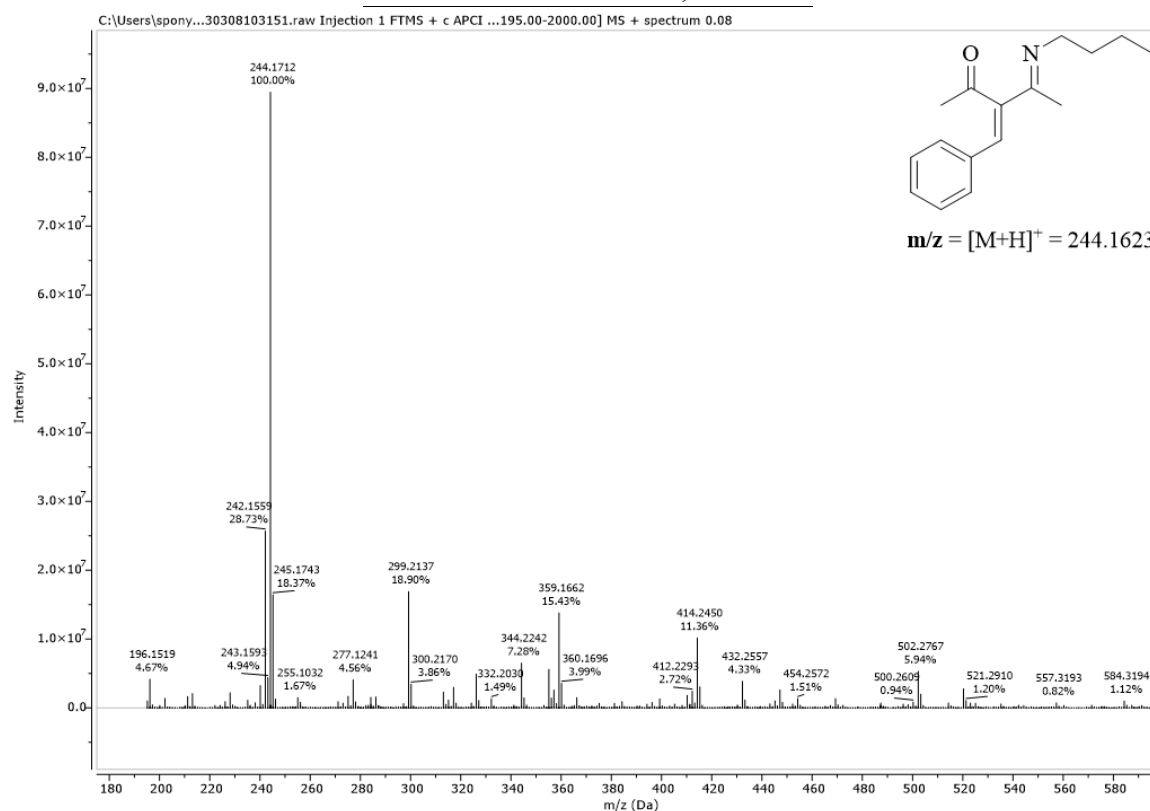


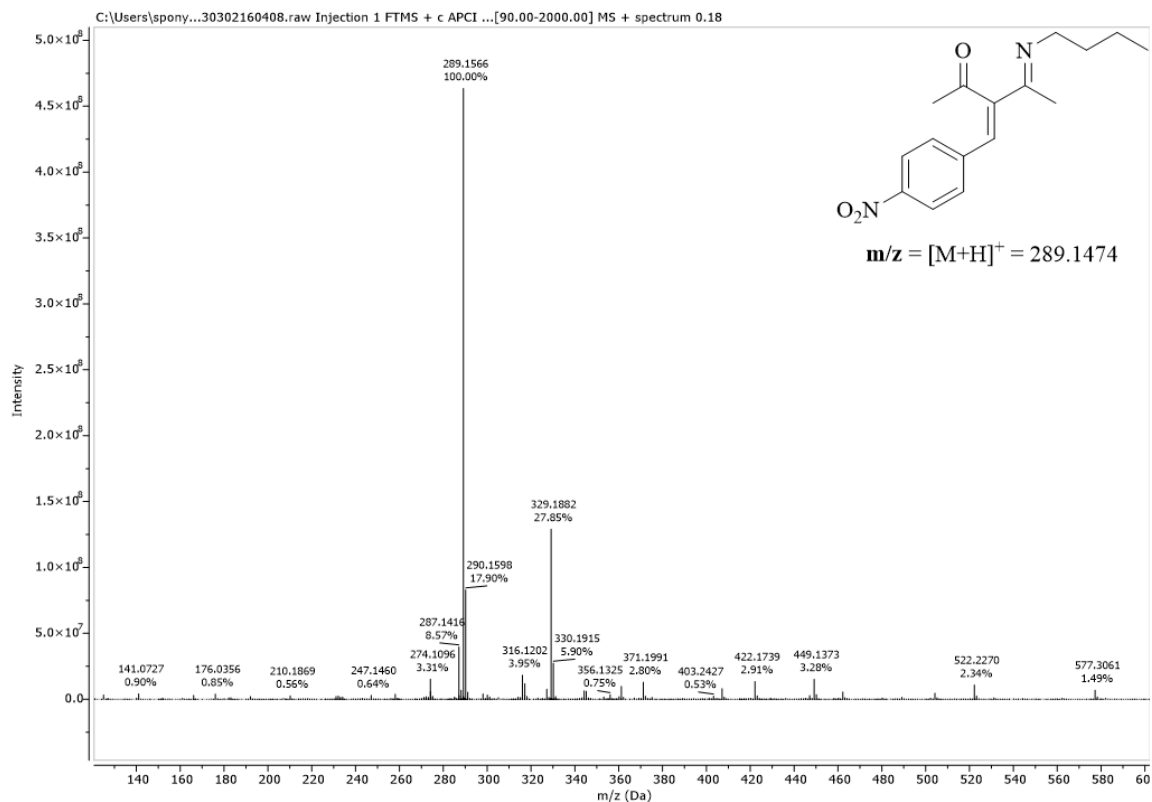
5. Melléklet

F1. táblázat: a kurkumin oldékonysága különböző oldószerekben

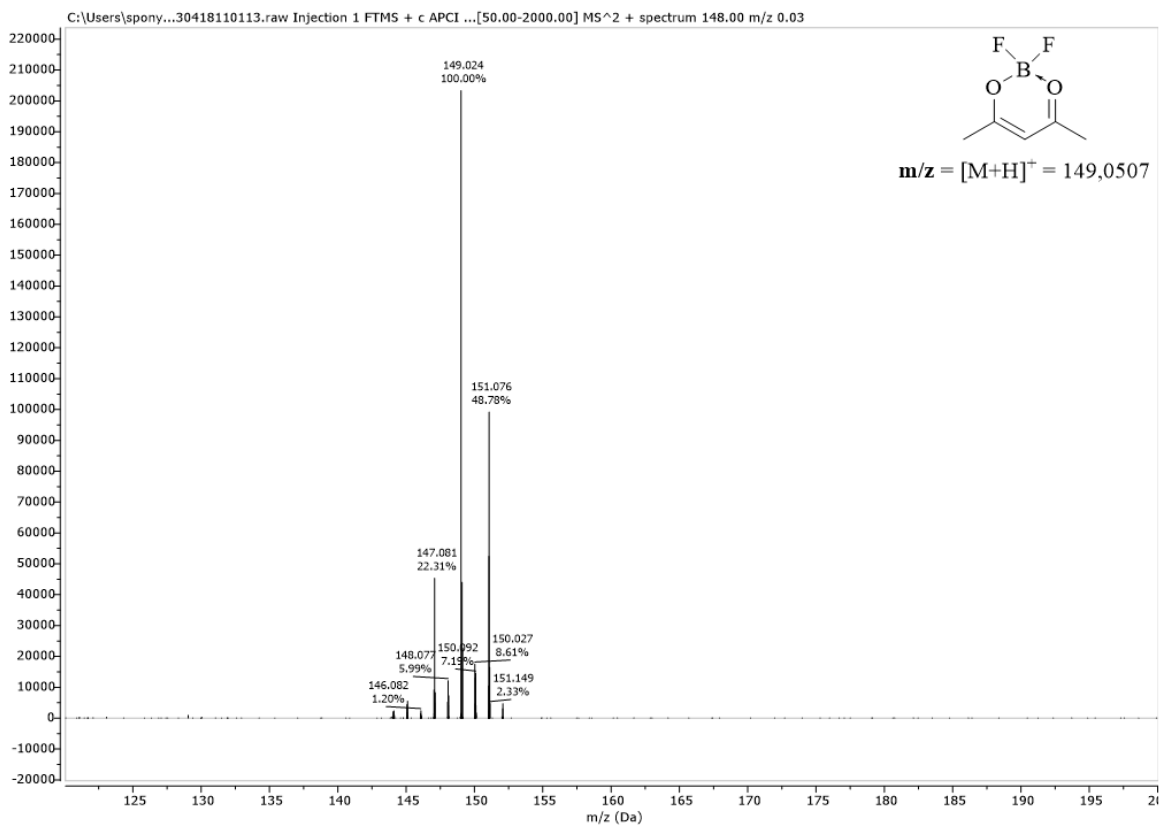
Oldószer	Oldékonyság
	mg/mL
víz	$3,12 \cdot 10^{-3}$
metanol	4,44
butanon	2,17
etanol	5,60
izopropanol	3,93
aceton	7,75
diklóretán	0,52
DMSO	20,00



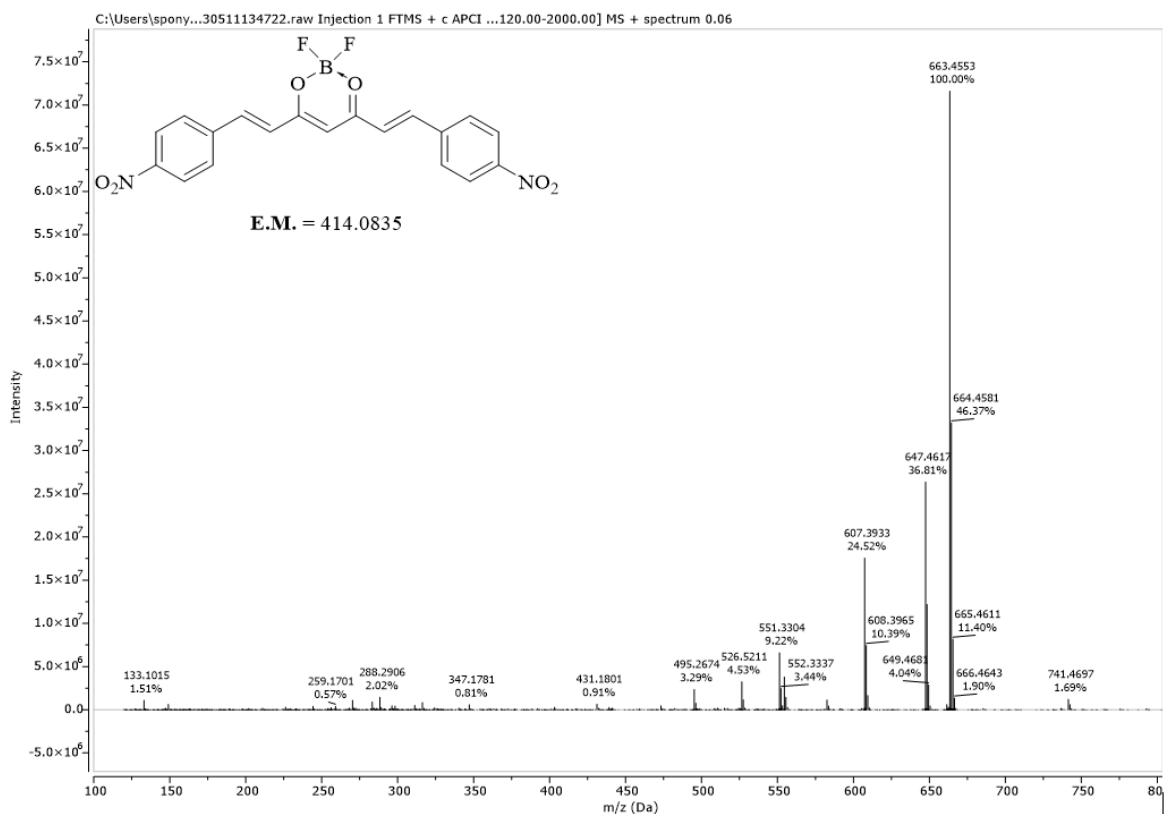
F1. ábra: MS spektrum benzaldehidet használva, mint aromás aldehidet (Pabon módszer)



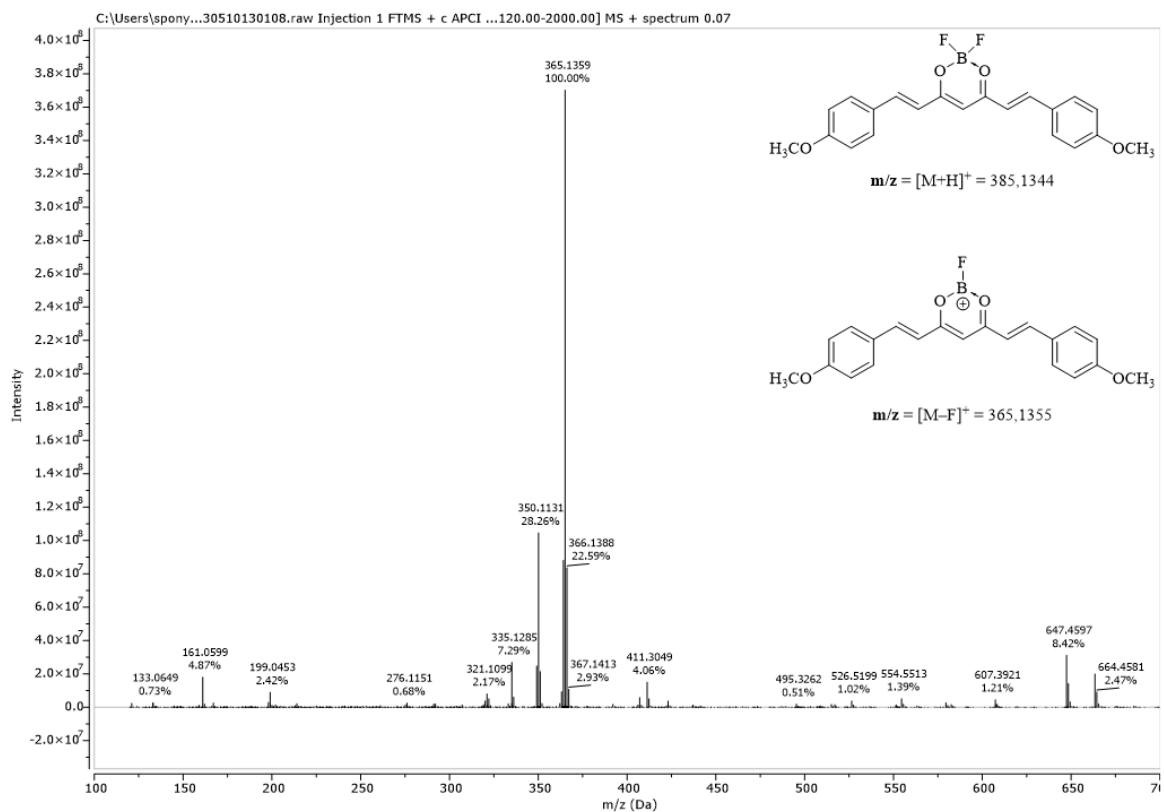
F2. ábra: MS spektrum p-nitro-benzaldehidet használva, mint aromás aldehidet
(Pabon-módszer)



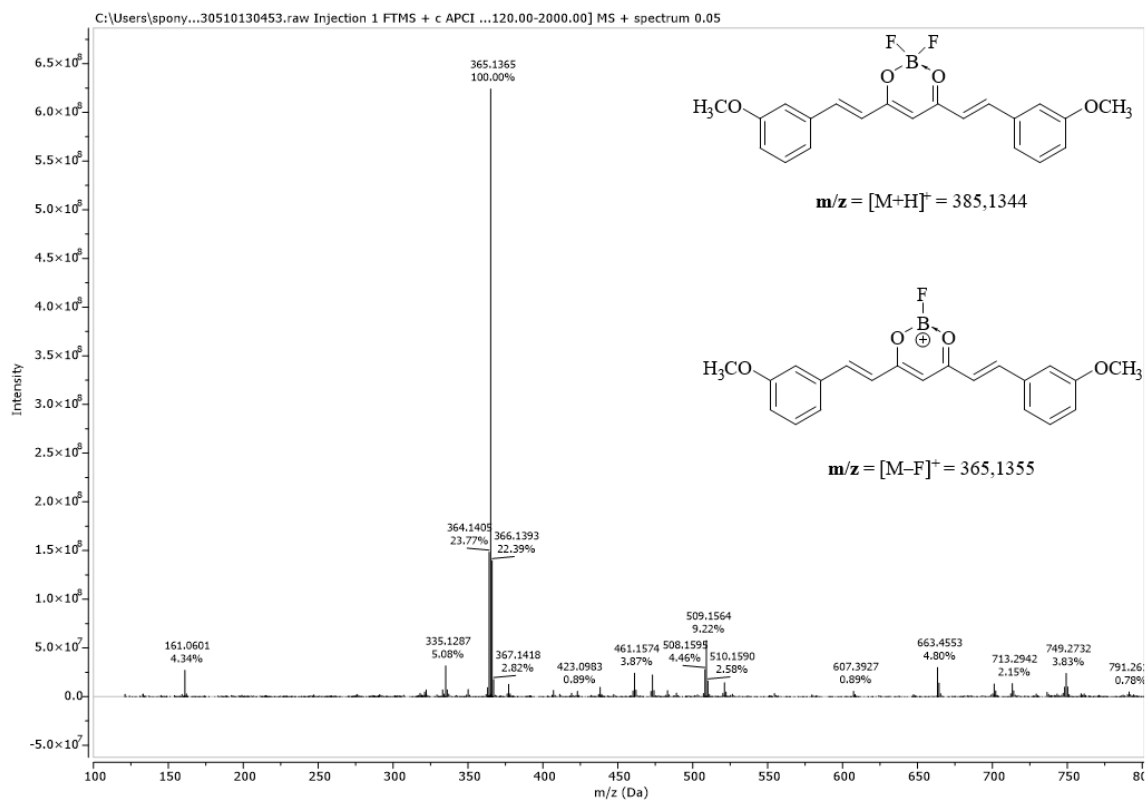
F3. ábra: az ACACBF₂ MS² APCI (+) spektruma



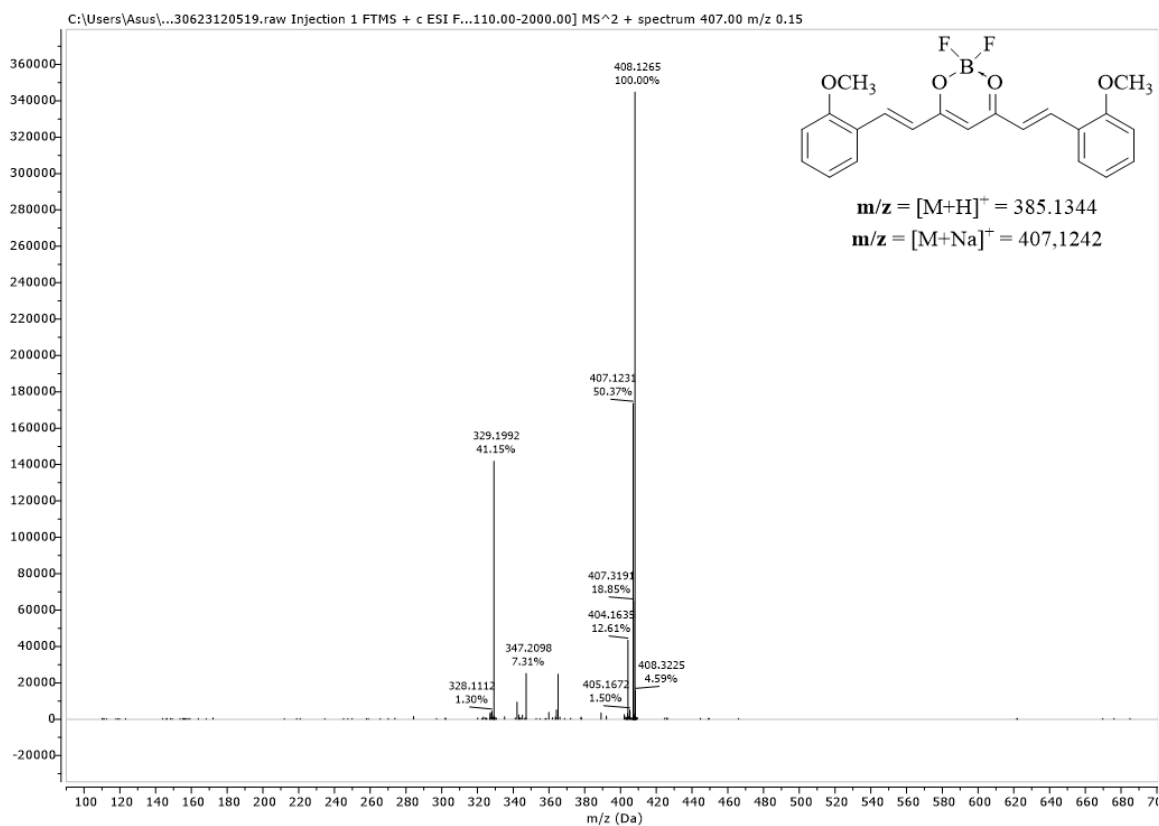
F4. ábra: a csapadék MS (APCI+) spektruma p-nitro-benzaldehidet használva, mint aromás aldehidet (Rao-féle közelítés)



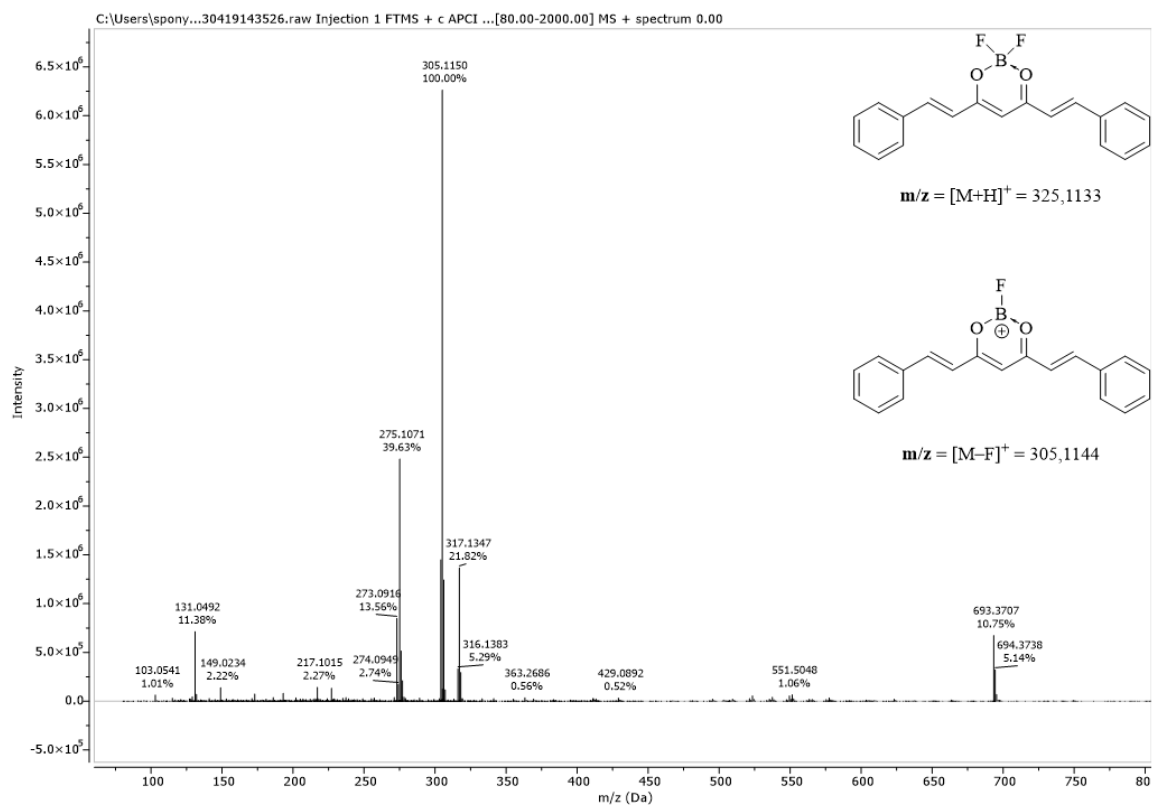
F5. ábra: a C1BF₂ MS (APCI+) spektruma



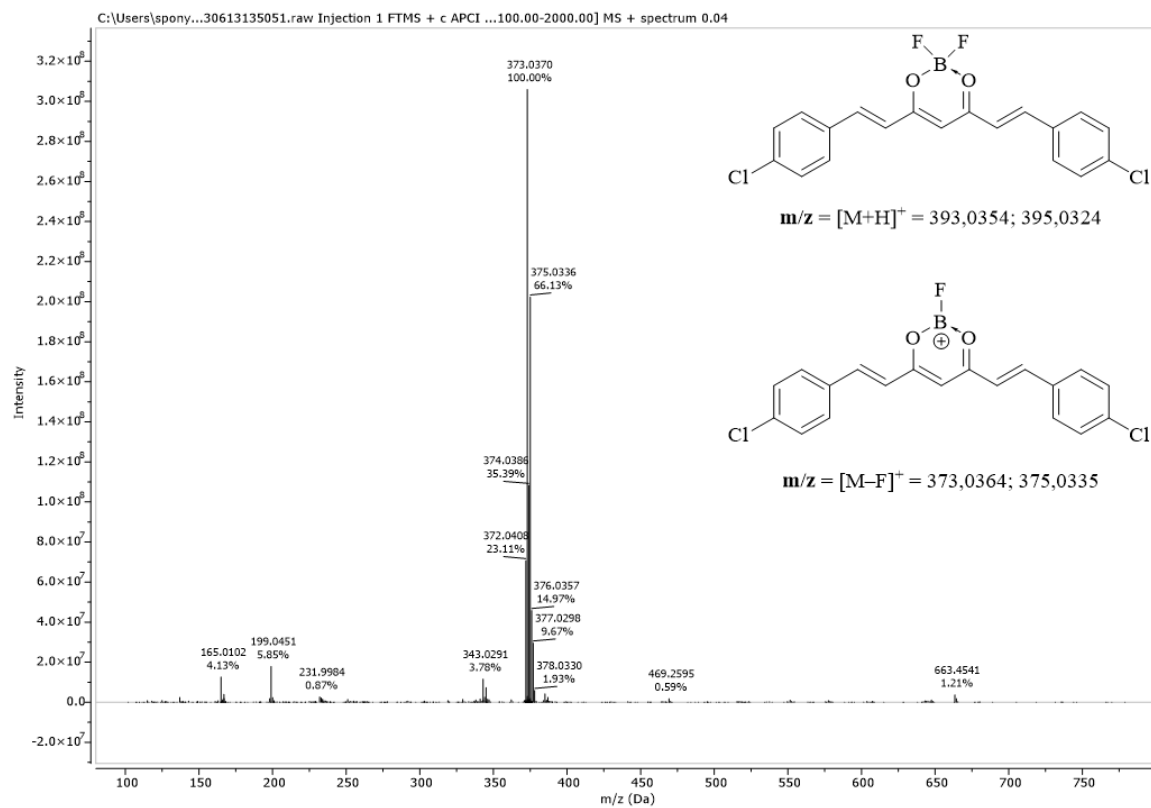
F6. ábra: a C2BF₂ MS (APCI+) spektruma



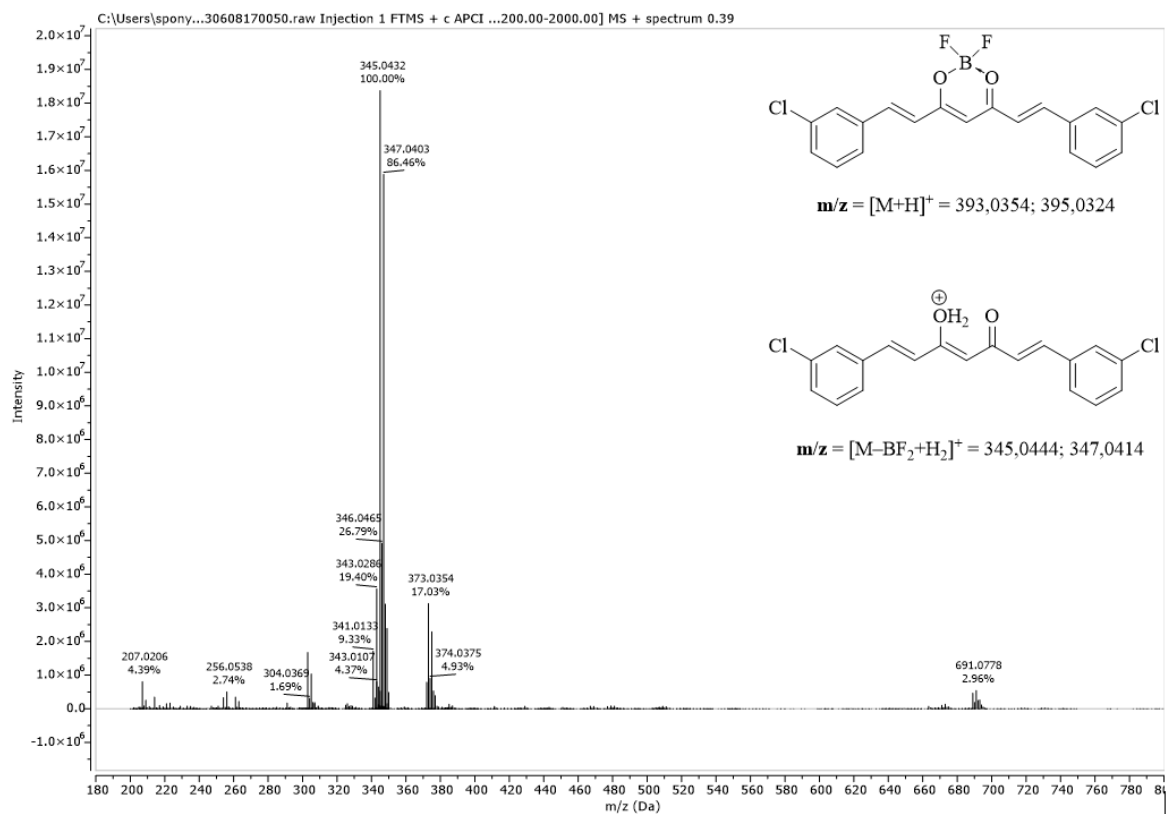
F7. ábra: a C3BF₂ MS (ESI+) spektruma



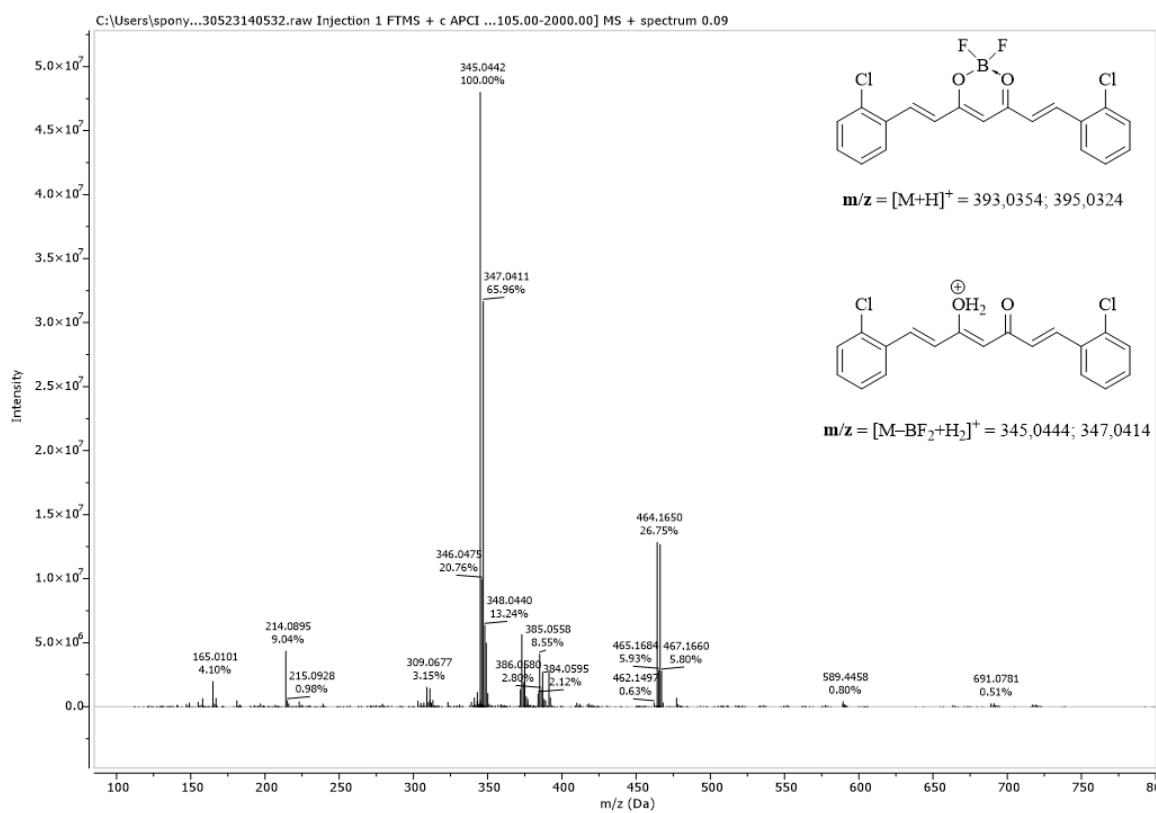
F8. ábra: a C₄BF₂ MS (APCI+) spektruma



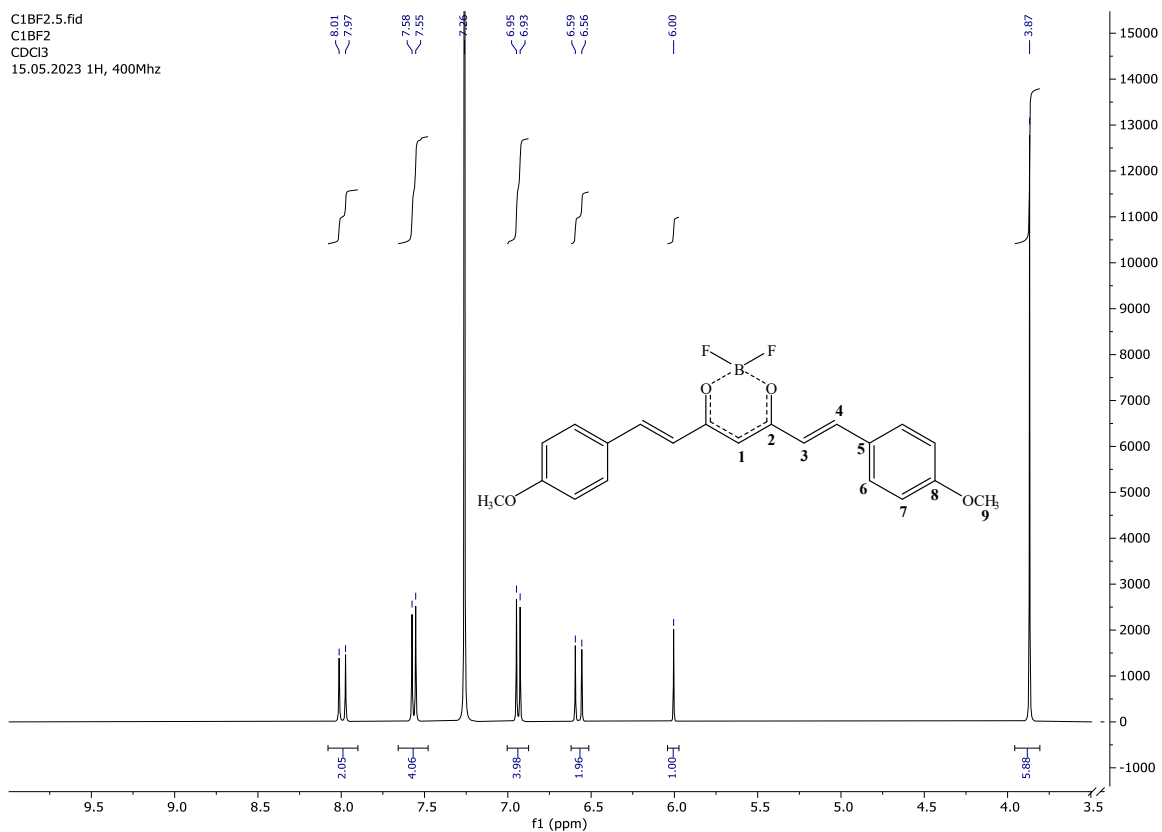
F9. ábra: a C₅BF₂ MS (APCI+) spektruma



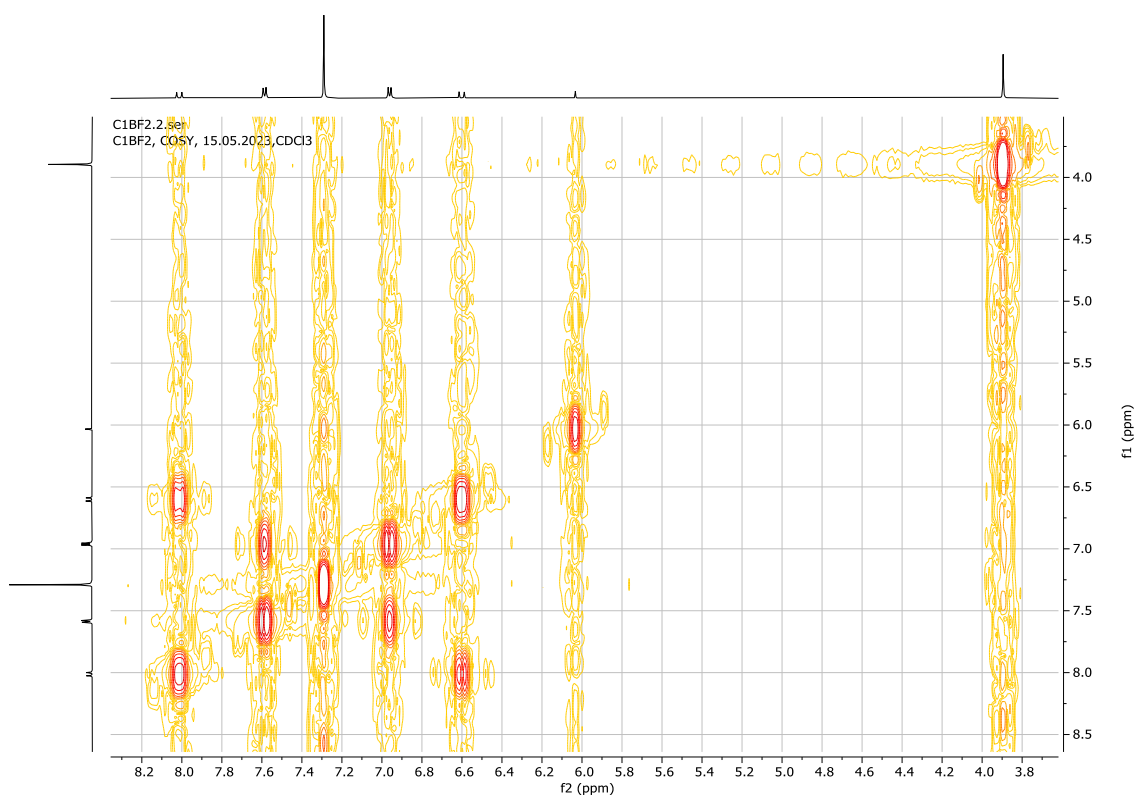
F10. ábra: a C₆BF₂ MS (APCI+) spektruma



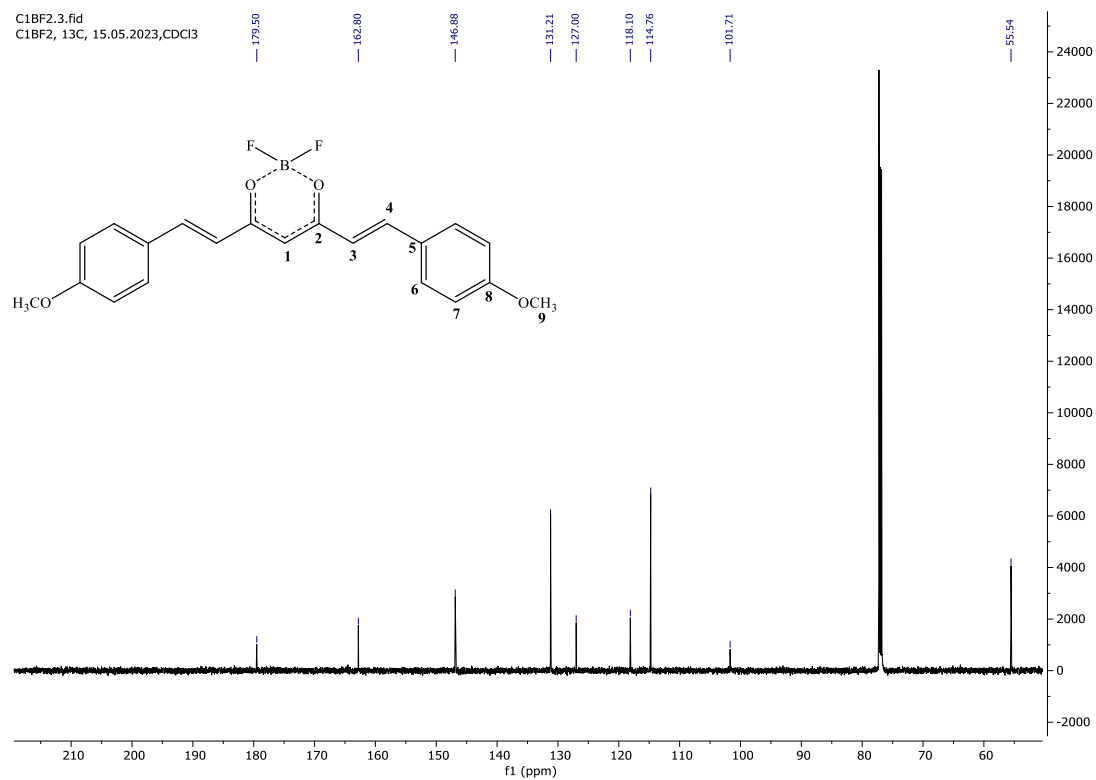
F11. ábra: a C₇BF₂ MS (APCI+) spektruma



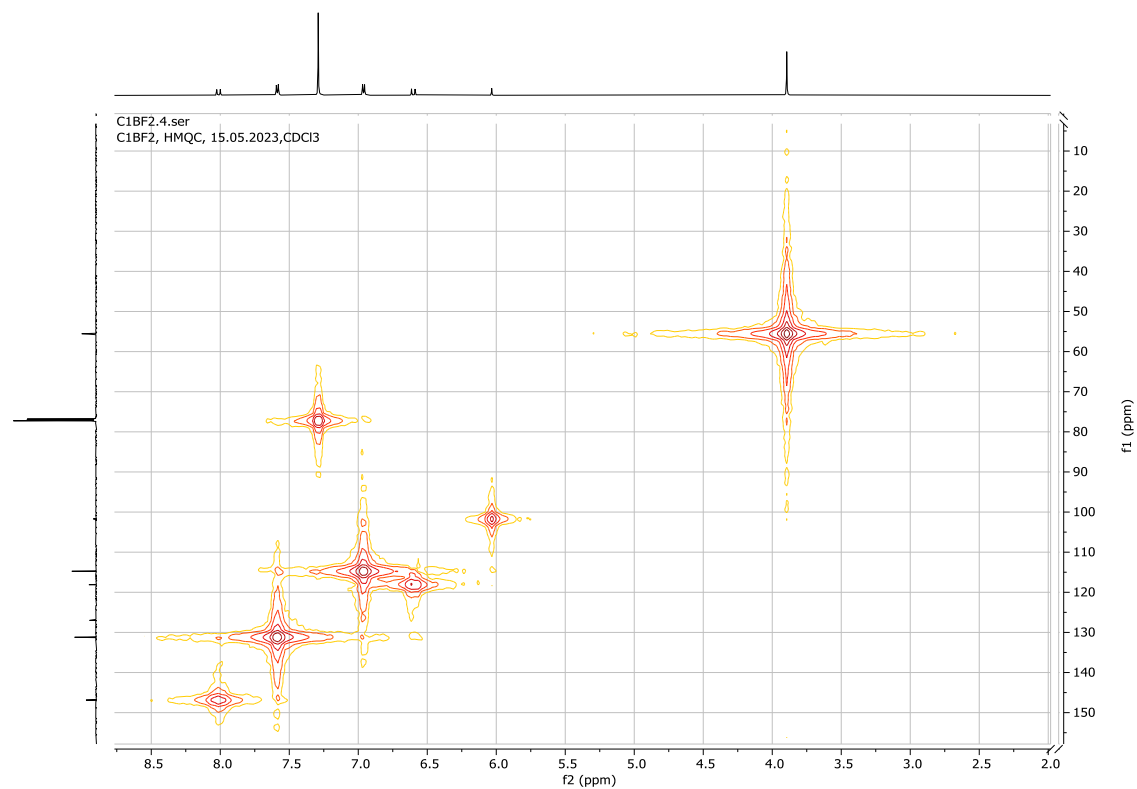
F12. ábra: a C1BF₂ ¹H NMR spektruma



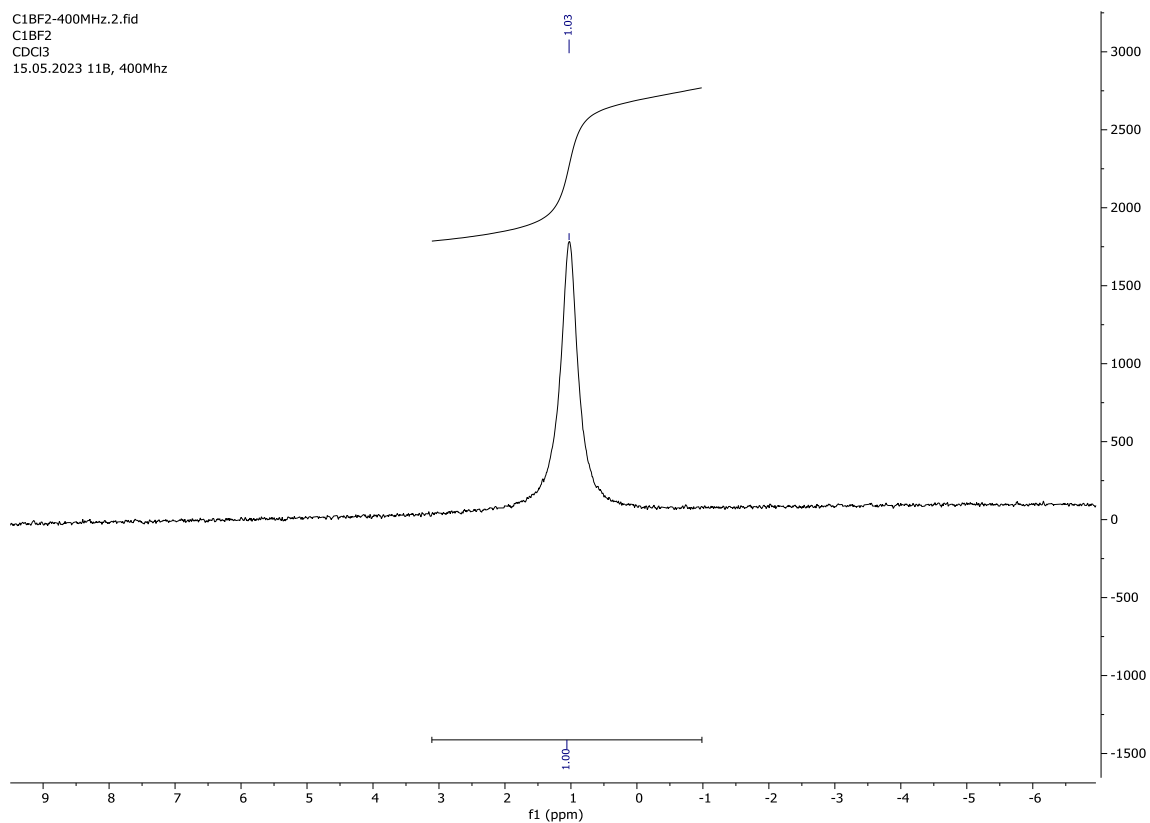
F13. ábra: a C1BF₂ ¹H-¹H 2D COSY NMR spektruma



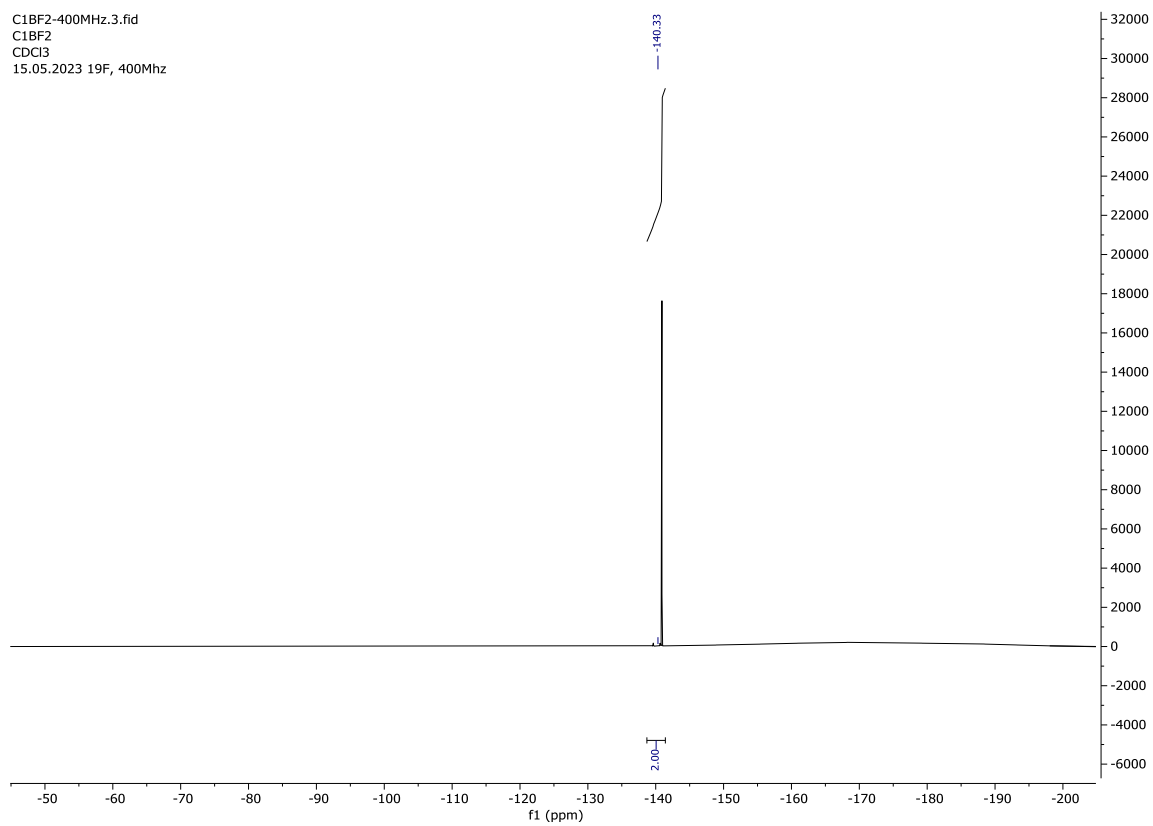
F14. ábra: a C1BF $_2$ ^{13}C NMR spektruma



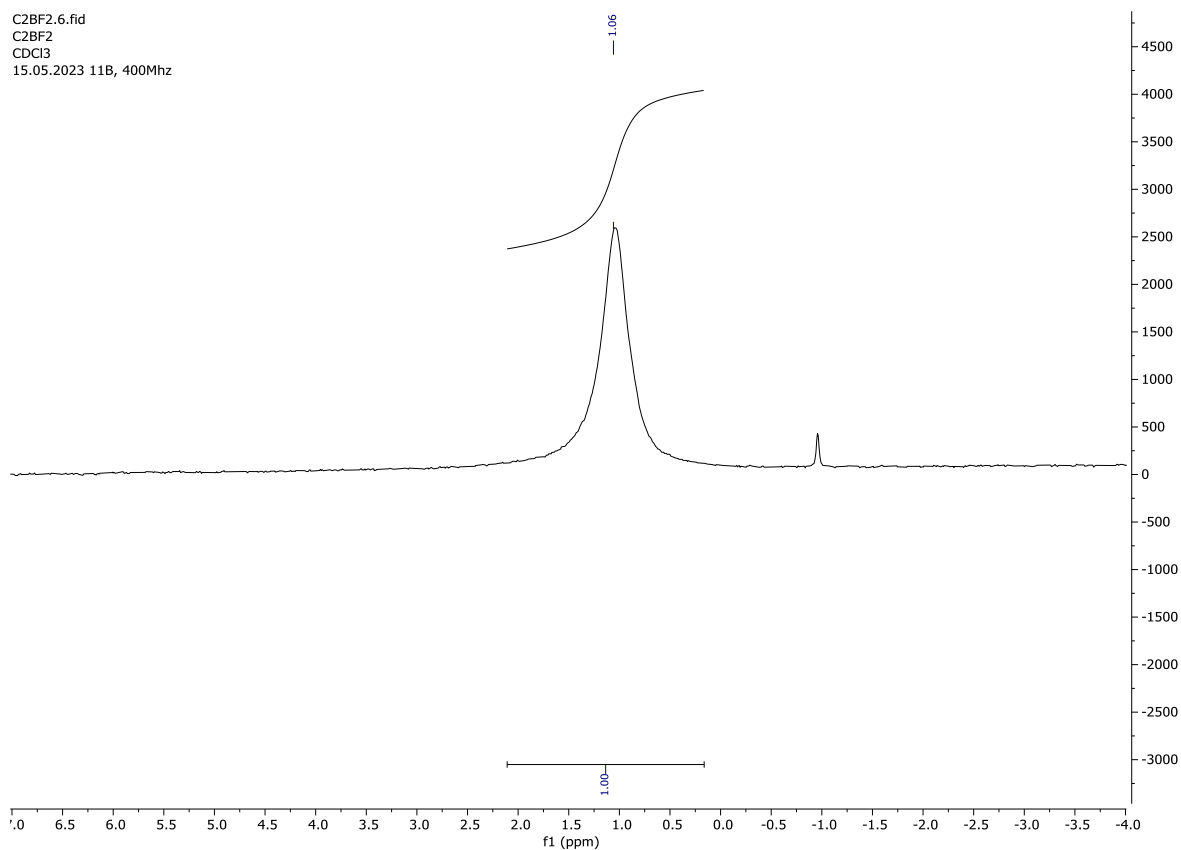
F15. ábra: a C1BF $_2$ ^1H - ^{13}C 2D HMQC NMR spektruma



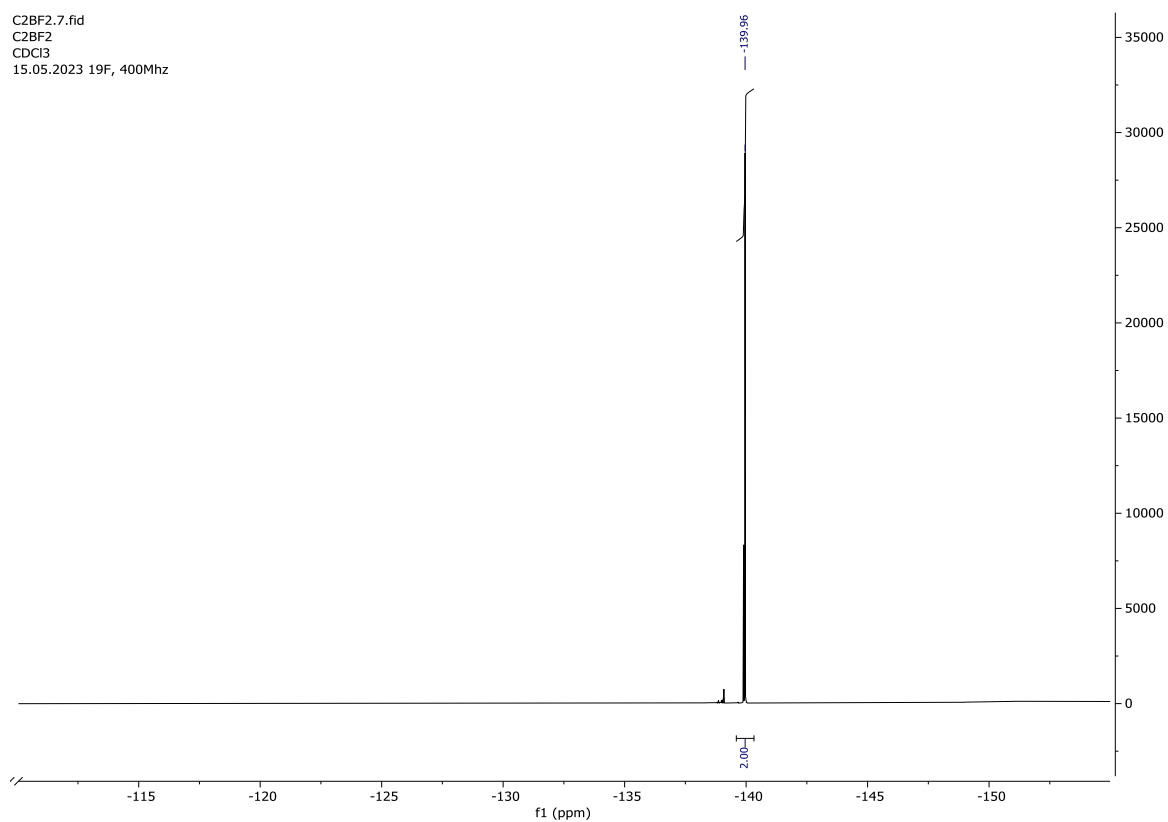
F16. ábra: a C1BF₂ ¹¹B NMR spektruma



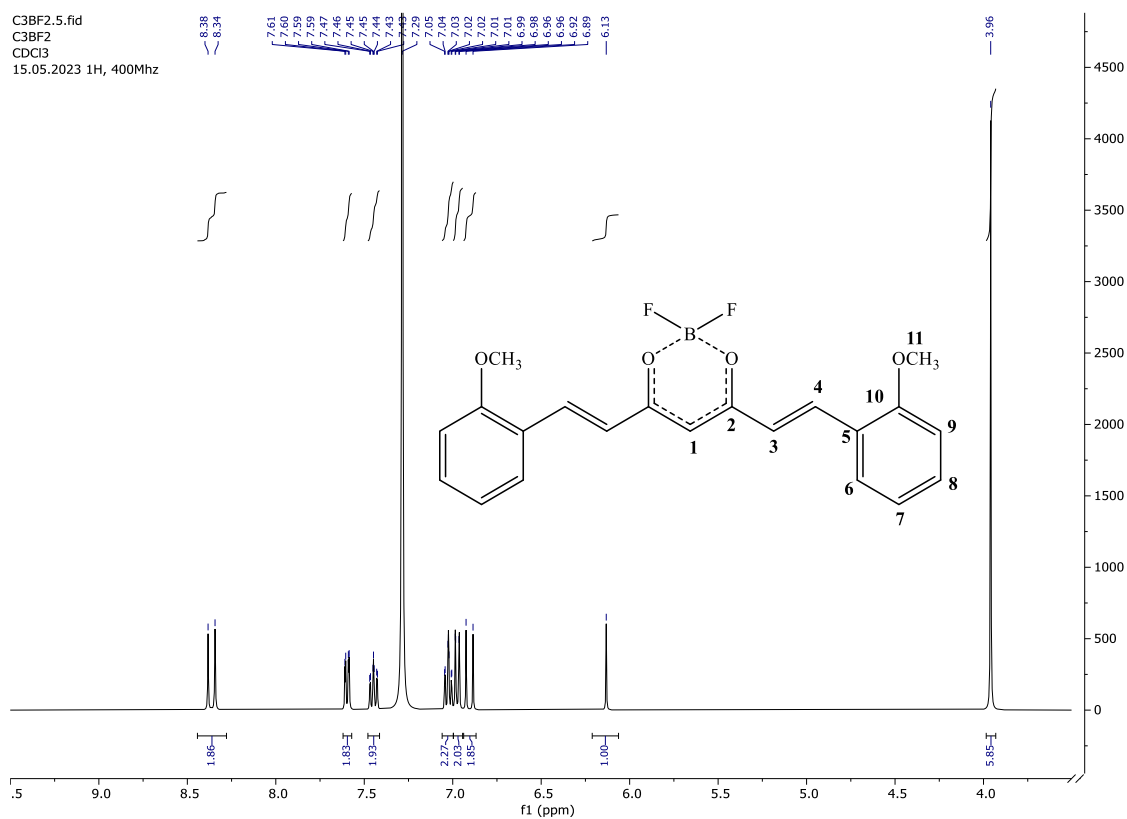
F17. ábra: a C1BF₂ ¹⁹F NMR spektruma



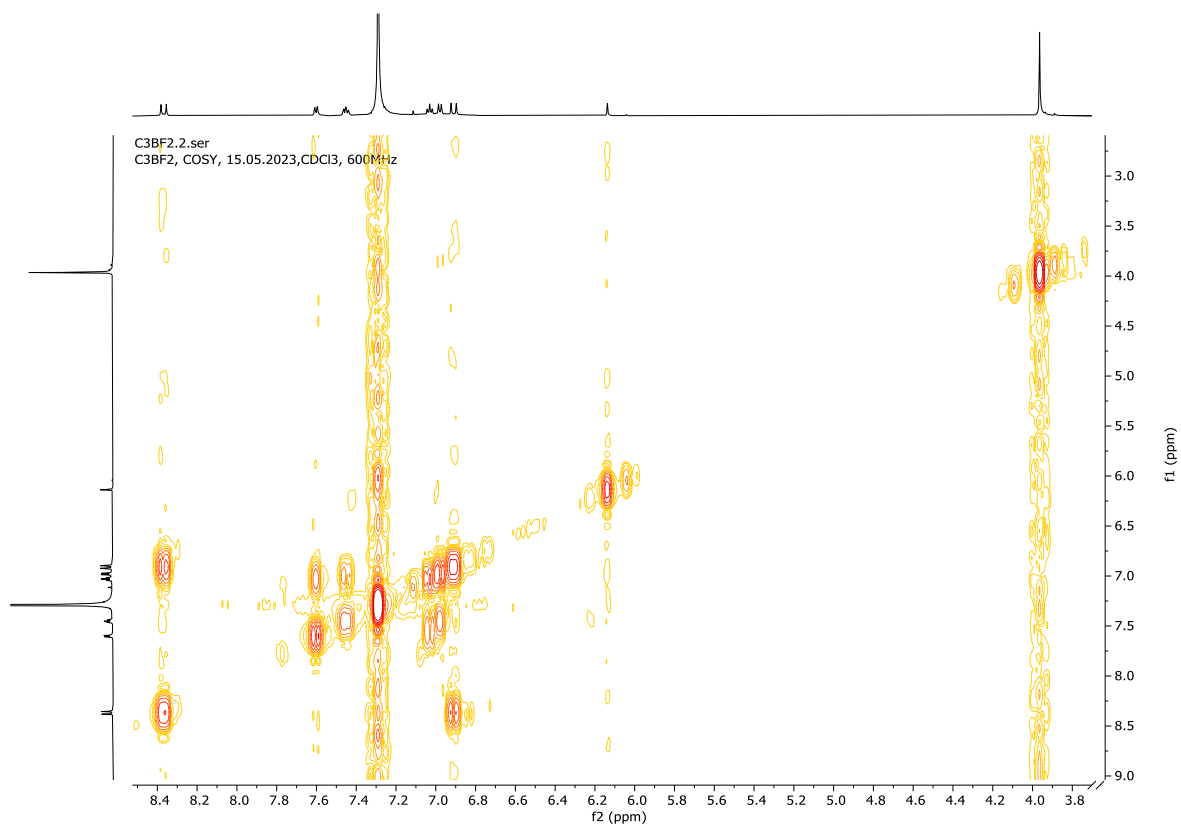
F22. ábra: a C2BF₂ vegyület ¹¹B NMR spektruma



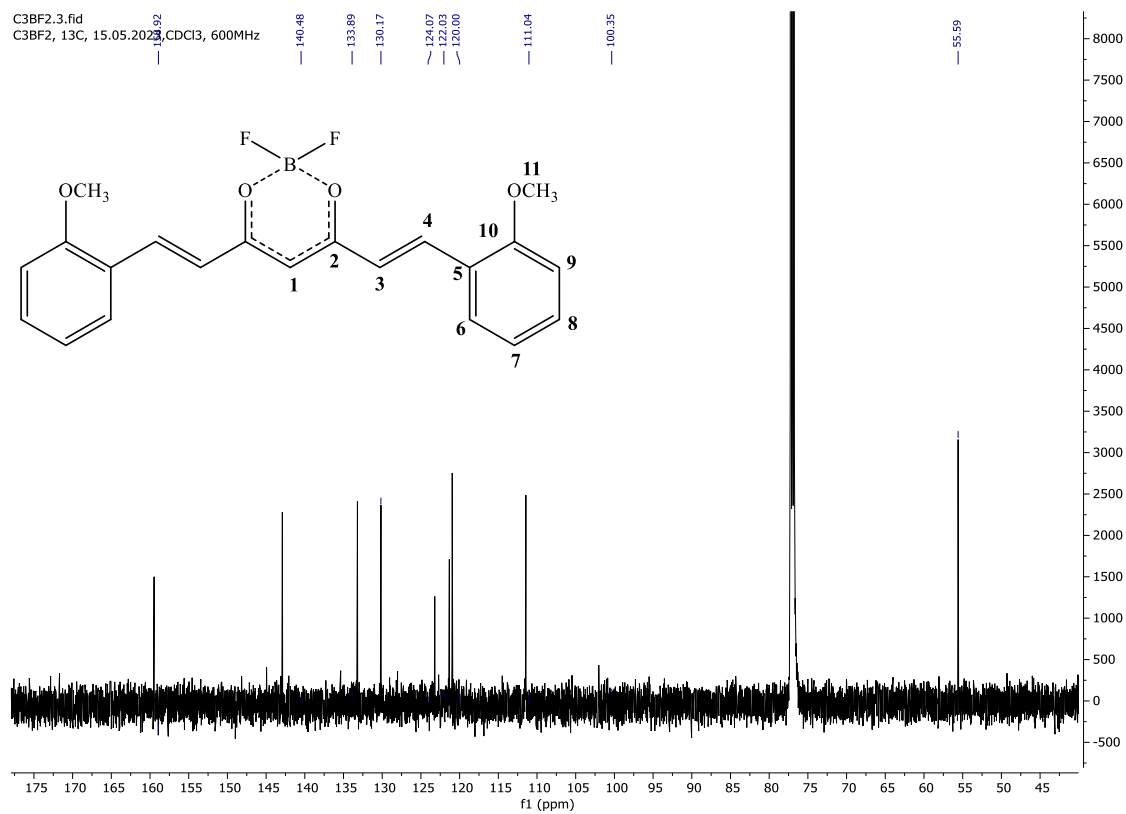
F23. ábra: a C2BF₂ vegyület ¹⁹F NMR spektruma



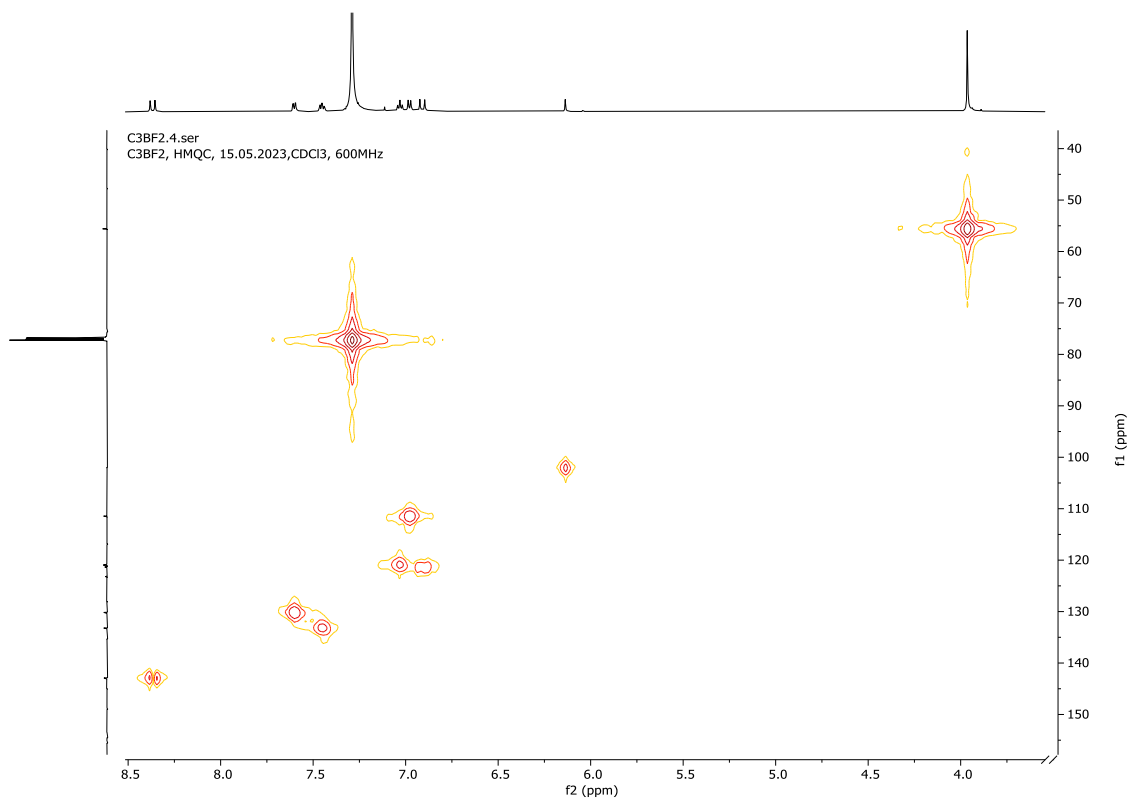
F24. ábra: a C3BF₂ vegyület ¹H NMR spektruma



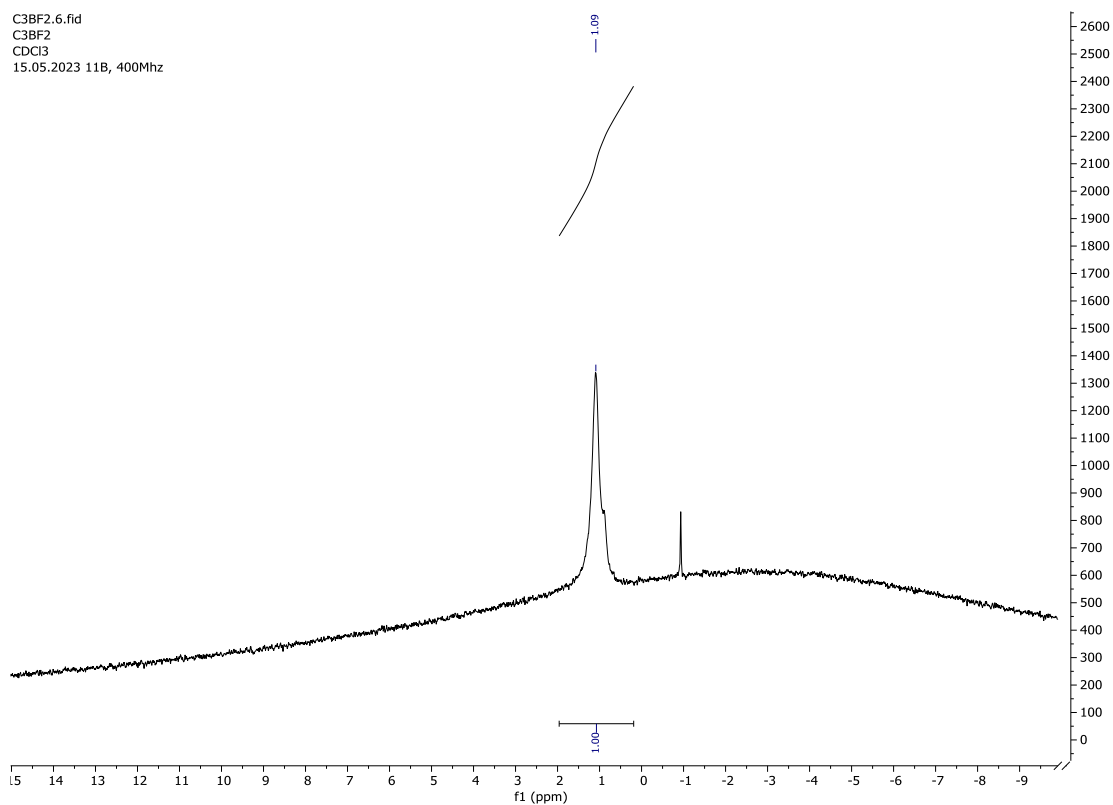
F25. ábra: a C3BF₂ vegyület ¹H-¹H 2D COSY NMR spektruma



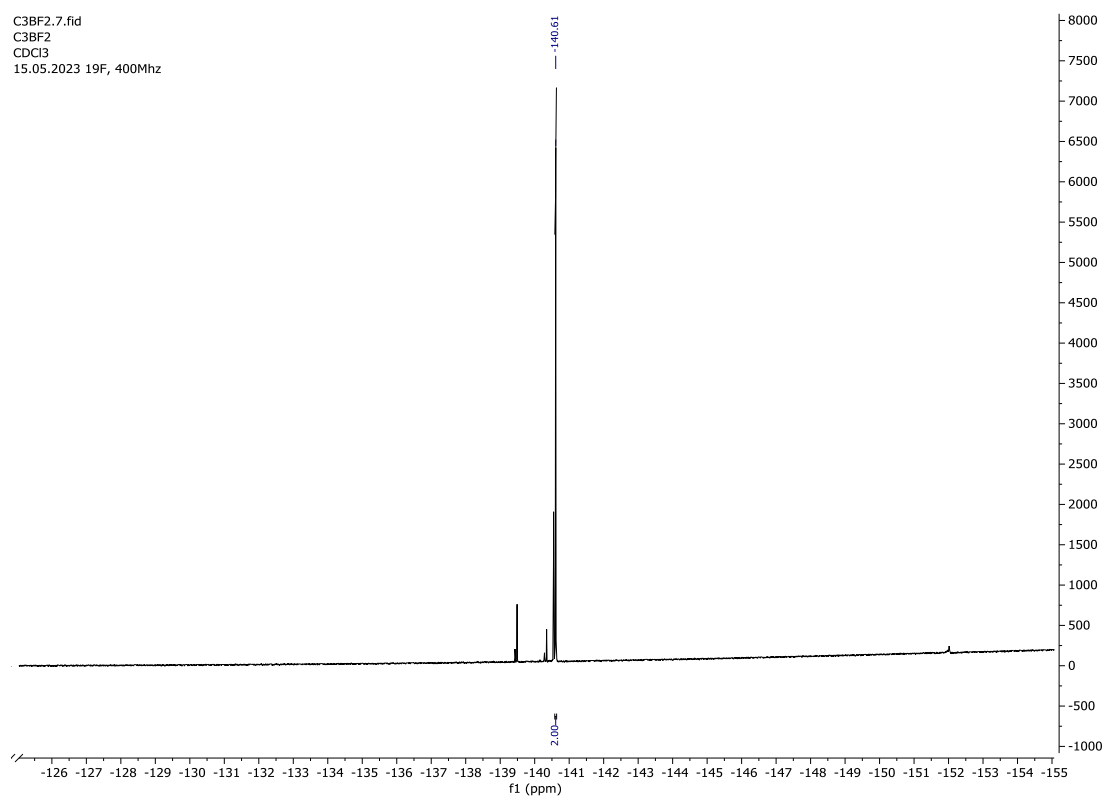
F26. ábra: a C3BF₂ vegyület ¹³C NMR spektruma



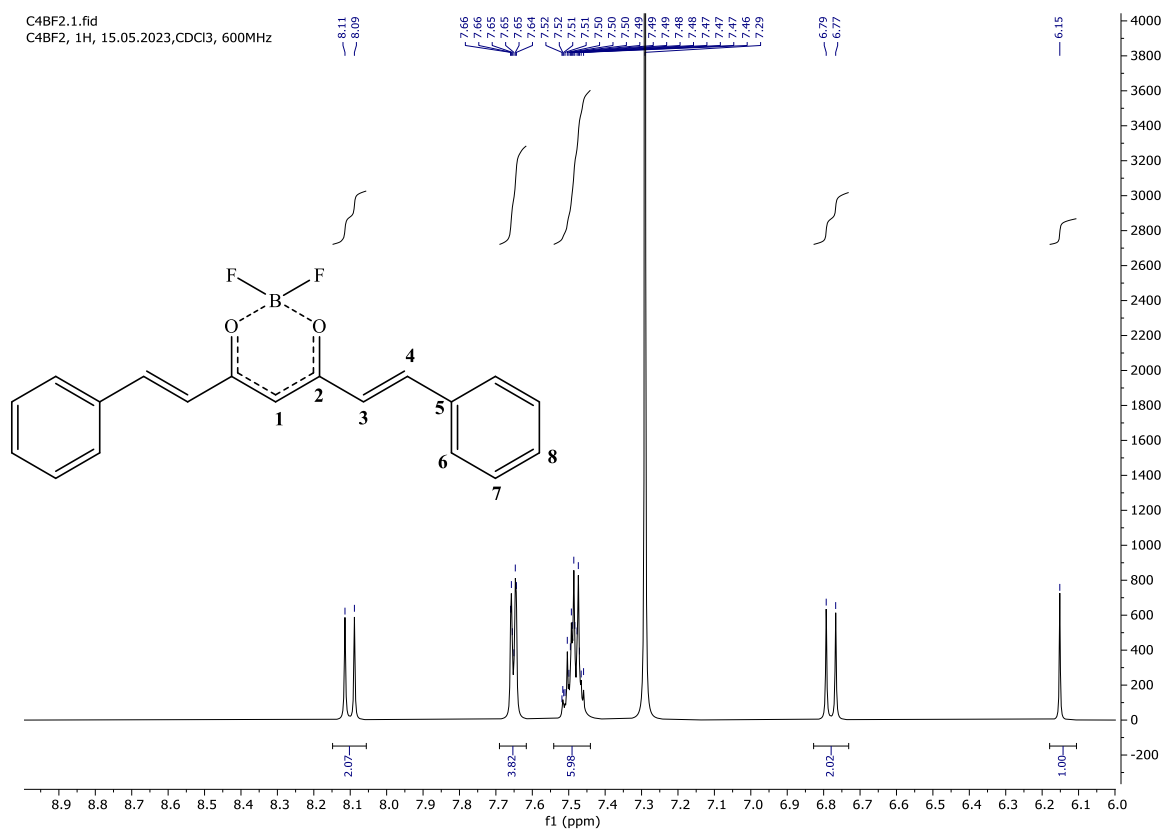
F27. ábra: a C3BF₂ vegyület ¹H-¹³C 2D HMQC NMR spektruma



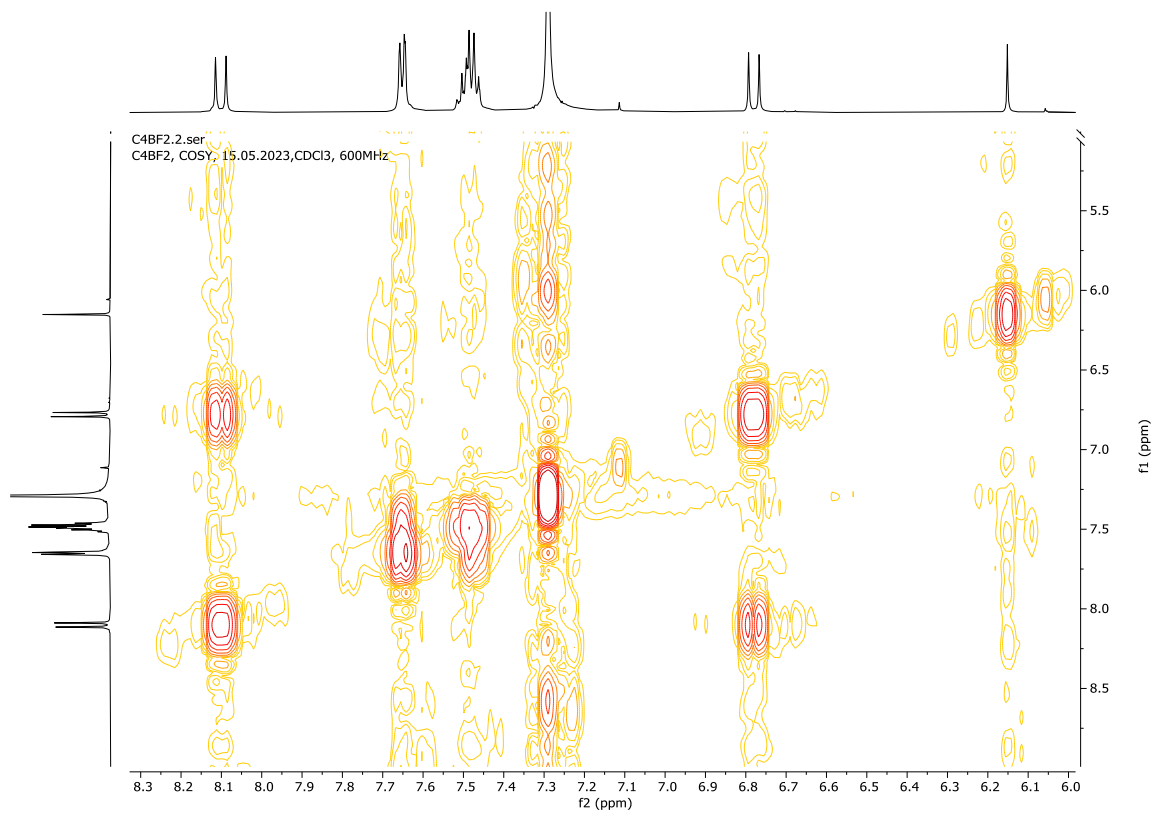
F28. ábra: a C3BF₂ vegyület ¹¹B NMR spektruma



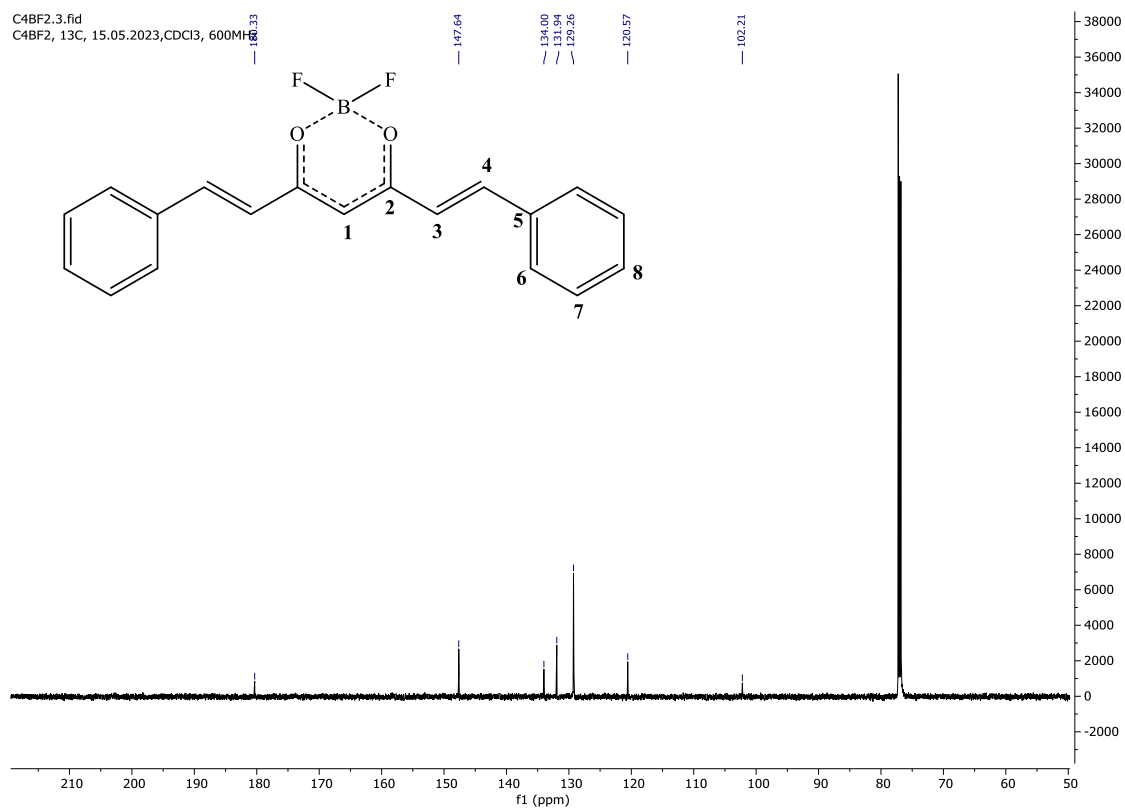
F29. ábra: a C3BF₂ vegyület ¹⁹F NMR spektruma



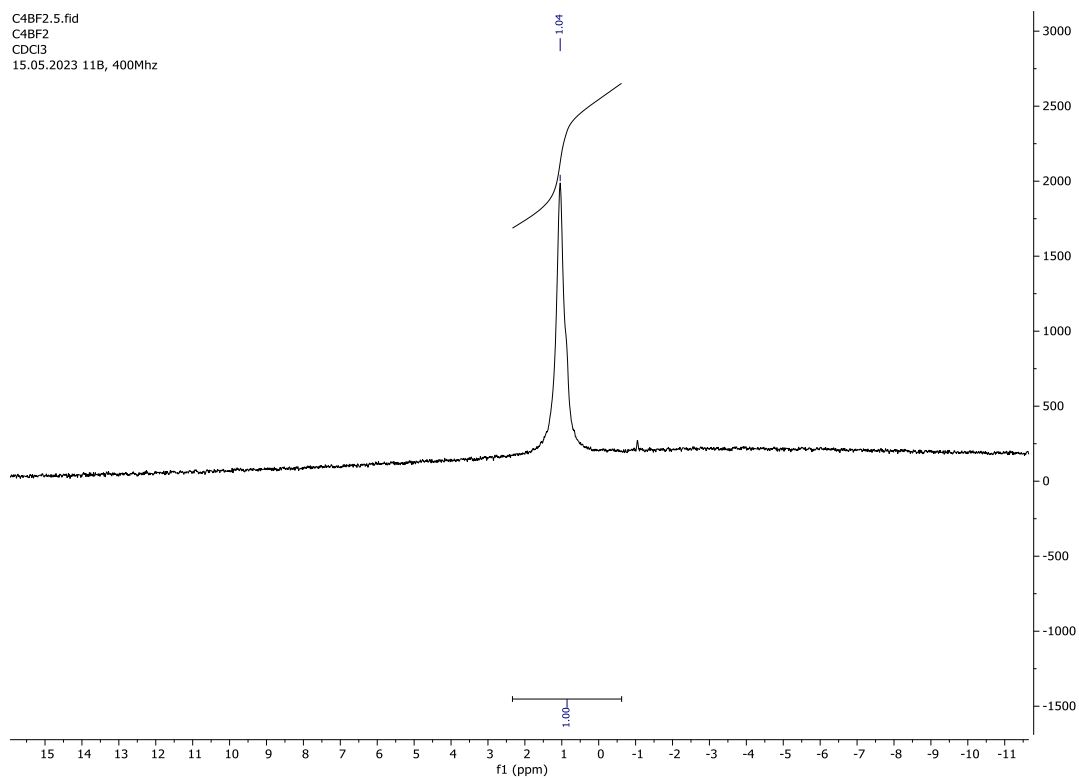
F30. ábra: a C4BF₂ vegyület ¹H NMR spektruma



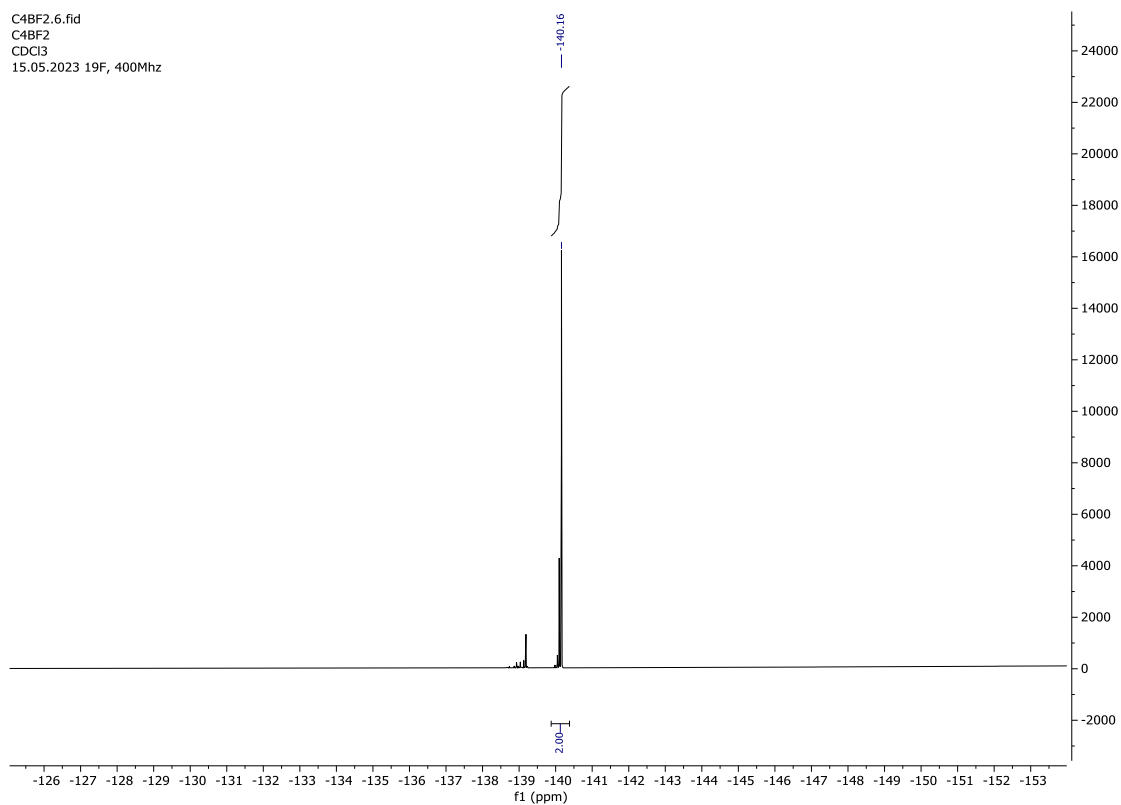
F31. ábra: a C4BF₂ vegyület ¹H-¹H 2D COSY NMR spektruma



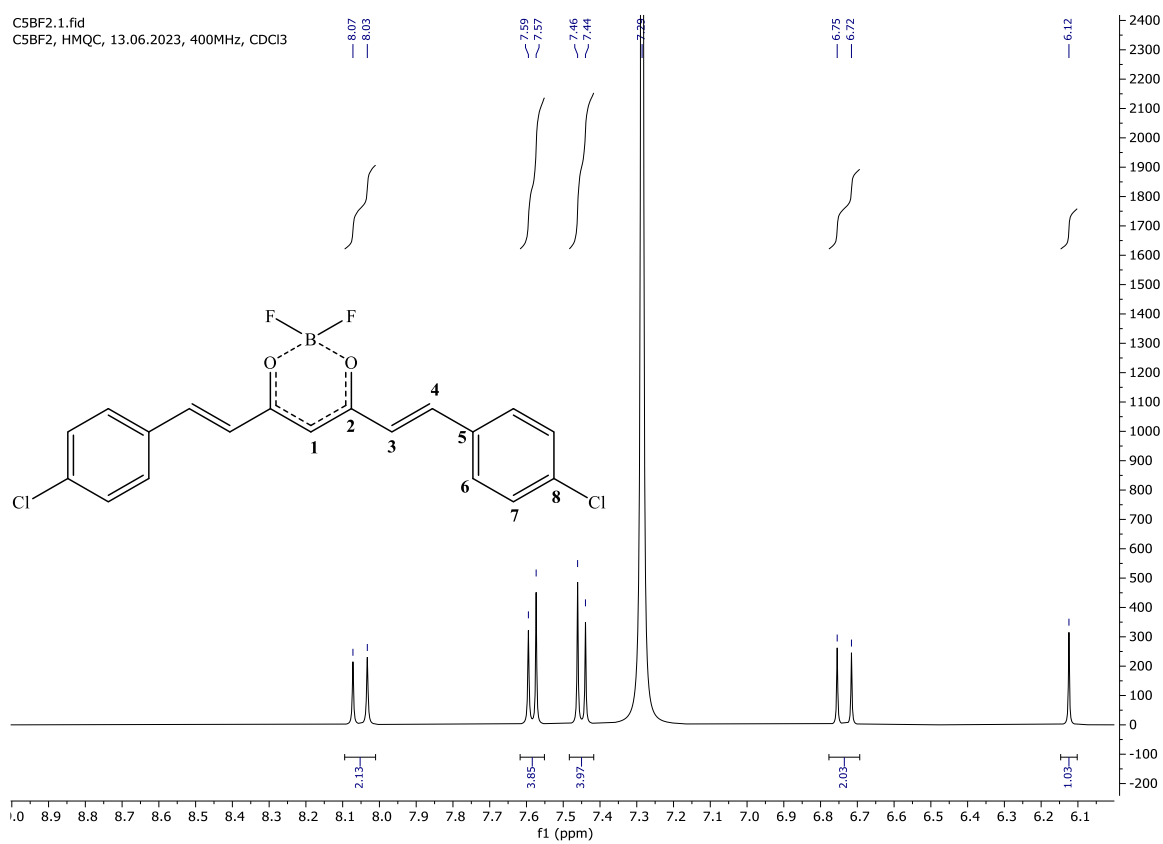
F32. ábra: a C4BF₂ vegyület ¹³C NMR spektruma



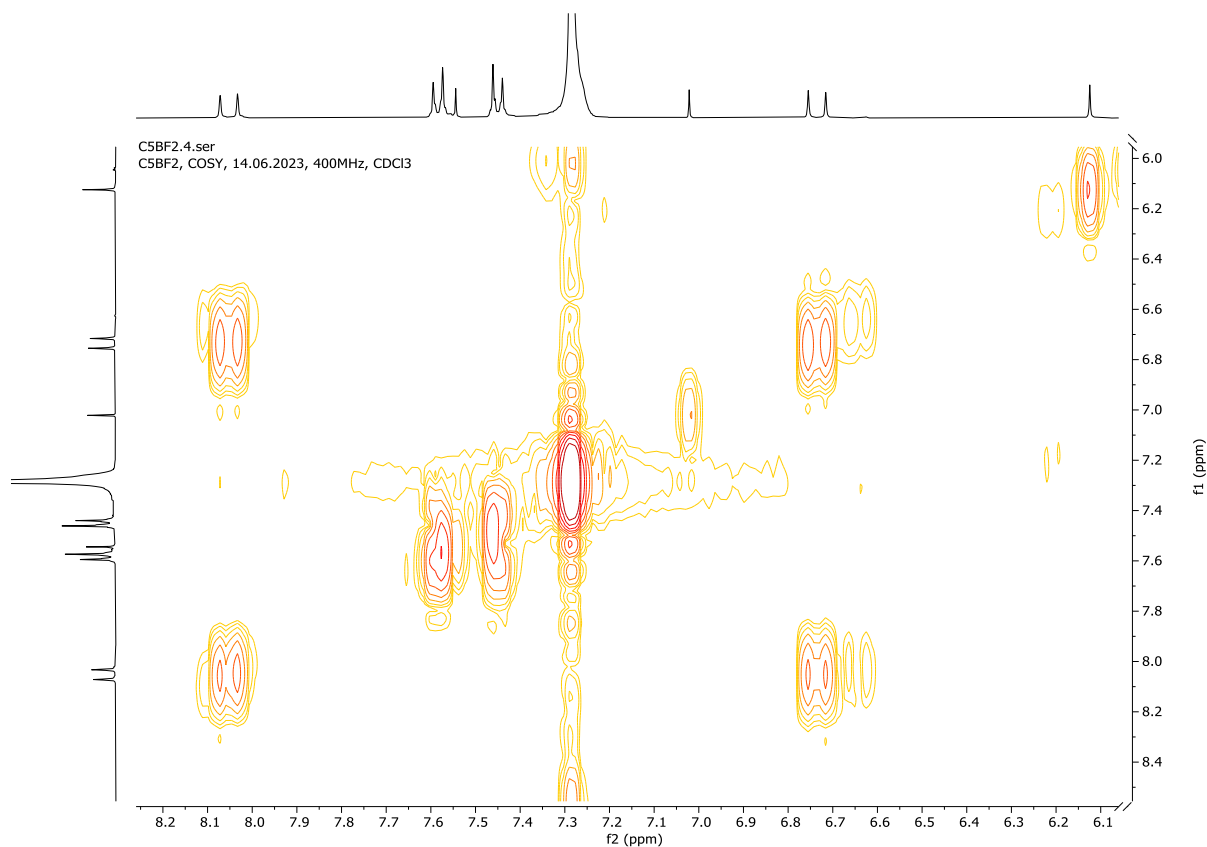
F33. ábra: a C4BF₂ vegyület ¹¹B NMR spektruma



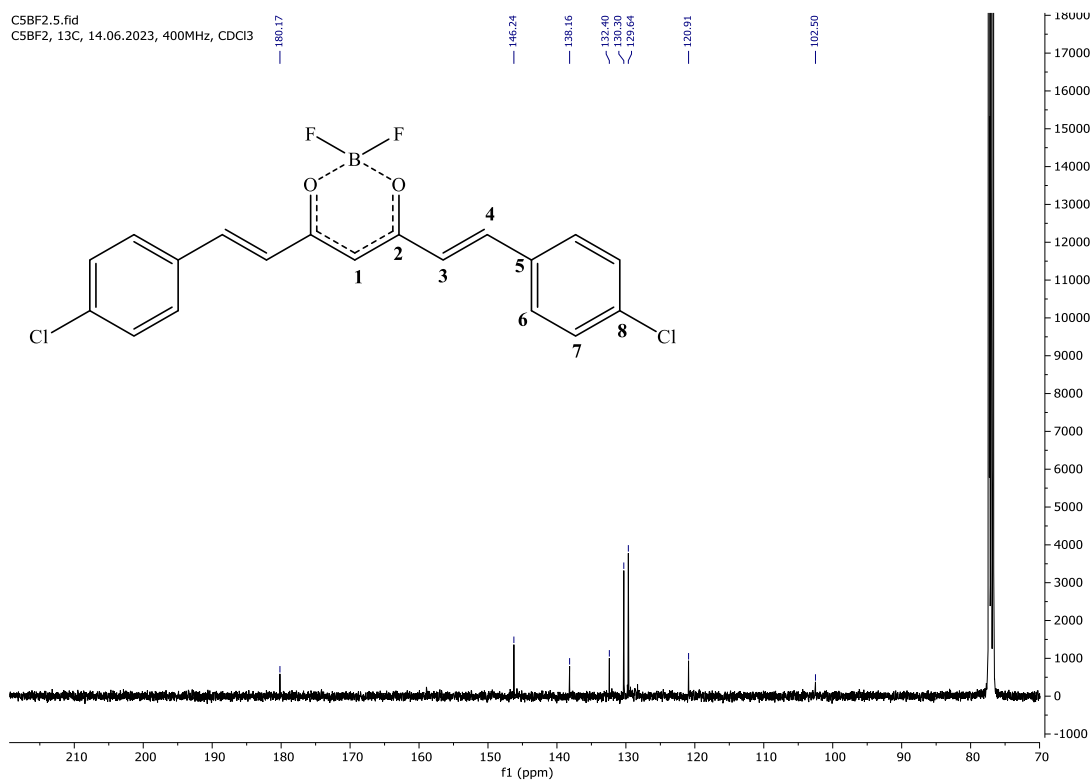
F34. ábra: a C4BF₂ vegyület ¹⁹F NMR spektruma



F35. ábra: a C5BF₂ vegyület ¹H NMR spektruma

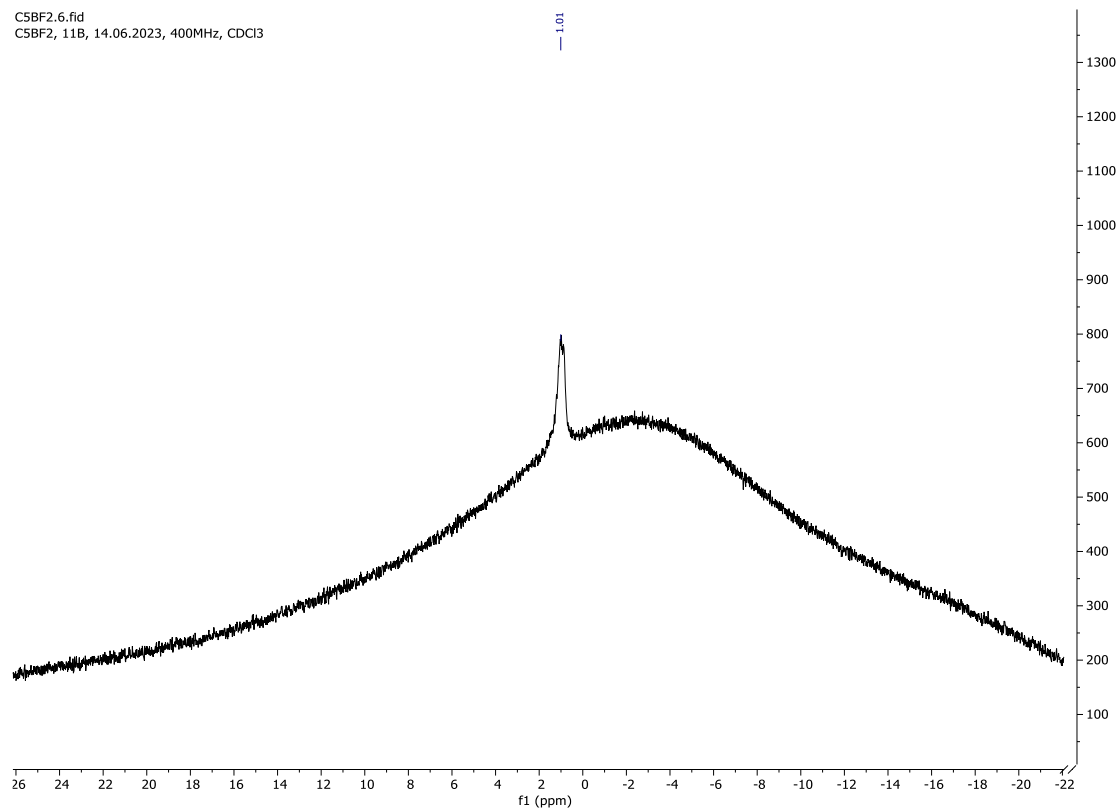


F36. ábra: a C5BF₂ vegyület ¹H-¹H COSY 2D NMR spektruma



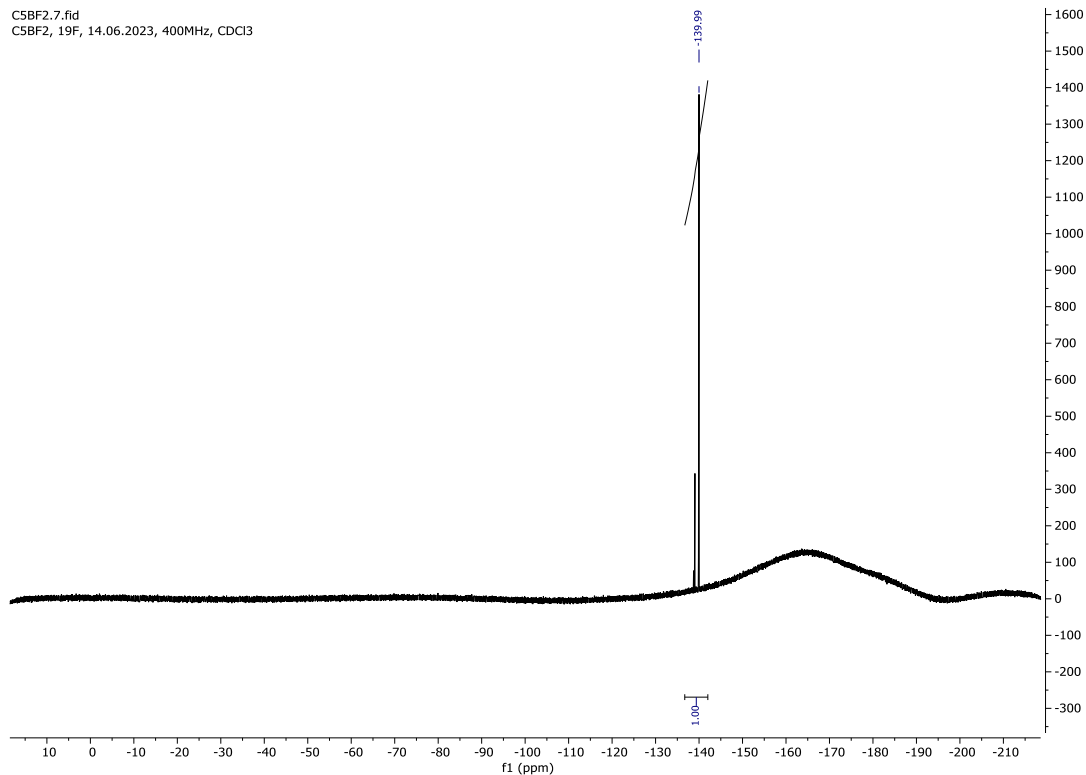
F37. ábra: a C5BF₂ vegyület ¹³C NMR spektruma

C5BF2.6.fid
C5BF2, 11B, 14.06.2023, 400MHz, CDCl3

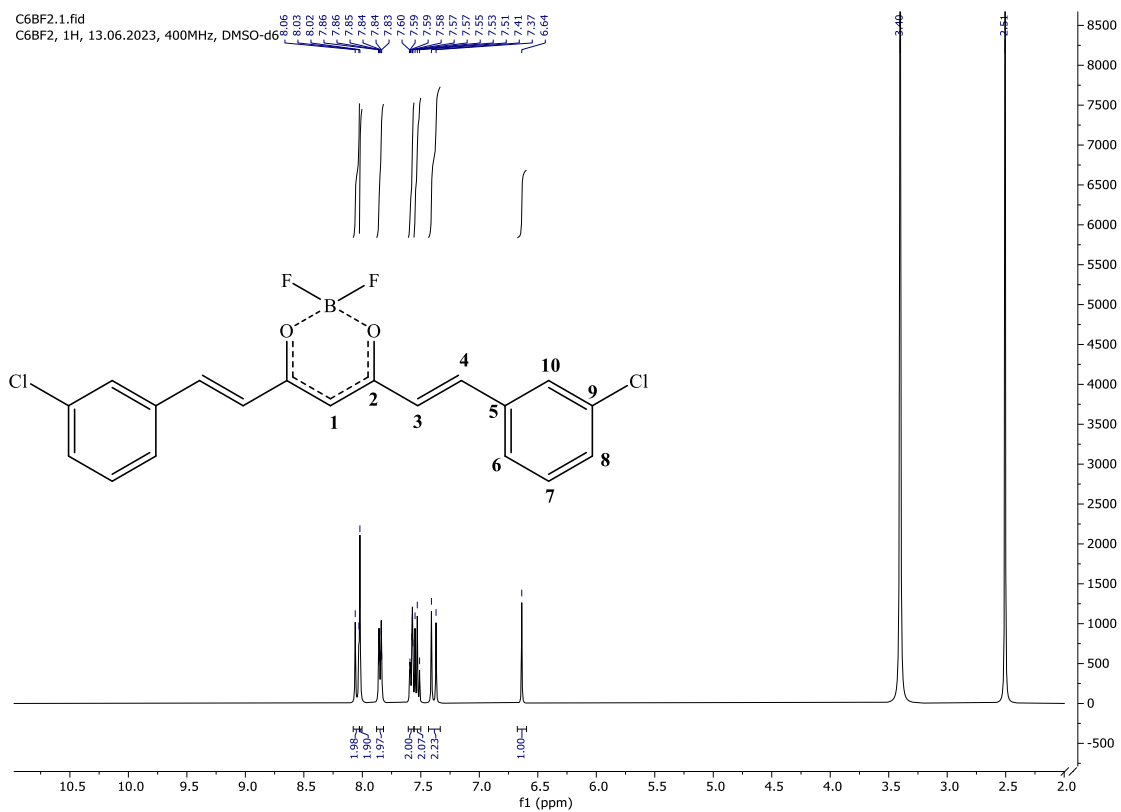


F38. ábra: a C5BF₂ vegyület ^{11}B NMR spektruma

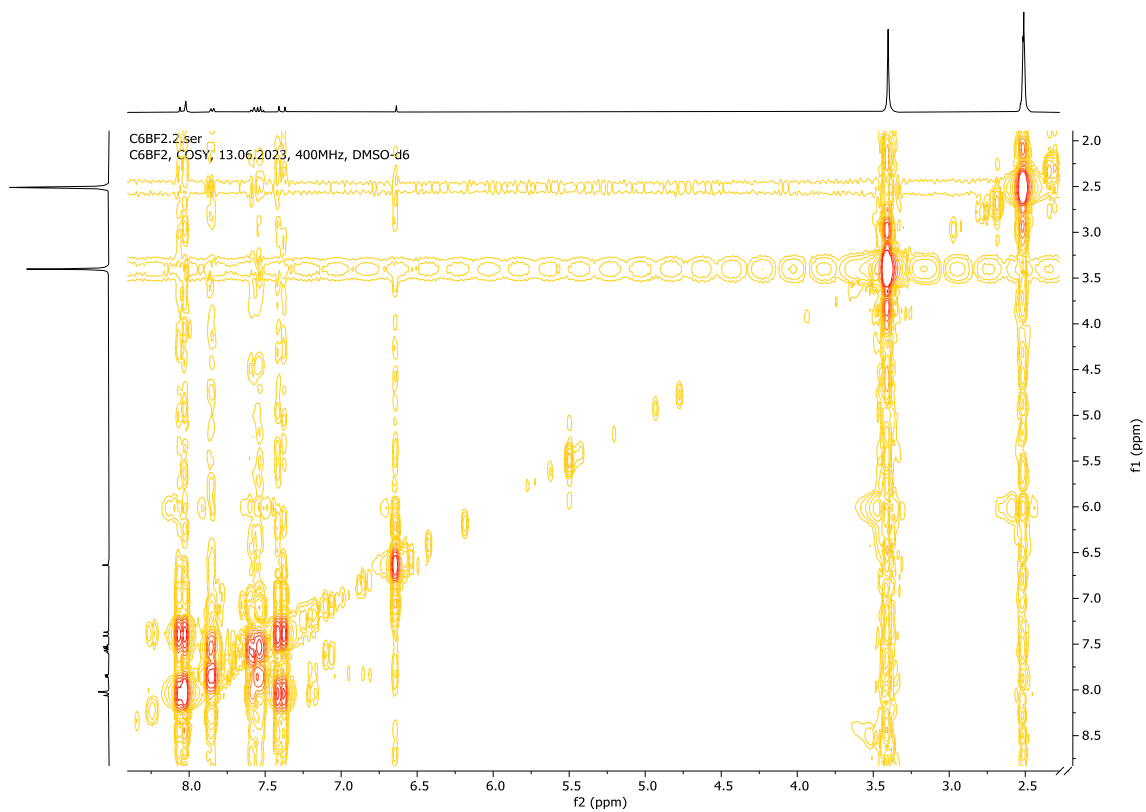
C5BF2.7.fid
C5BF2, 19F, 14.06.2023, 400MHz, CDCl3



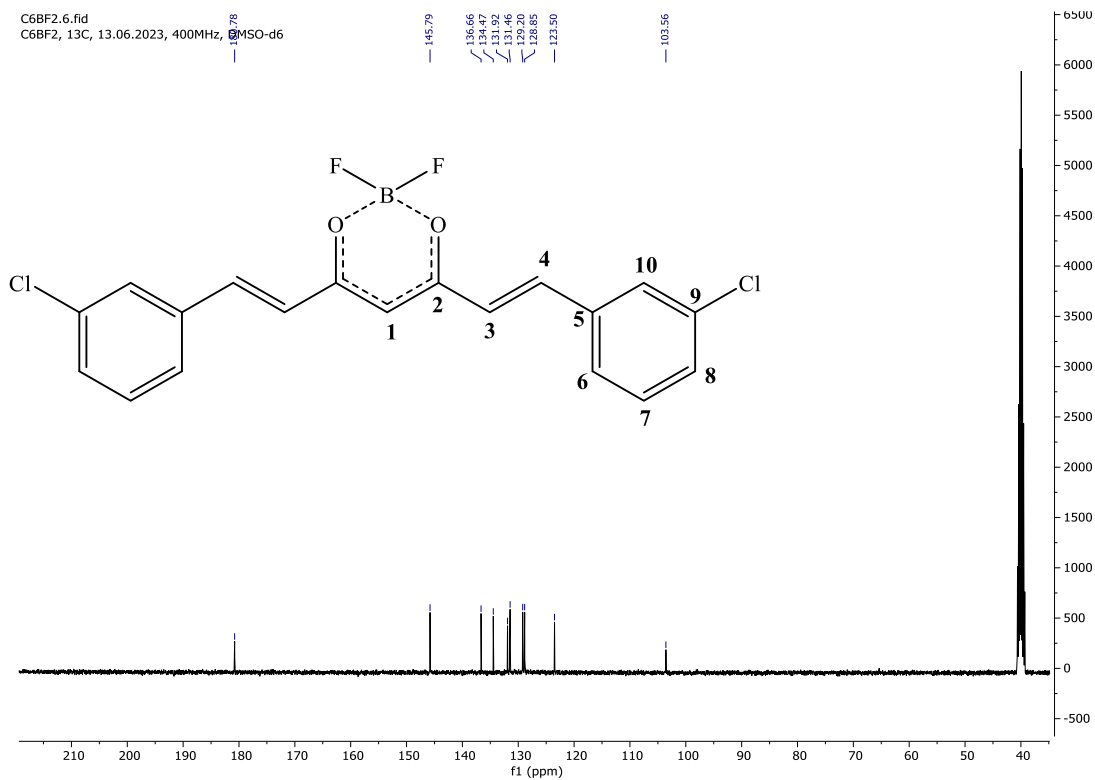
F39. ábra: a C5BF₂ vegyület ^{19}F NMR spektruma



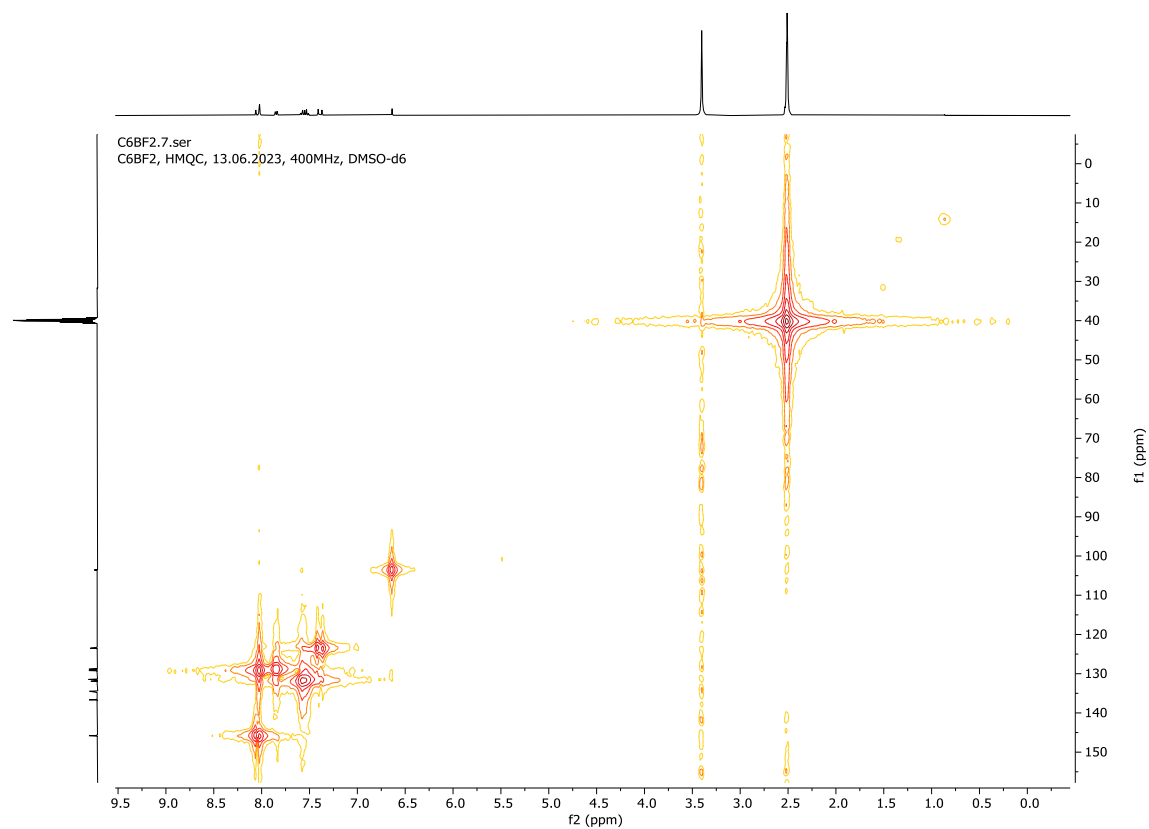
F40. ábra: a C6BF₂ vegyület ¹H NMR spektruma



F41. ábra: a C6BF₂ vegyület ¹H-¹H COSY 2D NMR spektruma

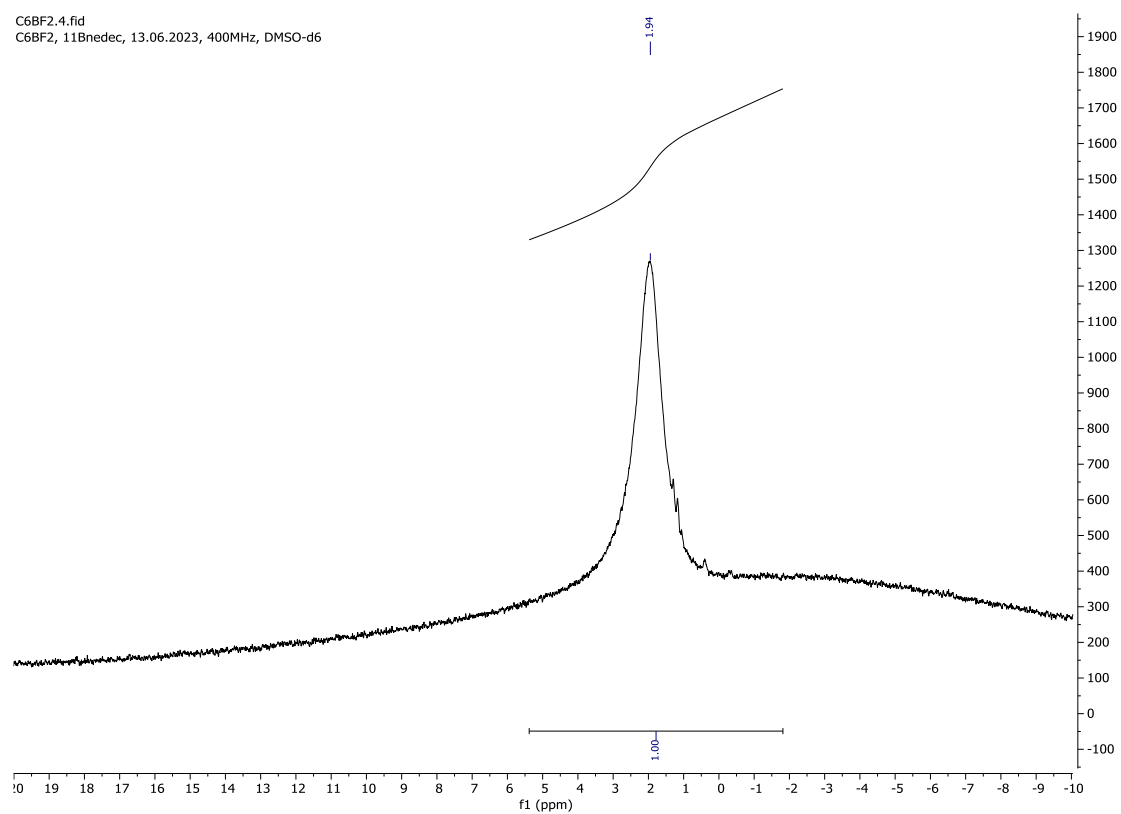


F42. ábra: a C6BF₂ vegyület ¹³C NMR spektruma



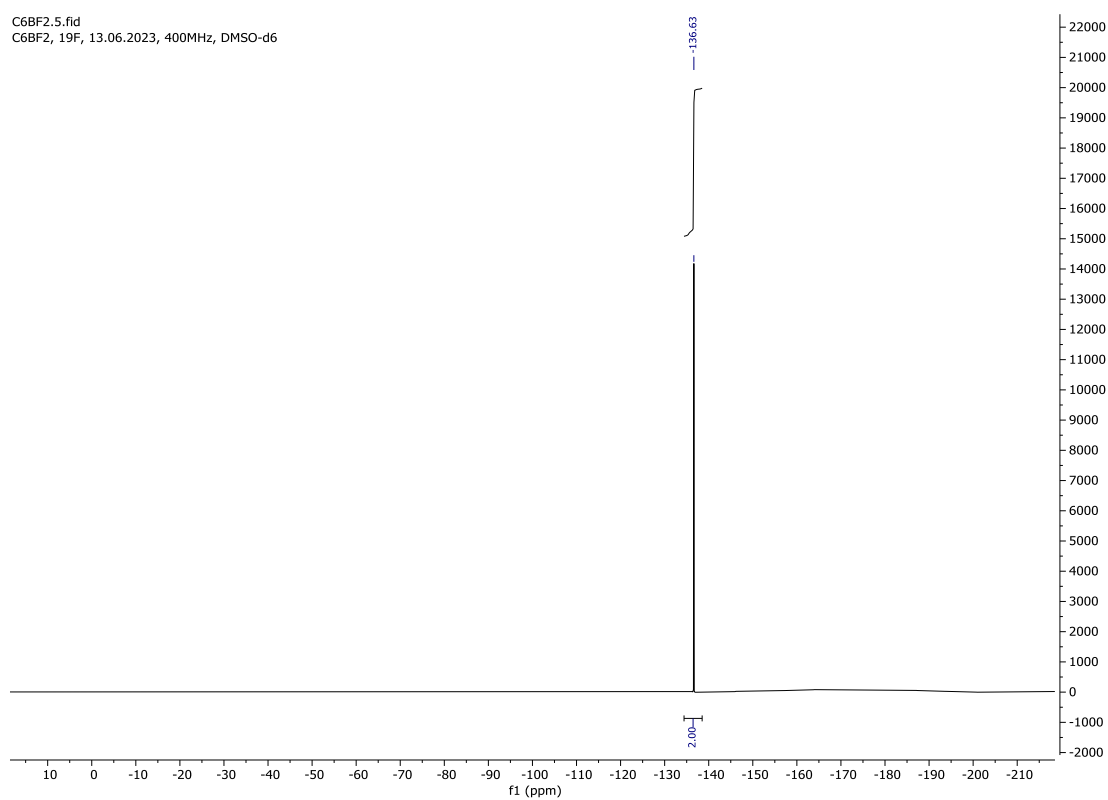
F43. ábra: a C6BF₂ vegyület ¹H-¹³C HMQC 2D NMR spektruma

C6BF2.4.fid
C6BF2, 11Bnedec, 13.06.2023, 400MHz, DMSO-d6

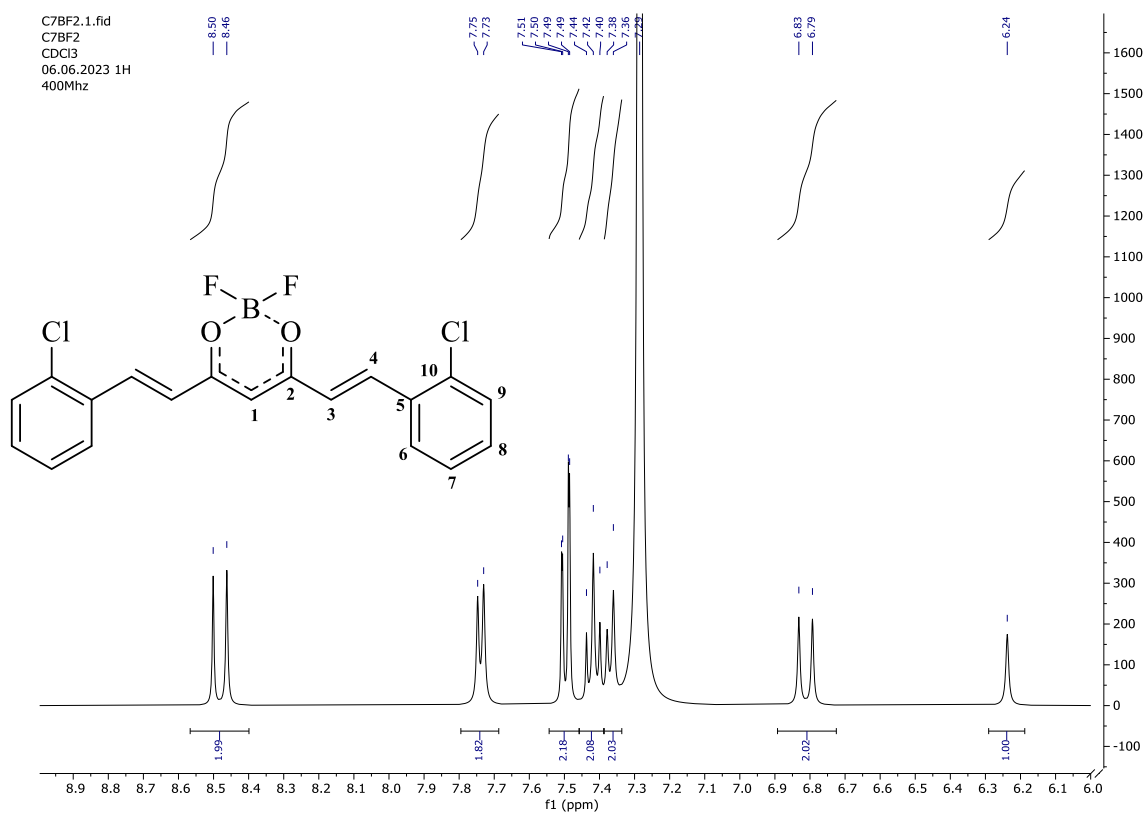


F44. ábra: a C6BF₂ vegyület ^{11}B NMR spektruma

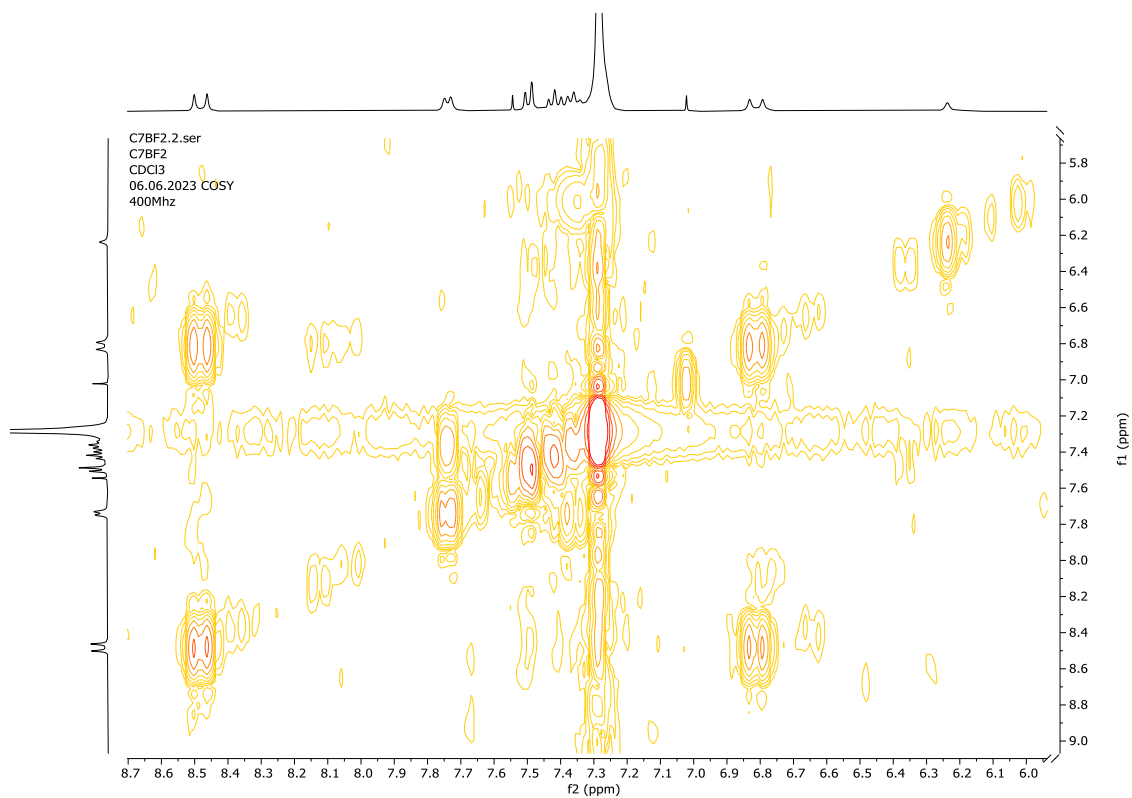
C6BF2.5.fid
C6BF2, 19F, 13.06.2023, 400MHz, DMSO-d6



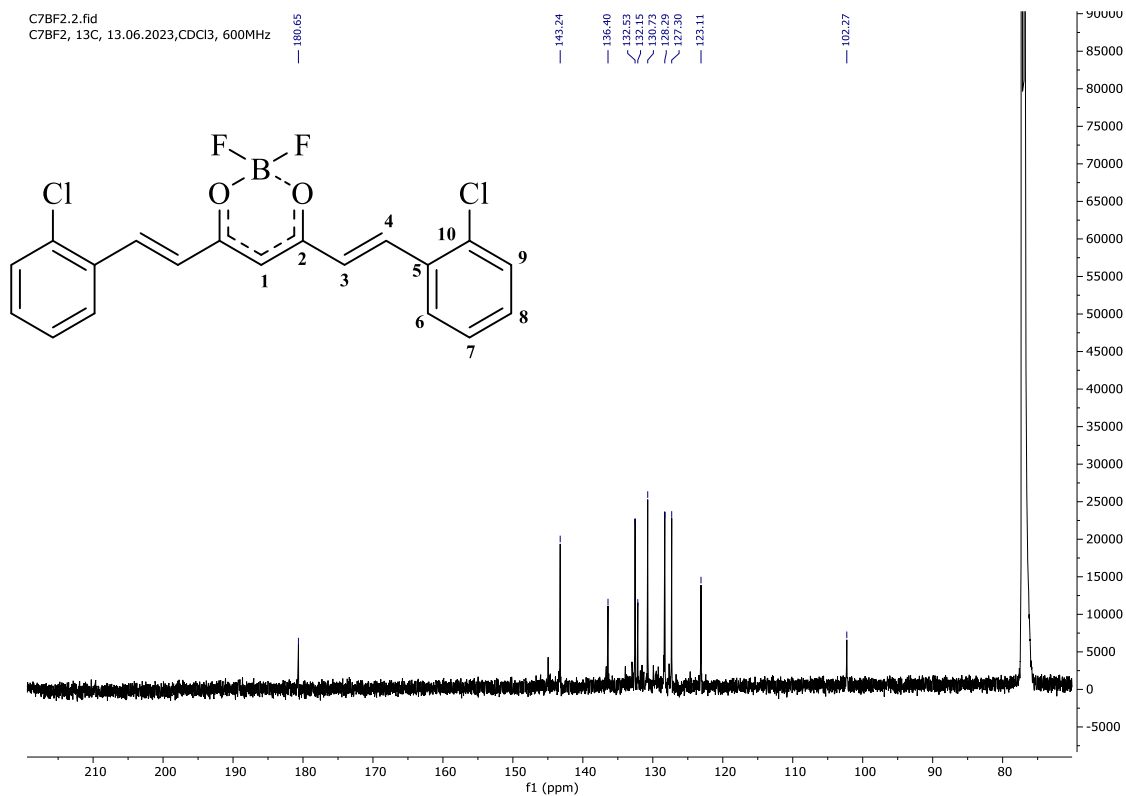
F45. ábra: a C6BF₂ vegyület ^{19}F NMR spektruma



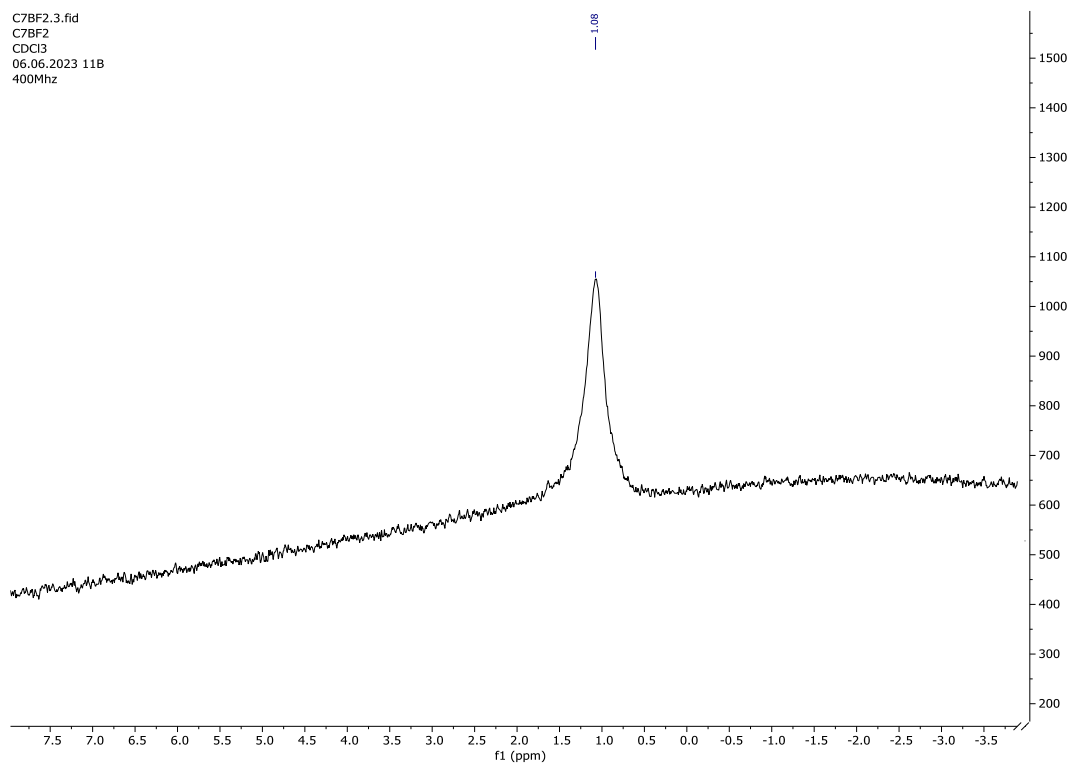
F46. ábra: a C7BF₂ vegyület 1D ¹H NMR spektruma



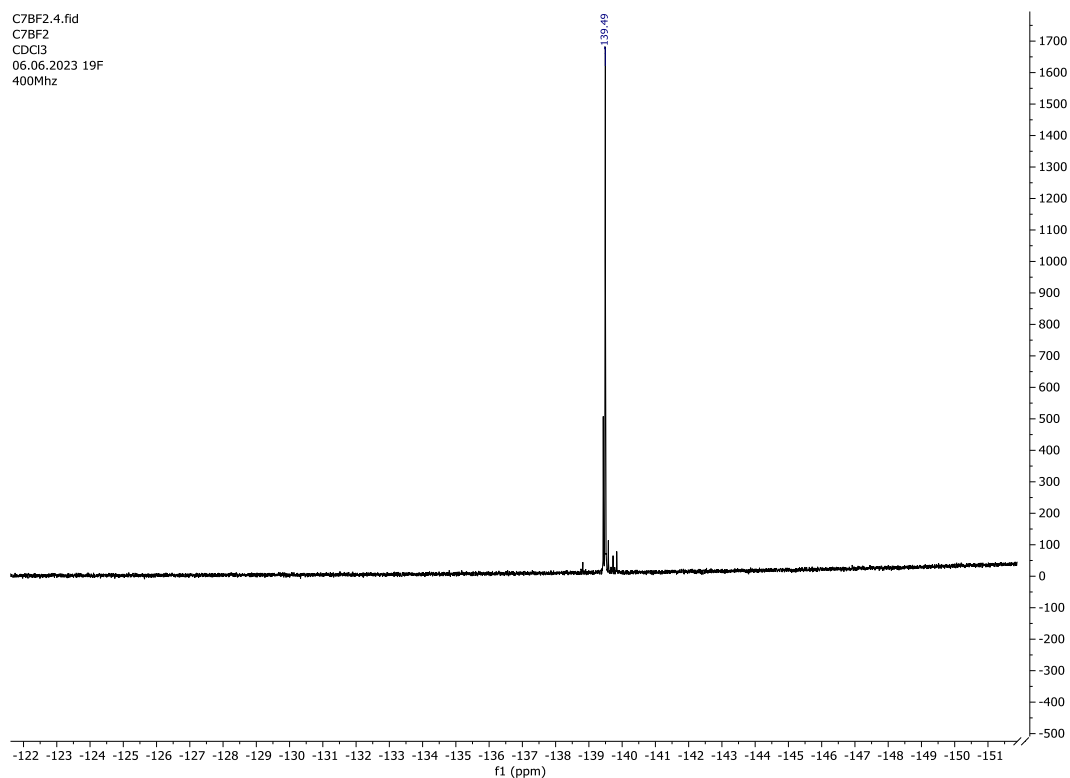
F47. ábra: a C7BF₂ vegyület ¹H-¹H COSY 2D NMR spektruma



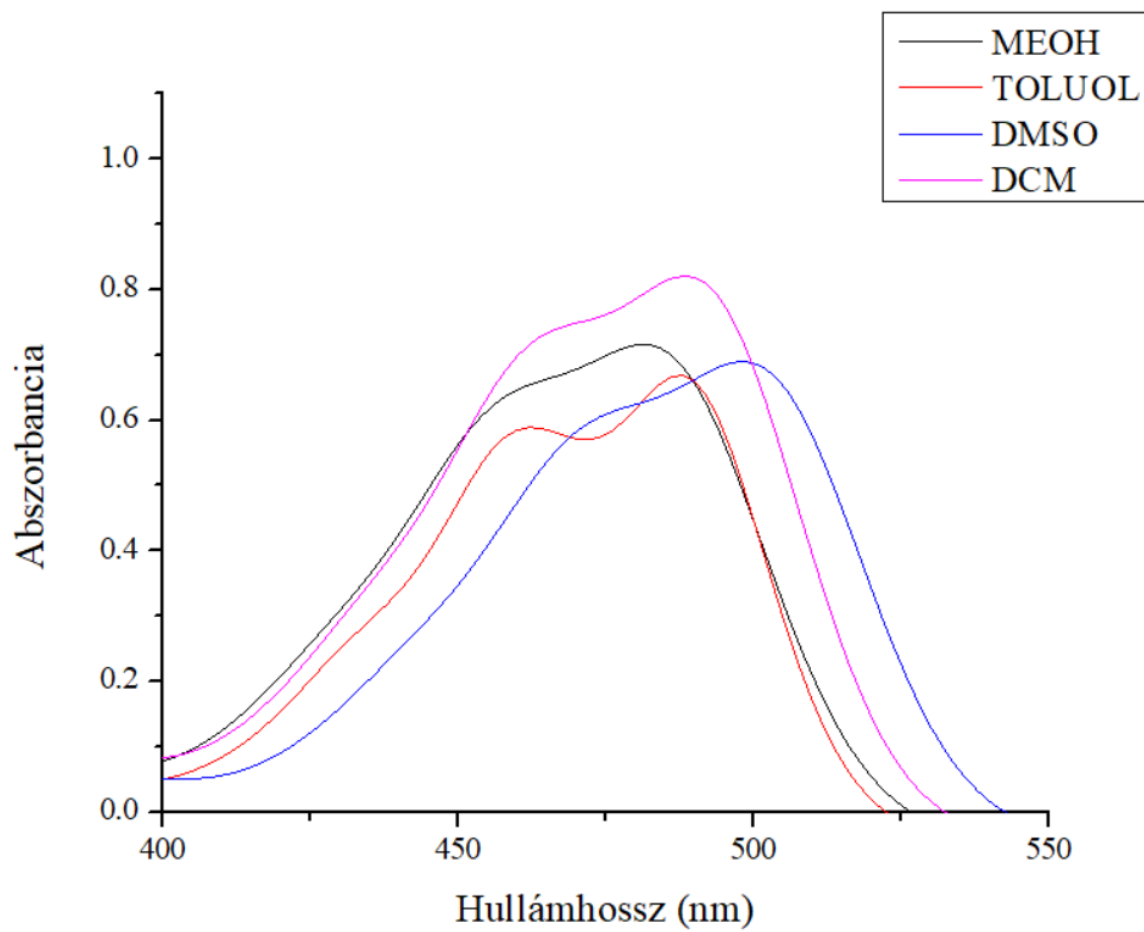
F48. ábra: a C7BF₂ vegyület ¹³C NMR spektruma



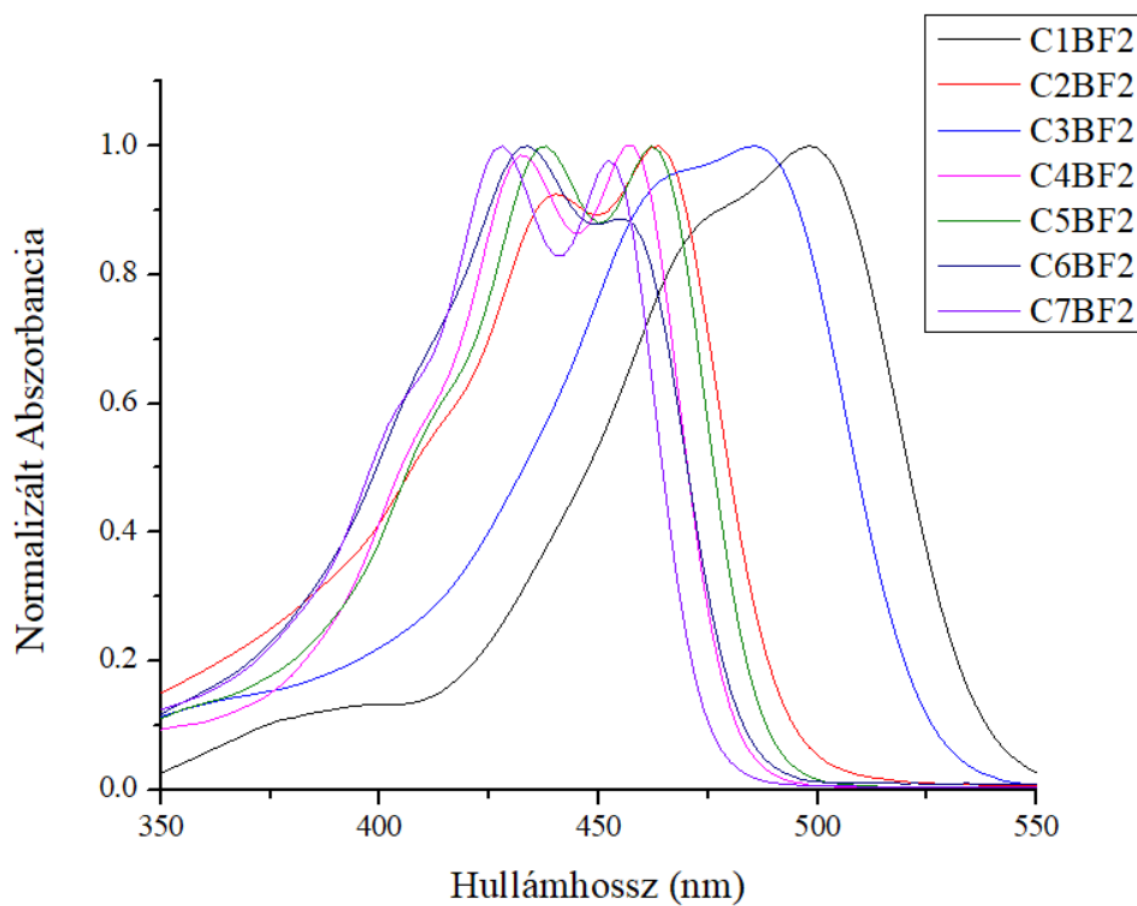
F49. ábra: a C7BF₂ vegyület ¹¹B NMR spektruma



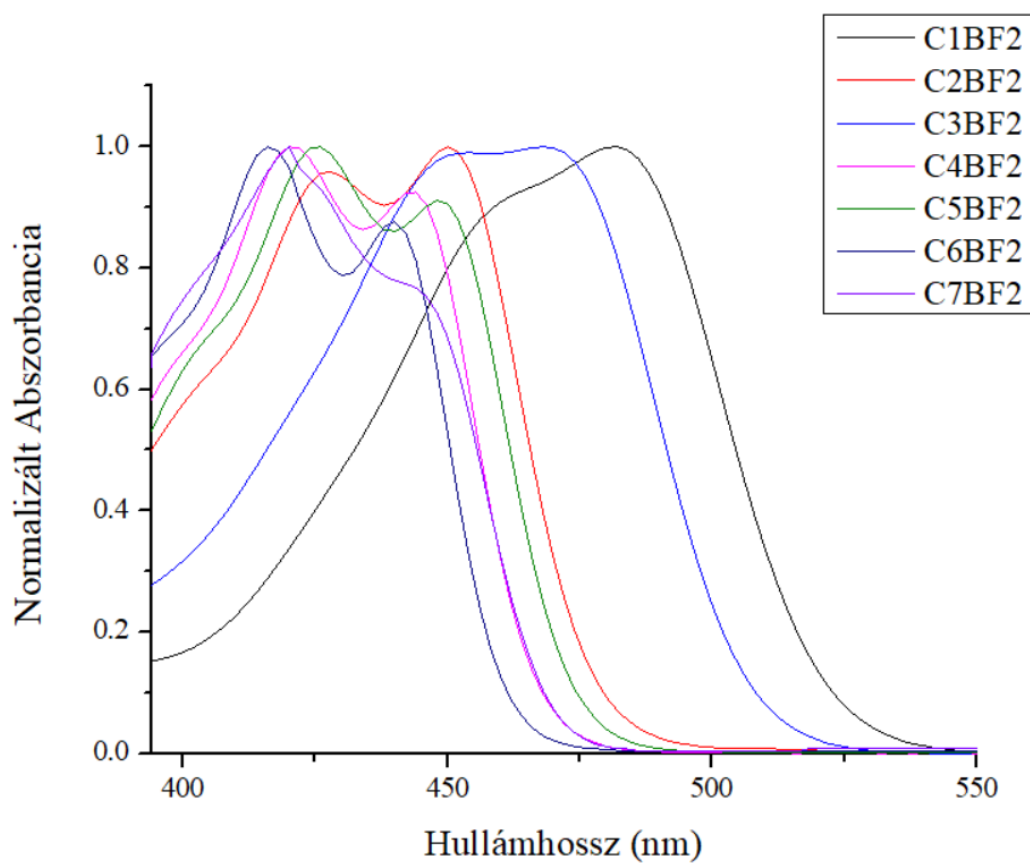
F50. ábra: a C7BF₂ vegyület ^{19}F NMR spektruma



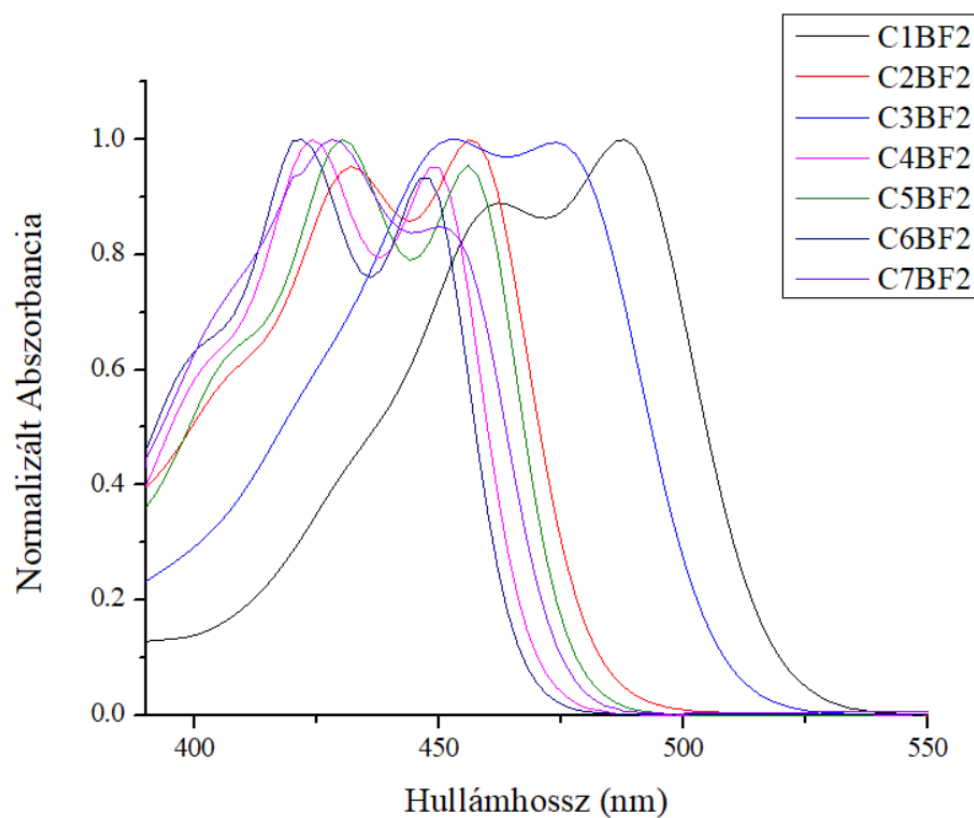
F51. ábra: a C1BF₂ komplex abszorbanca spektruma a használt oldószerekben



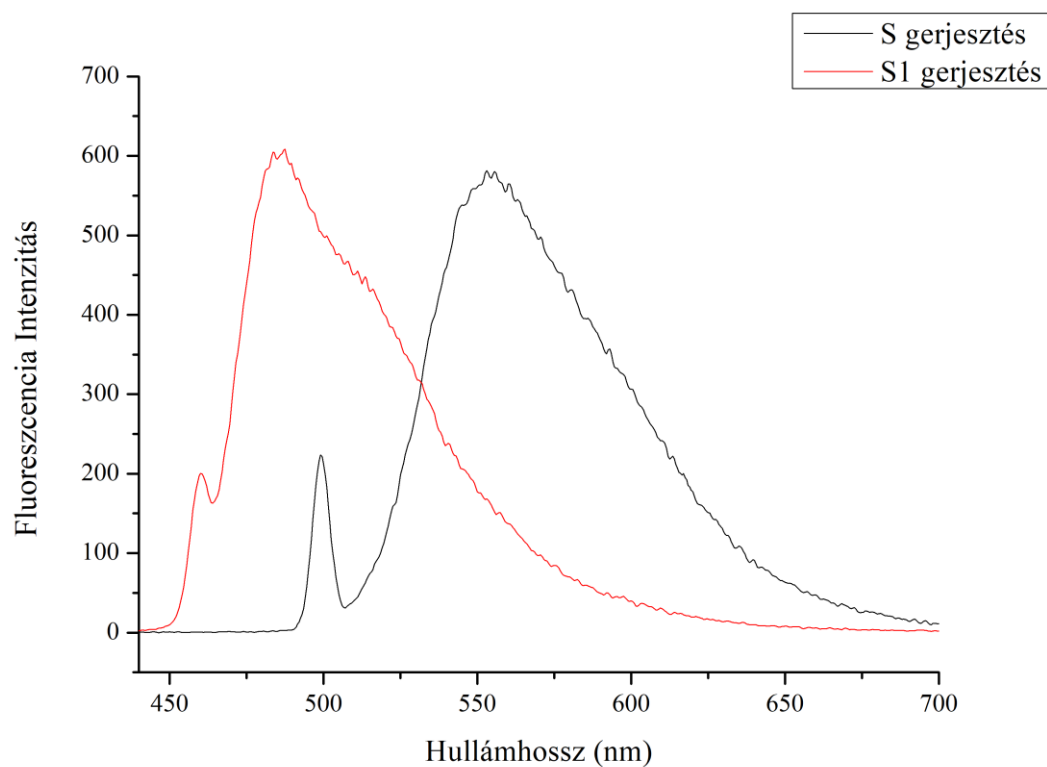
F52. ábra: az előállított komplexek normalizált abszorbancia spektrumai DMSO-ban



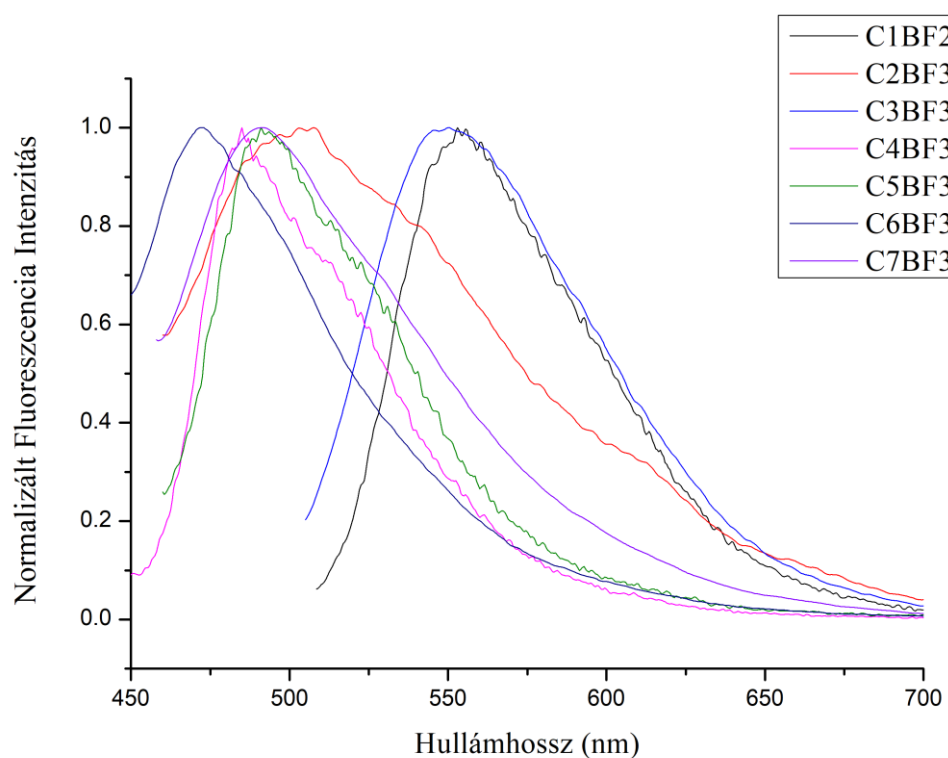
F53. ábra: az előállított komplexek normalizált abszorbancia spektrumai metanolban



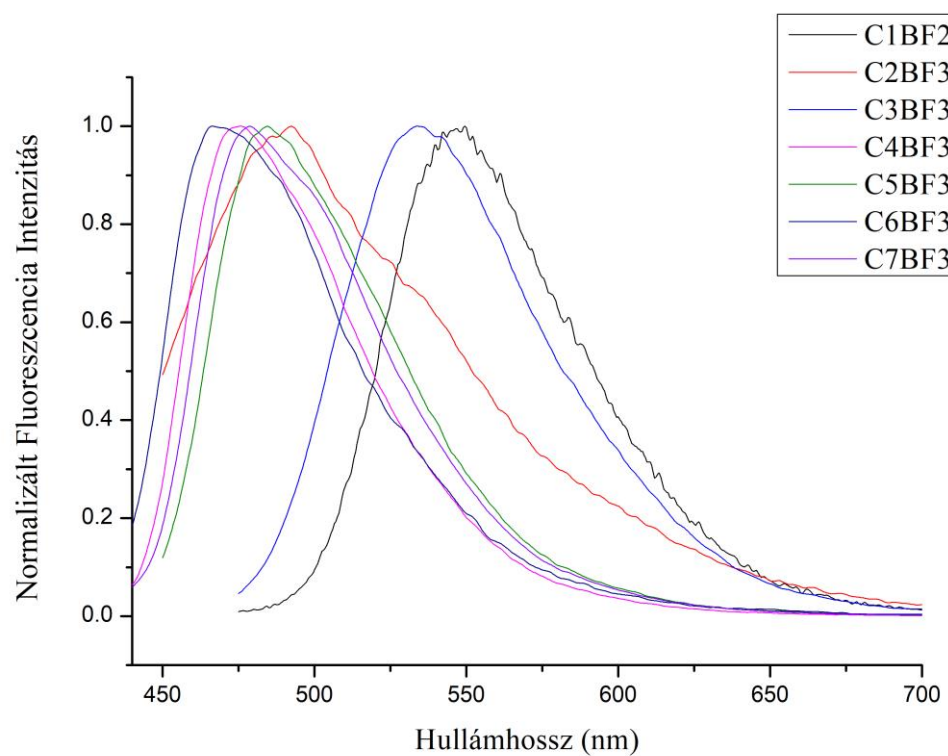
F54. ábra: az előállított komplexek normalizált abszorbancia spektrumai toluolban



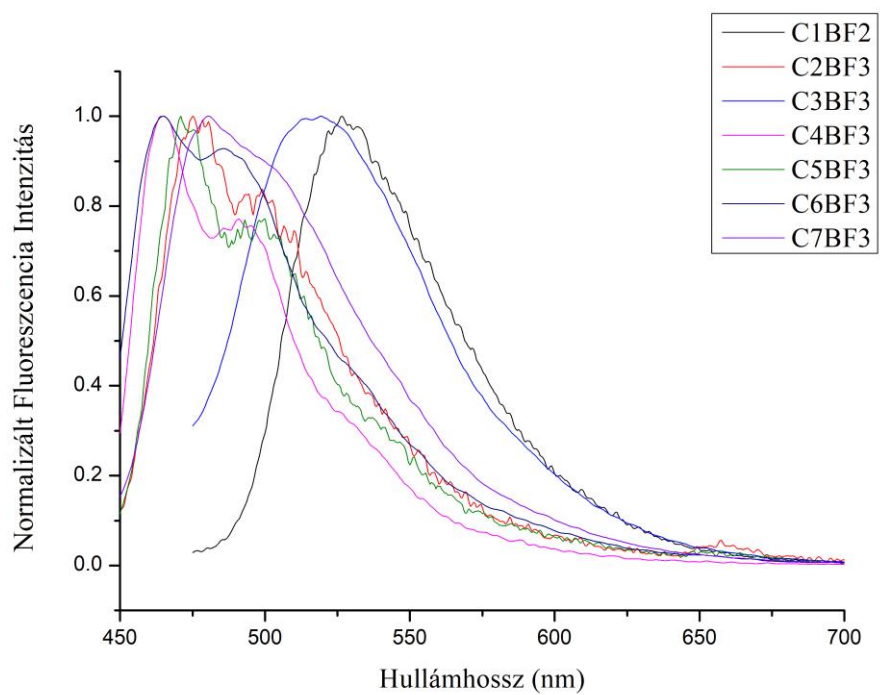
F55. ábra: a C1BF₂ komplex fluoreszcencia spektruma S₁ és S gerjesztéskor



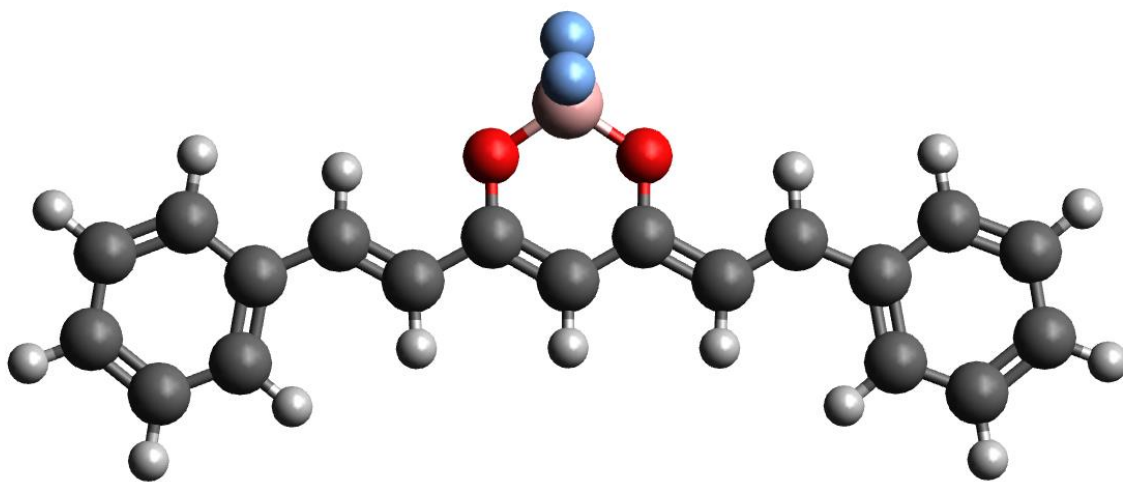
F56. ábra: az előállított komplexek normalizált fluoreszcencia spektrumai DMSO-ban



F57. ábra: az előállított komplexek normalizált fluoreszcencia spektrumai metanolban



F58. ábra: az előállított komplexek normalizált fluoreszcencia spektrumai toluolban



F59. ábra: az optimizált szerkezetű C4BF₂ vegyület

F2. táblázat: az UV-Vis és fluoreszcencia mérések során alkalmazott koncentrációk és a moláris abszorptivitás meghatározása

Anyagok	Oldószer	C_{UV-Vis} μM	A	ϵ $L \cdot mol^{-1} \cdot cm^{-1}$	$C_{fluoreszcencia}$ nM
C1BF2	toluol	13	0,6702	51496	65
	DCM	13	0,8227	63214	65
	DMSO	13	0,6893	52964	65
	MeOH	13	0,7152	54954	65
C2BF2	toluol	23	0,7464	31862	469
	DCM	23	0,8096	34560	469
	DMSO	23	0,8096	34560	2343
	MeOH	23	0,7240	30906	2343
C3BF2	toluol	25	0,8513	33544	254
	DCM	25	0,9621	37910	254
	DMSO	25	0,9992	39372	254
	MeOH	25	0,7970	31405	254
C4BF2	toluol	12	0,5480	46499	589
	DCM	12	0,7346	62332	589
	DMSO	12	0,7152	60686	5893
	MeOH	12	0,5552	47110	589
C5BF2	toluol	12	0,5675	48698	583
	DCM	12	0,8298	71207	583
	DMSO	12	0,7081	60763	291
	MeOH	12	0,5682	48758	583
C6BF2	toluol	16	0,7334	46192	1058
	DCM	16	0,8972	56509	1058
	DMSO	16	0,7746	48787	1058
	MeOH	16	0,6866	43245	1058
C7BF2	toluol	15	0,2558	16896	5496
	DCM	15	0,3232	21348	5496
	DMSO	15	0,3114	20569	5496
	MeOH	15	0,2003	13230	5496