Supporting Information

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The Synthesis and Physicochemical Characteristics of 6,6-Difluorobicyclo[3.2.0]heptane Derivatives

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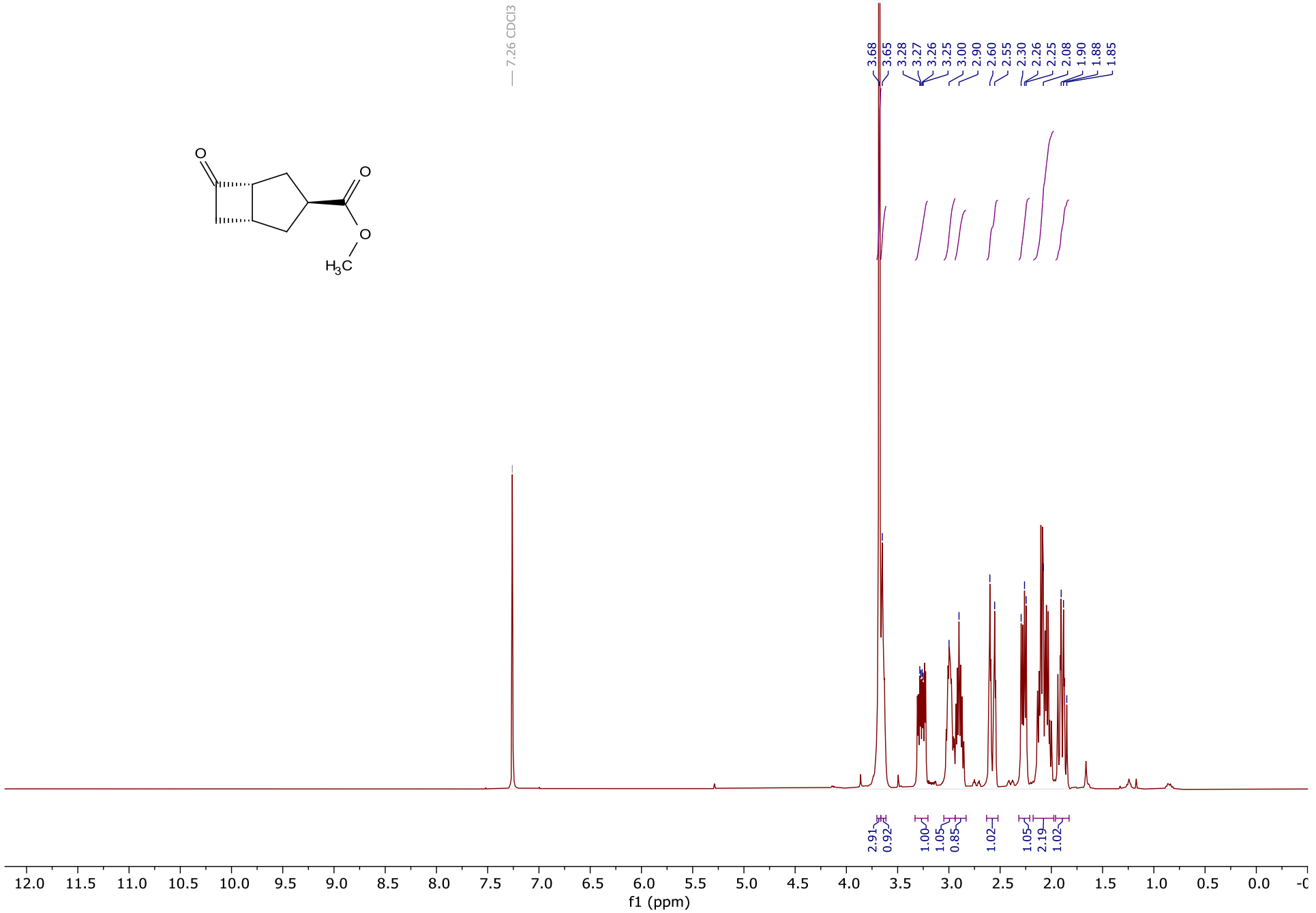


Figure 1. Methyl (1*R**,3*S**,5*R**)-6-oxobicyclo[3.2.0]heptane-3-carboxylate **3**, ^{1}H NMR (400 MHz, $CDCl_3$)

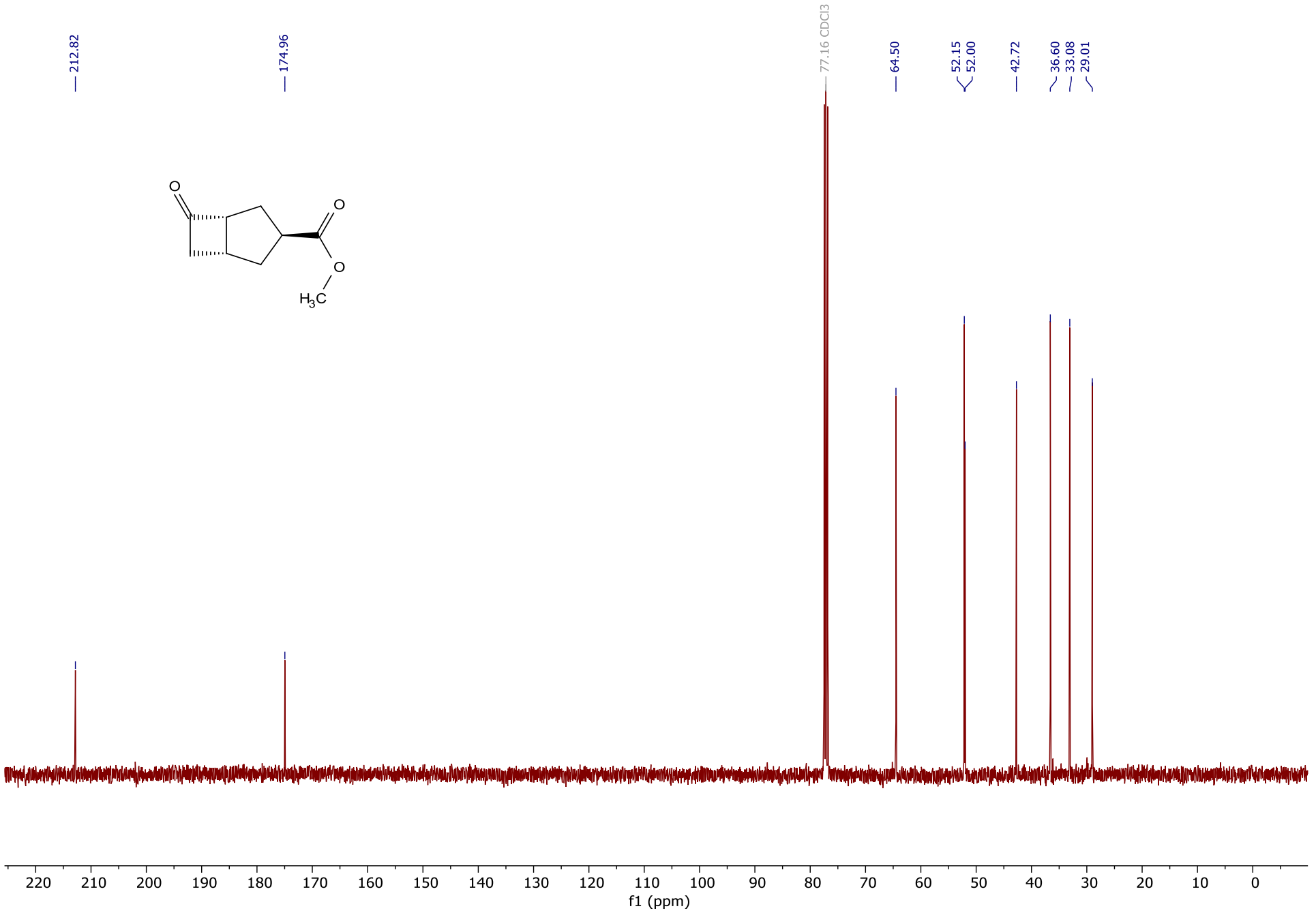


Figure 2. Methyl (1*R**,3*S**,5*R**)-6-oxobicyclo[3.2.0]heptane-3-carboxylate **3**, $^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$)

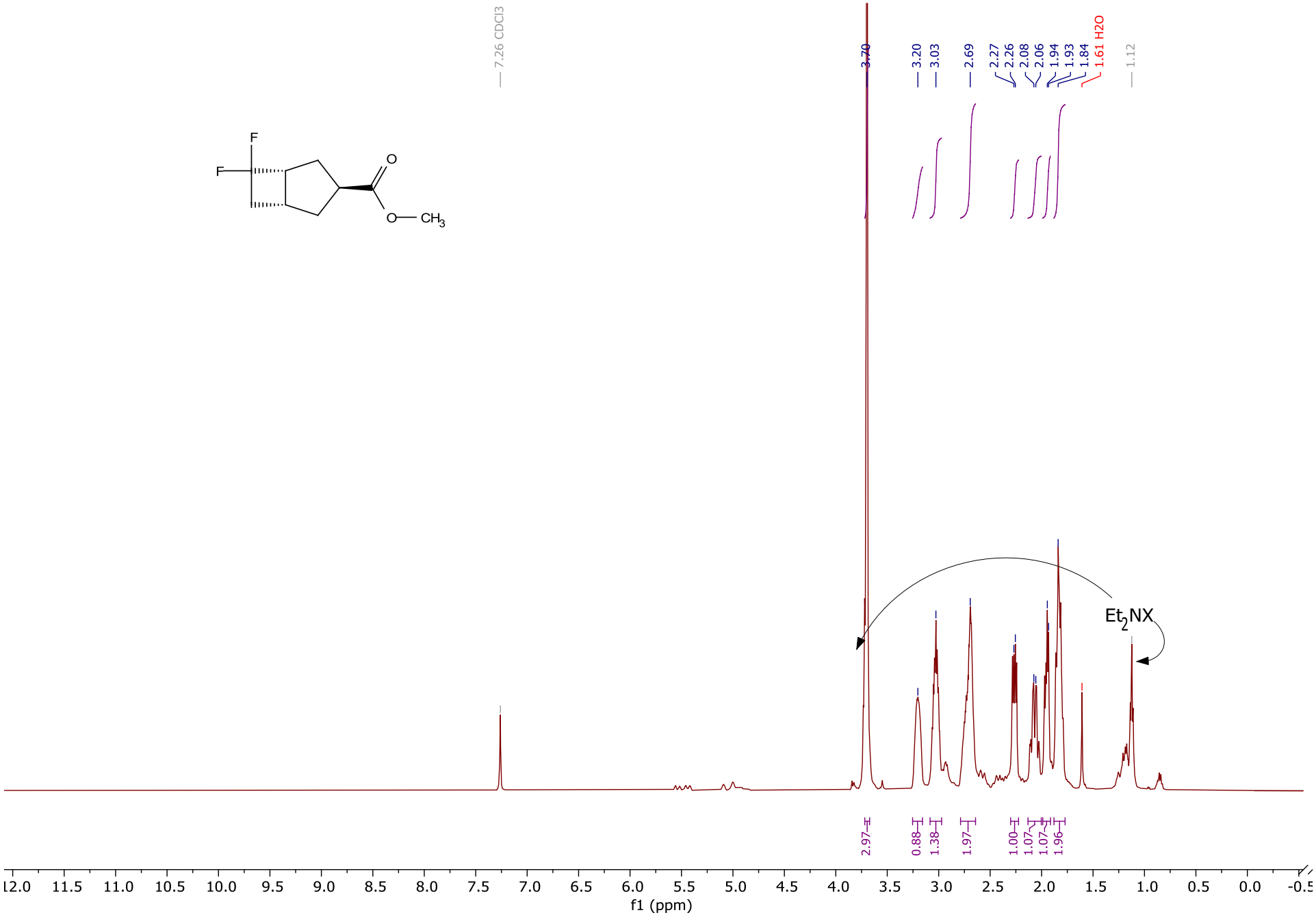


Figure 3. Methyl (1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptane-3-carboxylate **4**, ^{1}H NMR (500 MHz, $CDCl_3$).

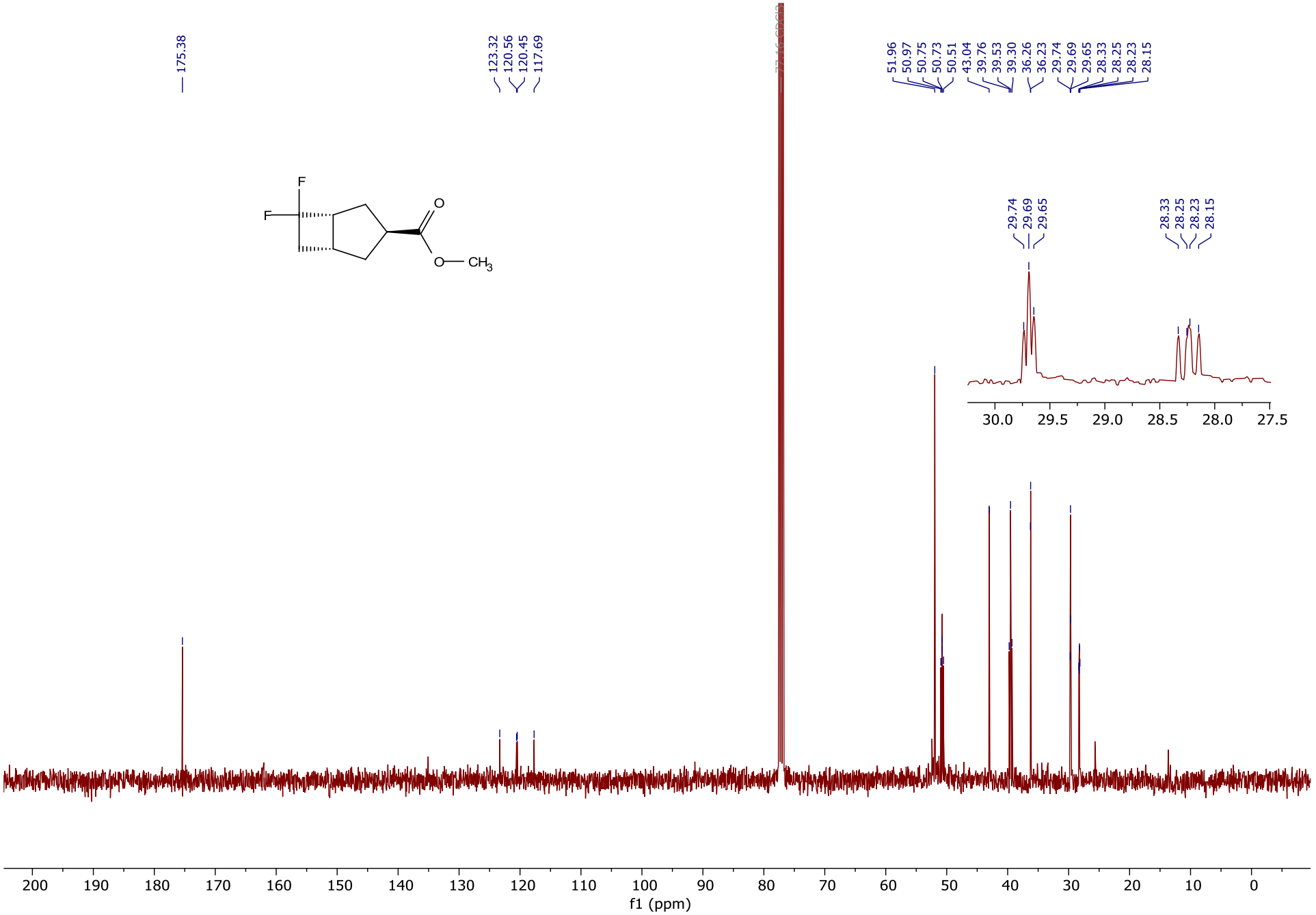


Figure 4. Methyl (1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptane-3-carboxylate **4**, $^{13}C\{^{1}H\}$ NMR (101 MHz, $CDCl_3$)

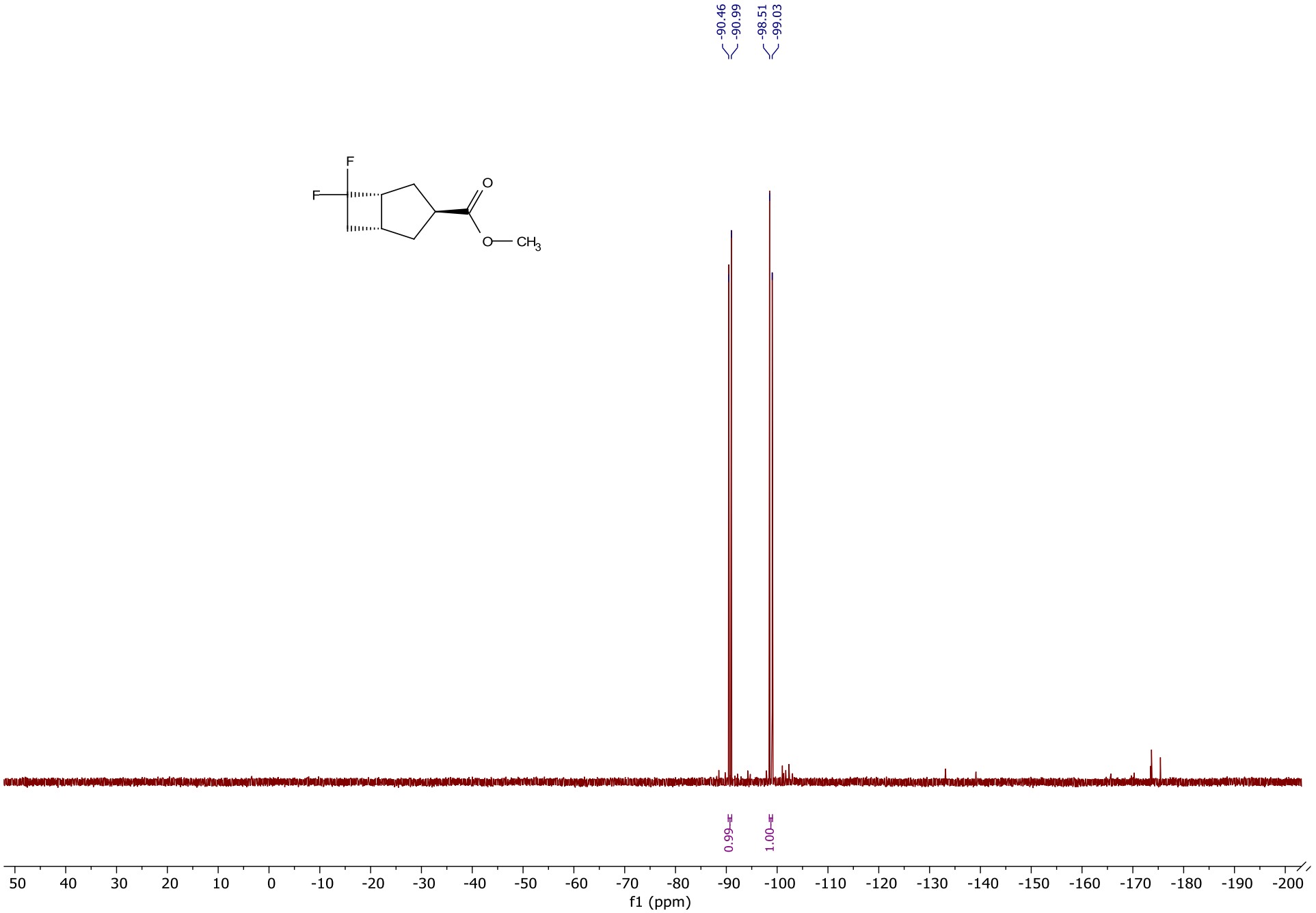


Figure 5. Methyl (1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptane-3-carboxylate **4**, $^{19}F\{^{1}H\}$ NMR (376 MHz, $CDCl_3$)

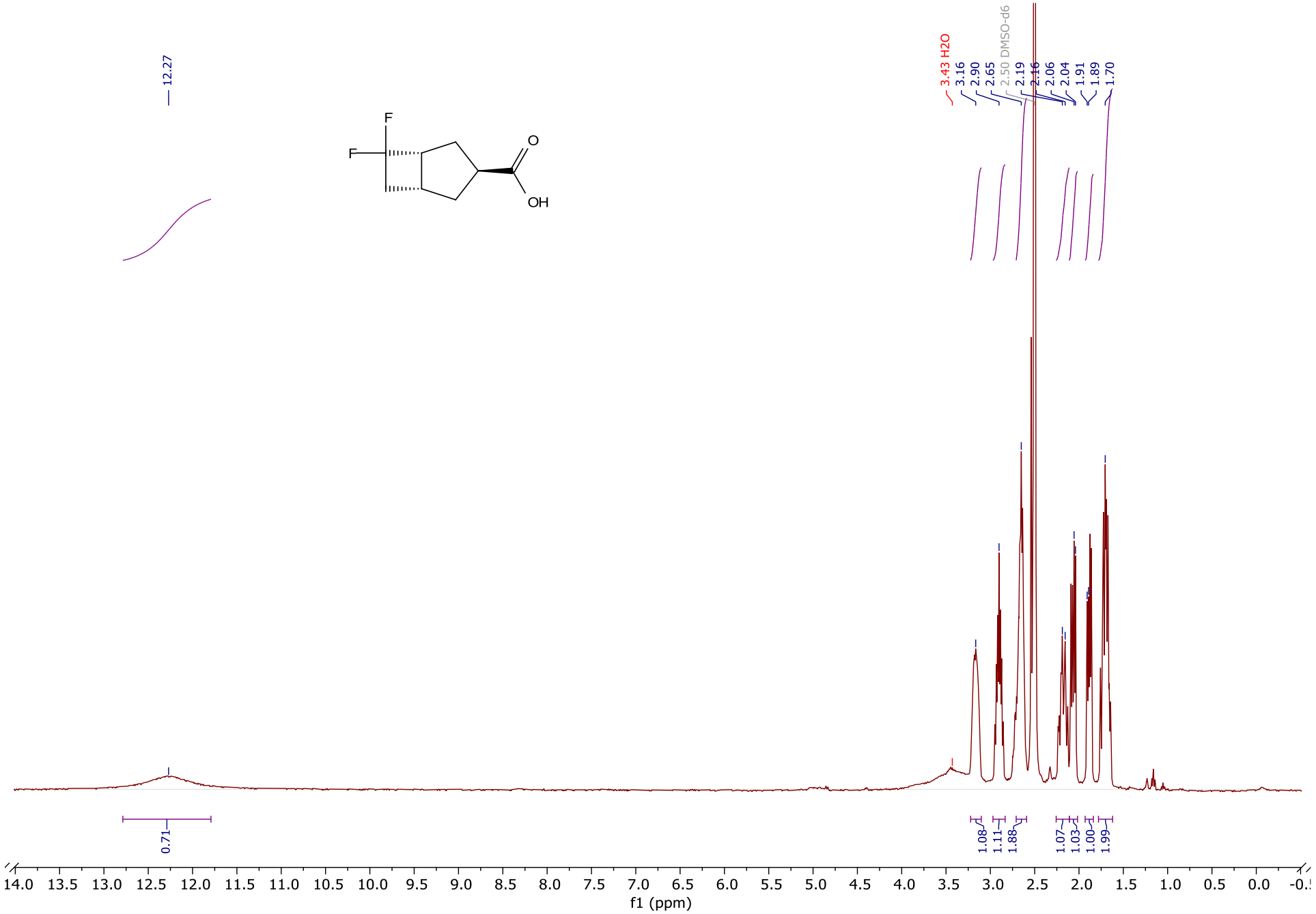
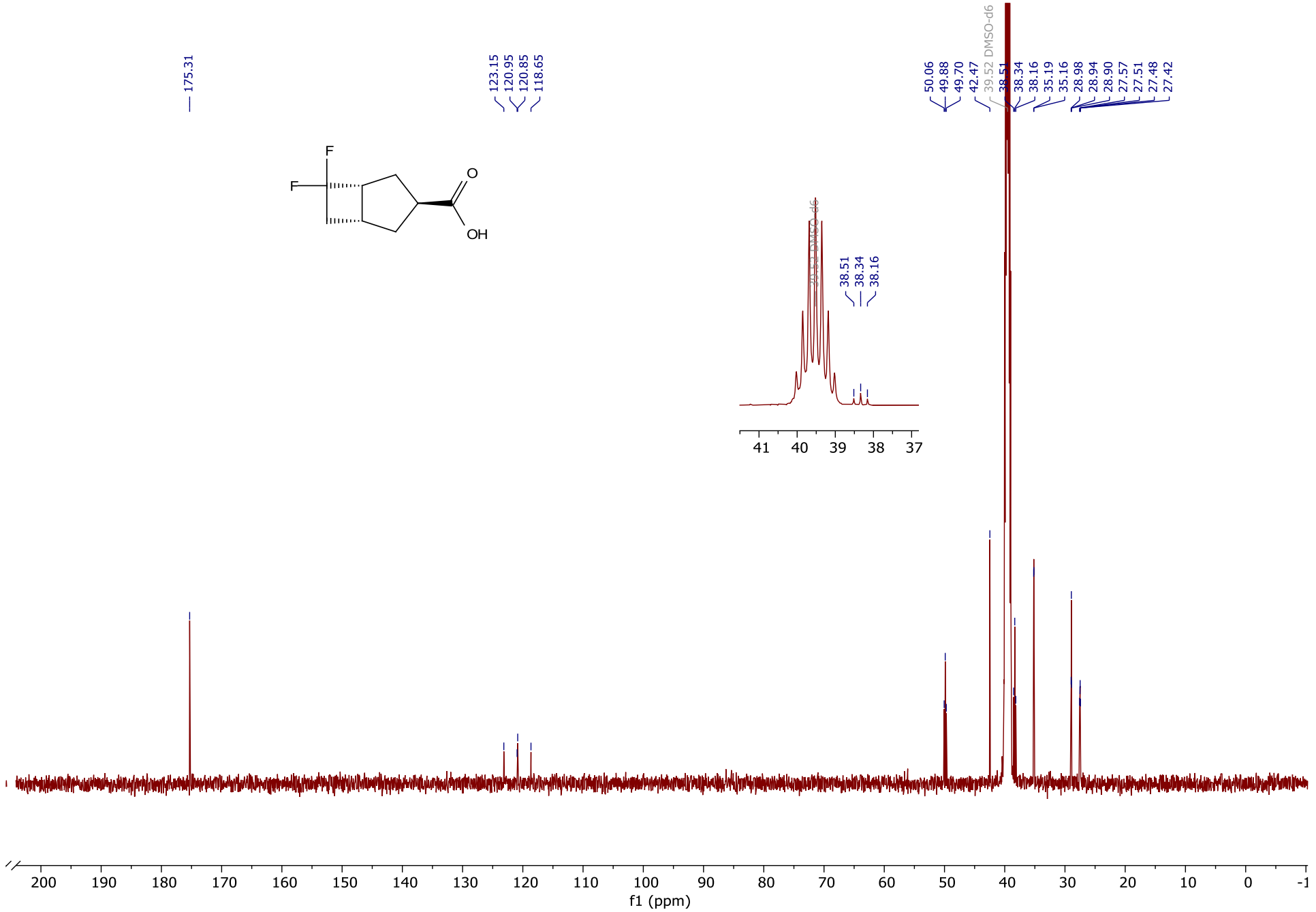


Figure 6. (1*R**,3*S**,5*R**)-6,6-Difluorobicyclo[3.2.0]heptane-3-carboxylic acid **1**, ^{1}H NMR (400 MHz, DMSO-d_6)



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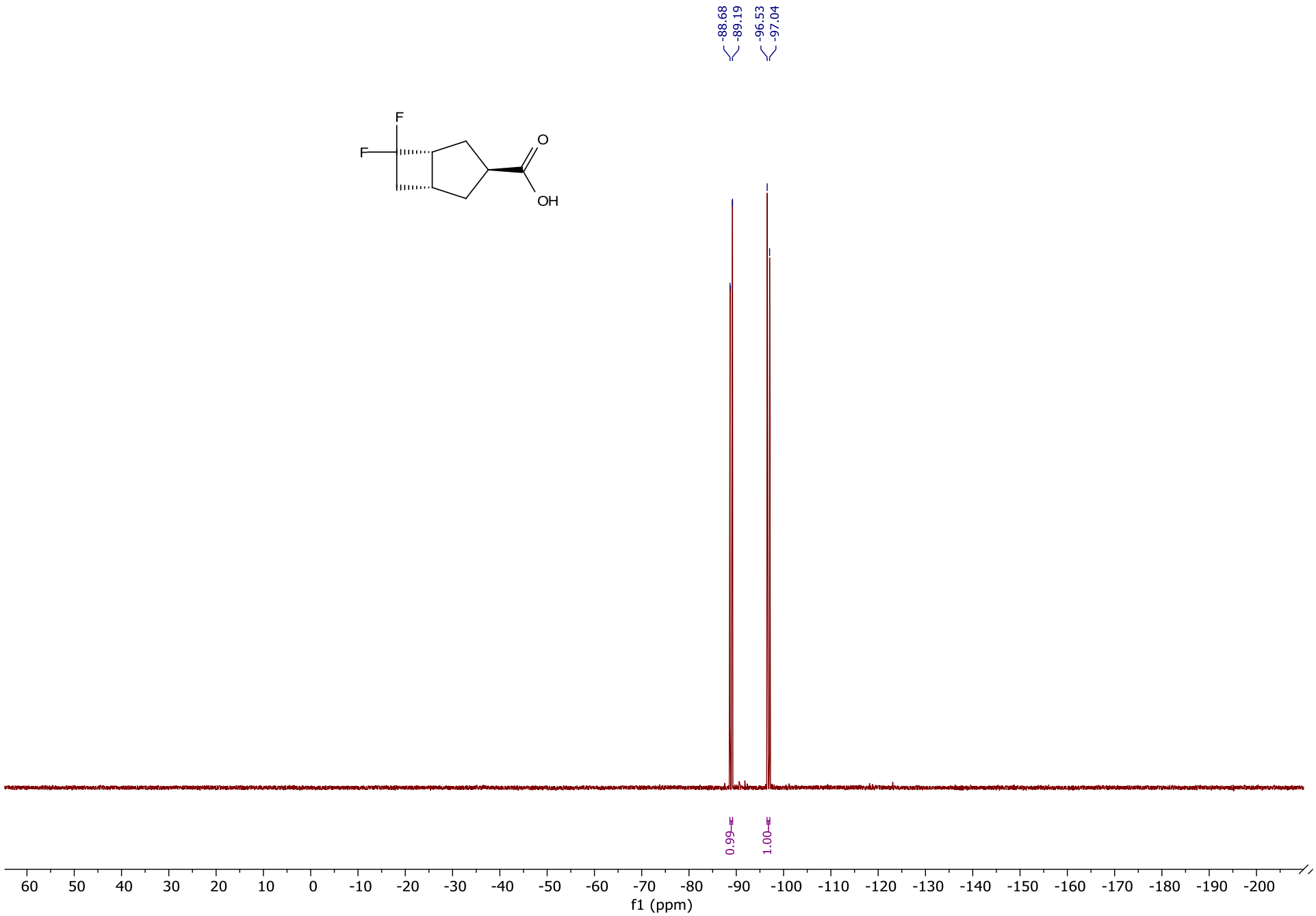

Figure 8. (1*R**,3*S**,5*R**)-6,6-Difluorobicyclo[3.2.0]heptane-3-carboxylic acid **1**, $^{19}F\{^{1}H\}$ NMR (376 MHz, DMSO-d_6)

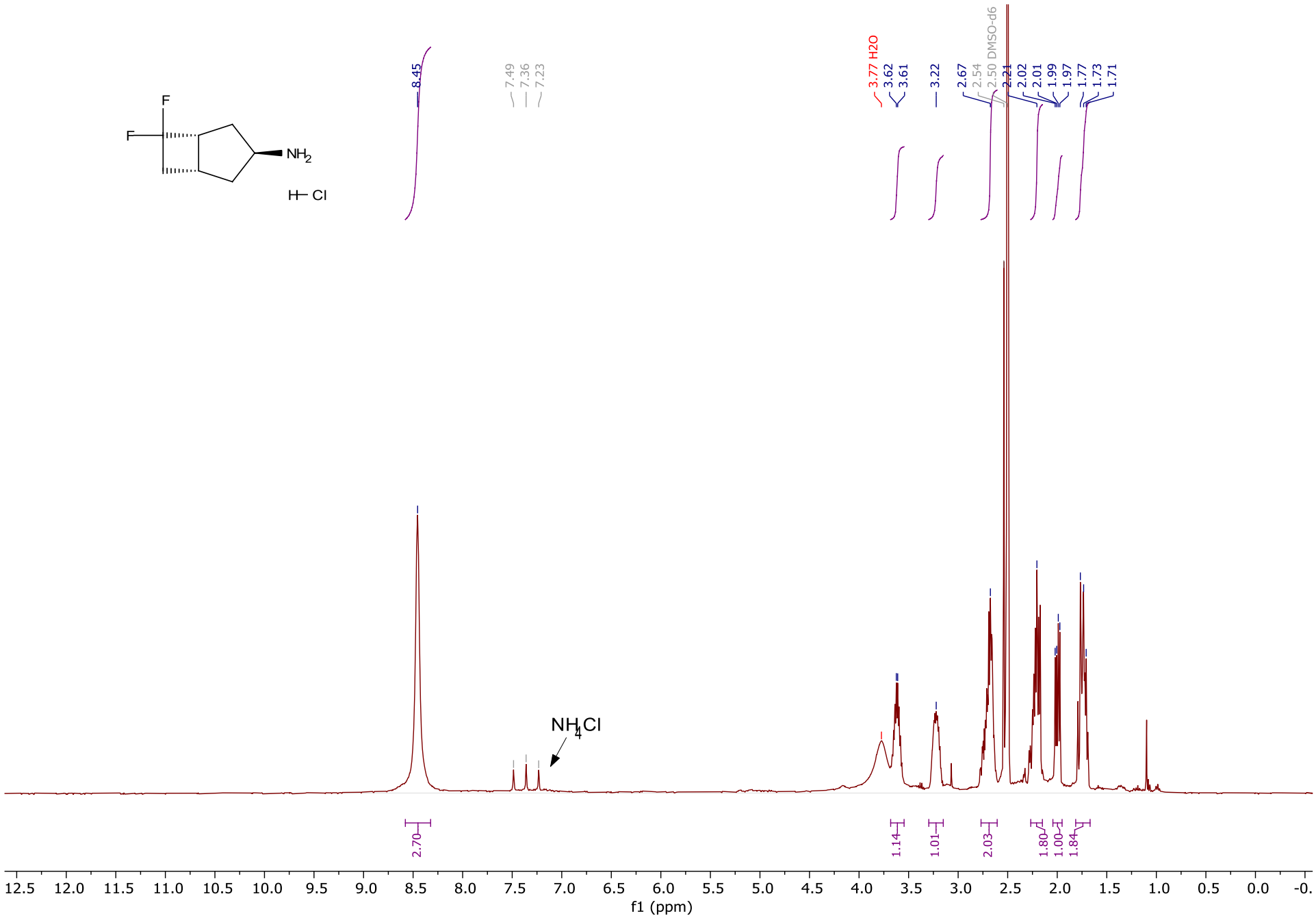

Figure 9. (1*R**,3*S**,5*R**)-6,6-Difluorobicyclo[3.2.0]heptan-3-amine hydrochloride **2**·HCl, ^{1}H NMR (400 MHz, DMSO-d_6)

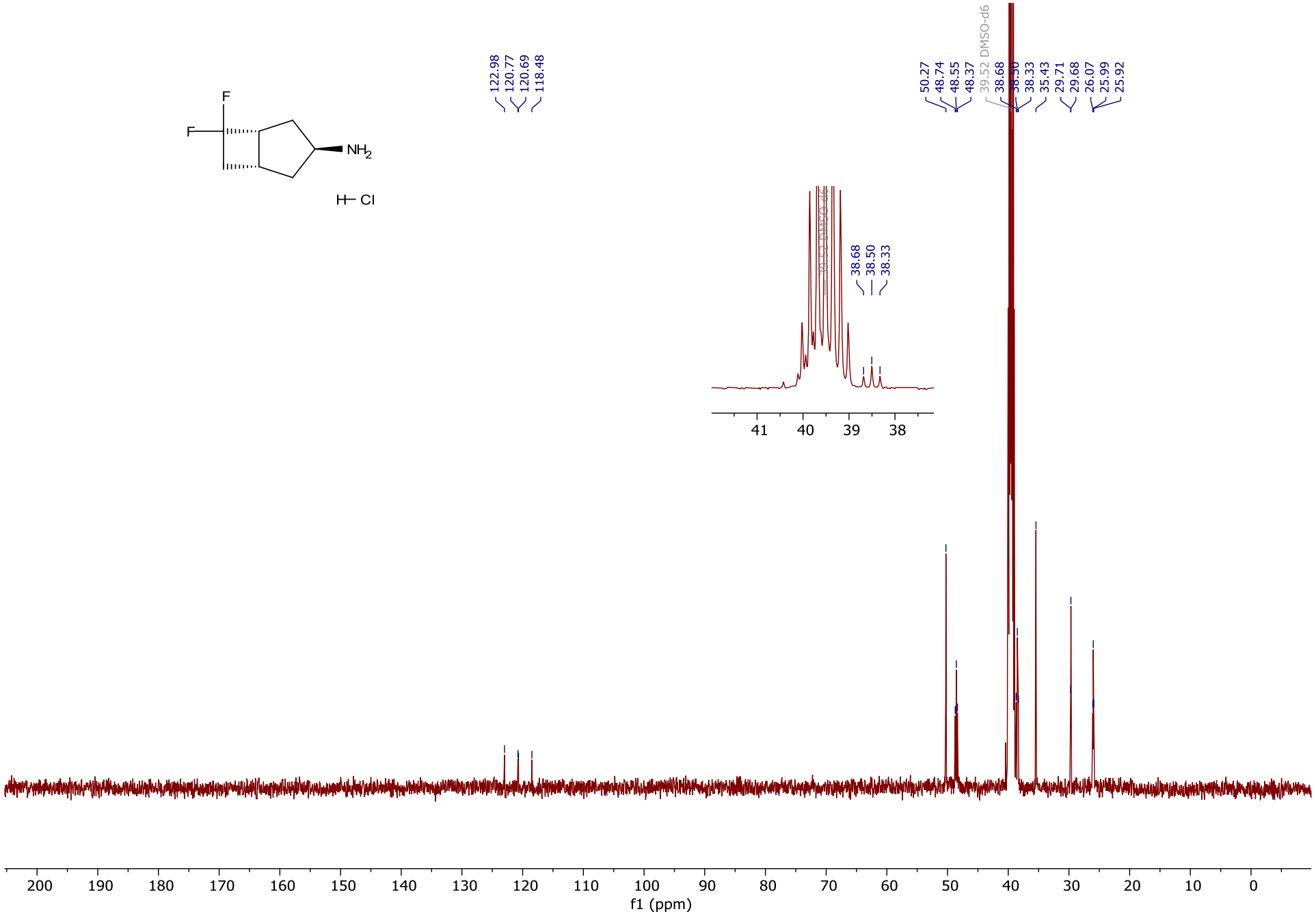

Figure 10. (1*R**,3*S**,5*R**)-6,6-Difluorobicyclo[3.2.0]heptan-3-amine hydrochloride **2**·HCl, $^{13}C\{^{1}H\}$ NMR (126 MHz, DMSO-d_6)

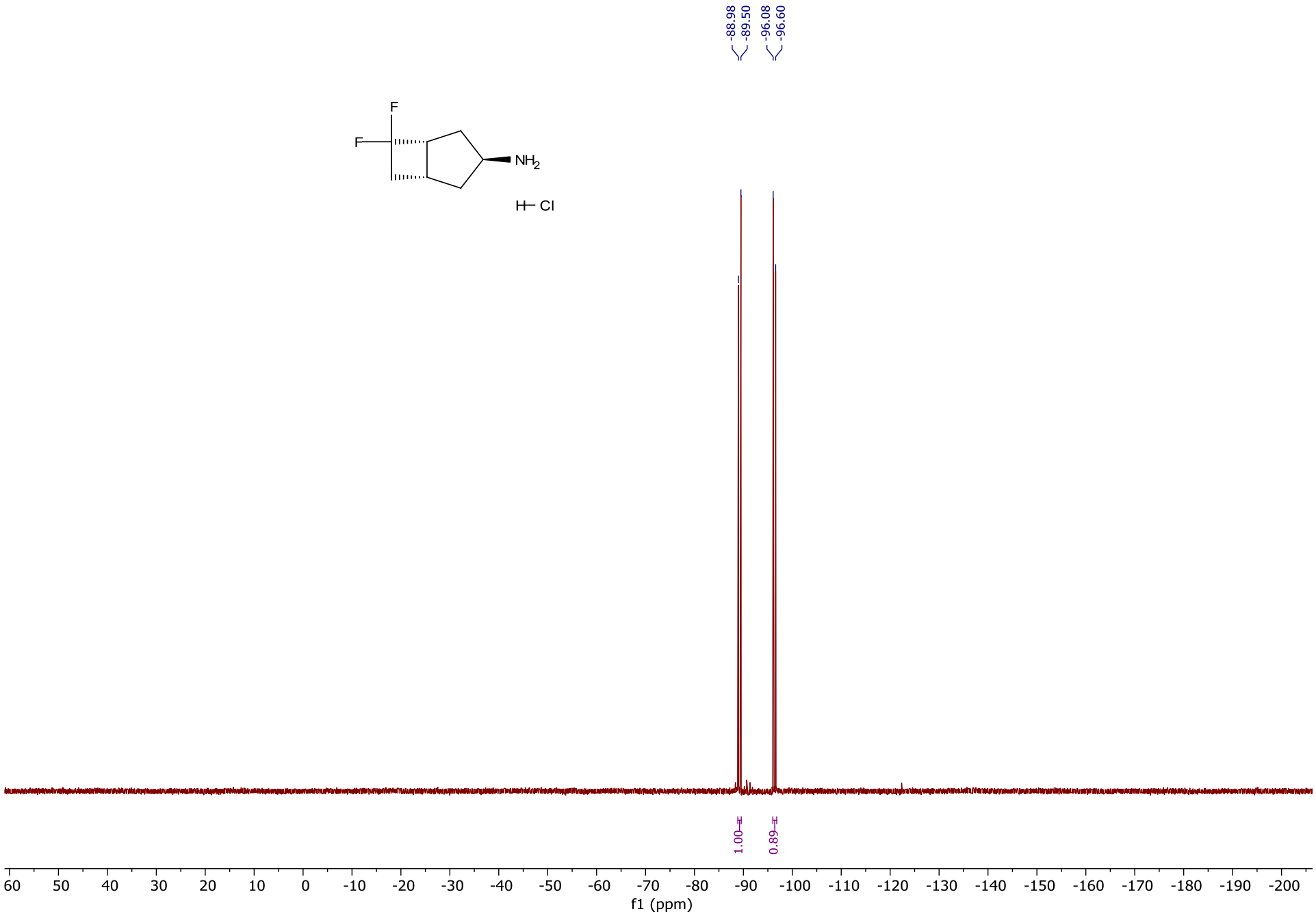

Figure 11. (1*R**,3*S**,5*R**)-6,6-Difluorobicyclo[3.2.0]heptan-3-amine hydrochloride **2**·HCl, $^{19}F\{^{1}H\}$ NMR (376 MHz, DMSO-d_6)

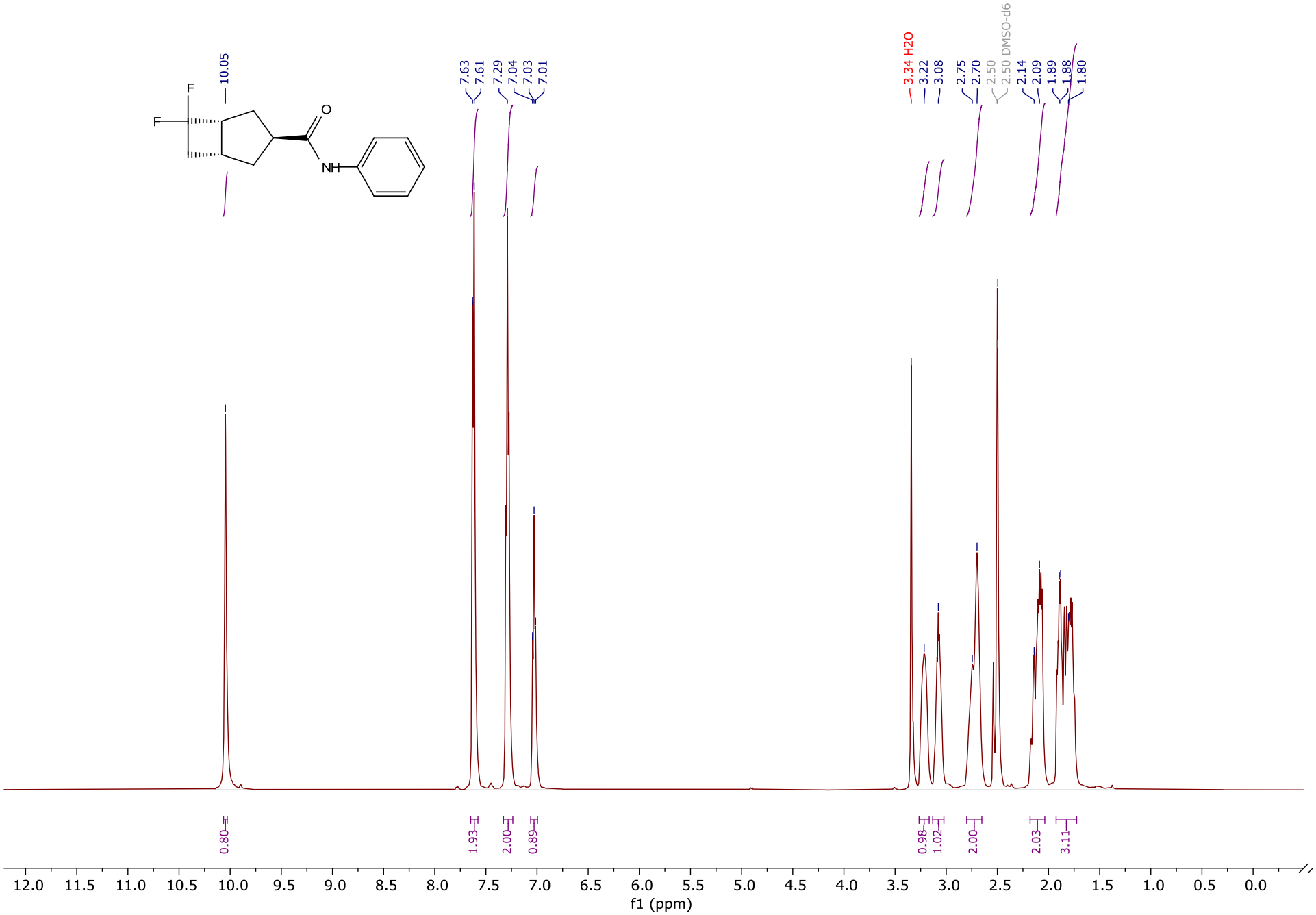

Figure 12. (1*R**,3*S**,5*R**)-6,6-Difluoro-N-phenylbicyclo[3.2.0]heptane-3-carboxamide **11**, ^{1}H NMR (500 MHz, DMSO-d_6)

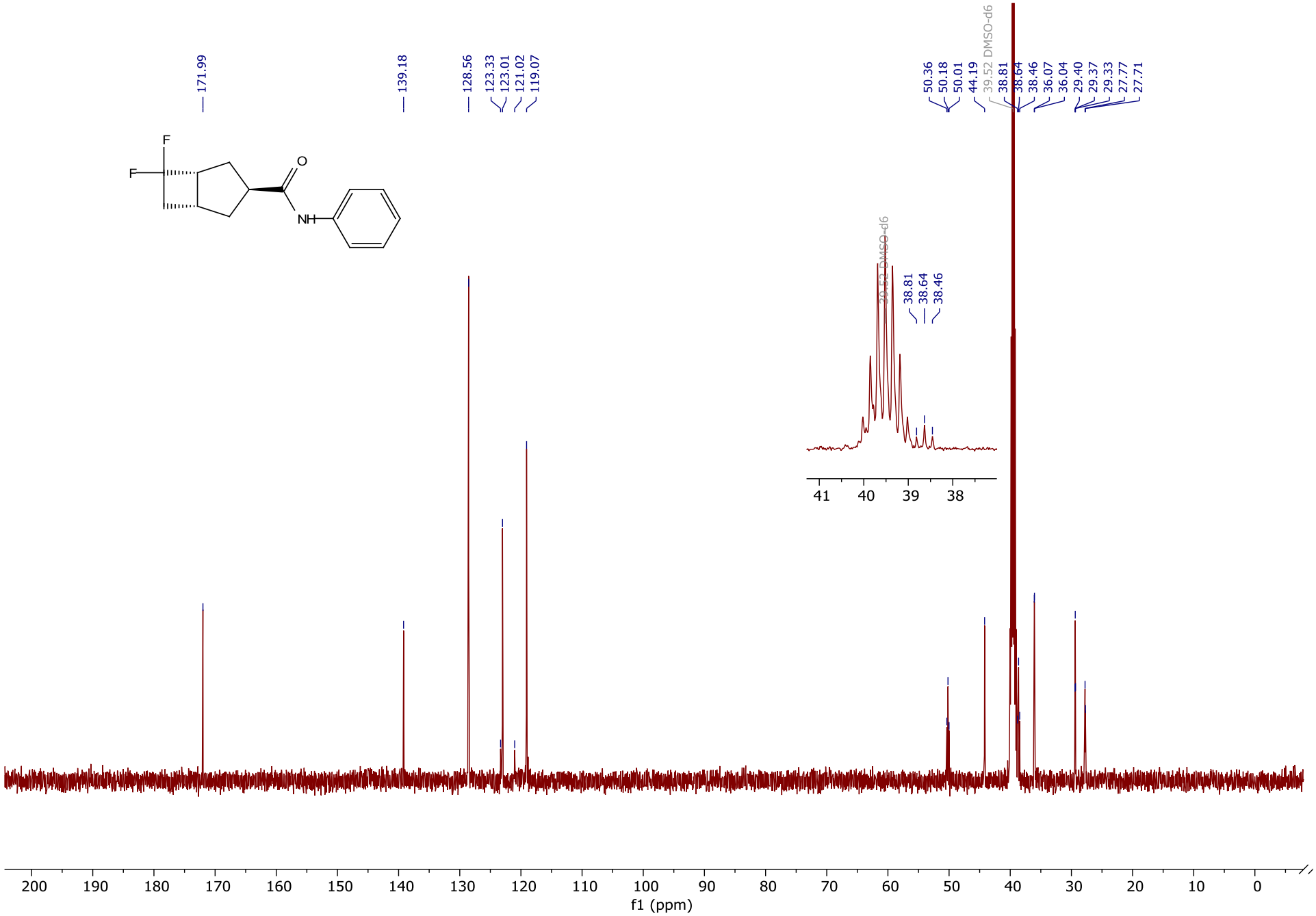

Figure 13. (1*R**,3*S**,5*R**)-6,6-Difluoro-N-phenylbicyclo[3.2.0]heptane-3-carboxamide **11**, $^{13}C\{^{1}H\}$ NMR (126 MHz, DMSO-d_6)

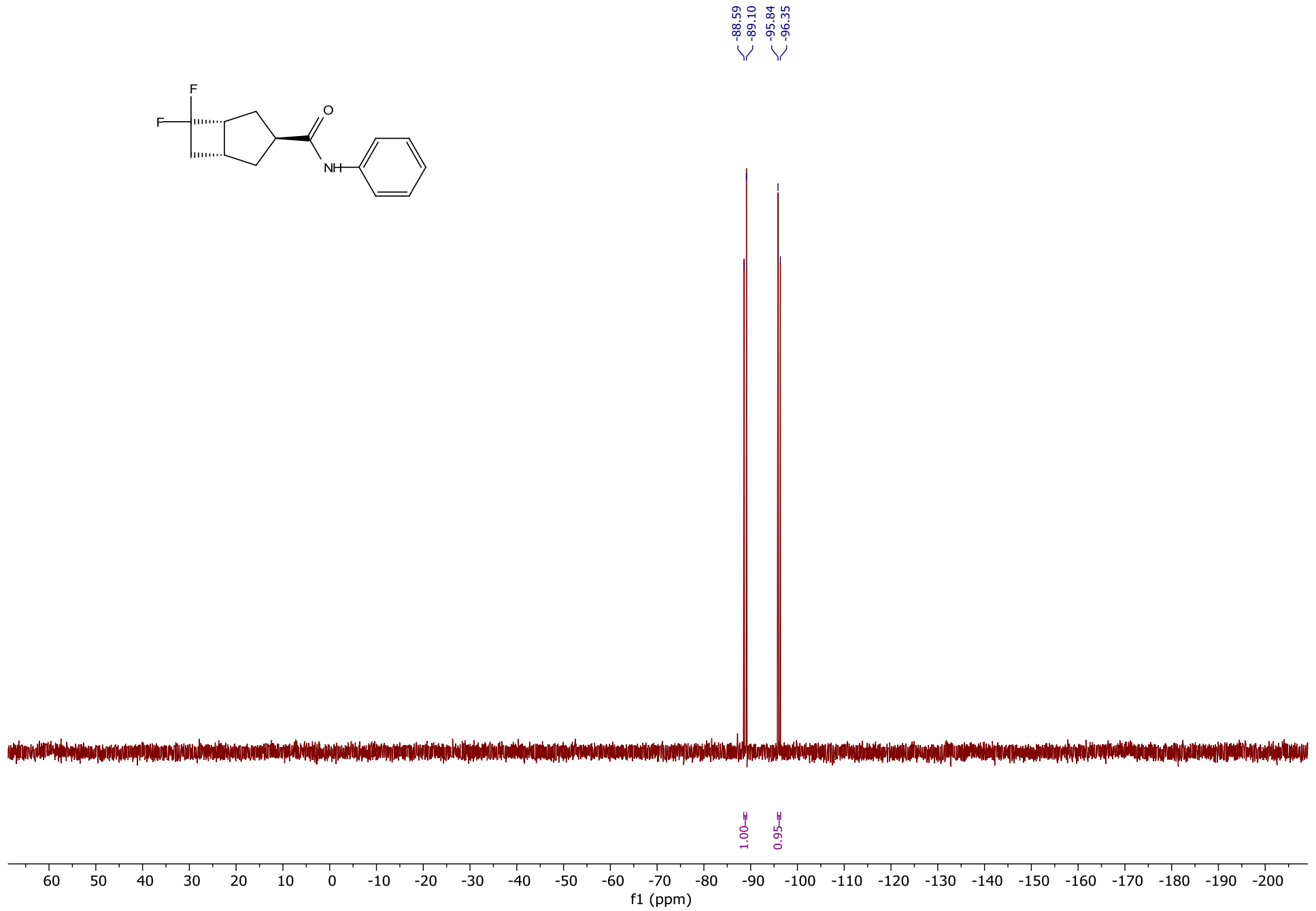

Figure 14. (1*R**,3*S**,5*R**)-6,6-Difluoro-N-phenylbicyclo[3.2.0]heptane-3-carboxamide **11**, $^{19}F\{^{1}H\}$ NMR (376 MHz, DMSO-d_6)

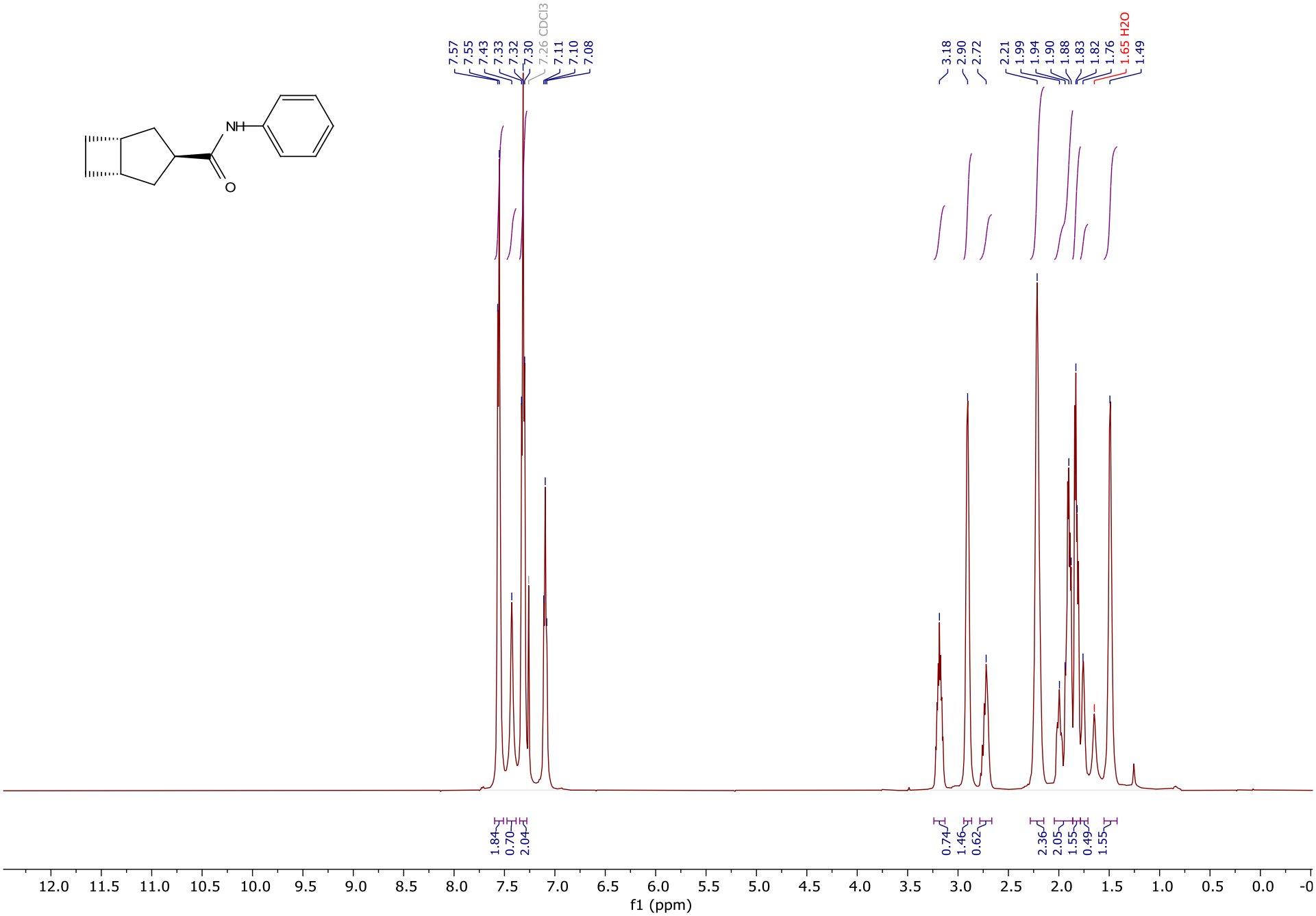

Figure 15. (1*R**,3*S**,5*S**)-N-Phenylbicyclo[3.2.0]heptane-3-carboxamide **12**, ^{1}H NMR (500 MHz, $CDCl_3$).

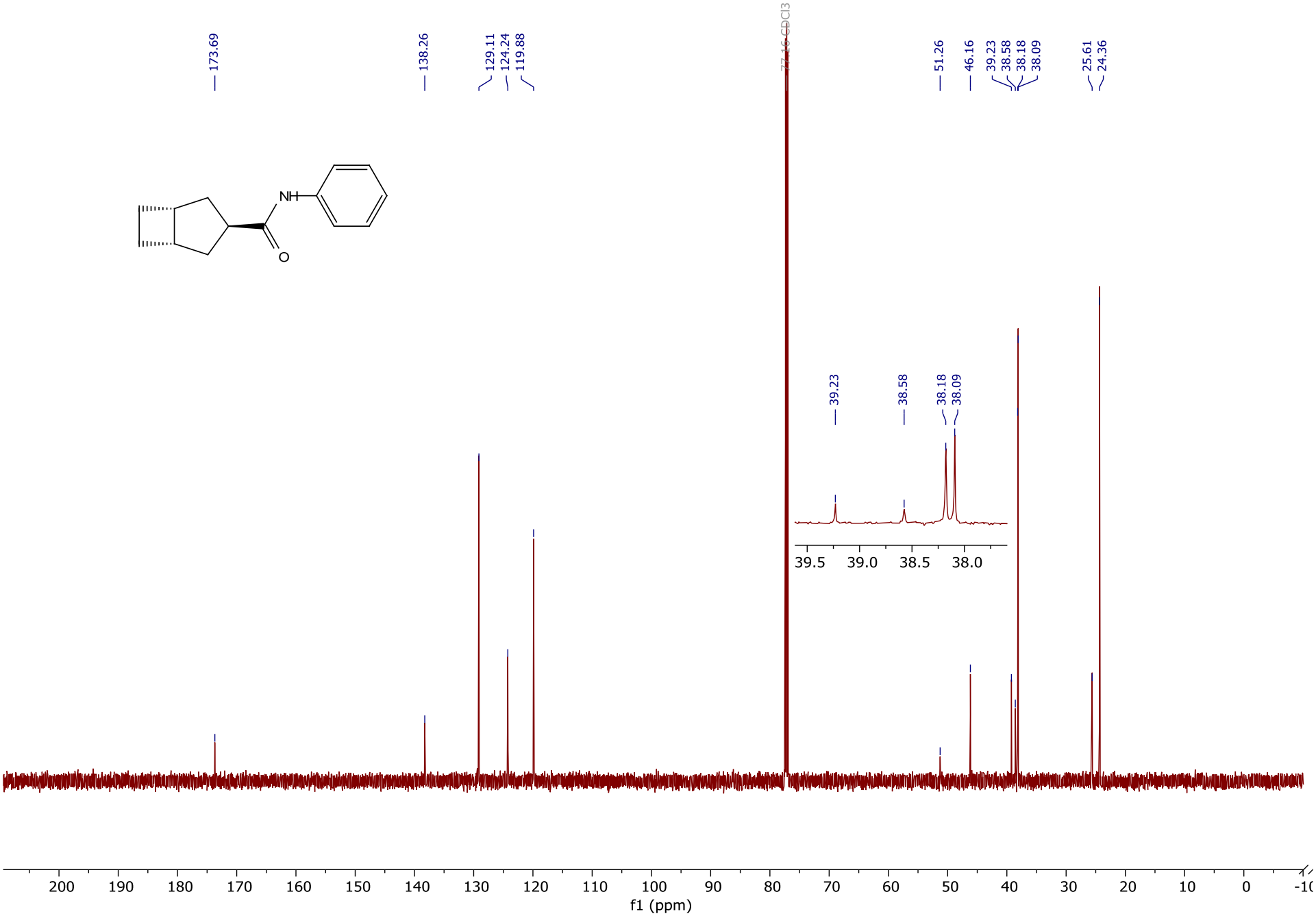

Figure 16. (1*R**,3*S**,5*S**)-N-Phenylbicyclo[3.2.0]heptane-3-carboxamide **12**, $^{13}C\{^{1}H\}$ NMR (151 MHz, $CDCl_3$).

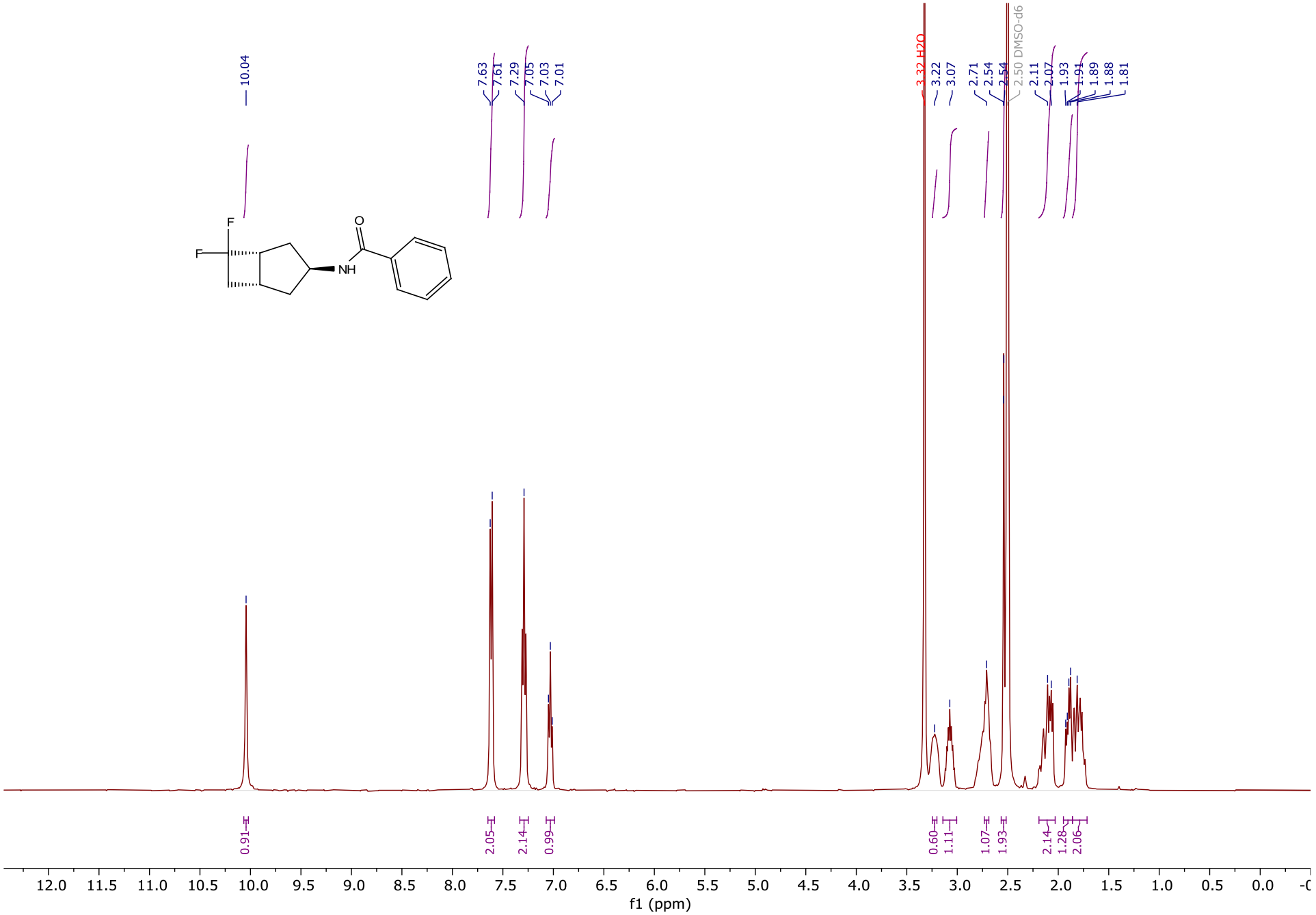

Figure 17. *N*-[(1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptan-3-yl]benzamide **13**, ^{1}H NMR (400 MHz, DMSO-d_6)

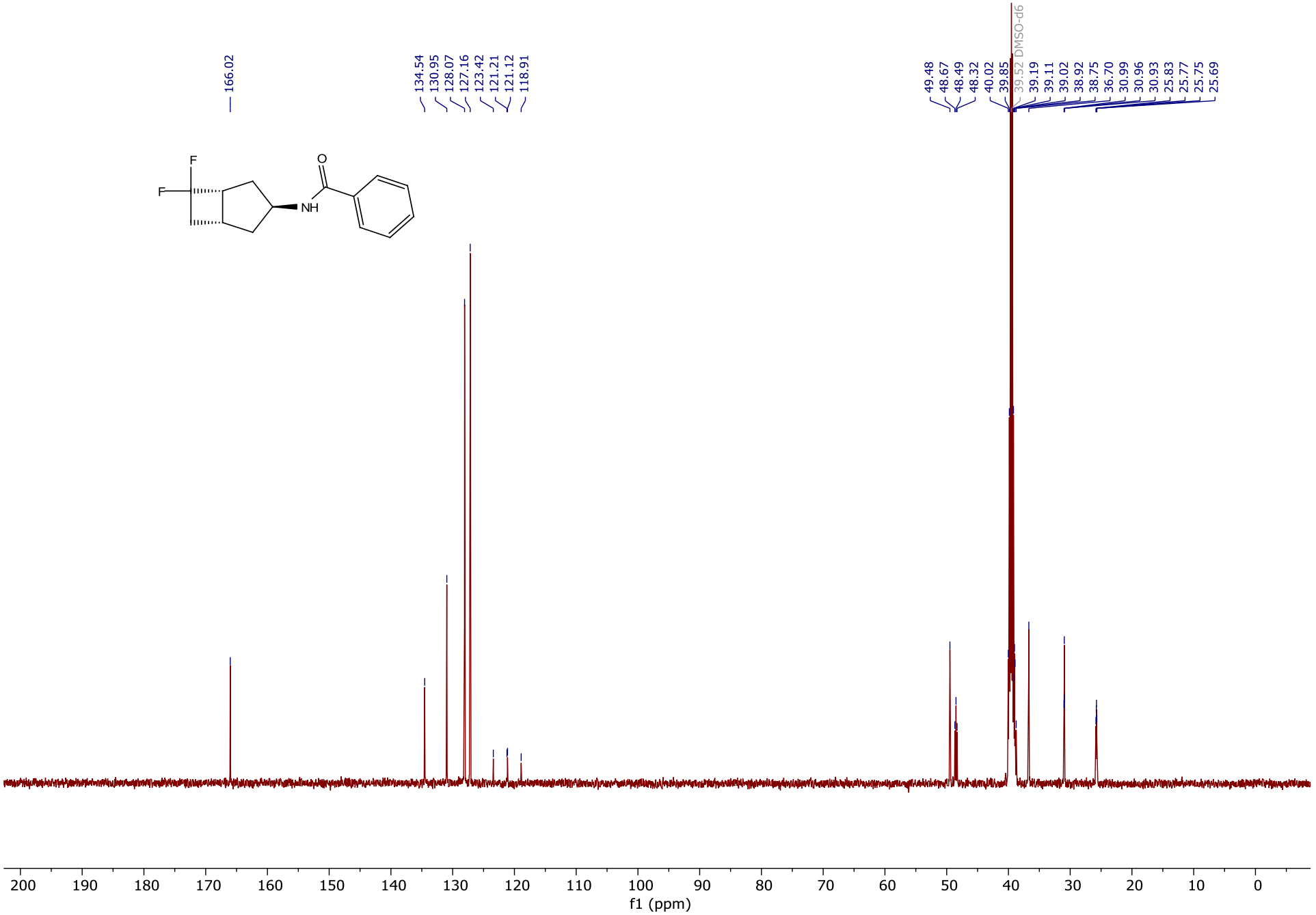

Figure 18. *N*-[(1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptan-3-yl]benzamide **13**, $^{13}C\{^{1}H\}$ NMR (126 MHz, DMSO-d_6)

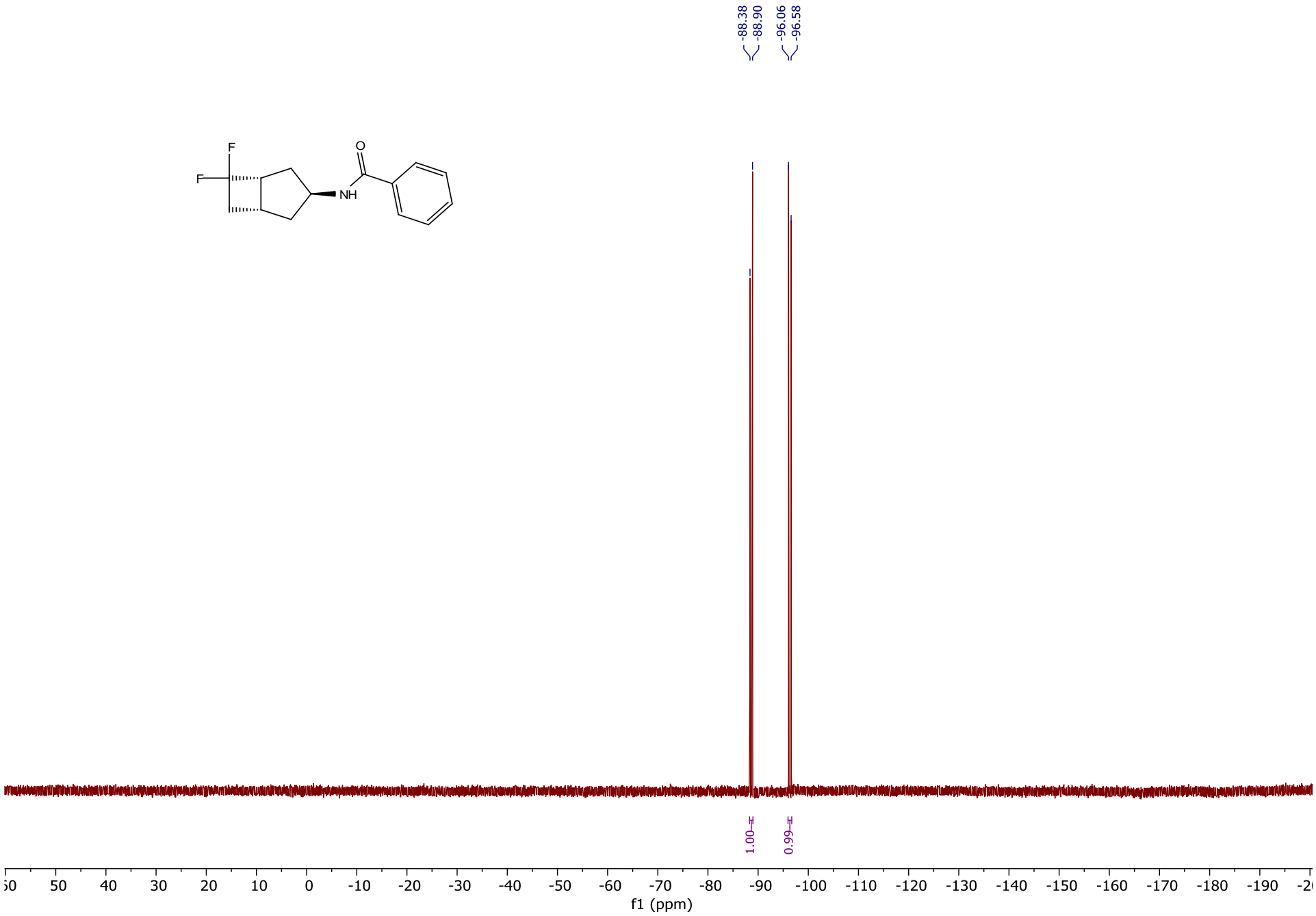

Figure 19. *N*-[(1*R**,3*S**,5*R**)-6,6-difluorobicyclo[3.2.0]heptan-3-yl]benzamide **13**, $^{19}F\{^{1}H\}$ NMR (376 MHz, DMSO-d_6)

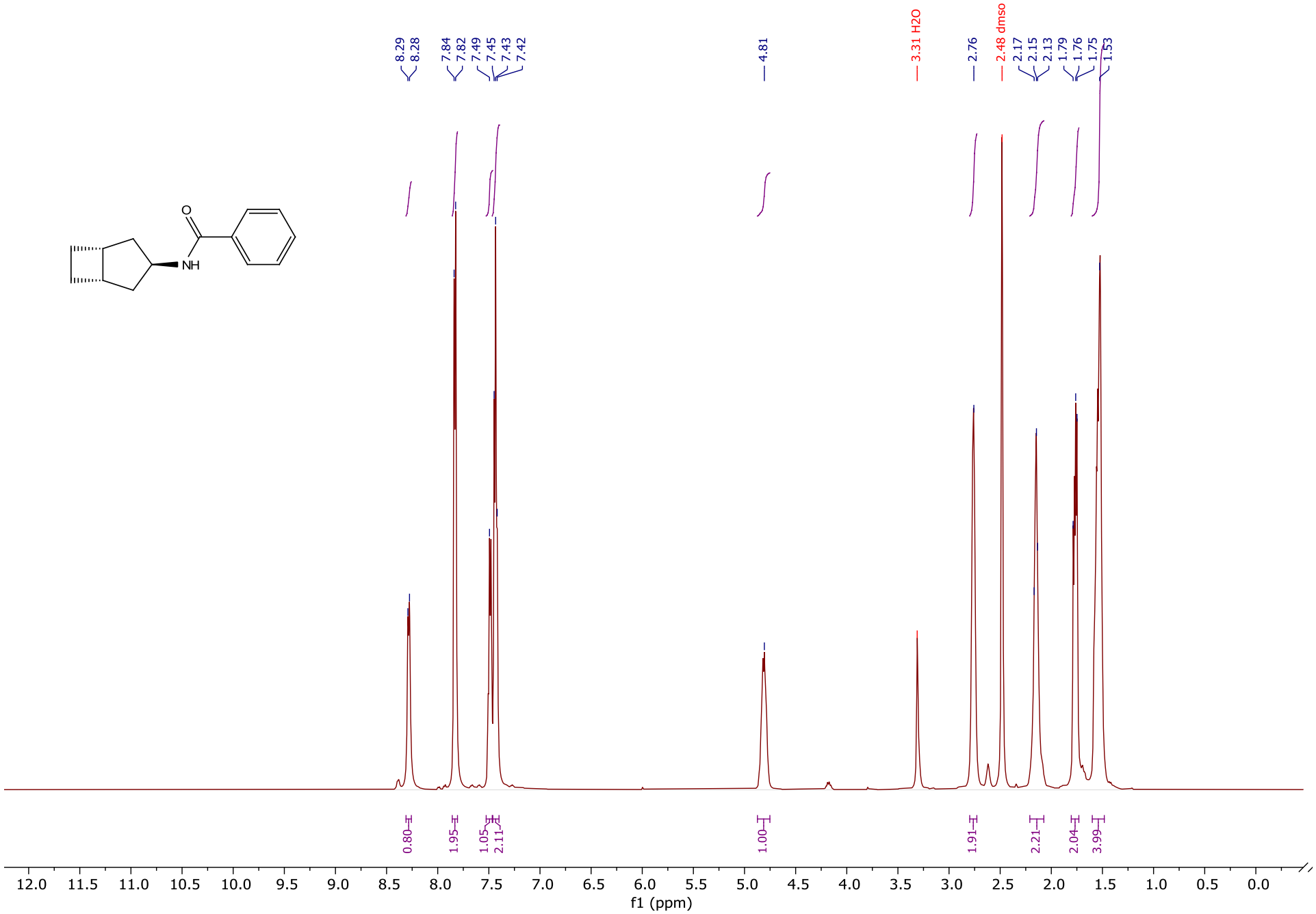

Figure 20. *N*-[(1*R**,3*S**,5*S**)-bicyclo[3.2.0]heptan-3-yl]benzamide **14**, ^{1}H NMR (500 MHz, DMSO-d_6).

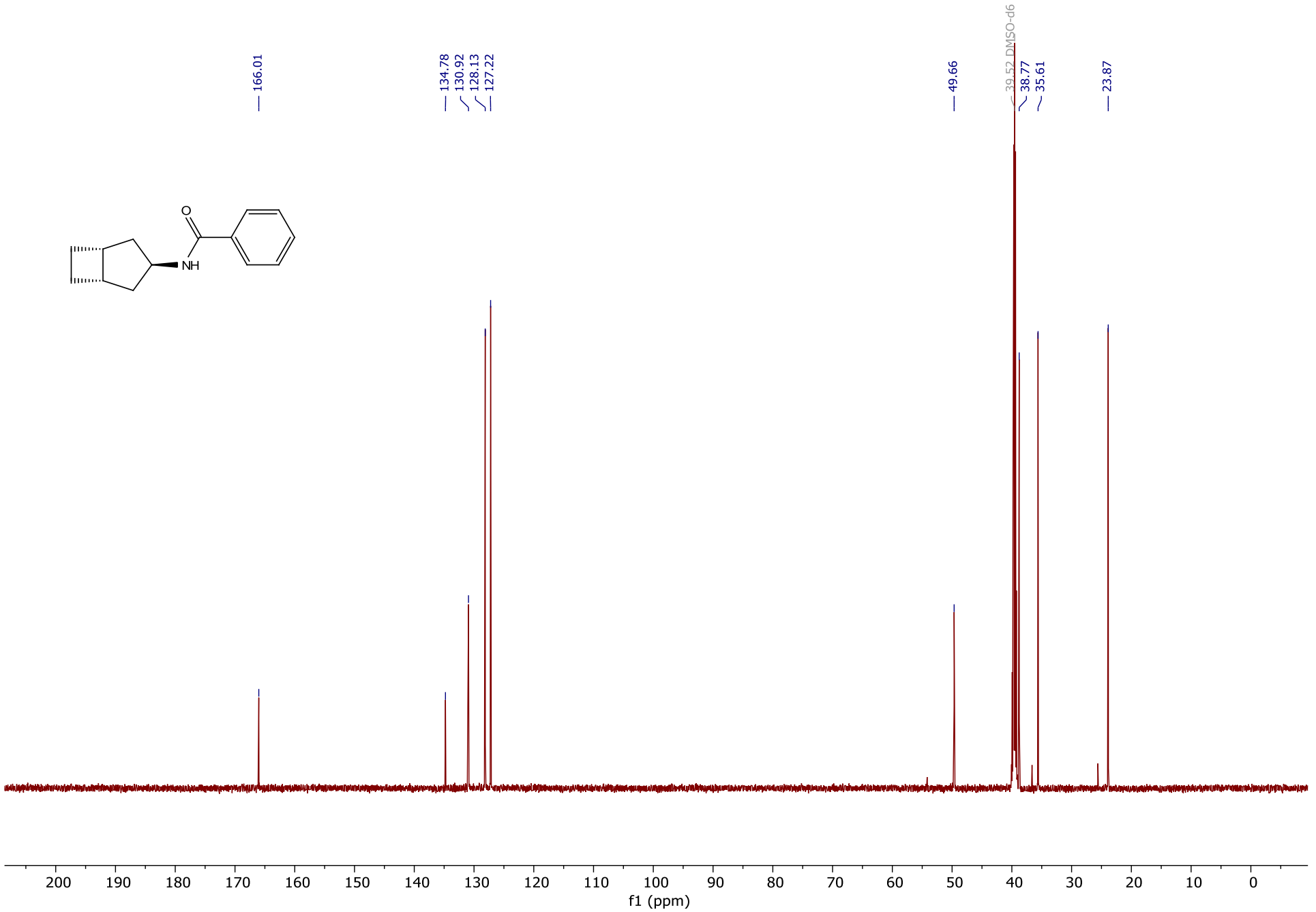

Figure 21. *N*-[(1*R**,3*S**,5*S**)-bicyclo[3.2.0]heptan-3-yl]benzamide **14**, $^{13}C\{^{1}H\}$ NMR (151 MHz, DMSO-d_6)