

Supplemental Material

Design, synthesis and structural study of novel acetamidobenzanilide derivatives

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Table 1SI: Yields and melting points of *N*-2-nitrobenzylanilines (**2**)

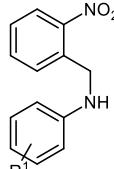
	Yield (%)	Melting point (°C)
2a ($R^1=p\text{-Br}$)	68	84-85 (pale yellow)
2b ($R^1=o\text{-Cl}$)	76	60-62 (pale yellow)
2c ($R^1=p\text{-Cl}$)	78	87-88 (pale yellow)
2d ($R^1=o\text{-F}$)	66	Yellow oil
2e ($R^1=p\text{-F}$)	93	53-55 (pale yellow)
2f ($R^1=p\text{-I}$)	82	91-93 (pale yellow)

Table 2SI: Yields and melting points of *N*-phenyl-*N*-(2-nitrobenzyl)acetamides (**3**)

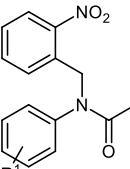
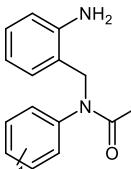
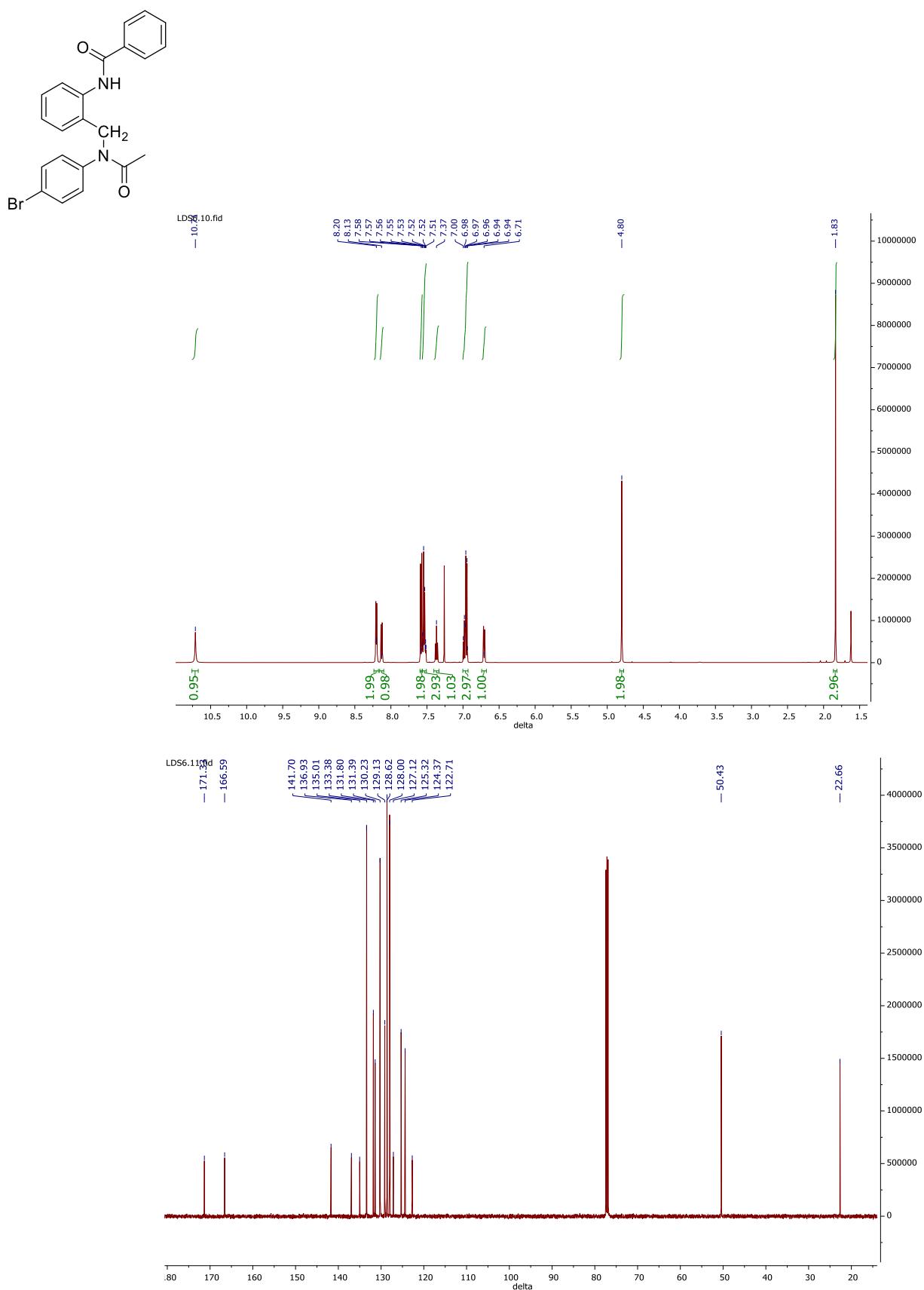
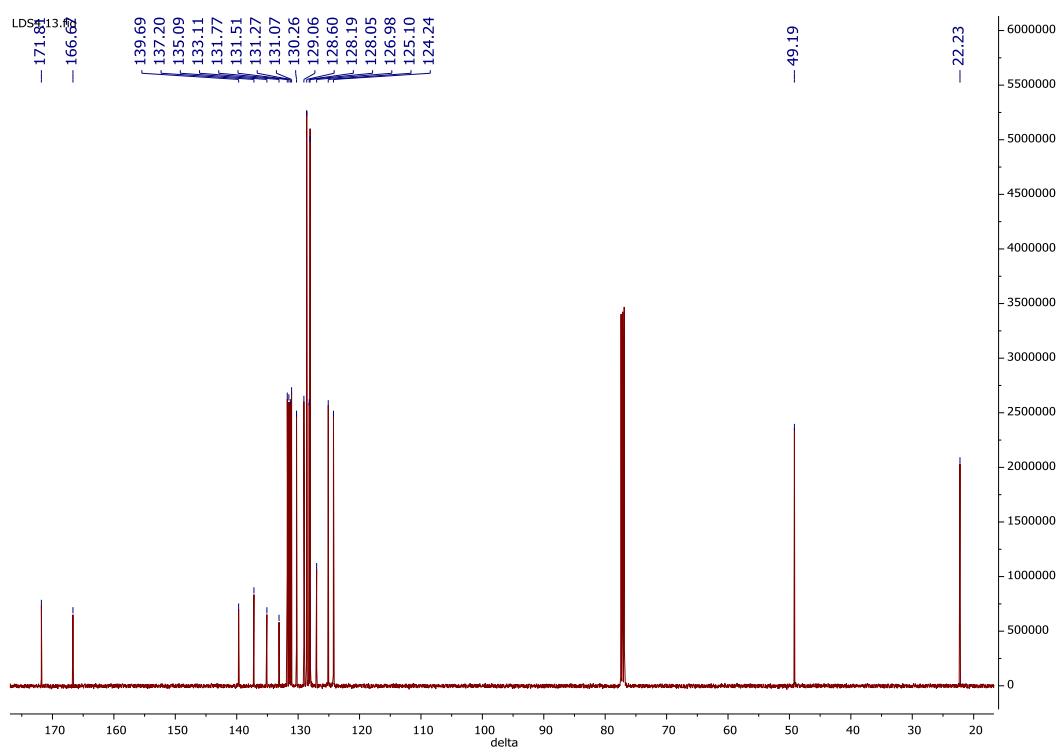
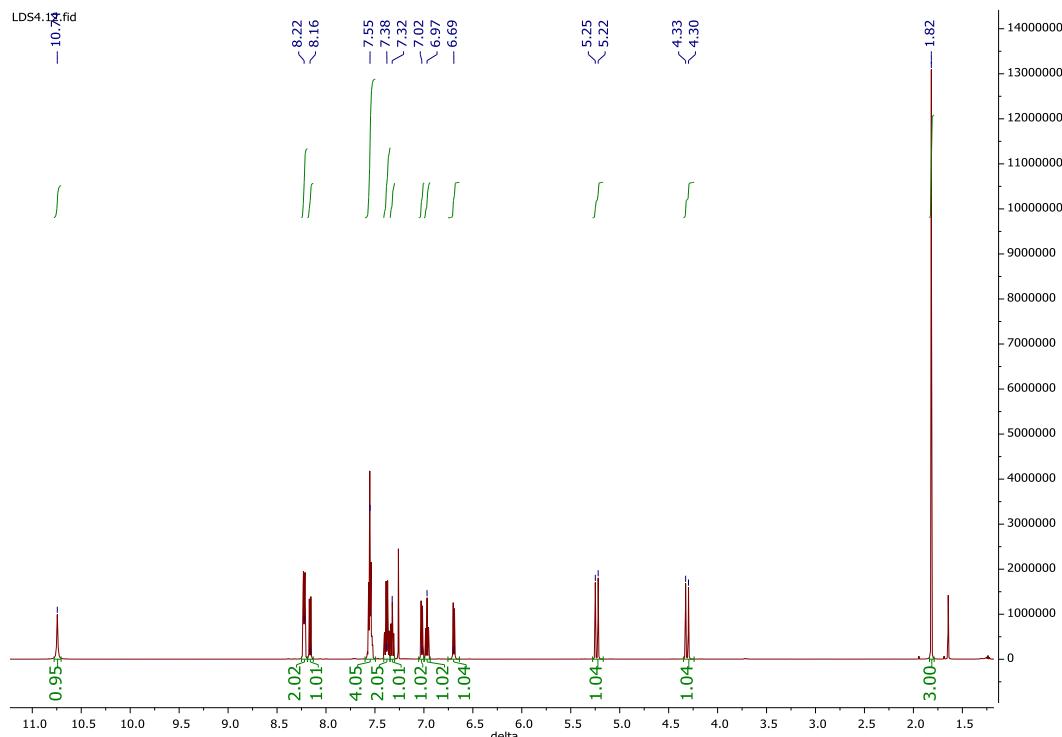
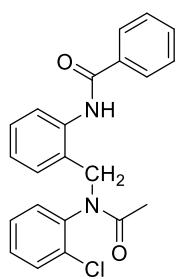
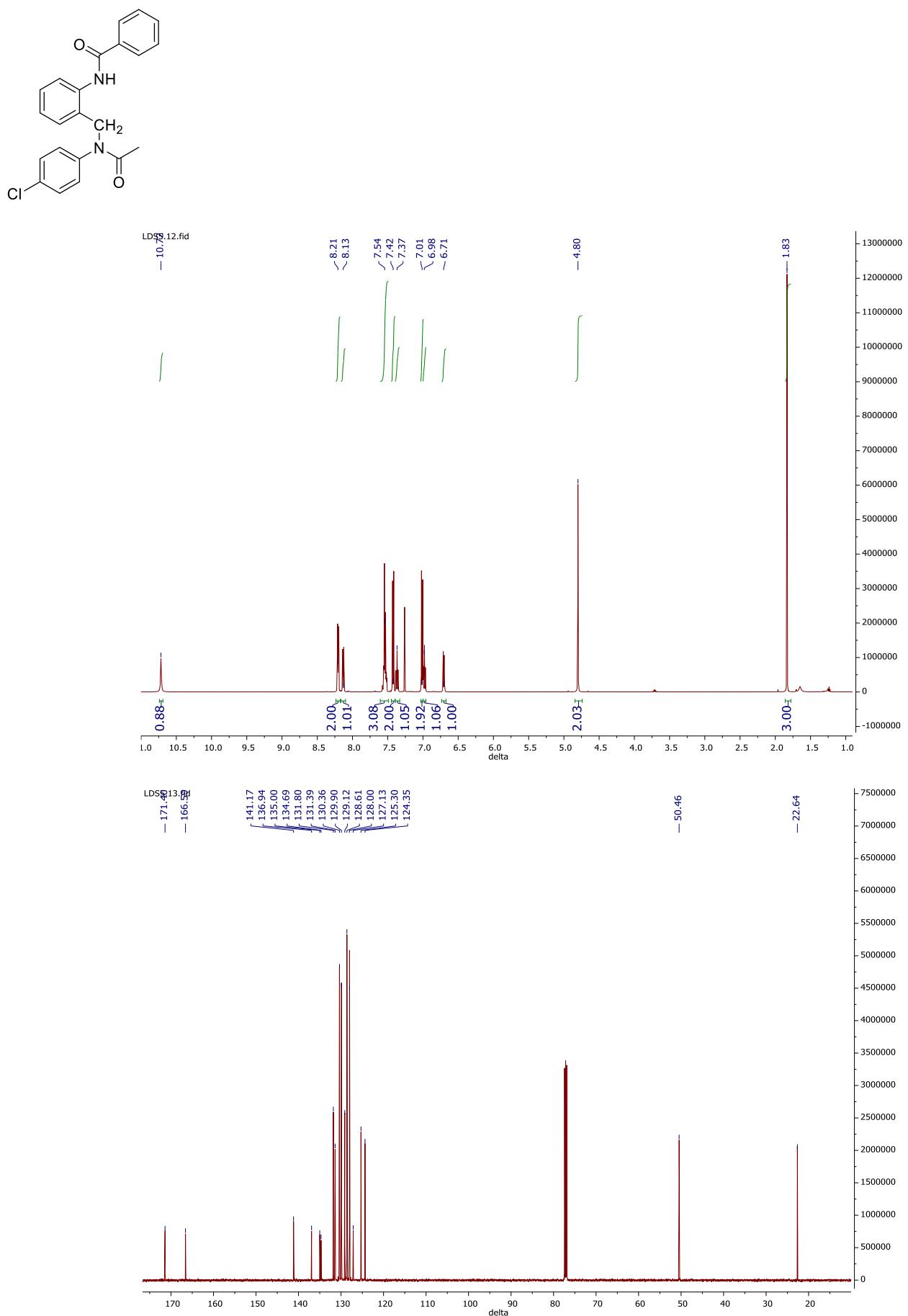
	Yield (%)	Melting point (°C)
3a ($R^1=p\text{-Br}$)	88	152-153 (pale yellow solid)
3b ($R^1=o\text{-Cl}$)	90	Yellow oil
3c ($R^1=p\text{-Cl}$)	80	110-111 (pale yellow solid)
3d ($R^1=o\text{-F}$)	82	Brownish oil
3e ($R^1=p\text{-F}$)	96	147-148 (pale yellow solid)
3f ($R^1=p\text{-I}$)	72	133-134 (pale yellow solid)

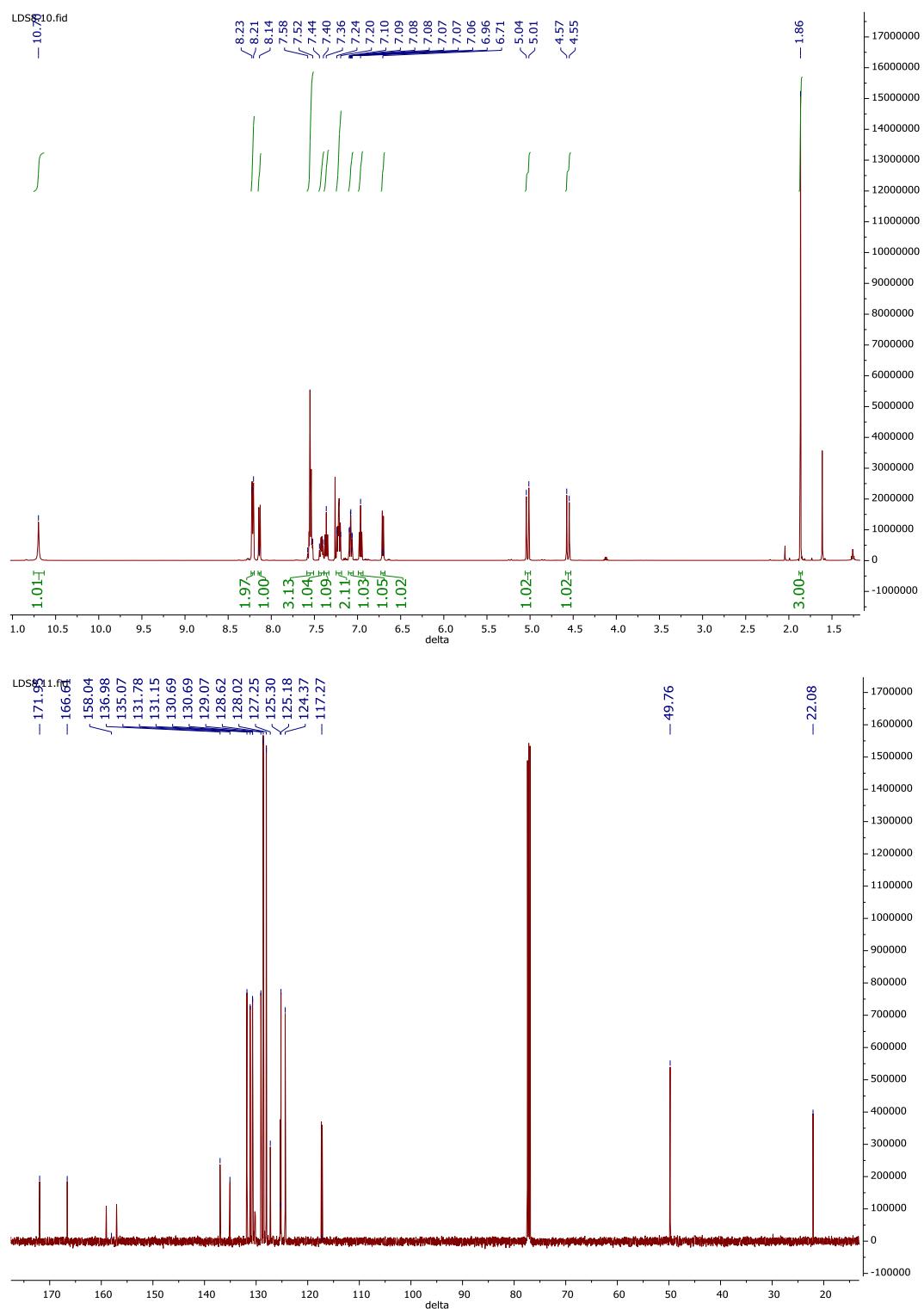
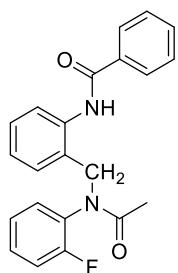
Table 3SI: Yields and melting points of *N*-phenyl-*N*-(2-aminobenzyl)acetamides (**4**)

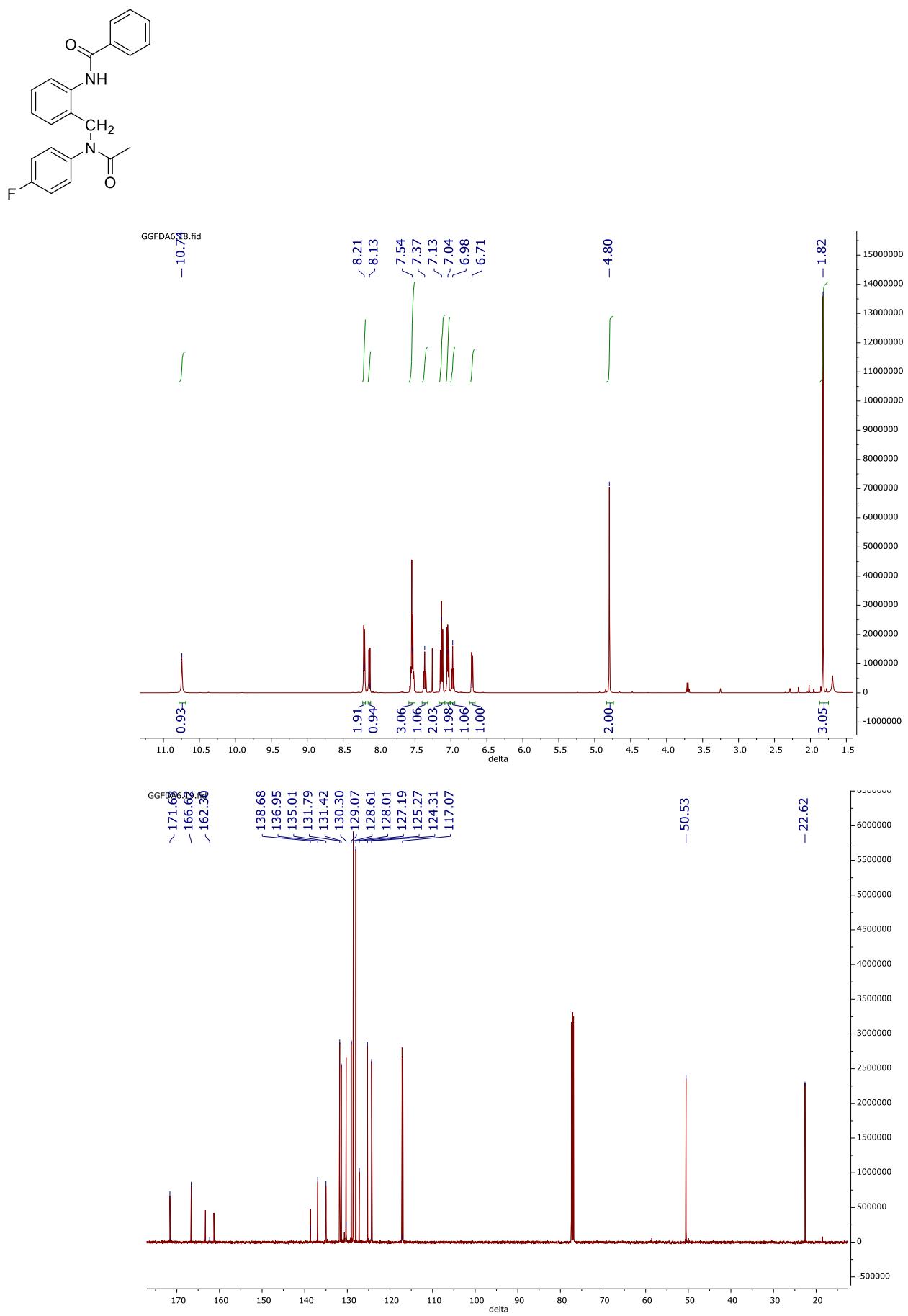
	Yield (%)	Melting point (°C)
4a ($R^1=p\text{-Br}$)	96	96-97 (colorless solid)
4b ($R^1=o\text{-Cl}$)	70	Pale yellow oil
4c ($R^1=p\text{-Cl}$)	92	139-140 (colorless solid)
4d ($R^1=o\text{-F}$)	90	Pale yellow oil
4e ($R^1=p\text{-F}$)	90	152-153 (pale yellow solid)
4f ($R^1=p\text{-I}$)	79	160-161 (pale yellow solid)

¹H NMR and ¹³C NMR spectraFigure S1: *N*-(2-[*N'*-(4-bromophenyl)acetamidomethyl])benzanilide **5a**.

Figure S2. *N*-(2-[*N'*-(2-chlorophenyl)acetamidomethyl]benzylidene)benzanilide **5b**.

Figure S3. *N*-(2-[*N'*-(4-chlorophenyl)acetamidomethyl]benzylidene)**5c**.

Figure S4. N -(2-[N' -(2-fluorophenyl)acetamidomethyl]benzylidene)benzanilide 5d.

Figure S5. *N*-(2-[*N'*-(4-fluorophenyl)acetamidomethyl]benzanilide **5e**.

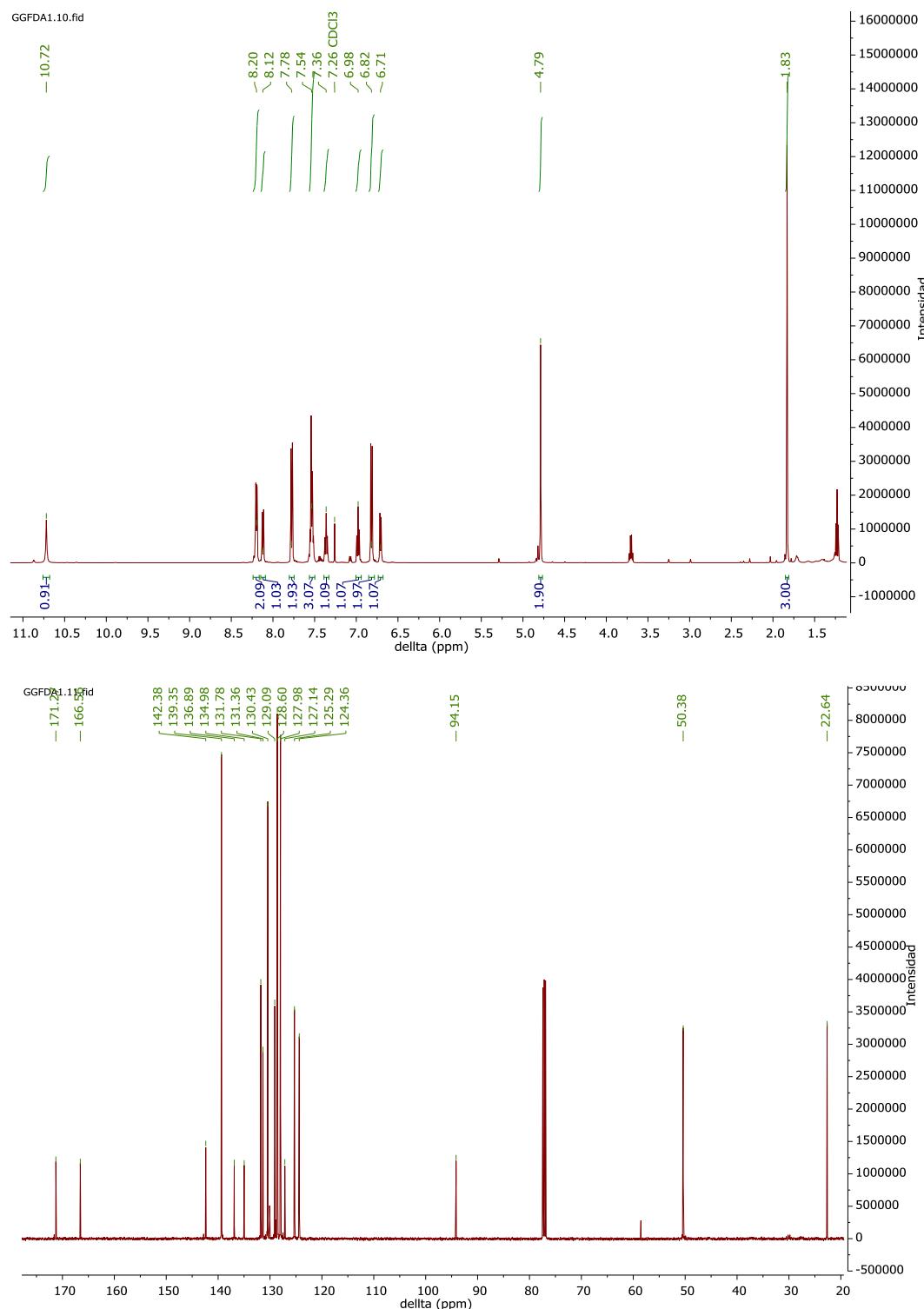
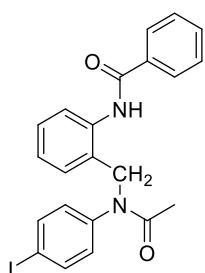
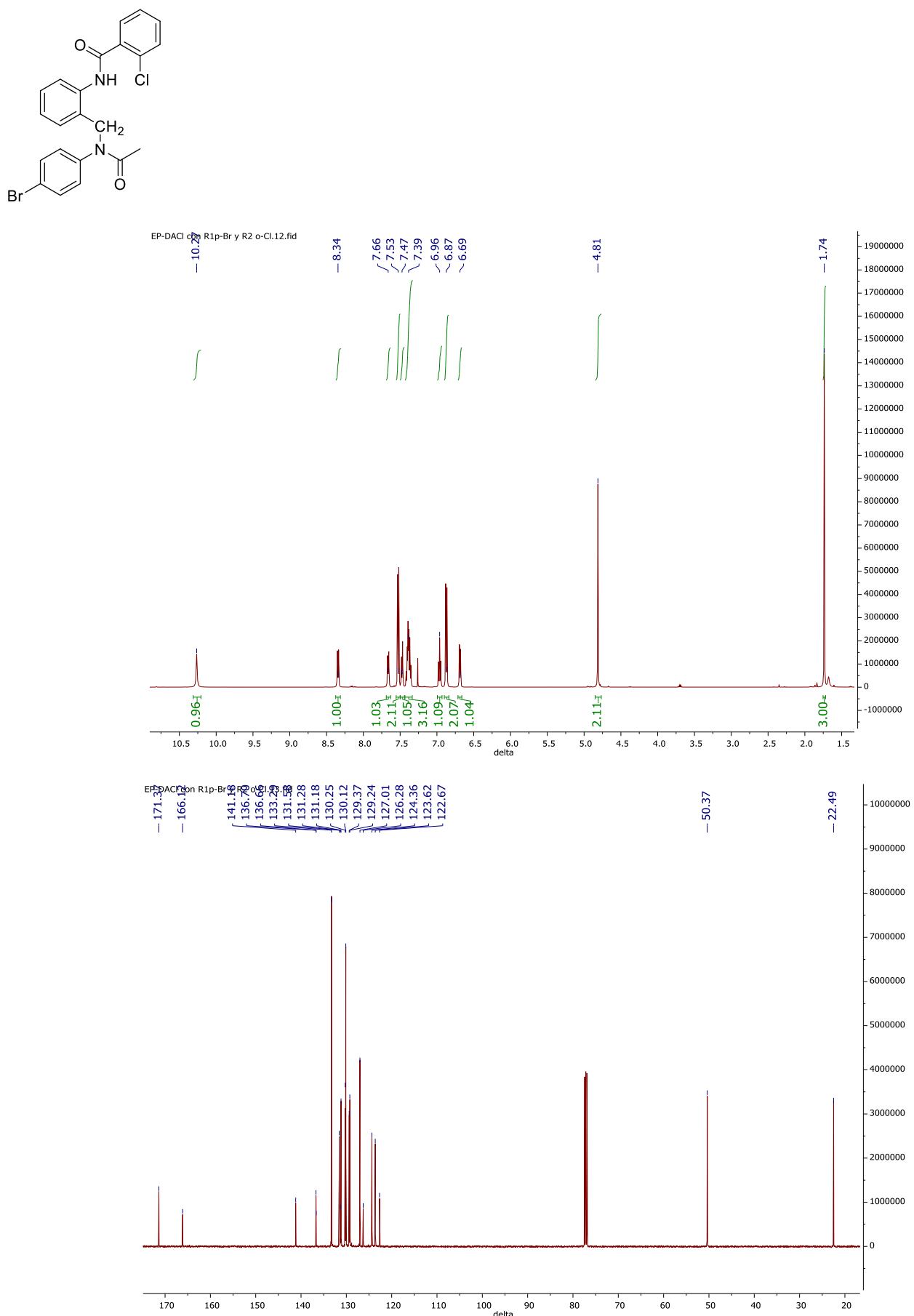


Figure S6. *N*-(2-[*N'*-(4-yodophenyl)acetamidomethyl]benzyl)benzanilide **5f**.

Figure S7. 2-Chloro-N-(2-[N'-(4-bromophenyl)acetamidomethyl]benzylidene)benzanilide **5g**.

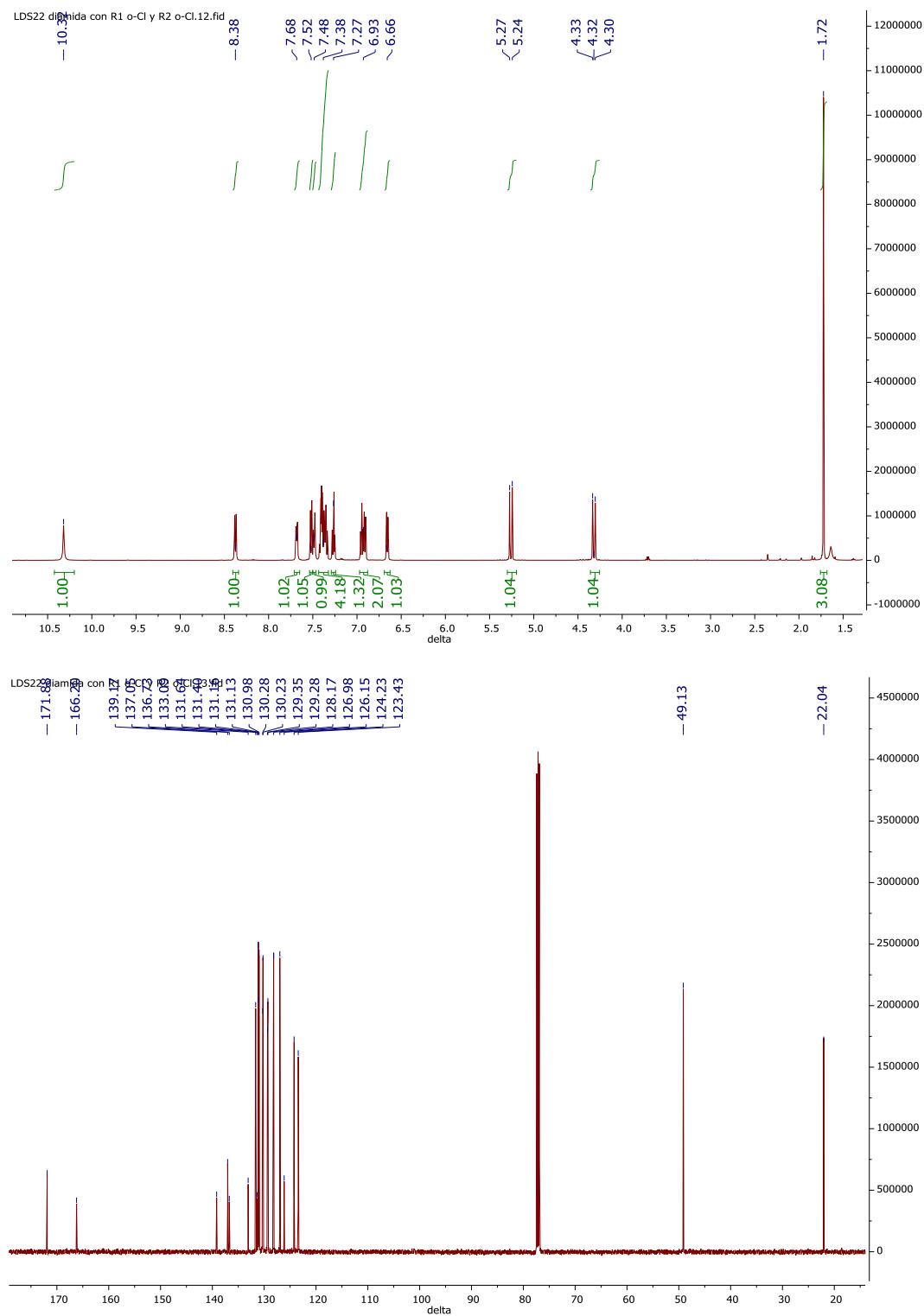
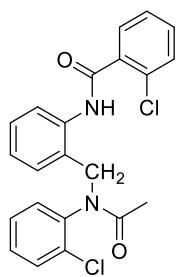
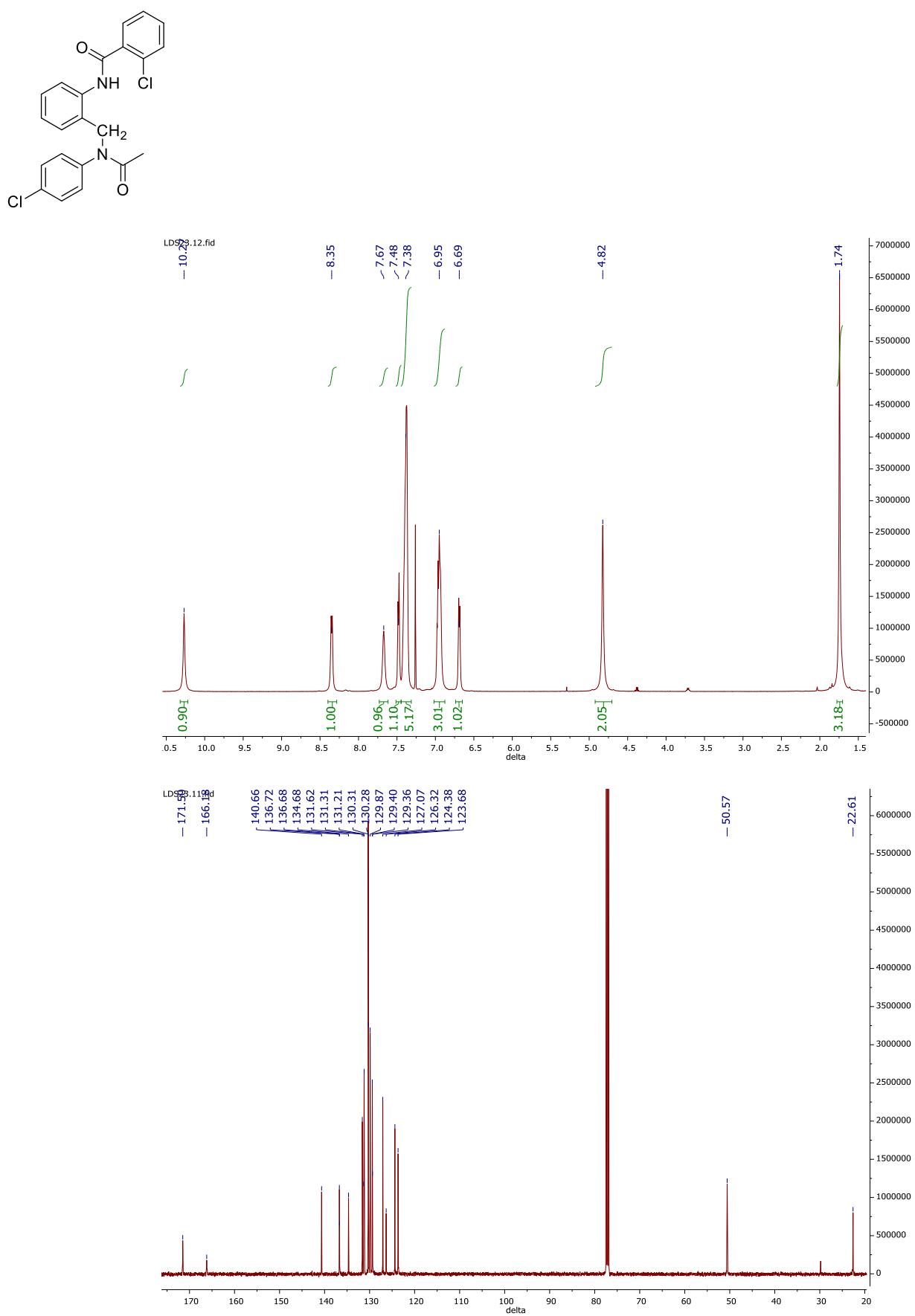


Figure S8. 2-Chloro-N-(2-[N'-(2-chlorophenyl)acetamidomethyl]benzanilide **5h**.

Figure S9. 2-Chloro-N-(2-[N'-(4-chlorophenyl)acetamidomethyl]benzylidene)benzanilide **5i**.

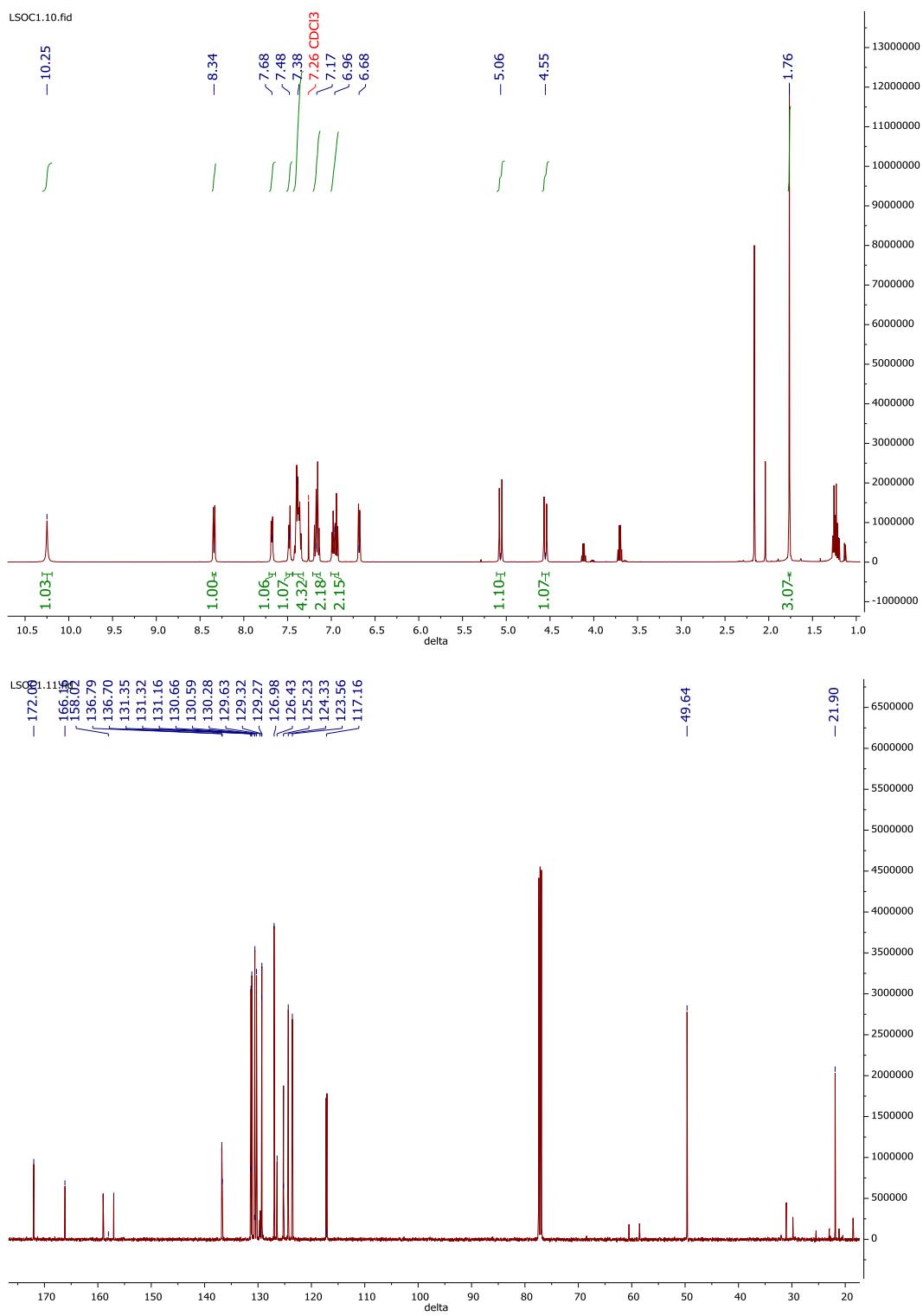
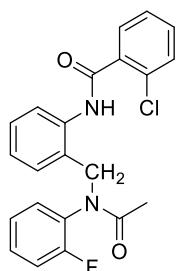
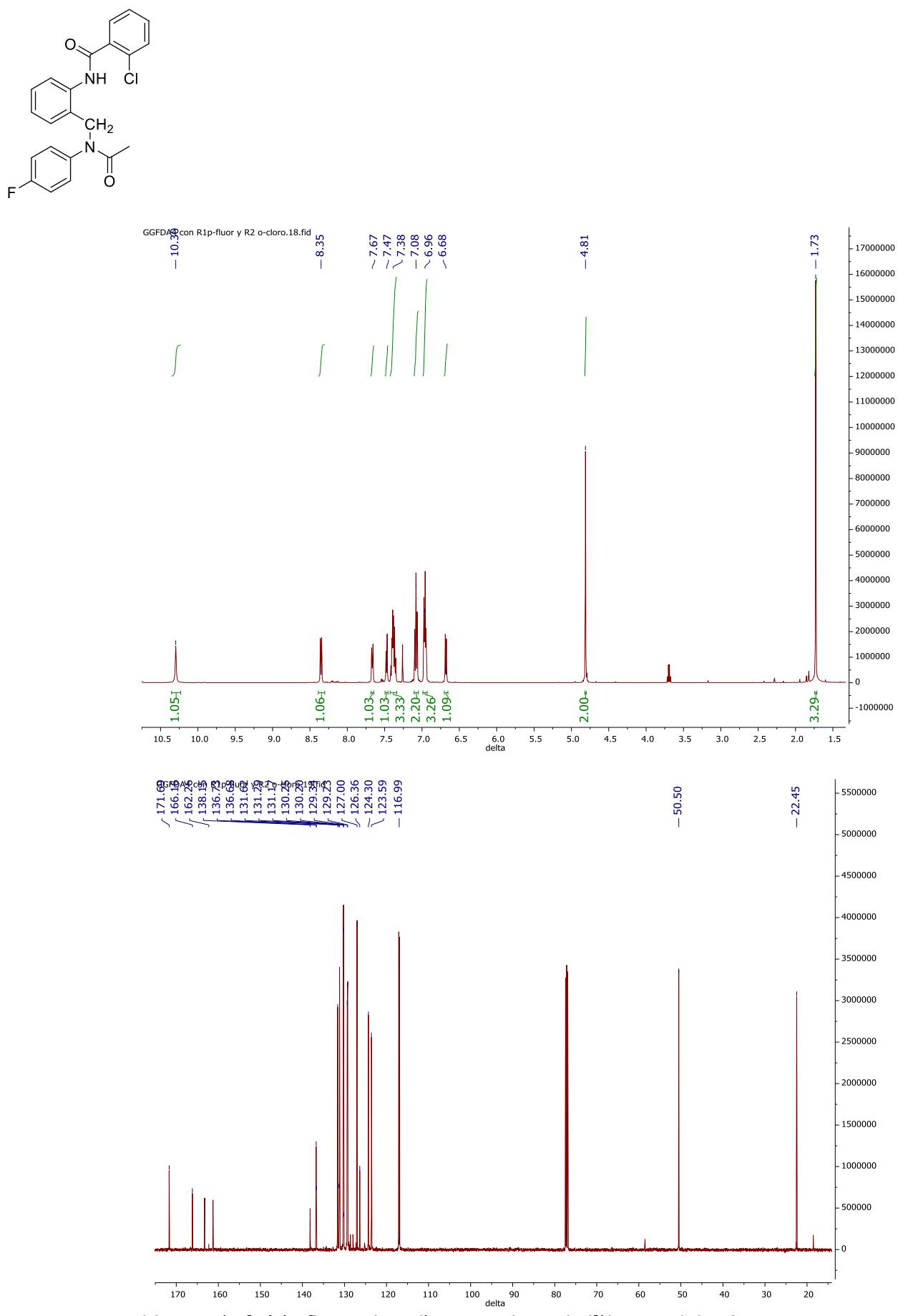


Figure S10. 2-Chloro-*N*-(2-[*N'*-(2-fluorophenyl)acetamidomethyl])benzanilide **5j**.

Figure S11. 2-Chloro-N-(2-[N'-(4-fluorophenyl)acetamidomethyl]benzylidene)benzanilide **5k**.

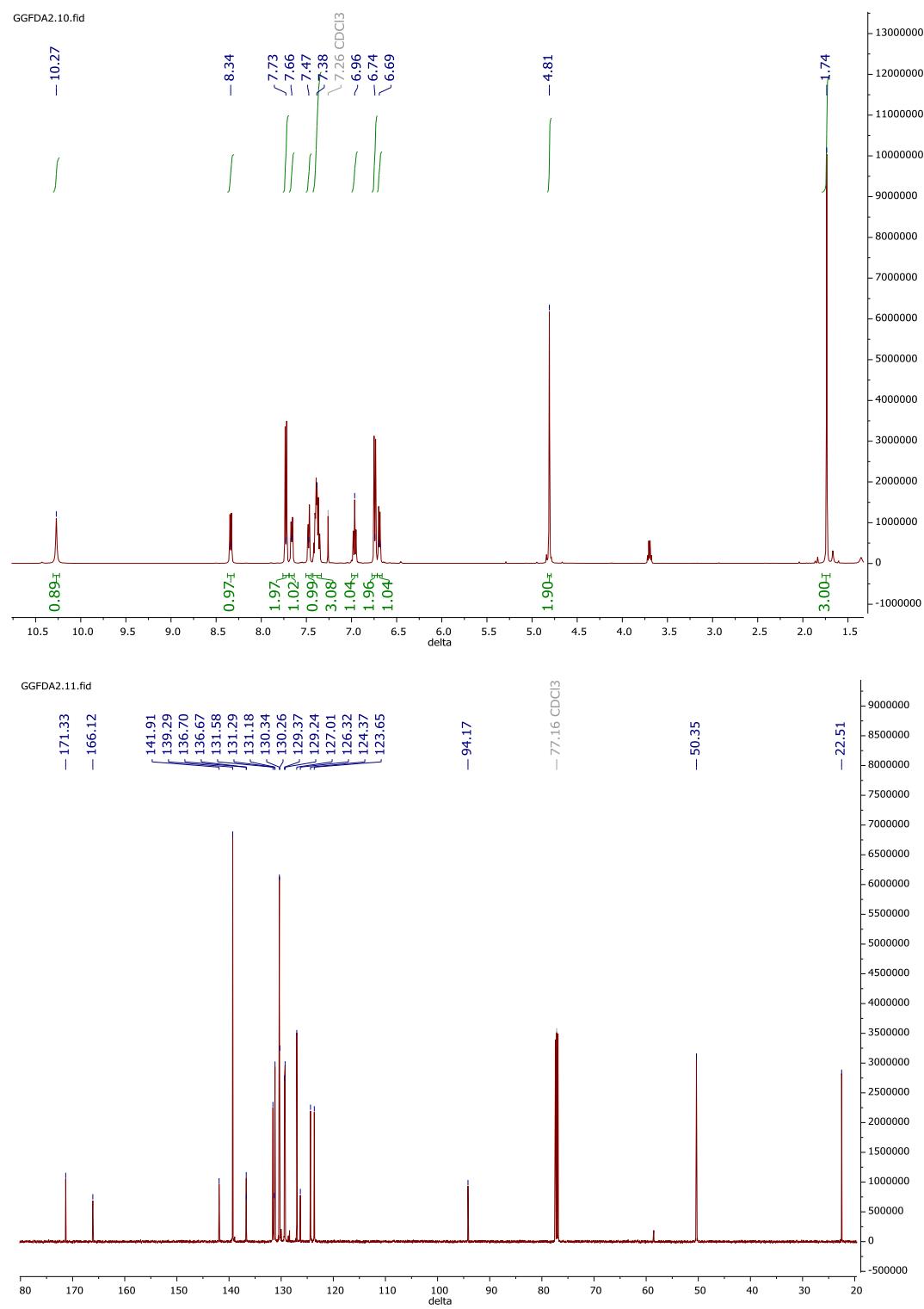
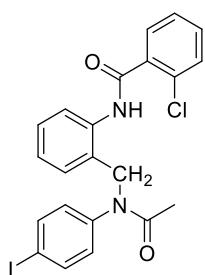
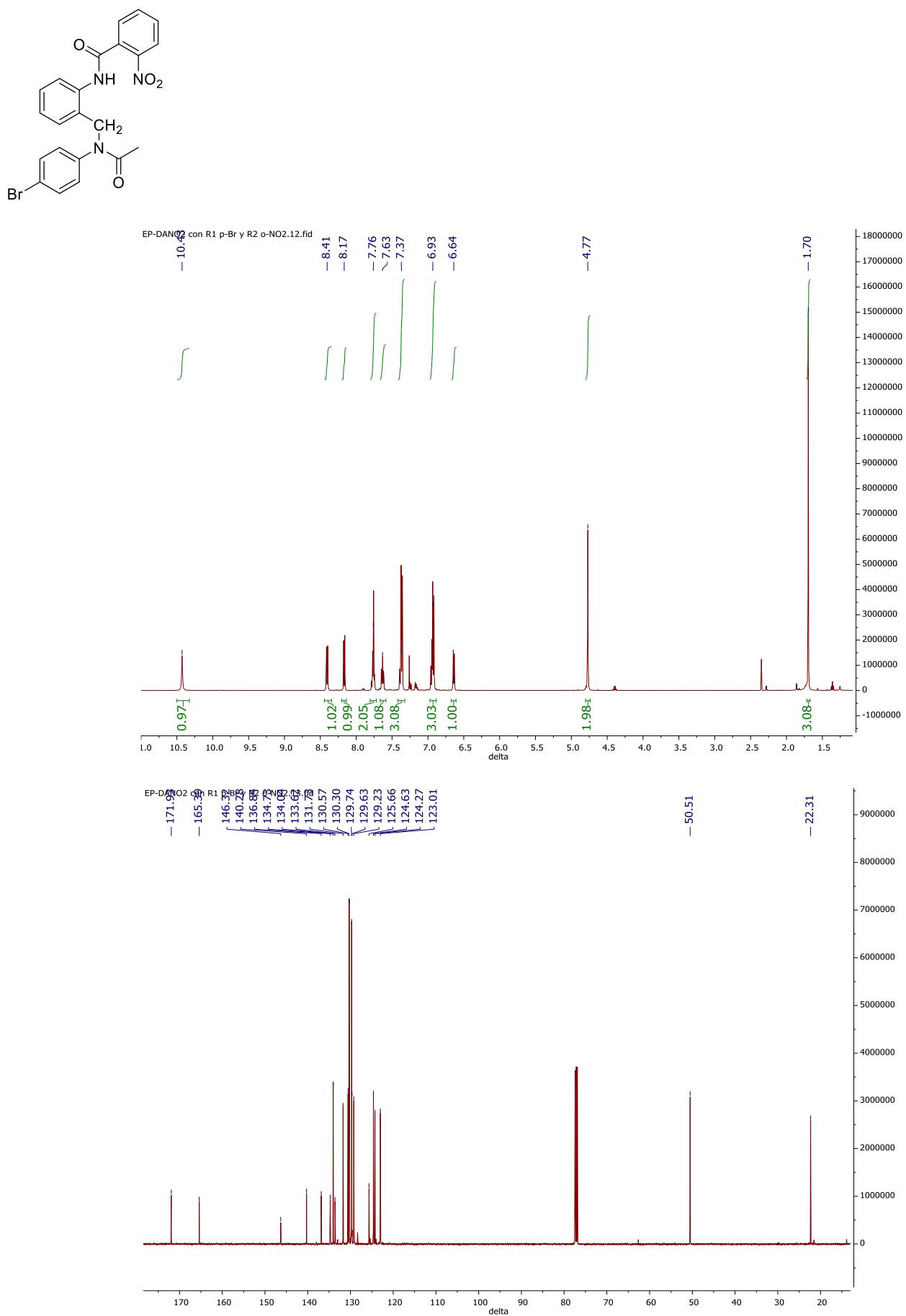
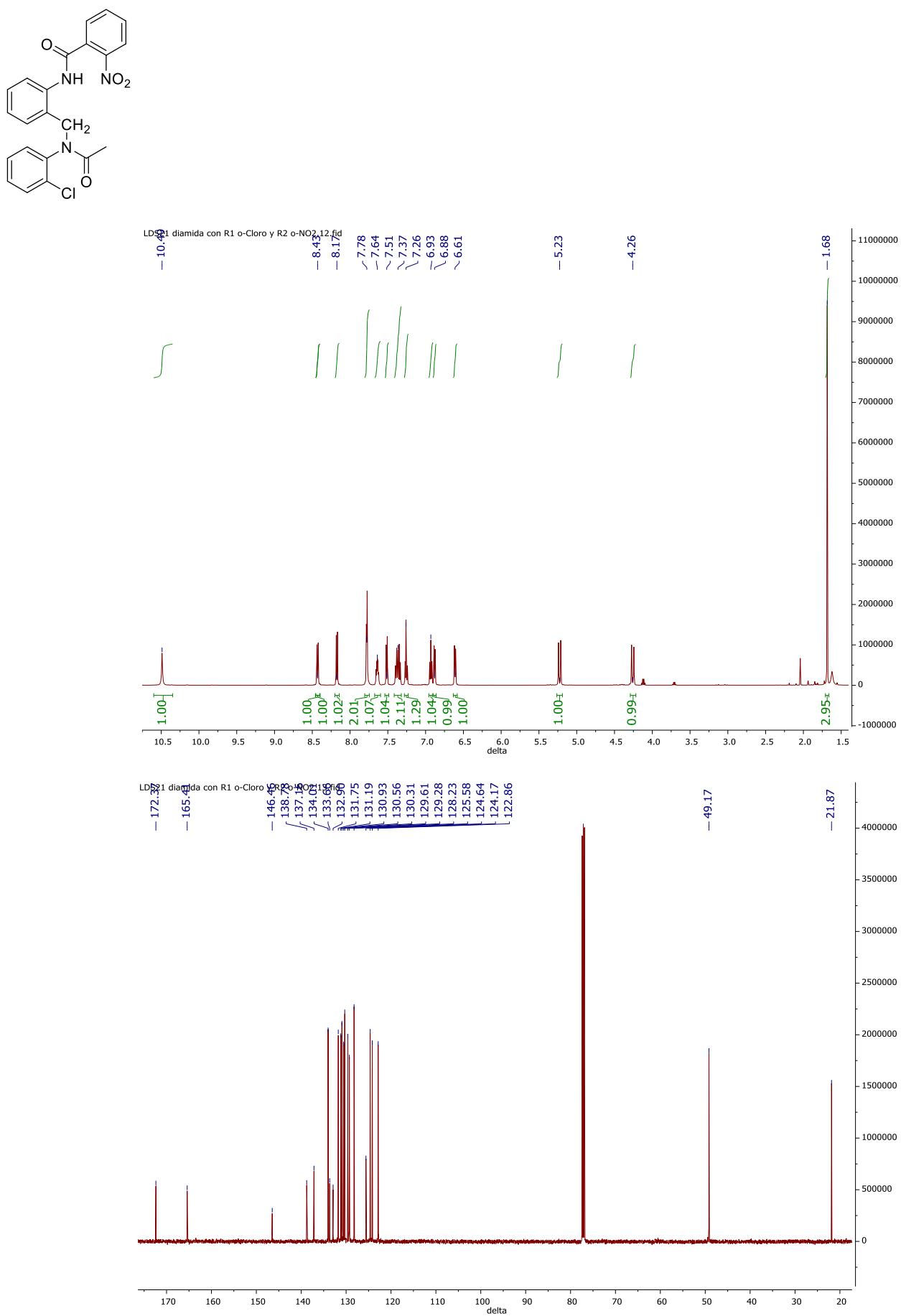
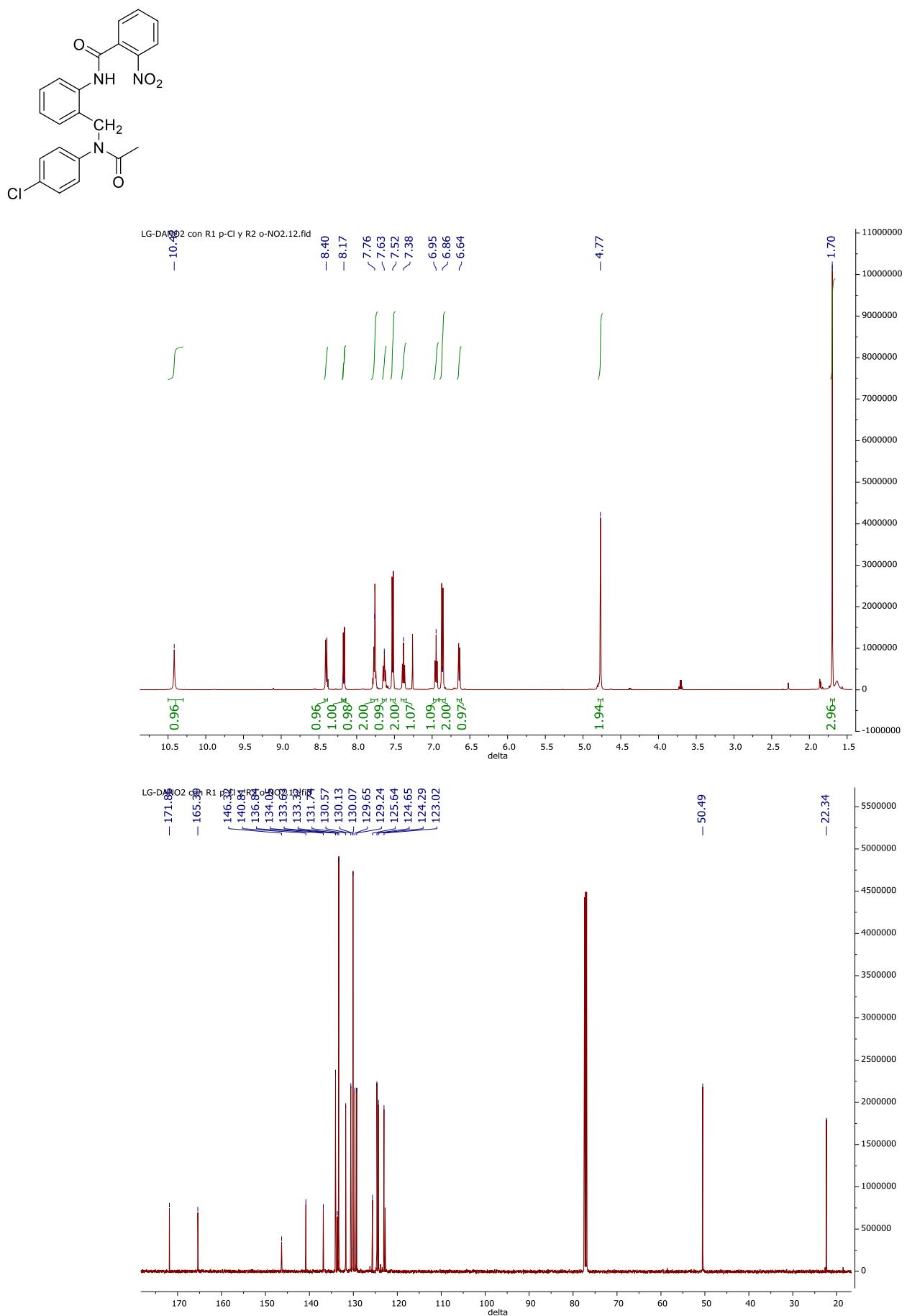


Figure S12. 2-Chloro-N-(2-[N'-(4-yodophenyl)acetamidomethyl]benzanilide 5I.

Figure S13. 2-Nitro-N-(2-[N'-(4-bromophenyl)acetamidomethyl]benzylidene)benzanilide **5m**.

Figure S14. 2-Nitro-N-(2-[N'-(2-chlorophenyl)acetamidomethyl])benzanilide **5n**.

Figure S15. 2-Nitro-N-(2-[N'-(4-chlorophenyl)acetamidomethyl]benzanilide **5o**.

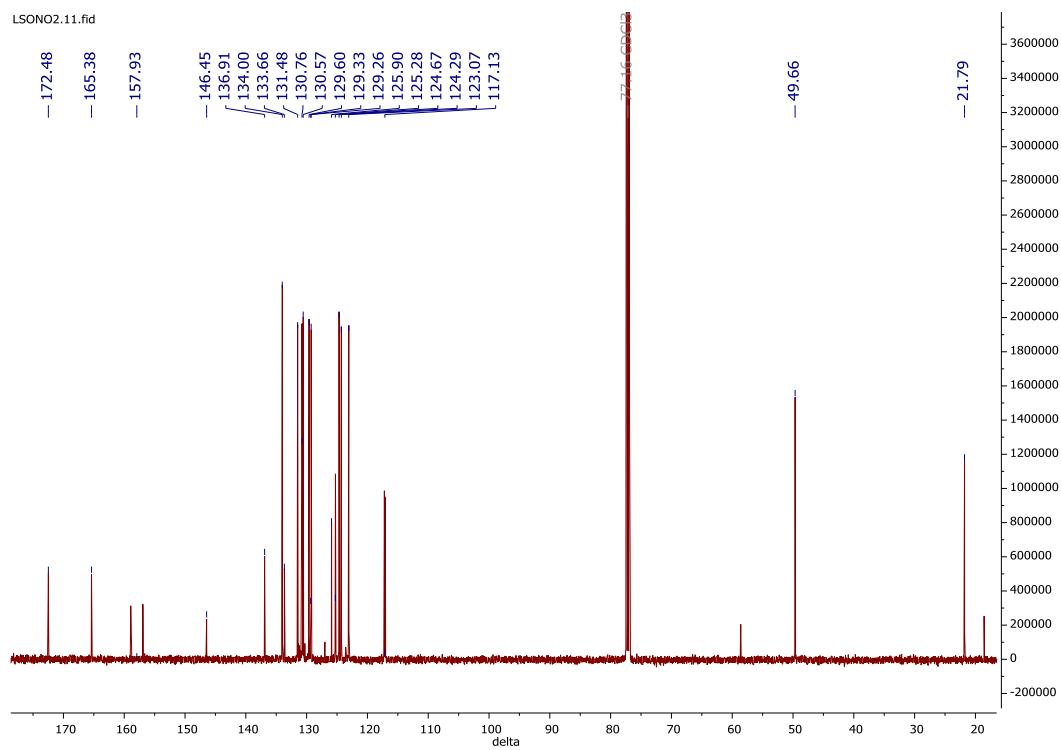
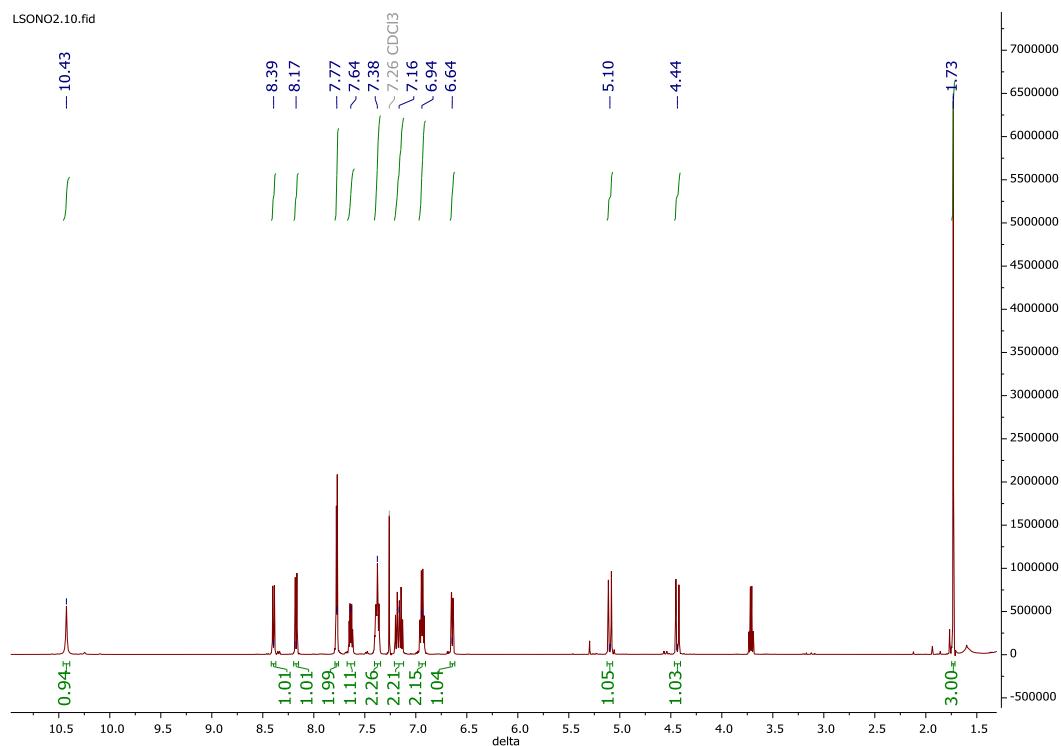
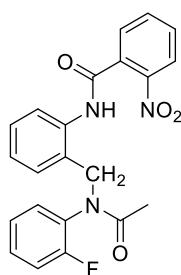
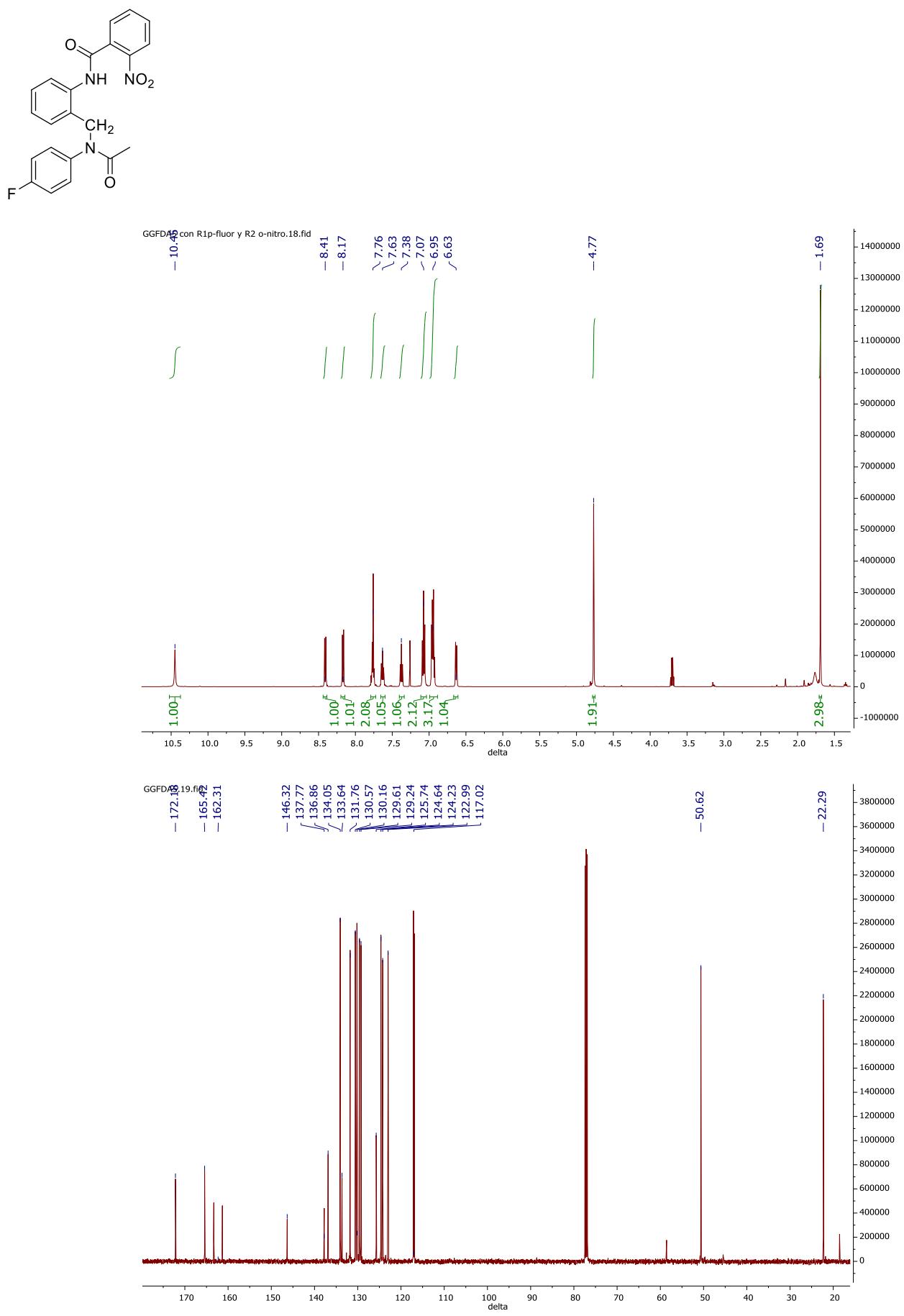


Figure S16. 2-Nitro-N-(2-[N' -(2-fluorophenyl)acetamidomethyl]benzyl)benzanilide **5p**.

Figure S17. 2-Nitro-N-(N' -(4-fluorophenyl)acetamidomethyl)benzanilide **5q**.

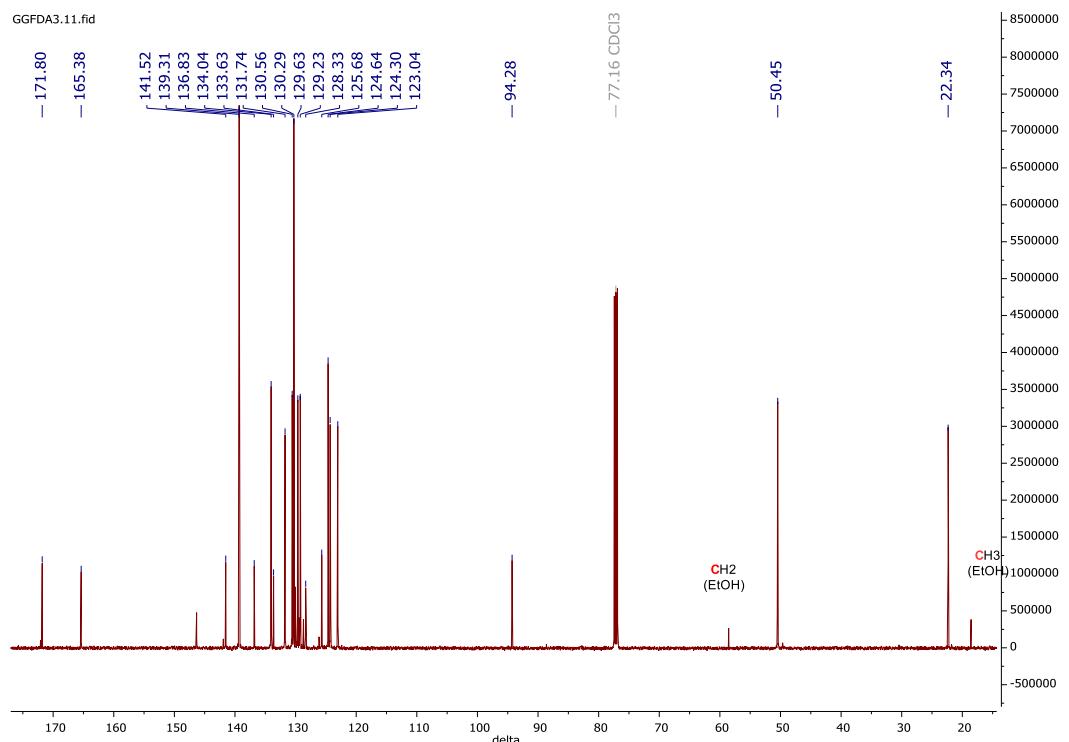
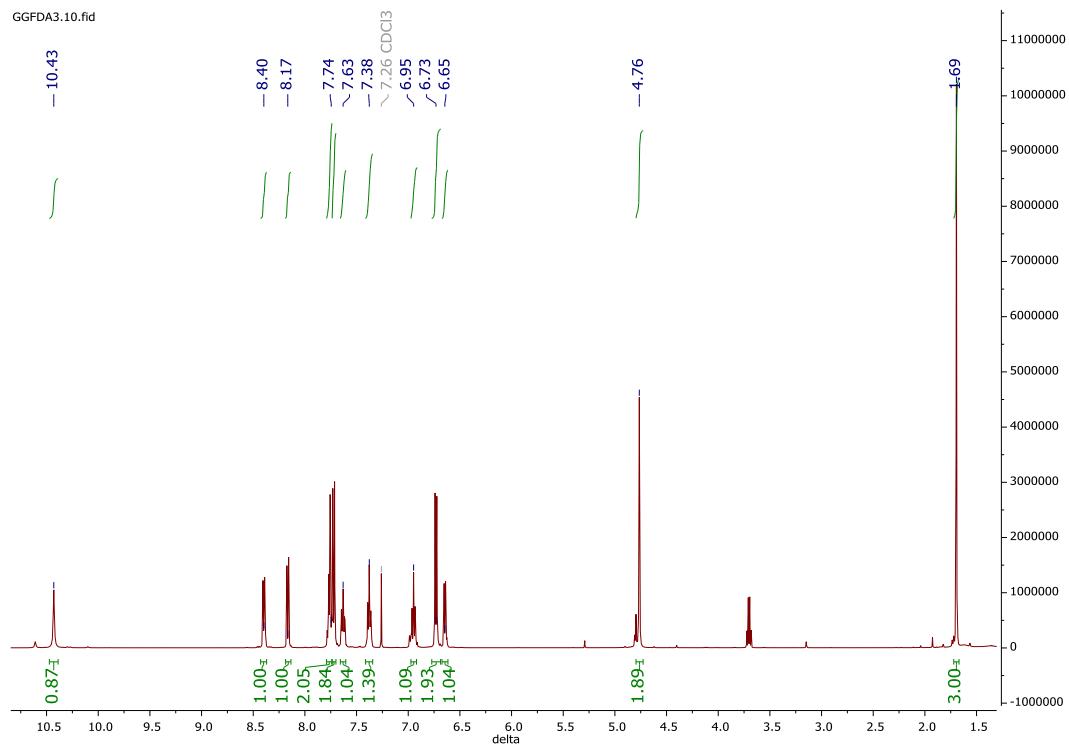
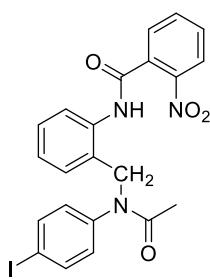


Figure S18. 2-Nitro-*N*-(2-[*N'*-(4-yodophenyl)acetamidomethyl])benzanilide **5r**.