

SUPPLEMENTARY MATERIAL

Selenylated indoles: synthesis, effects on lipid membranes properties and interaction with DNA

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Table ESI1. Wavenumber values (cm⁻¹) of HATR-FTIR peaks related to specific groups of asolectin liposomes (ASO) in the presence of selenylated indoles (**3a-d**).

	ASO	3a	Δ	3b	Δ	3c	Δ	3d	Δ
$\nu_{\text{as}} \text{N}^+(\text{CH}_3)_3$	979.84	981.17	1.93	979.84	-	975.56	-4.28	979.84	-
$\nu_{\text{as}} \text{PO}_2^-$	1219.01	1219.01	-	1219.01	-	1219.01	-	1219.01	-
$\nu_{\text{s}} \text{PO}_2^-$	1082.07	1093.64	11.57	1074.35	-7.72	1070.49	-11.58	1078.21	-3.86
$\nu \text{C}=\text{O}$	1734.01	1734.01	-	1734.01	-	1734.01	-	1732.08	-1.93
$\nu \text{C}-\text{O}-\text{C}$	1077.09	1075.47	1.69	1074.44	2.65	1074.57	2.52	1074.70	2.39
$\nu_{\text{as}} \text{CH}_2$	2924.09	2924.09	-	2924.09	-	2924.09	-	2924.09	-
$\nu_{\text{s}} \text{CH}_2$	2852.72	2852.72	-	2854.65	1.93	2852.72	-	2852.72	-

Table ESI2. Bandwidth values (cm⁻¹) of HATR-FTIR peaks related to specific groups of asolectin liposomes (ASO) in the presence of selenylated indoles (**3a-d**).

	ASO	3a	Δ	3b	Δ	3c	Δ	3d	Δ
$\nu_{\text{as}} \text{N}^+(\text{CH}_3)_3$	2.64	3.09	0.45	5.17	2.53	7.93	5.29	10.47	7.83
$\nu_{\text{as}} \text{PO}_2^-$	7.55	7.80	0.25	8.05	0.5	7.80	0.25	7.55	-
$\nu_{\text{s}} \text{PO}_2^-$	33.56	44.43	10.87	41.16	7.6	40.27	6.71	39.32	5.76
$\nu \text{C}=\text{O}$	25.04	23.87	-1.17	31.31	6.27	33.65	8.61	31.7	6.66
$\nu \text{C}-\text{O}-\text{C}$	12.79	4.52	-8.27	2.54	-10.25	10.75	-2.04	6.73	-6.06
$\nu_{\text{as}} \text{CH}_2$	18.46	17.72	-0.74	19.19	0.73	15.51	-2.95	19.19	0.73
$\nu_{\text{s}} \text{CH}_2$	12.55	11.82	-0.73	11.81	-0.74	9.6	-2.95	11.81	-0.74

NMR Spectra

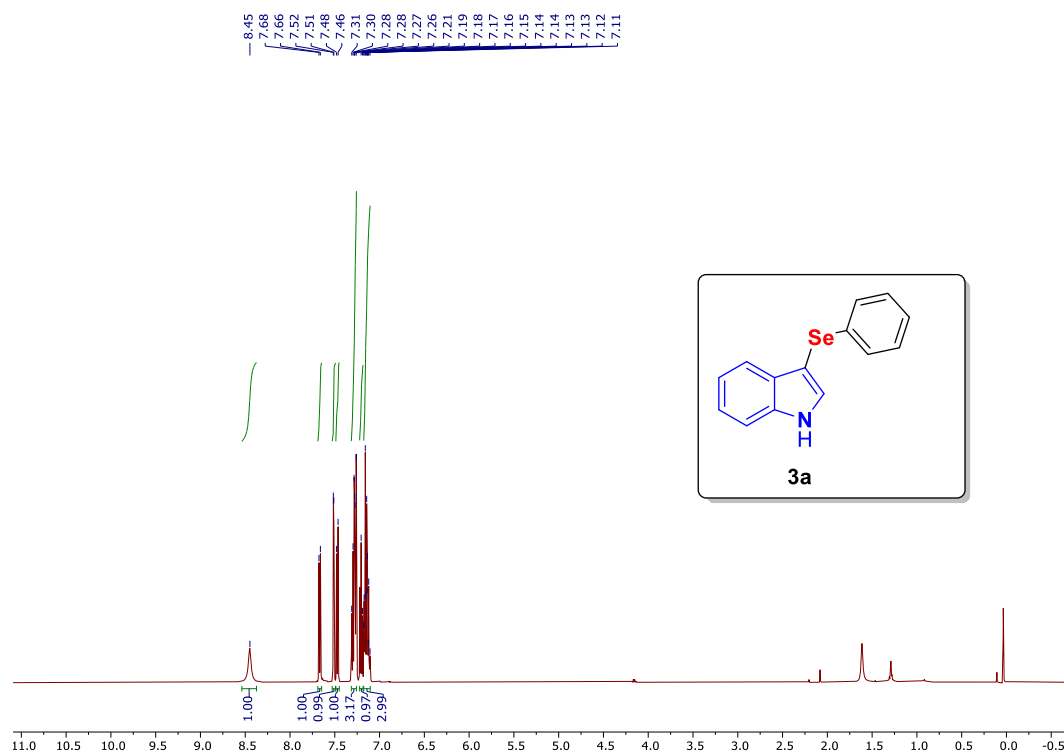


Figure ES11: ¹H NMR (500 MHz, CDCl₃) spectrum of 3a

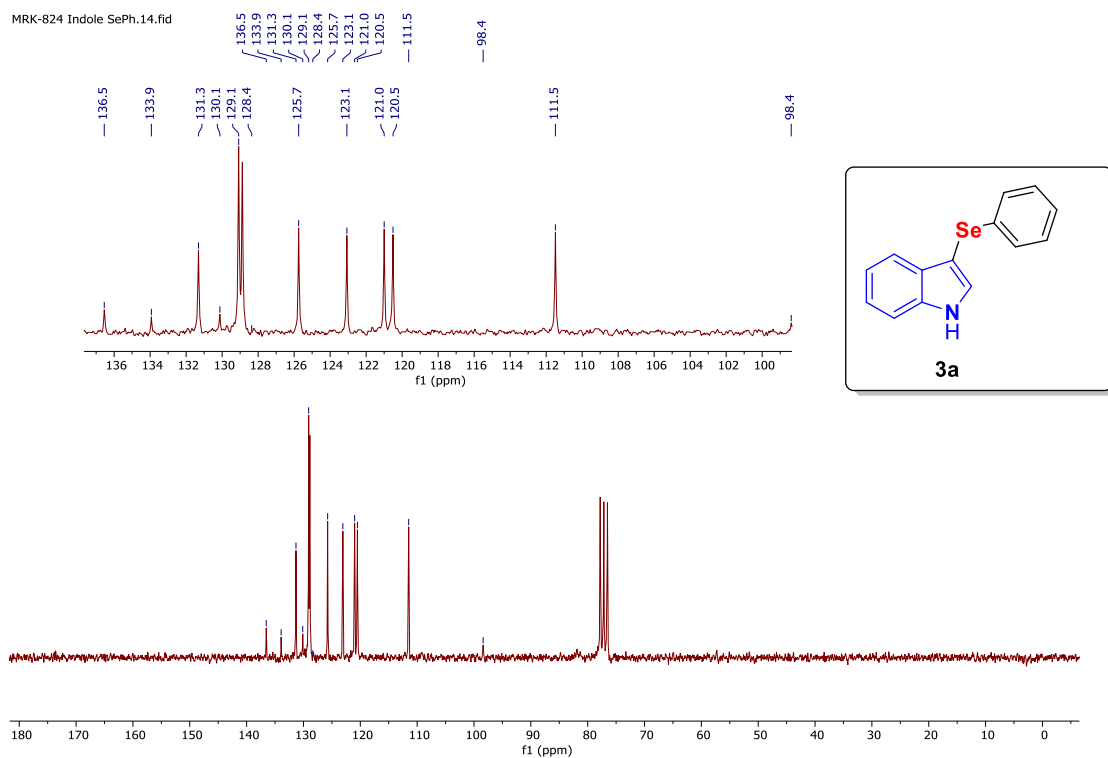


Figure ES12: ¹³C NMR (50 MHz, CDCl₃) spectrum of 3a

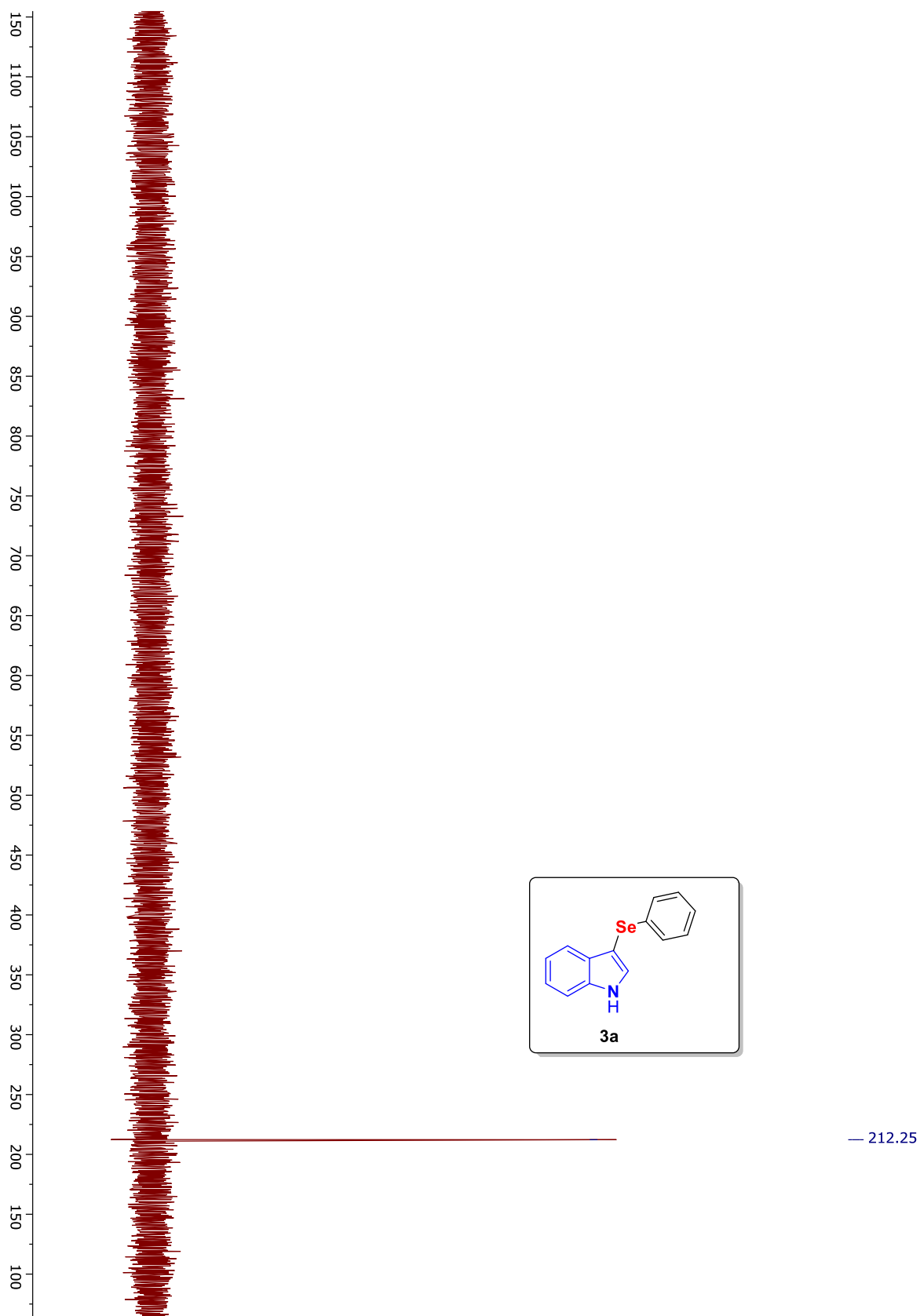


Figure ES13: ^{77}Se NMR (95 MHz, CDCl_3) spectrum of **3a**

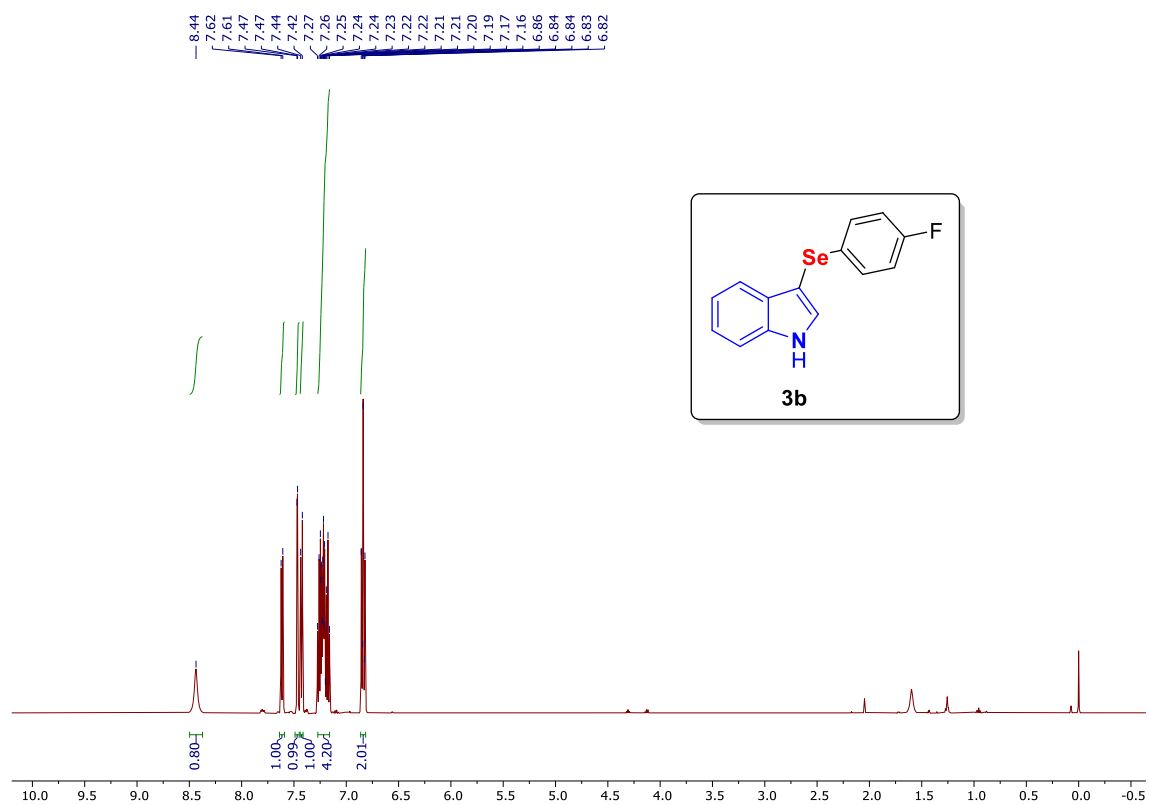


Figure ES14: ¹H NMR (500 MHz, CDCl₃) spectrum of **3b**

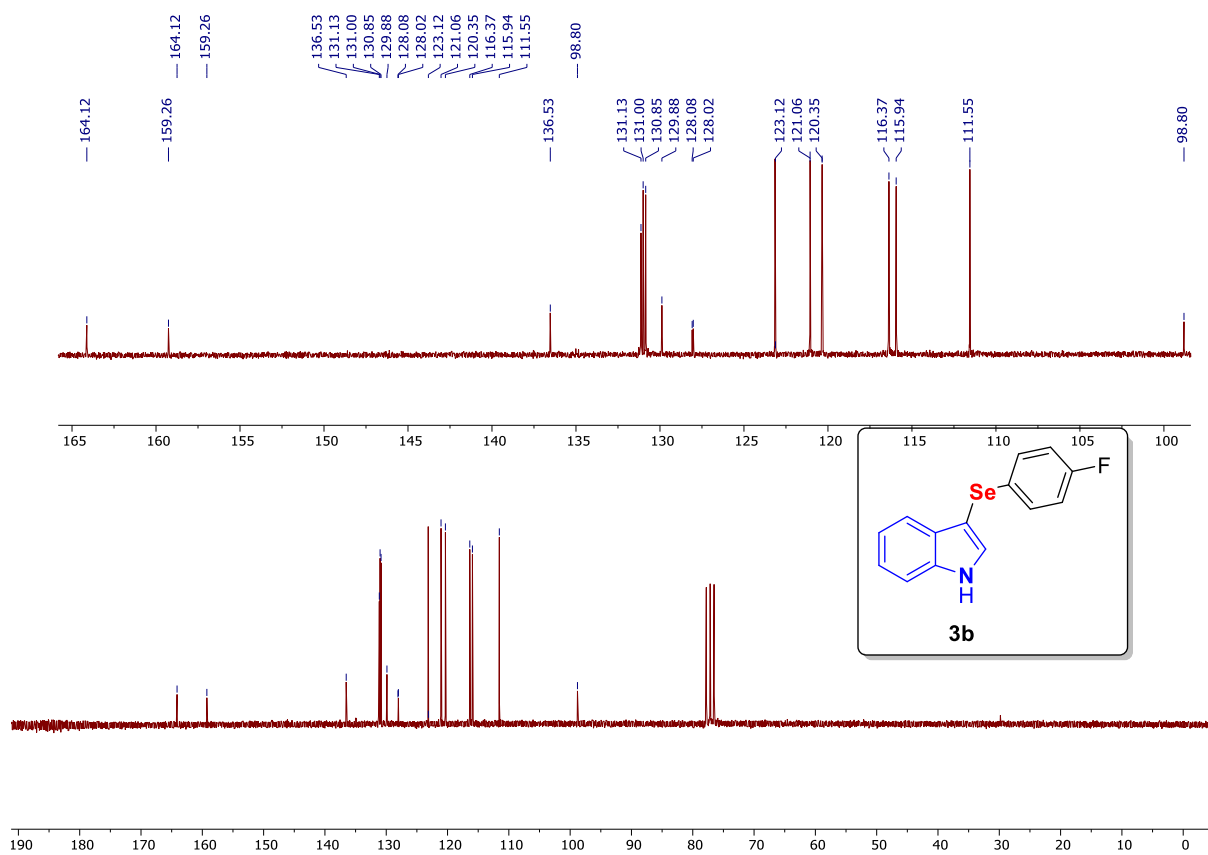


Figure ES15: ¹³C NMR (50 MHz, CDCl₃) spectrum of **3b**

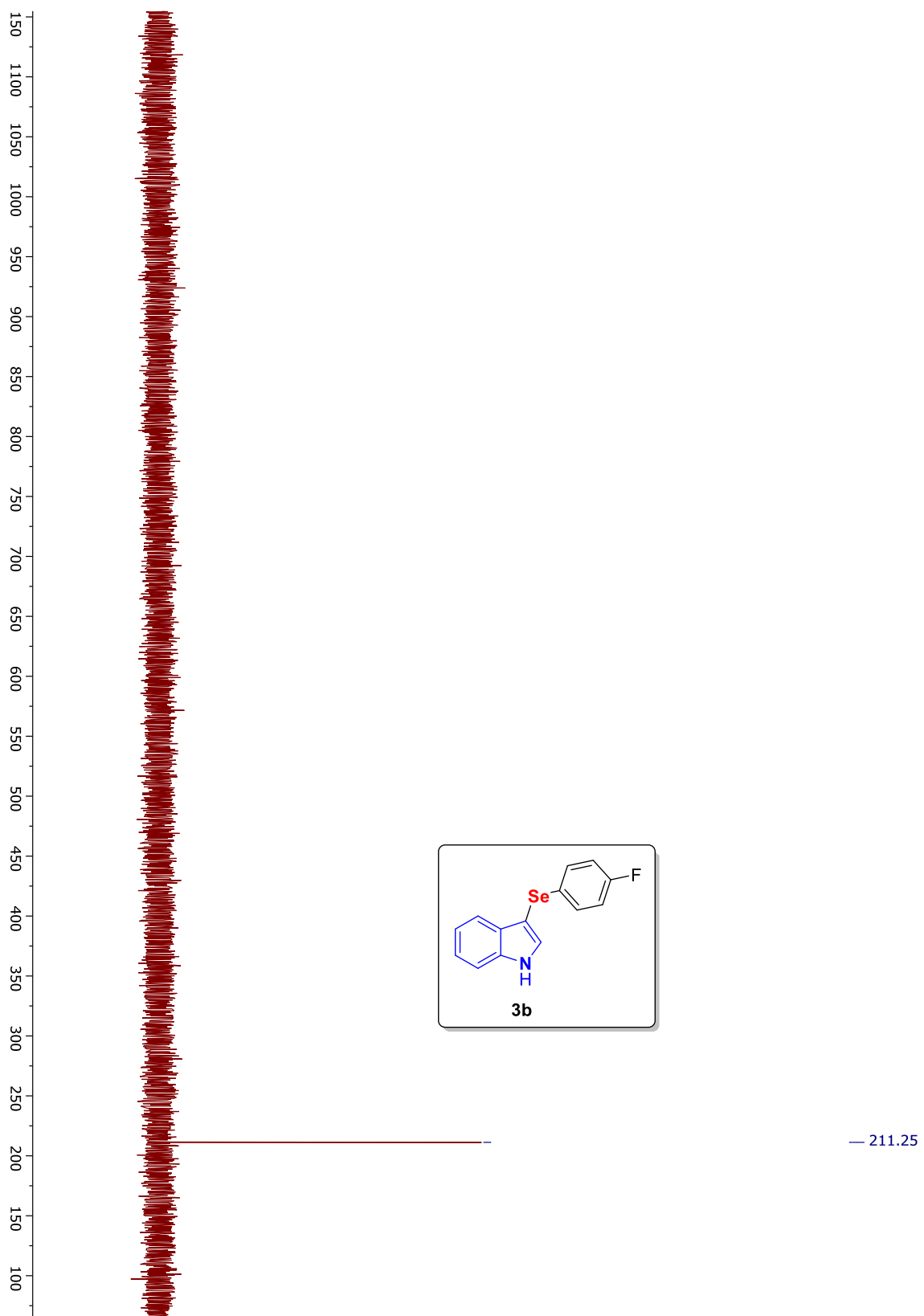


Figure ES16: ^{77}Se NMR (95 MHz, CDCl_3) spectrum of **3b**

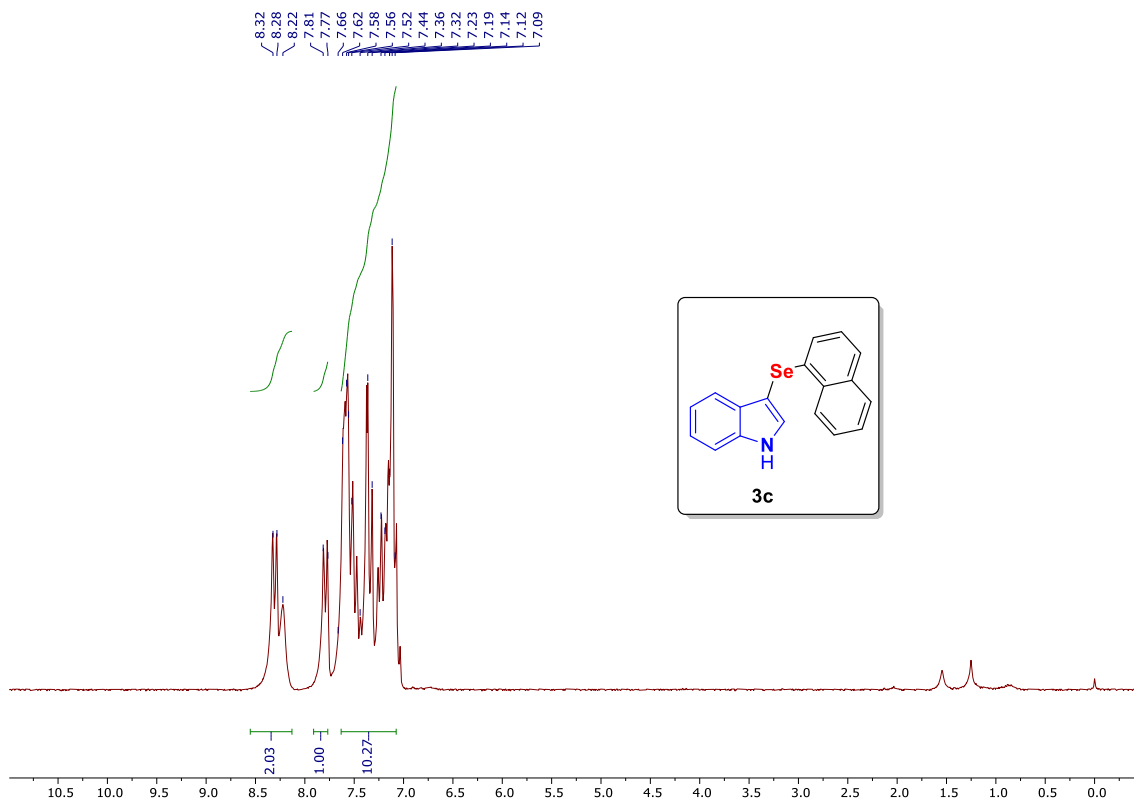


Figure ES17: ^1H NMR (200 MHz, CDCl_3) spectrum of **3c**

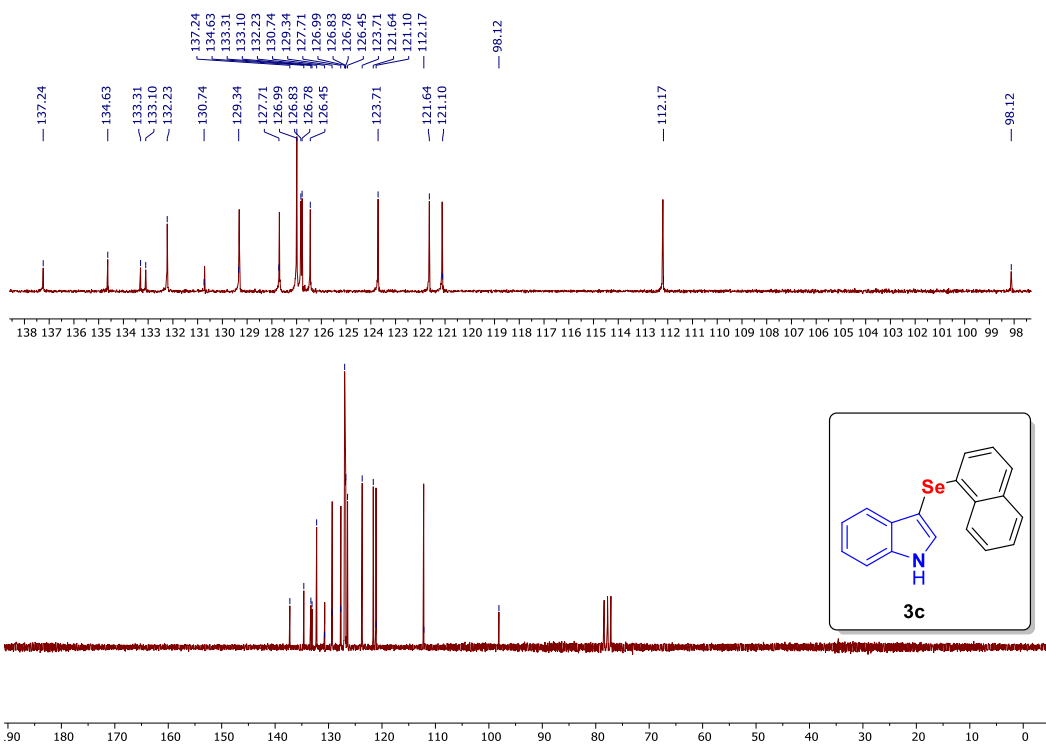


Figure ES18: ^{13}C NMR (50 MHz, CDCl_3) spectrum of **3c**

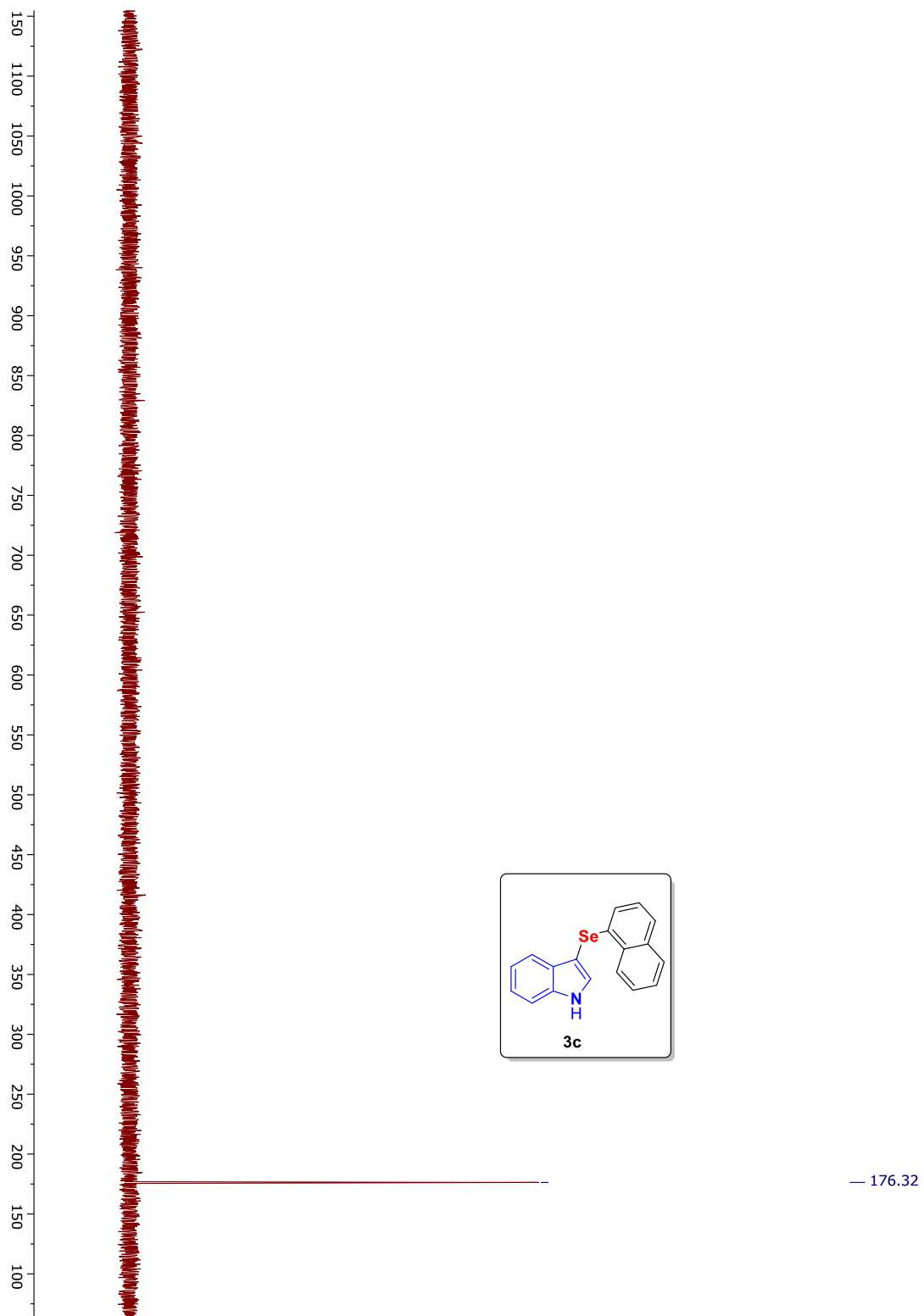


Figure ES19: ^{77}Se NMR (95 MHz, CDCl_3) spectrum of **3c**

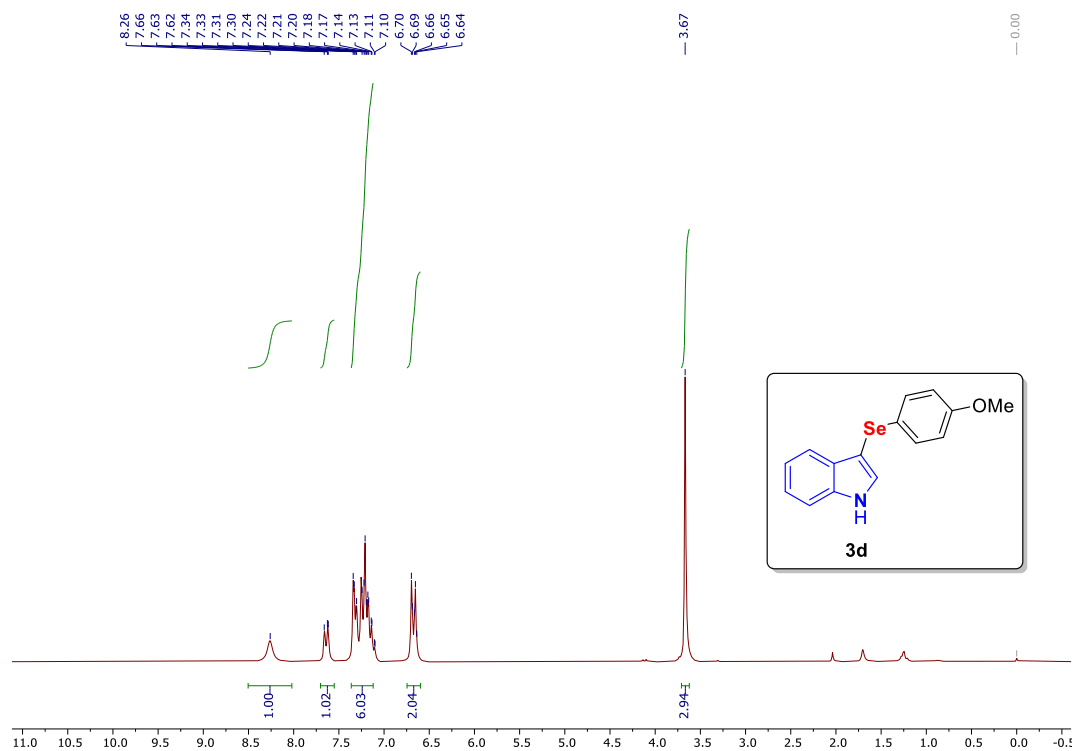


Figure ES110: ¹H NMR (200 MHz, CDCl₃) spectrum of **3d**

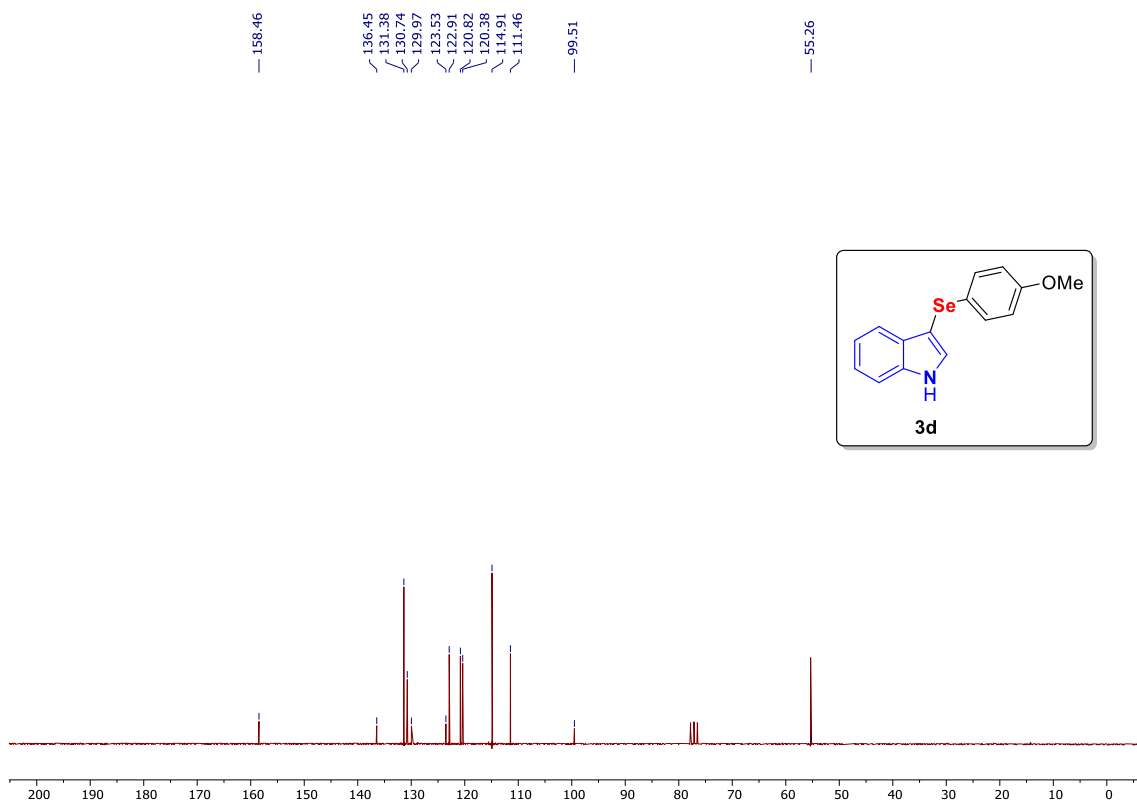


Figure ES111: ¹³C NMR (50 MHz, CDCl₃) spectrum of **3d**

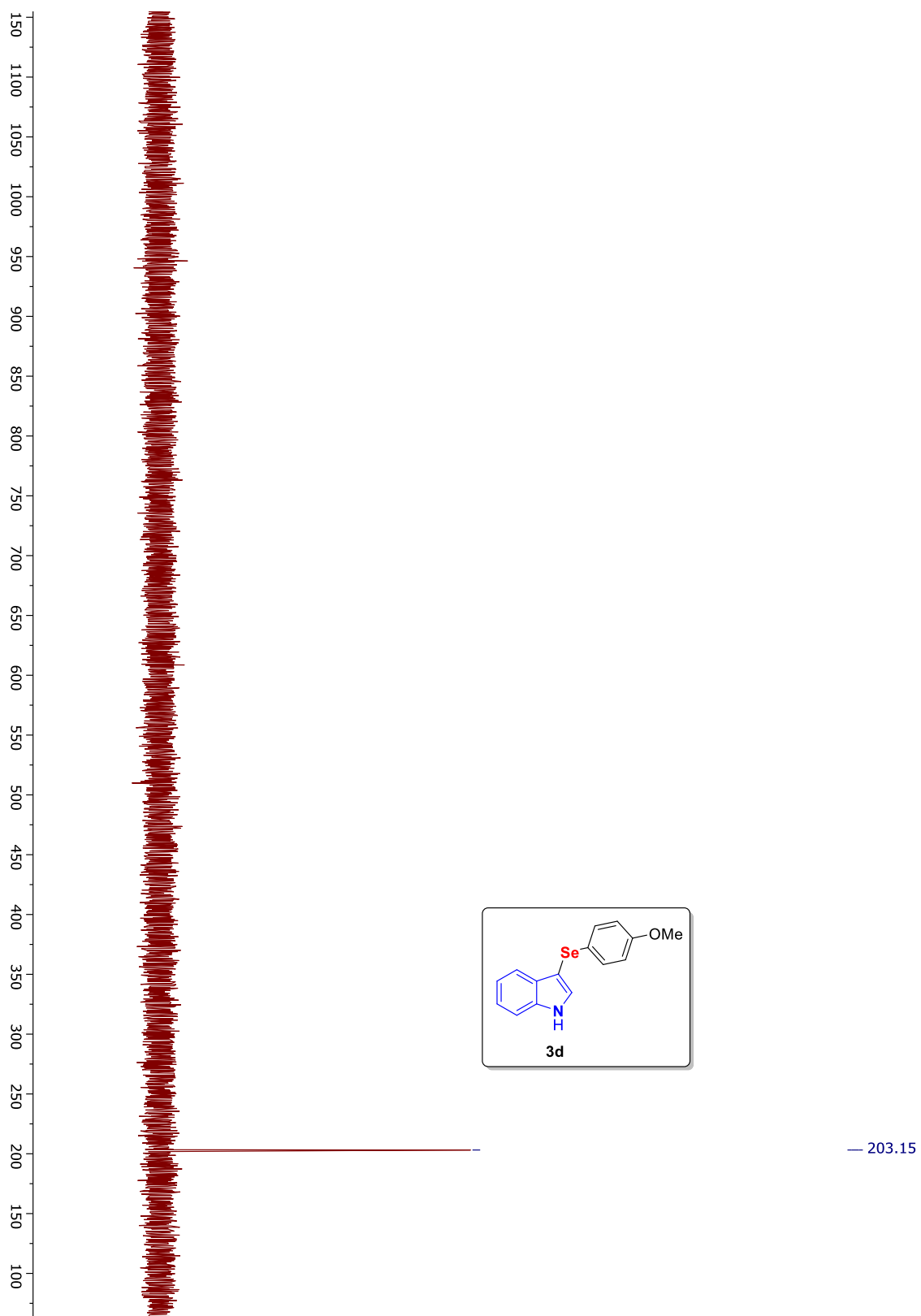


Figure ESI12: ^{77}Se NMR (95 MHz, CDCl_3) spectrum of **3d**