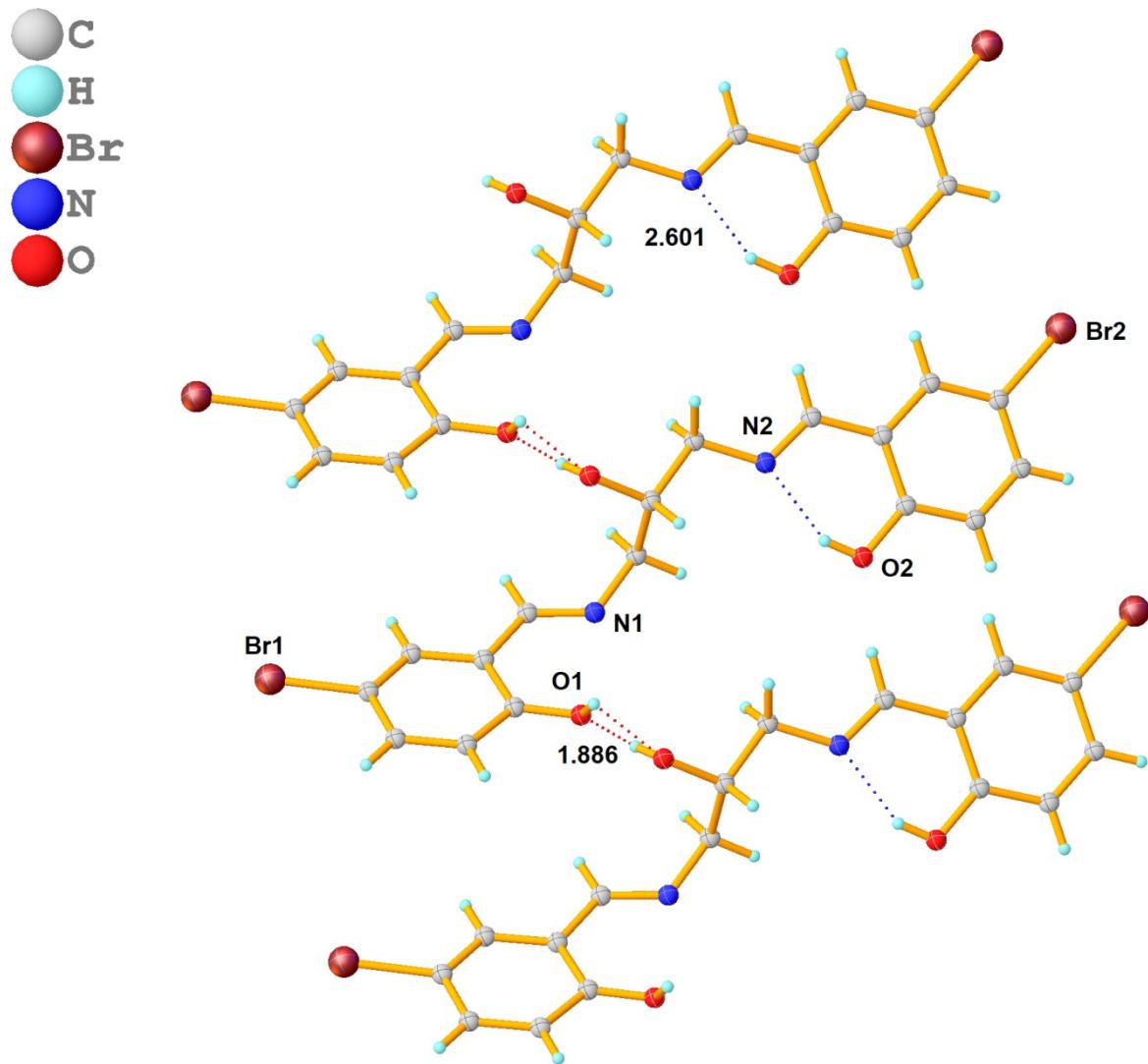


Fig. S24 ORTEP representation of BSAL-DAP showing inter-/intra-molecular hydrogen bonding,

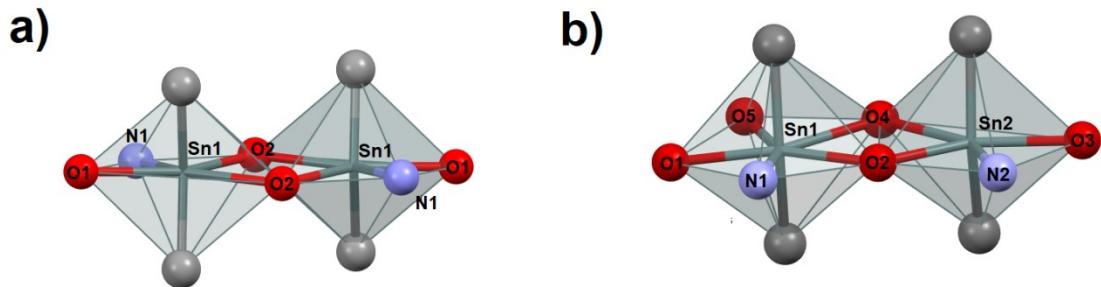


Fig. S25 **a)** topographical view of coordination in Compound 1, and **b)** topographical view of coordination in Compound 2 (for non-hydrogen atoms, the radius of hydrogen atoms was eliminated for clarity).

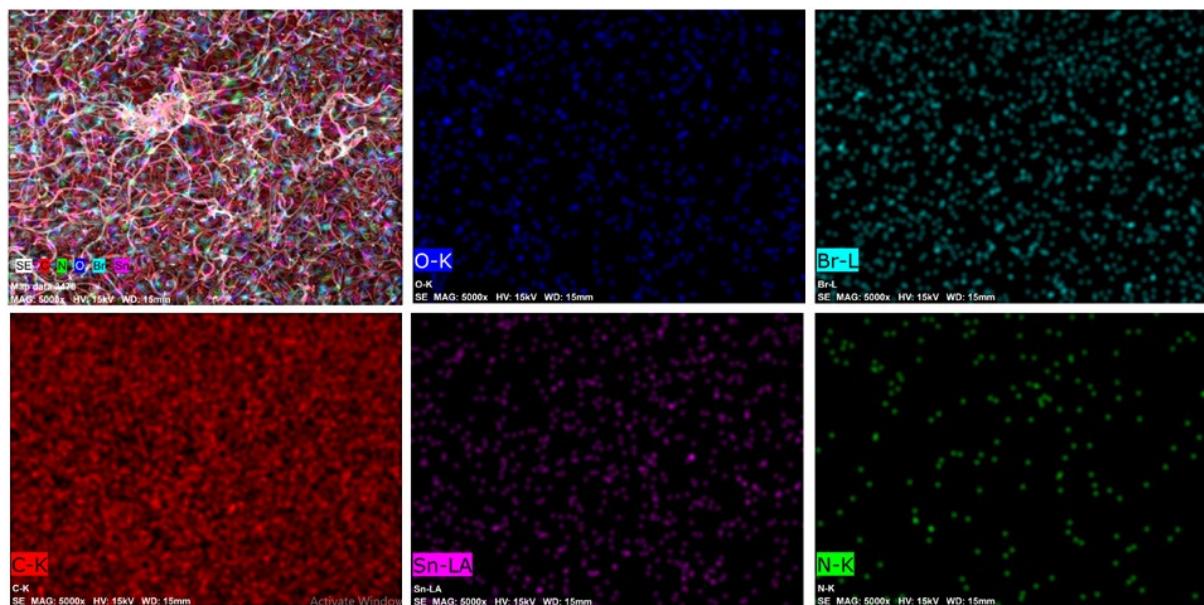


Fig. S26 Elemental mapping of all elements of the 1@CNT (C, O, N, Br, and Sn) at the surface.

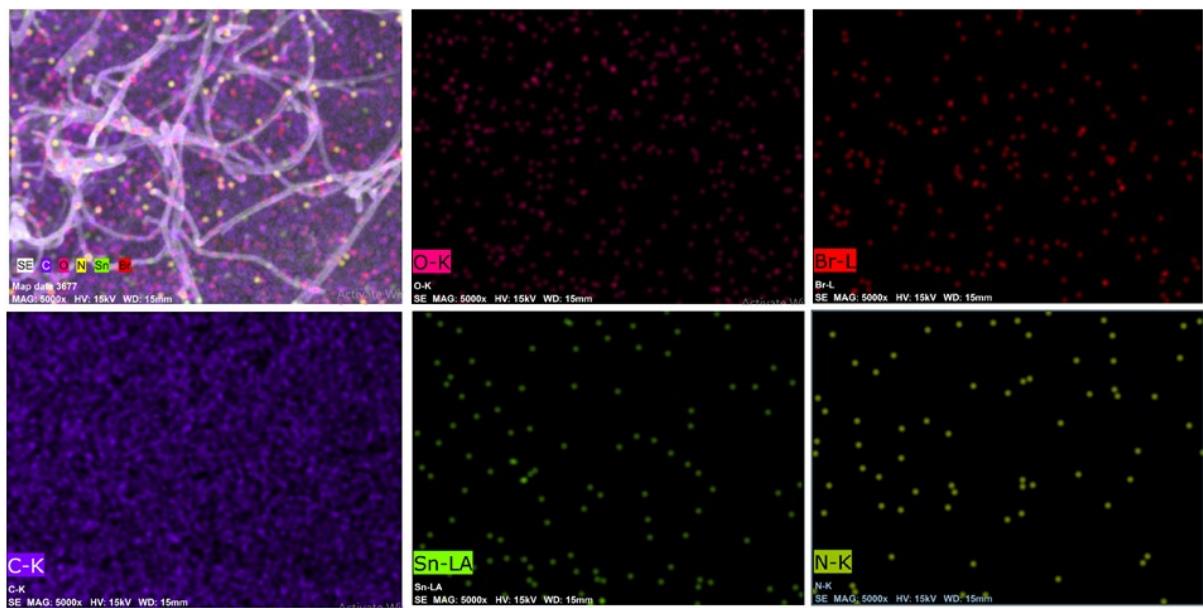


Fig. S27 Elemental mapping of all elements of the 2@CNT (C, O, N, Br, and Sn) at the surface.

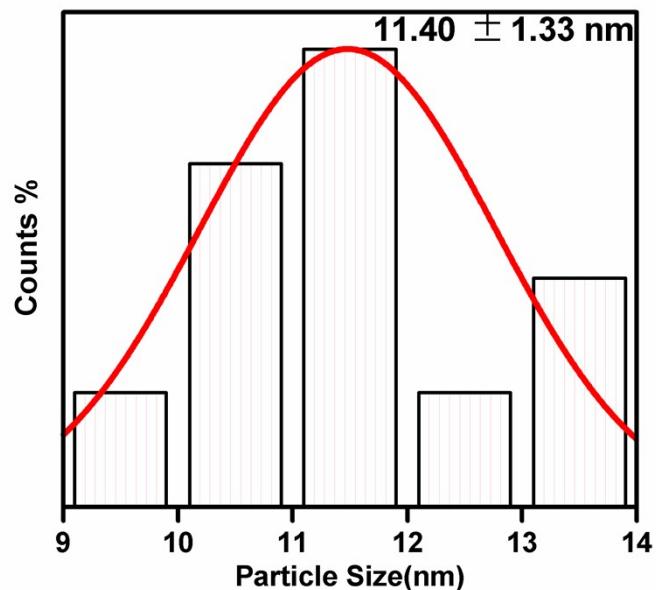


Fig. S28 Particle size distribution of 2@CNT

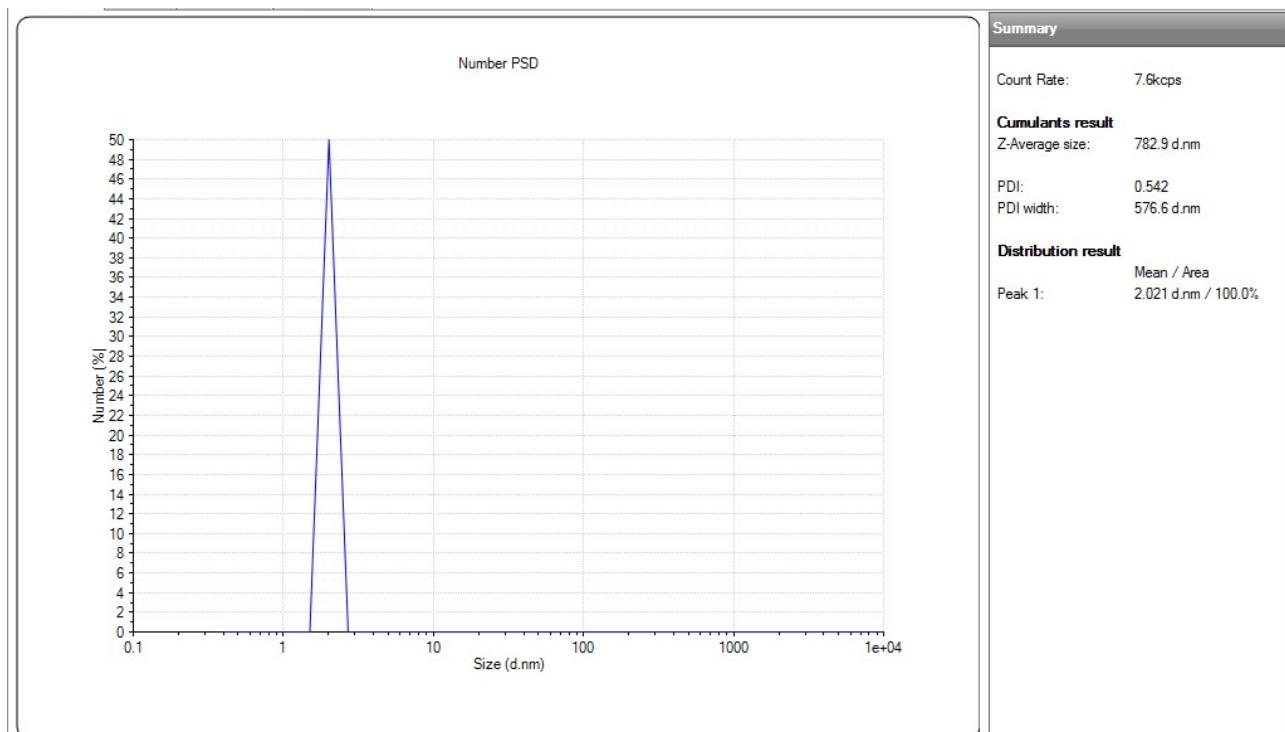


Fig. S29 DLS particle size distribution of compound 1

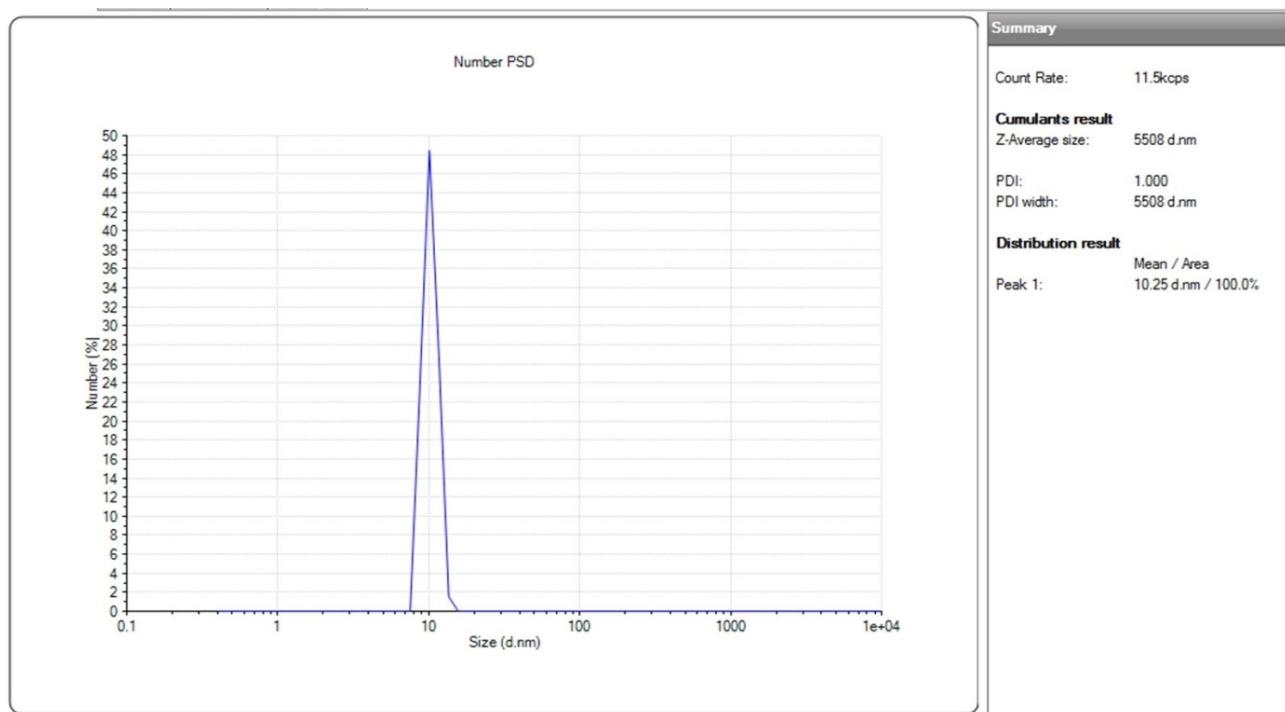


Fig. S30 DLS particle size distribution of compound 2

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm):	805.2	207.9	100.0
Pdl:	0.956	0.000	0.000
Intercept:	0.962	0.000	0.000

Result quality : Refer to quality report

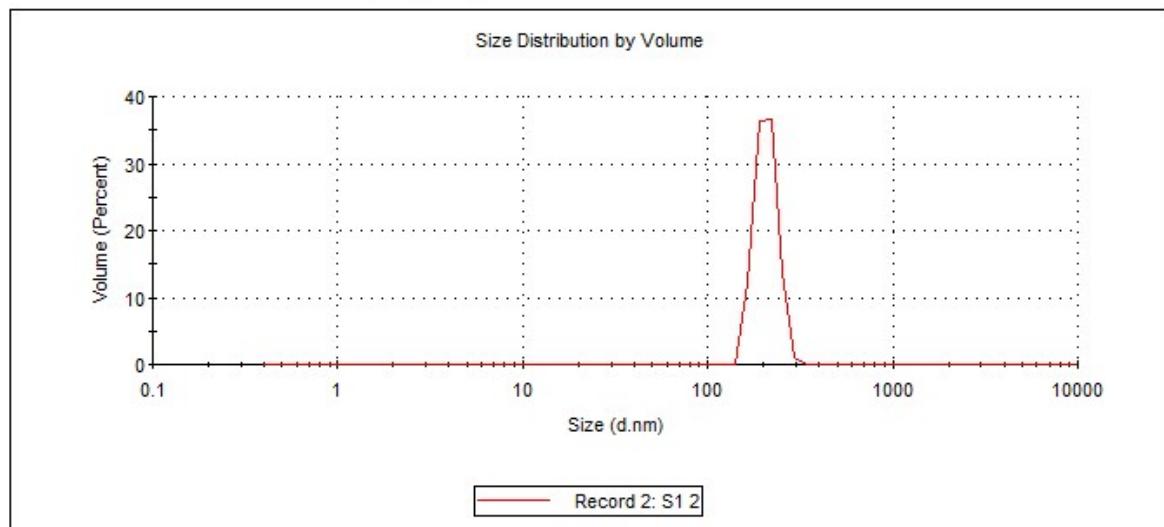


Fig. S31 DLS particle size distribution of 1@CNT

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm):	636.8	566.1	100.0
Pdl:	0.741	0.000	0.000
Intercept:	0.823	0.000	0.000

Result quality : Refer to quality report

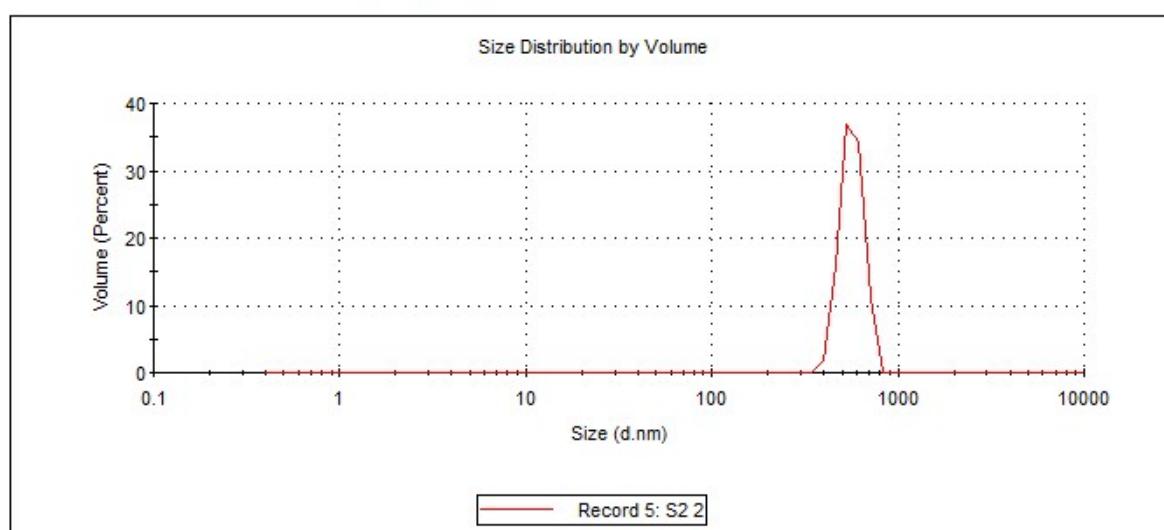


Fig. S32 DLS particle size distribution of 2@CNT

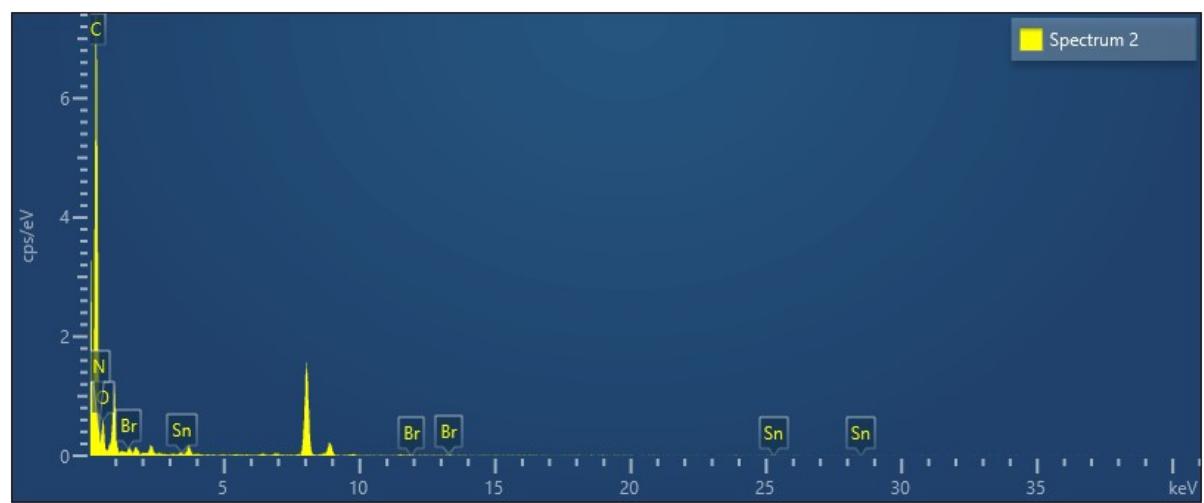
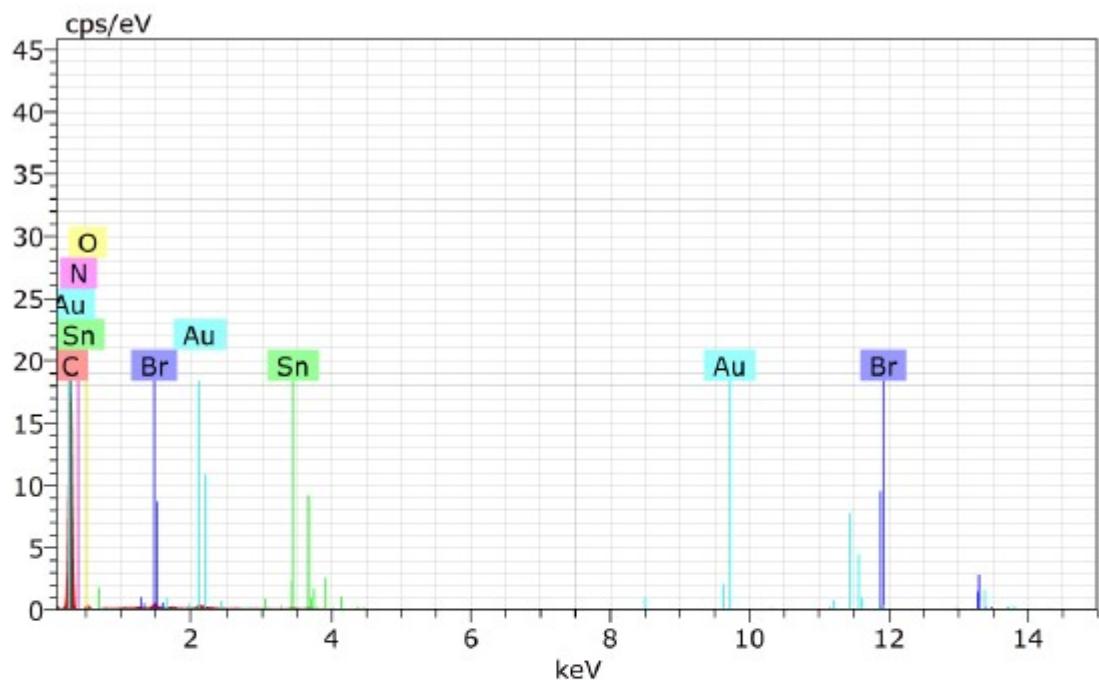


Fig. S33 EDAX distribution of 1@CNT



Spectrum: test 17394

Element	Series	unn.	C norm.	C Atom.	C Error (3 Sigma)
		[wt.%]	[wt.%]	[at.%]	[wt.%]
Carbon	K-series	85.40	85.40	92.92	29.29
Tin	L-series	2.15	2.15	0.24	0.34
Bromine	L-series	2.06	2.06	0.34	0.41
Gold	M-series	2.92	2.92	0.19	0.46
Nitrogen	K-series	1.82	1.82	1.70	2.11
Oxygen	K-series	5.65	5.65	4.62	3.30
<hr/>					
Total: 100.00 100.00 100.00					

Activate'
Go to Setting

Fig. S34 EDAX distribution of 2@CNT

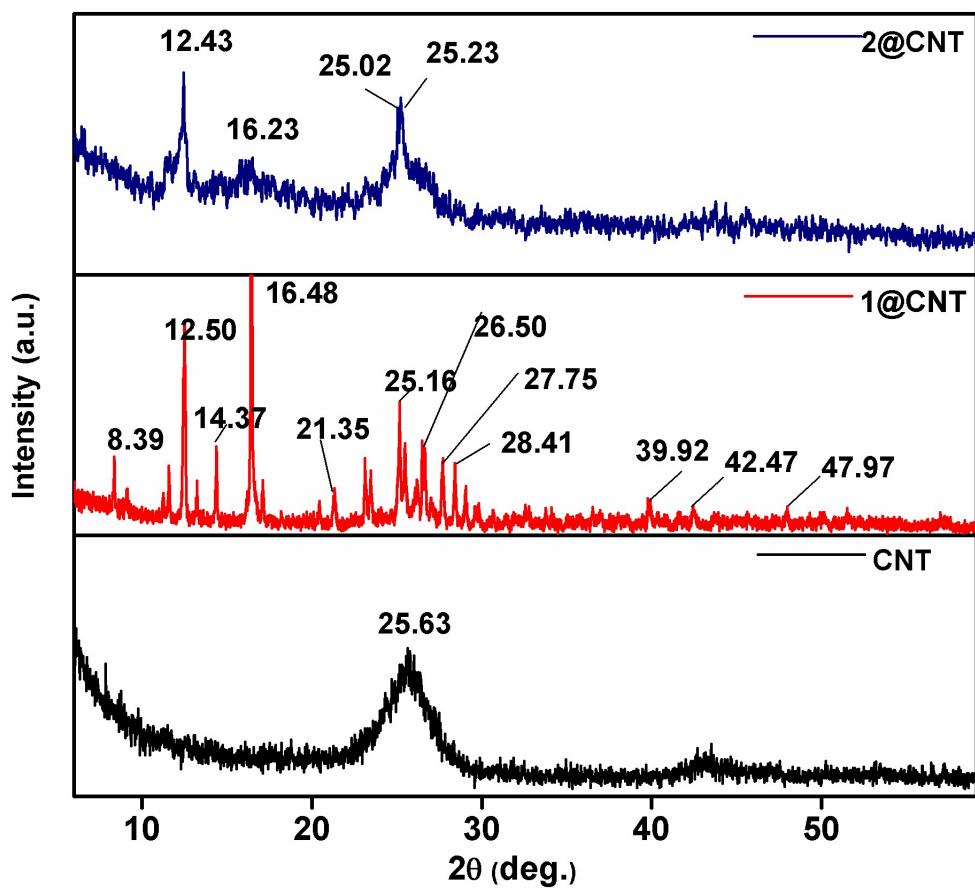


Fig. S35. PXRD pattern showing a comparison of data for **a)** CNT, **b)** 1@CNT, and **c)** 2@CNT.

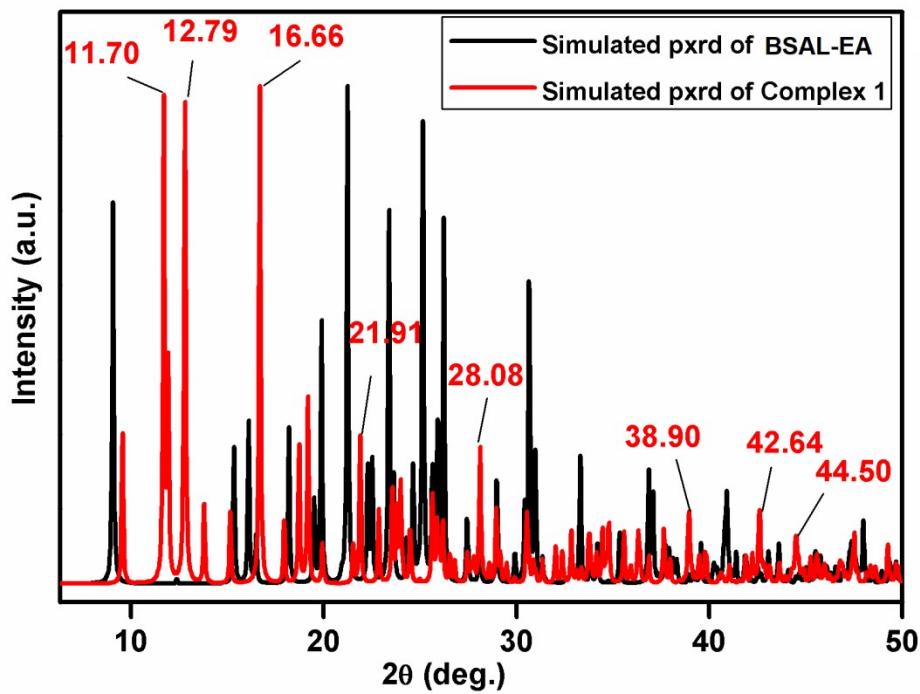


Fig. S36 Simulated PXRD pattern comparison of BSAL-EA and organotin Complex 1

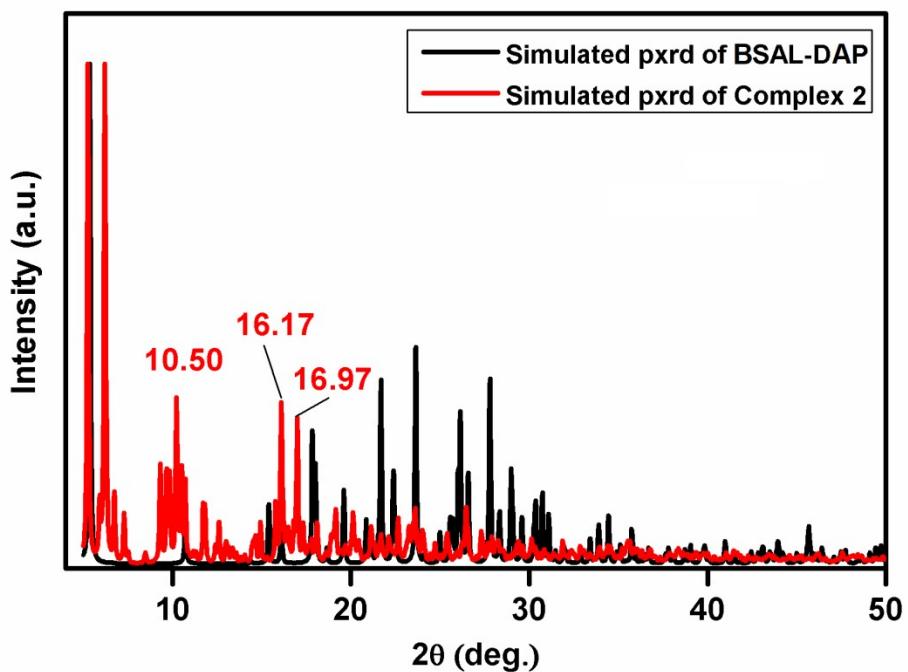


Fig. S37 Simulated PXRD pattern comparison of BSAL-DAP and organotin Complex 2

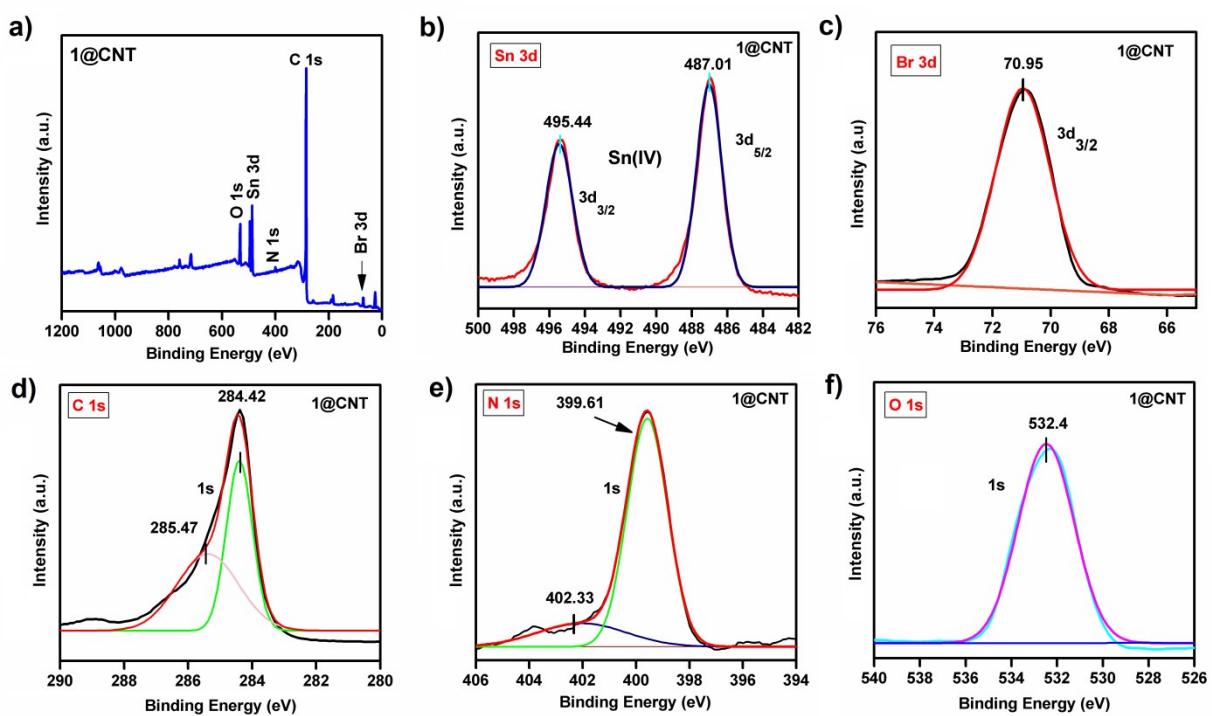


Fig. S38 Xps spectra of 1@CNT showing presence Sn 3d, Br 3d, C 1s, N 1s, and O 1s elements

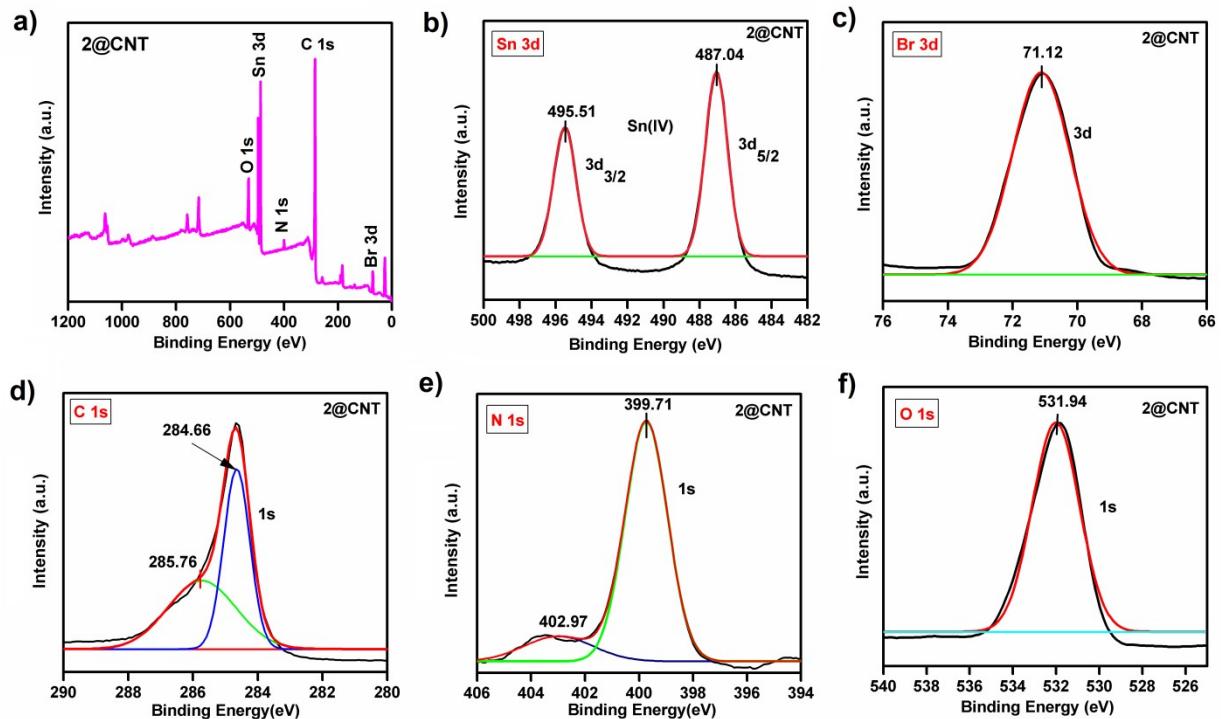


Fig. S39 Xps spectra of 2@CNT showing presence Sn 3d, Br 3d, C 1s, N 1s, and O 1s elements.

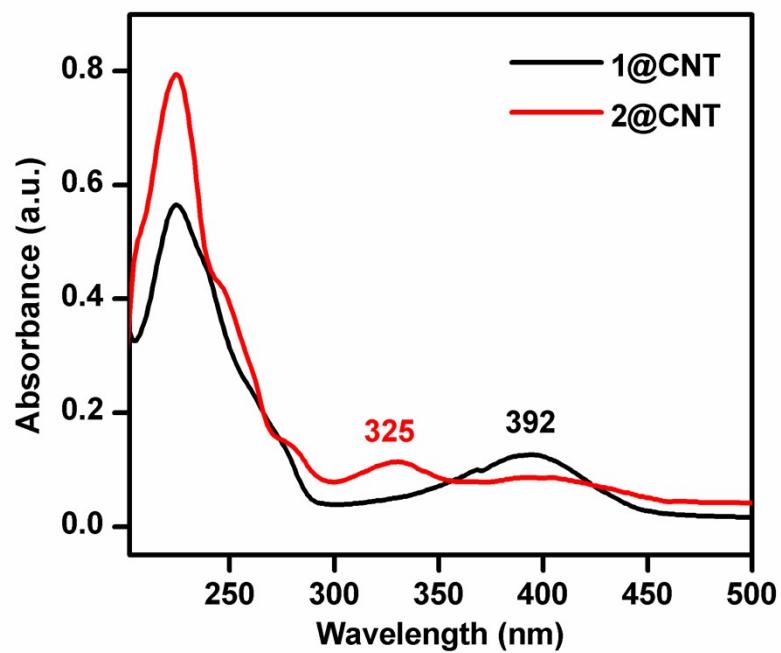


Fig. S40 UV absorption spectrum of 1@CNT and 2@CNT

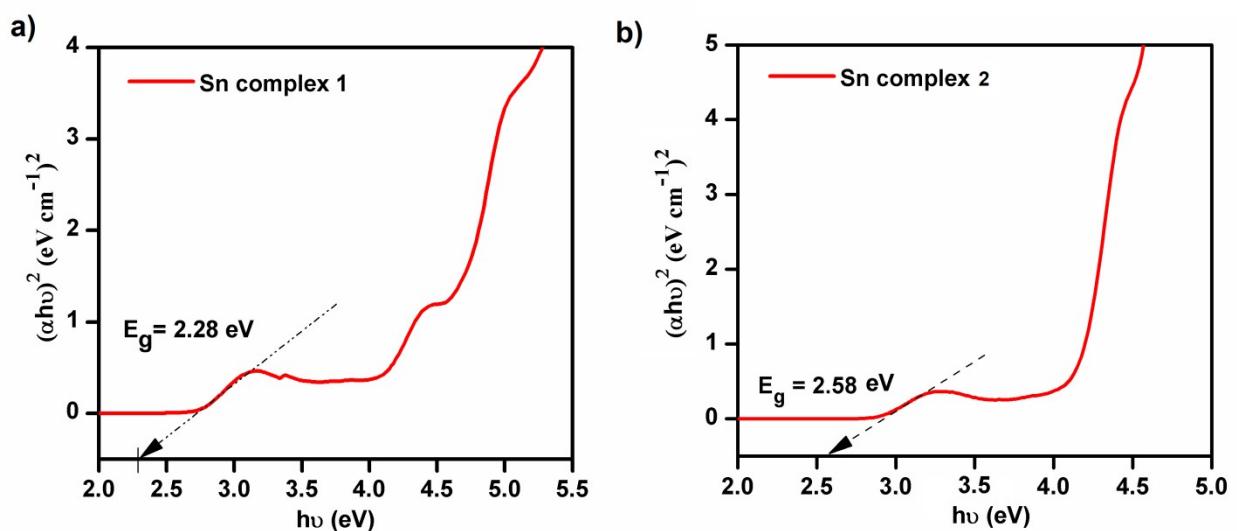


Fig. S41 Tauc plot of synthesized Sn complex 1 and 2, showing bandgap E_g

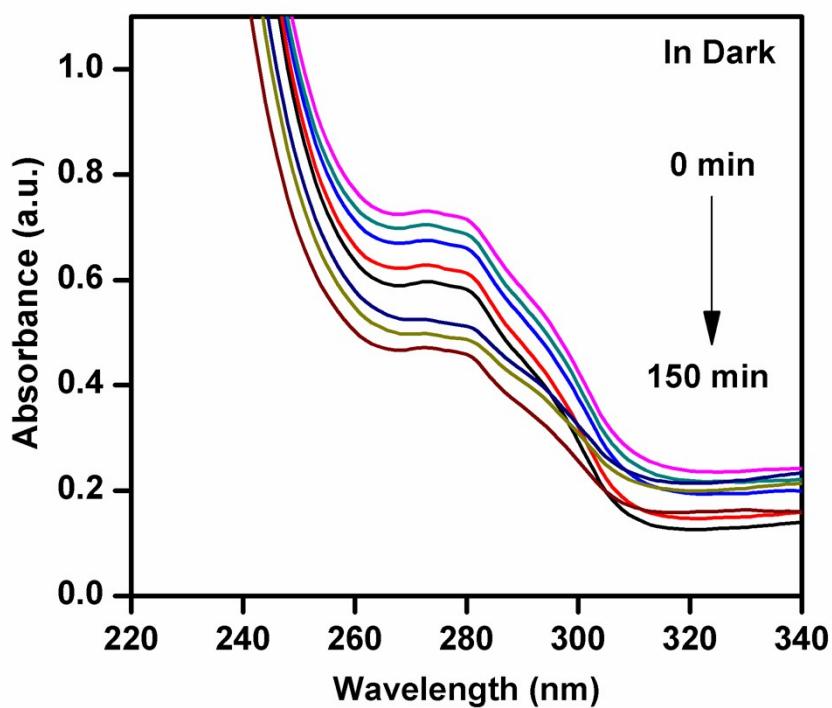


Fig. S42 Absorption spectra of AMX photocatalytic degradation under dark

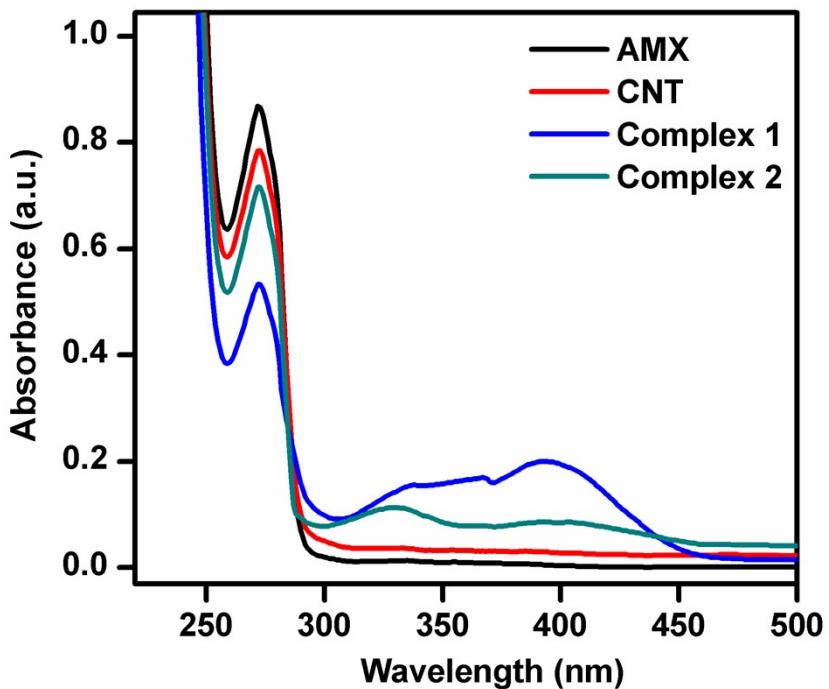


Fig. S43 Absorption spectra of AMX photocatalytic degradation using CNT, Complex 1, and Complex 2.

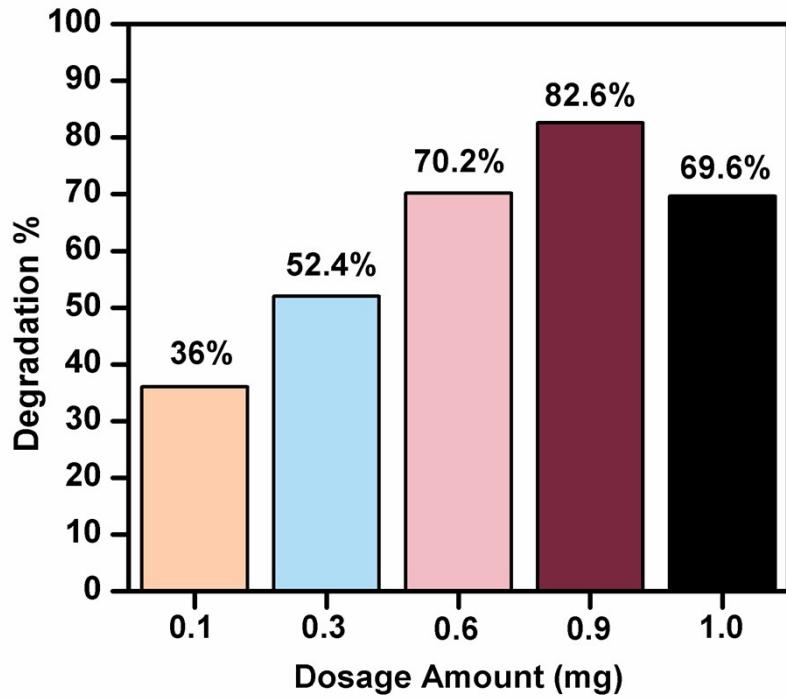


Fig. S44 Effect of dosage amount of 1@CNT on AMX degradation

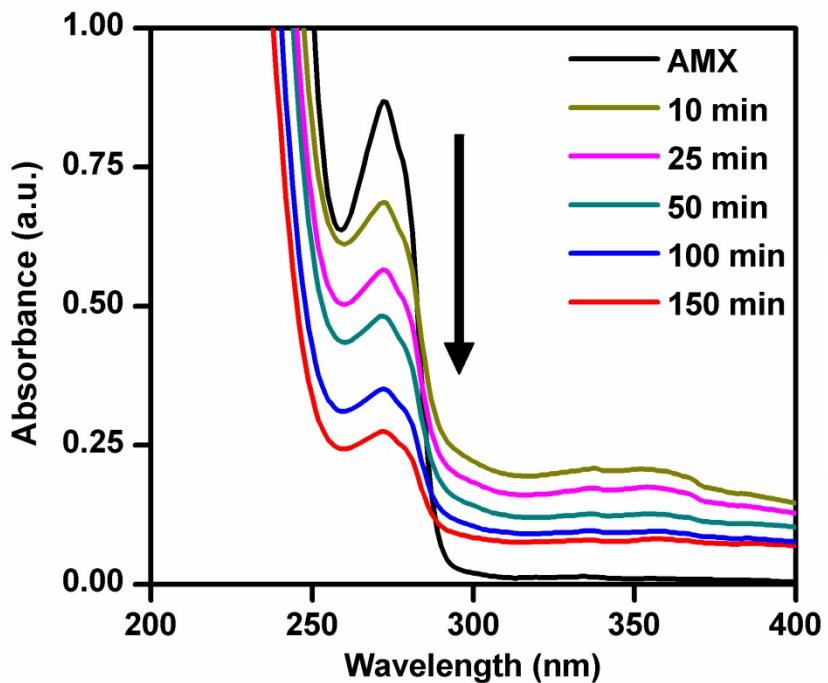


Fig. S45 Absorption spectra of AMX photocatalytic degradation using TiO₂ as positive control.

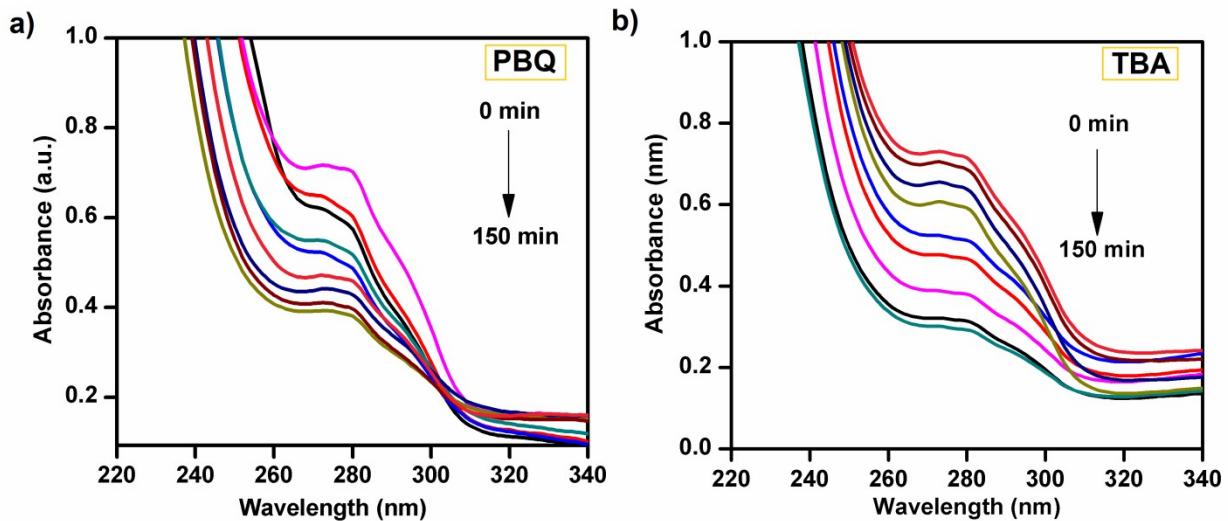


Fig. S46 Absorption spectra of AMX photocatalytic degradation under visible light irradiation in presence of radical scavengers a) p-benzoquinone (PBQ) and b) tertbutyl alcohol (TBA).

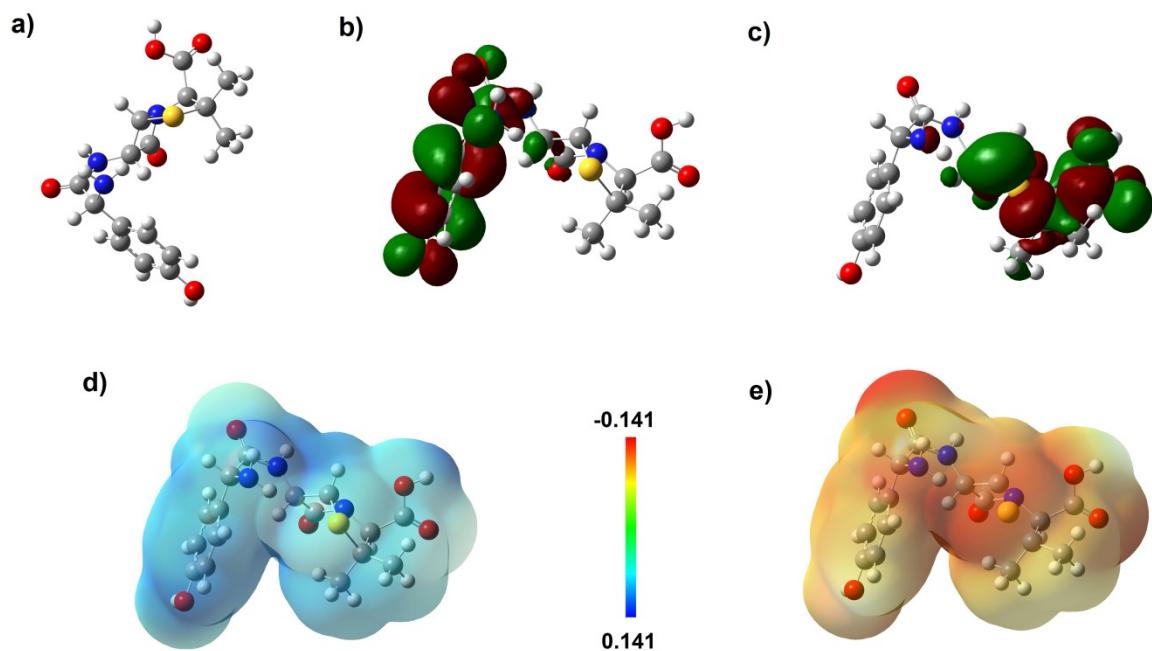
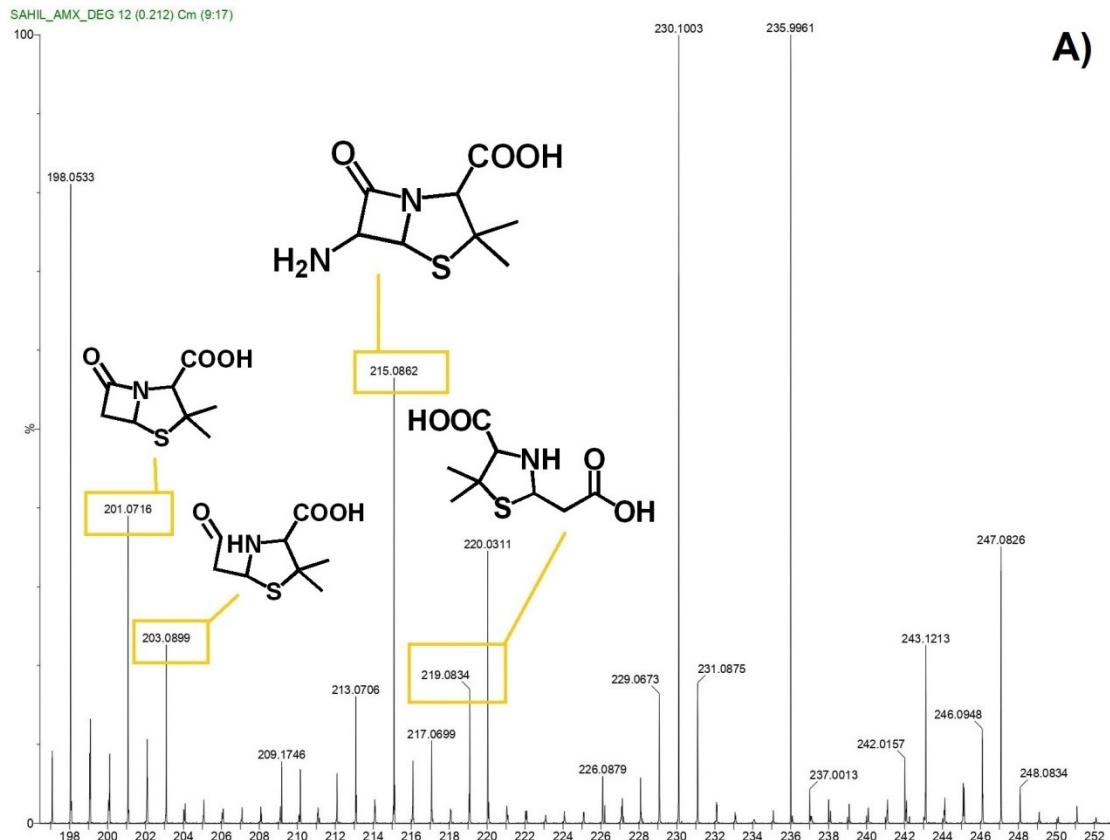
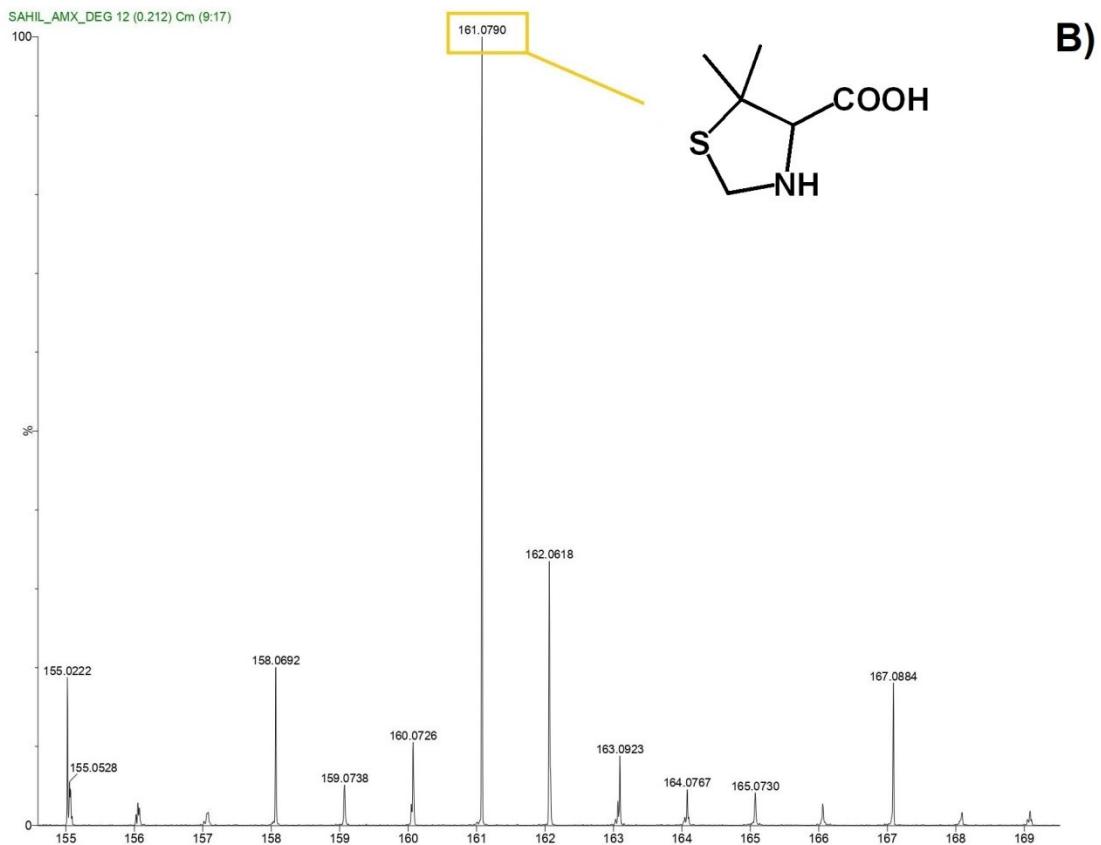


Fig. S47 a) DFT optimized structure of Amoxicillin using basis set 6-31g+(d,p), DFT calculated b) HOMO and c) LUMO molecular orbitals, Electrostatic potential (ESP) of Fukui function for d) nucleophilic attack (F^+) and e) electrophilic attack (F^-).

SAHIL_AMX_DEG 12 (0.212) Cm (9:17)

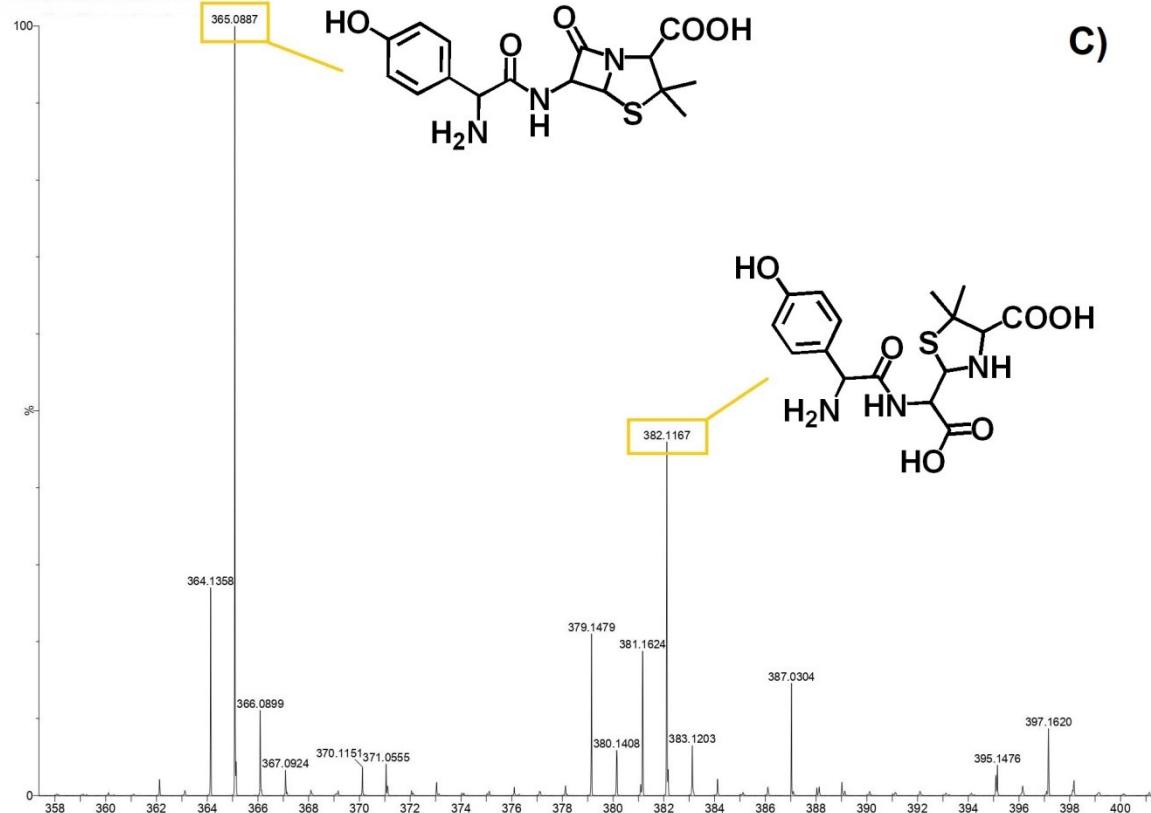


SAHIL_AMX_DEG 12 (0.212) Cm (9:17)



SAIF,PANJAB UNIVERSITY,CHANDIGARH
SAHIL_AMX_DEG 12 (0.212) Cm (9:17)

SYNAPT-XS#DBA064

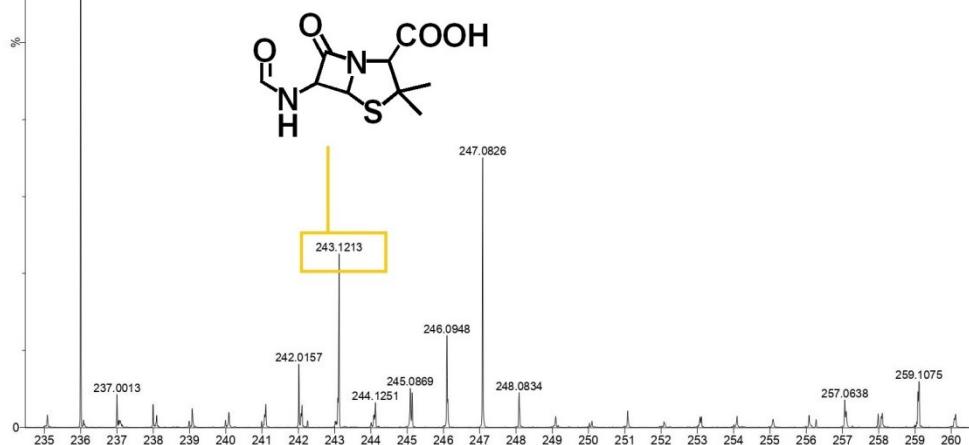


SAIF,PANJAB UNIVERSITY,CHANDIGARH

SYNAPT-XS#DBA064

SAHIL_AMX_DEG 12 (0.212) Cm (9:17)
235.9961

D)



SAIF,PANJAB UNIVERSITY,CHANDIGARH

SYNAPT-XS#DBA064

10-Apr-2024

17:06:59

1: TOF MS ES+
4.05e4

SAHIL_AMX_DEG 12 (0.212) Cm (9:17)

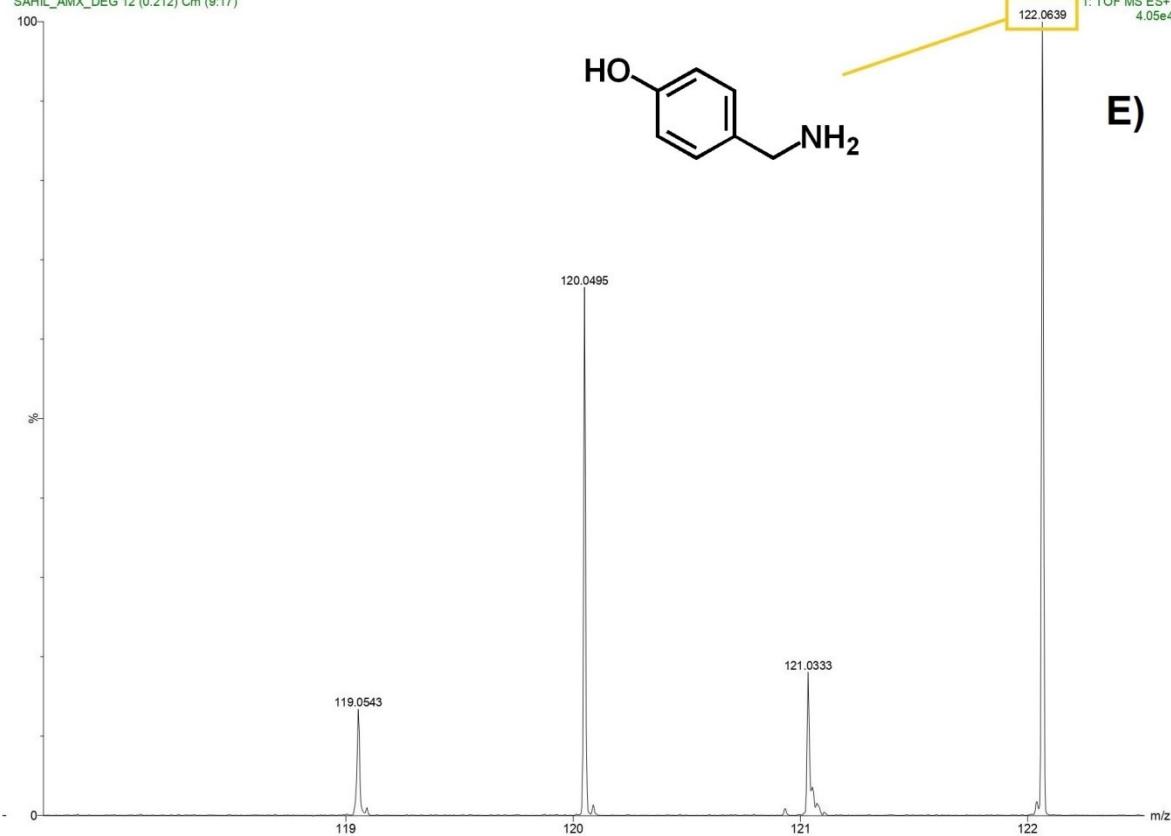


Fig. S48 AMX degradation products by HPLC-MS (A-E)

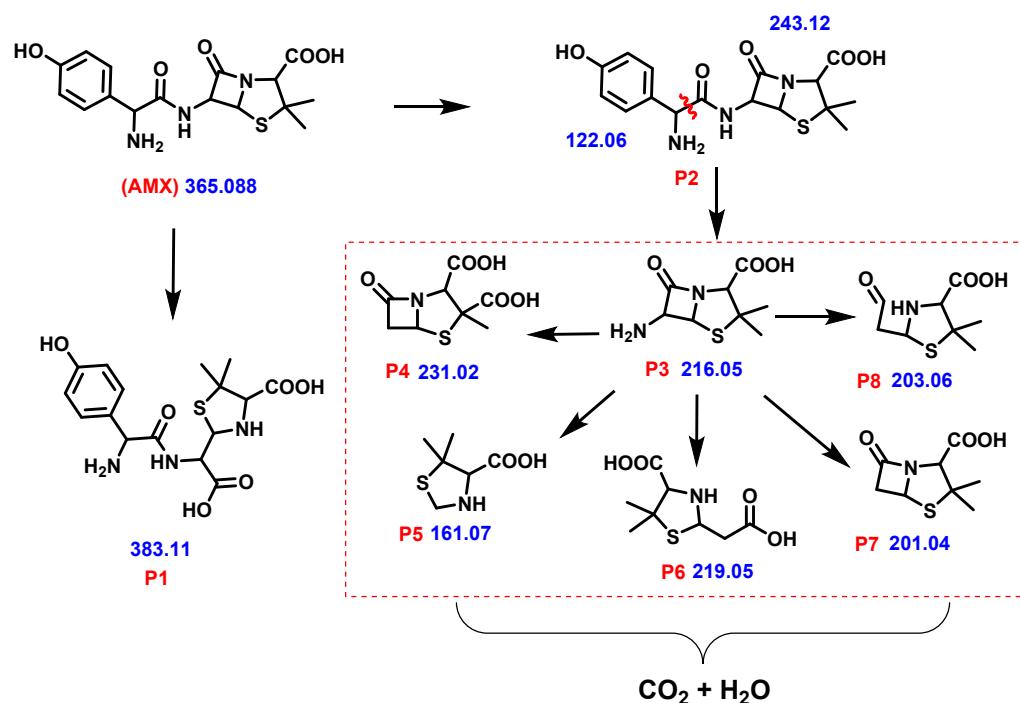


Fig. S49 Proposed degradation pathway of AMX.

Table S1 Crystallographic data and structural parameters for Ligands BSAL-EA and BSAL-DAP, Complexes 1 and 2.

PARAMETERS	BSAL-EA	BSAL-DAP	Complex 1	Complex 2
Empirical formula	C ₉ H ₁₀ BrNO ₂	C ₁₇ H ₁₆ Br ₂ N ₂ O ₃	C ₂₄ H ₃₄ Br ₂ N ₂ O ₆ Sn ₂	C ₂₈ H ₂₉ Br ₃ N ₂ O ₅ Sn ₂
Formula weight	244.09	456.14	843.73	950.64
Temperature/K	298	298	175(20)	236(100)
Crystal system	Monoclinic	Orthorhombic	Triclinic	Monoclinic
Space group	P2 ₁ /n	Pca2 ₁	P-1	P2 ₁ /n
a/Å	4.5073(2)	8.4537(6)	8.1743(3)	19.1383(15)
b/Å	11.5418(3)	6.1367(3)	9.9957(3)	20.8486(12)
c/Å	18.3112(6)	33.002(2)	10.3362(4)	28.771(2)
α/°	90	90	70.458(3)	90
β/°	96.065(3)	90	67.582(4)	97.455(7)
γ/°	90	90	72.878(3)	90
Volume/Å ³	947.26(6)	1712.09(18)	722.13(5)	11382.7(14)
Z	4	4	1	12
ρ _{calc} g/cm ³	1.712	1.770	1.940	1.664
μ/mm ⁻¹	4.305	4.753	4.535	4.508
F(000)	488.0	904.0	410.0	5472.0
Crystal size/mm ³	0.24 × 0.08 × 0.06	0.14 × 0.08 × 0.04	0.12 × 0.08 × 0.04	0.08×0.06×0.04
Radiation	Mo Kα (λ = 0.71073)	Mo Kα (λ = 0.71073)	Mo Kα (λ = 0.71073)	Mo Kα (λ = 0.71073)
2Θ range for data collection/°	7.06 to 54.146	6.64 to 50.102	6.35 to 54.766	6.22 to 56.942
Index ranges	-5 ≤ h ≤ 5, -14 ≤ k ≤ 14, -22 ≤ l ≤ 23	-10 ≤ h ≤ 9, -7 ≤ k ≤ 7, -39 ≤ l ≤ 39	-10 ≤ h ≤ 10, -12 ≤ k ≤ 12, -13 ≤ l ≤ 11	-22 ≤ h ≤ 24, -25 ≤ k ≤ 25, -37 ≤ l ≤ 36
Reflections collected	13911	13973	8754	110264
Independent reflections	2011 [R _{int} = 0.0455, R _{sigma} = 0.0318]	3007 [R _{int} = 0.0624 , R _{sigma} = 0.0670]	3037 [R _{int} = 0.0323 , R _{sigma} = 0.0447]	23251 [R _{int} = 0.3771 , R _{sigma} =

				0.3948]
Data/restraints/ parameter	2011/0/120	3007/1/219	3037/0/167	23251/0/1098
Goodness-of-fit on F ²	1.068	1.015	1.055	0.901
Final R indexes [I>=2σ (I)]	R ₁ = 0.0425, wR ₂ = 0.0918	R ₁ = 0.0507, wR ₂ = 0.1017	R ₁ = 0.0334, wR ₂ = 0.0822	R ₁ = 0.1000, wR ₂ = 0.2234
Final R indexes [all data]	R ₁ = 0.0628, wR ₂ = 0.0982	R ₁ = 0.0873, wR ₂ = 0.1134	R ₁ = 0.0413, wR ₂ = 0.0851	R ₁ = 0.2813, wR ₂ = 0.3092
Largest diff. peak/hole / e Å ⁻³	0.65/-0.39	0.28/-0.28	0.81/-0.74	1.38/-1.85

Table S2 Bonding parameters for Ligands BSAL-EA and BSAL-DAP, Complexes 1 and 2.

Bond angles ($^{\circ}$)							
BSAL-EA		BSAL-DAP		Complex 1		Complex 2	
C7-N1-C8	122.5 (3)	C3-N2-C2	119.7 (10)	O1-Sn1-O2 ¹	139.41 (9)	O1-Sn1-O4	144.1 (4)
N1-C7-C5	123.1 (3)	C11-N1-C10	122.3 (10)	O2-Sn1-O1	150.64 (10)	O2-Sn1-O5	137.7 (4)
C6-C1-Br1	120.6 (3)	N2-C3-C4	122.3 (11)	O2-Sn1-O2 ¹	69.60 (11)	O5-Sn1-O4	70.4 (4)
O1-C4-C5	120.9 (3)	C7-C8-Br2	120.5 (9)	O2-Sn1-N1	75.05 (10)	O2-Sn1-N1	70.3 (4)
O1-C4-C3	120.3 (3)	N2-C2-C1	111.6 (9)	N1-Sn1-O1	76.48 (10)	O2-Sn2-O3	151.9 (4)
N1-C8-C9	111.6 (3)	O2-C1-C2	111.7 (9)	C10-Sn1-N1	109.31 (15)	O2-Sn2-N2	73.8 (6)
O2-C9-C8	107.8 (3)	N10-C10-C1	110.9 (9)	C11-Sn1-N1	97.53 (15)	N2-Sn2-O4	143.9 (5)
Bond length (\AA)							
BSAL-EA		BSAL-DAP		Complex 1		Complex 2	
Br1-C1	1.901(3)	Br1-C16	1.900 (11)	Sn1-O1	2.273 (3)	Sn1-O1	2.162 (12)
O1-C4	1.283(4)	Br2-C8	1.884 (11)	Sn1-O2	2.094 (2)	Sn1-O2	2.252 (12)
O2-C9	1.406(4)	O2-C1	1.399(12)	Sn1-N1	2.244 (3)	Sn1-N1	2.262 (12)
N1-C7	1.292(4)	O1-C13	1.280 (12)	Sn1-C10	2.101 (4)	Sn2-N2	2.243 (16)
N1-C8	1.458(4)	O3-C5	1.339 (13)	Sn1-C11	2.113 (4)	Sn2-O4	2.436 (11)
C7-C5	1.419(4)	N2-C3	1.272 (13)	Sn1-O2 ¹	2.399 (2)	Sn2-O2	2.156 (12)

Table S3 charge distribution and Fukui index of AMX

Atom (number)	Charge (0) ($e/\text{\AA}^0$)	Charge (+1) ($e/\text{\AA}^0$)	Charge (-1) ($e/\text{\AA}^0$)	f^+	f^-	f^0
C (1)	-0.220	-0.215	-0.222	0.005	0.002	0.0035
C (2)	-0.101	0.006	-0.100	0.107	-0.001	0.053
C (3)	-0.217	-0.194	-0.257	0.023	0.04	0.0315
C (4)	-0.306	-0.272	-0.319	0.034	0.013	0.0235
C (5)	0.313	0.380	0.292	0.067	0.021	0.044
C (6)	-0.282	-0.223	-0.222	0.059	-0.06	-0.0005
O (11)	-0.712	-0.622	-0.726	0.09	0.014	0.052
C (13)	-0.174	-0.190	-0.196	-0.016	0.022	0.003
C (18)	0.686	0.678	0.674	-0.008	0.012	0.002
O (19)	-0.623	-0.529	-0.659	0.094	0.036	0.065
N (15)	-0.909	-0.851	-0.959	0.058	0.05	0.054
N (20)	-0.677	-0.653	-0.674	0.024	-0.003	0.0105
C (22)	-0.166	-0.160	-0.178	0.006	0.012	0.009
C (23)	-0.194	-0.207	-0.221	-0.013	0.027	0.007
O (28)	-0.566	-0.521	-0.626	0.045	0.06	0.0525
C (27)	0.711	0.707	0.665	-0.004	0.046	0.021
N (26)	-0.504	-0.0482	-0.0520	0.022	0.016	0.019
C (29)	-0.162	-0.166	-0.164	-0.004	0.002	-0.001
C (40)	0.826	0.818	0.752	-0.008	-0.074	0.033
O (41)	-0.596	-0.568	-0.674	0.028	0.078	0.053
O (42)	-0.722	-0.726	-0.744	-0.004	0.022	0.009
C (31)	-0.176	-0.169	-0.211	0.007	0.035	0.021
C (32)	-0.708	-0.716	-0.700	-0.008	-0.008	-0.008
C (36)	-0.699	-0.702	-0.696	-0.003	-0.003	-0.003
S (44)	0.170	0.287	0.053	0.117	0.117	0.117