

Supplementary Materials: Eutypenoids A–C: Novel Pimarane Diterpenoids from the Arctic Fungus *Eutypella* sp. D-1

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Conformer2a

Conformer 2a_1

C 2.28098000 -2.03466600 1.50371000
C 3.21644300 -0.88269200 1.72773100
C 3.44047000 -0.00016300 0.46425000
C 2.05702000 0.30665800 -0.13920500
C 1.09800500 -0.87700100 -0.39365000
C 1.34755000 -2.03668800 0.55305700
C 1.63938600 1.54029600 -0.52381100
C 0.21430900 1.85423000 -0.79526900
C -0.77400100 0.80826900 -0.54597600
C -0.37829000 -0.46293300 -0.31399200
C -2.25059500 1.12171600 -0.50764800
C -2.85266100 0.68294200 0.89421600
C -2.23786500 -0.69564200 1.32748800
C -1.48133700 -1.34674700 0.18836300
C 1.35787900 -1.37375600 -1.86996500
C -2.48351700 1.75711500 1.93797400
C -4.36442500 0.64422100 0.75001300
C -5.12429500 -0.41538900 0.45274700
O 2.41540400 2.65186500 -0.59797700
O -0.08066300 3.01844200 -1.09565900
O -2.82780200 0.40600900 -1.59743300
C 4.20521400 1.25609800 0.93478900
C 4.36375900 -0.76282300 -0.52053900
N -1.91752300 -2.47840500 -0.22573200
O -1.33487700 -2.95359100 -1.41554100
H 2.38712300 -2.90710000 2.14662500
H 4.19282300 -1.25550900 2.06541300
H 2.84033400 -0.25197100 2.54793200
H 0.70915700 -2.90386000 0.40593900
H -2.40172400 2.20068400 -0.63385300
H -3.00492200 -1.38243400 1.68853100
H -1.53844800 -0.52095400 2.15359700
H 2.42433400 -1.51359000 -2.04267400

H 0.86369600 -2.33243200 -2.03997100
H 0.98918900 -0.63493100 -2.58865200
H -1.39712800 1.87836600 2.01068800
H -2.91461000 2.73093200 1.67897000
H -2.85719400 1.47518800 2.92881600
H -4.85010100 1.61667800 0.85165200
H -6.20123400 -0.31658300 0.34406300
H -4.71355400 -1.41337500 0.32136600
H 1.78211000 3.36292000 -0.84994100
H -3.78778700 0.36611100 -1.43853800
H 3.59248000 1.88892800 1.58316300
H 4.55041000 1.86864200 0.10089300
H 5.08202300 0.92999600 1.50806400
H 4.01168700 -1.77801700 -0.72165400
H 4.45514600 -0.22619400 -1.47096800
H 5.36710500 -0.84387800 -0.08516300
H -1.17892300 -2.16884300 -1.97698200

Conformer 2a_2

C -2.78639100 1.99794300 1.11839000
C -3.87173400 1.30060700 0.34986900
C -3.54923300 -0.22102800 0.18418300
C -2.04705900 -0.46347700 -0.04604400
C -1.12378400 0.74034400 -0.26306000
C -1.50271700 1.72402800 0.85632300
C -1.51642200 -1.70619600 -0.06277800
C -0.06979700 -1.93333000 -0.08502100
C 0.85562200 -0.79831900 -0.05705800
C 0.38342800 0.47206700 -0.21405300
C 2.31569100 -1.22084100 0.06744000
C 3.26898000 -0.02426800 0.28816100
C 2.81240700 1.06691800 -0.70667800
C 1.39141800 1.55366200 -0.44602400
C -1.40907400 1.26601200 -1.71941600
C 3.15073300 0.46807700 1.74059800
C 4.68977600 -0.42695400 -0.06190700
C 5.76596900 -0.33019400 0.71982100
O -2.23844700 -2.85644300 0.00441100
O 0.32994400 -3.11418300 -0.10611900
O 2.69254200 -1.92953600 -1.11415200
C -3.97115000 -0.91434200 1.50742500
C -4.38499400 -0.79317600 -0.98326100

N 1.34057100 2.84843800 -0.54451100
O 0.20169300 3.60559800 -0.42222200
H -3.04648000 2.66894200 1.93399400
H -4.01419200 1.77219900 -0.63049100
H -4.83339300 1.39854500 0.86438100
H -0.71782800 2.09818300 1.51079600
H 2.38860900 -1.89566300 0.93303500
H 2.85932400 0.64460100 -1.71958900
H 3.47719400 1.93237400 -0.67587000
H -2.45794900 1.52574400 -1.86307800
H -0.80990900 2.14546400 -1.96154200
H -1.15713500 0.47182700 -2.42843300
H 3.74841100 1.37279100 1.89236600
H 2.11632900 0.70816100 2.00380400
H 3.50362000 -0.29592300 2.44155400
H 4.80624800 -0.82019500 -1.06851700
H 6.74484000 -0.63093900 0.35572300
H 5.73118600 0.04471800 1.73879200
H -1.55651400 -3.56597300 -0.01239200
H 2.16044300 -2.74482700 -1.09588600
H -5.04783200 -0.77881800 1.66623000
H -3.44251800 -0.47529600 2.36074200
H -3.75973300 -1.98403800 1.48371700
H -4.11193900 -0.32724200 -1.93656900
H -4.24114000 -1.87236700 -1.07586500
H -5.45084000 -0.60152700 -0.80740800
H -0.56867000 3.08150500 -0.11471700

Conformer 2a_3

C -2.80253100 2.02224400 1.04049900
C -3.87119400 1.30612800 0.26461200
C -3.53785600 -0.20889000 0.11365500
C -2.02984700 -0.44760600 -0.09005900
C -1.09279900 0.75744800 -0.26895900
C -1.51502000 1.76514100 0.80657400
C -1.51975900 -1.69833800 -0.12373200
C -0.07962500 -1.95913100 -0.09831500
C 0.85928800 -0.82846100 -0.09700900
C 0.41215700 0.45807000 -0.17614500
C 2.31257100 -1.24676600 -0.03965900
C 3.20613200 -0.14963600 0.59361000
C 2.92166600 1.11272000 -0.22223900

C 1.45280900 1.53779100 -0.21644000
C -1.32096400 1.26254900 -1.74344500
C 2.87095000 0.03765400 2.08909800
C 4.65003700 -0.60457000 0.49932600
C 5.61084700 -0.12737100 -0.29584200
O -2.26119500 -2.83921000 -0.07310100
O 0.29318100 -3.14007700 -0.02698400
O 2.69257800 -1.52171800 -1.39010200
C -3.97437500 -0.89727900 1.43505800
C -4.35212900 -0.79183600 -1.06379200
N 1.39598700 2.82892200 -0.30011100
O 0.14479200 3.42867100 -0.43075000
H -3.08612800 2.73154300 1.81508800
H -4.84324200 1.39714000 0.76237300
H -4.00435300 1.76663300 -0.72374100
H -0.74046100 2.24090700 1.39487600
H 2.36947800 -2.16757500 0.55578200
H 3.19412000 0.90880400 -1.26461500
H 3.52005700 1.96195300 0.11666700
H -2.36436700 1.53331300 -1.91083000
H -0.70947700 2.13668700 -1.96014400
H -1.06212100 0.45519600 -2.43580100
H 1.83179300 0.34265000 2.24186400
H 3.02924400 -0.89470200 2.64432700
H 3.51805900 0.80388500 2.52988100
H 4.89687200 -1.43134900 1.16955700
H 6.61514900 -0.54219900 -0.27195900
H 5.44864900 0.69792200 -0.98325000
H -1.58174900 -3.55211100 -0.04312200
H 3.62247400 -1.80575300 -1.36638300
H -3.46748700 -0.43897200 2.29117000
H -3.74835200 -1.96426000 1.42658800
H -5.05585300 -0.77445800 1.57248300
H -4.06325500 -0.32895500 -2.01422400
H -4.20701700 -1.87106600 -1.15003800
H -5.42091800 -0.59817700 -0.90693600
H 0.37998500 4.36999500 -0.46212300

Conformer 2a_4

C -2.89388000 1.90844100 1.06476800
C -3.92162600 1.15497900 0.27044200
C -3.52010800 -0.34993700 0.12393400

C -2.00232600 -0.51891000 -0.06378000
C -1.13351200 0.72778300 -0.26246200
C -1.59148500 1.69663400 0.84006000
C -1.41074200 -1.73388600 -0.05829200
C 0.04517700 -1.88939100 -0.04534100
C 0.91308900 -0.71067000 0.00476900
C 0.38314100 0.53443200 -0.17114900
C 2.39250000 -1.06404200 0.14052600
C 3.25998100 0.17504000 0.40982100
C 2.79313700 1.24942400 -0.59378400
C 1.34162900 1.66527600 -0.38208300
C -1.40272200 1.23143300 -1.72983000
C 3.03722500 0.64926100 1.86935700
C 4.75563200 -0.04061900 0.26146900
C 5.43519800 -1.16820200 0.05401000
O -2.07681600 -2.91818300 -0.00423600
O 0.50318200 -3.04906600 -0.06047300
O 2.80018800 -1.71500900 -1.06564200
C -3.94327900 -1.05623900 1.43983900
C -4.29459900 -0.96850200 -1.06192100
N 1.22823600 2.95527000 -0.48909700
O 0.04936100 3.65462400 -0.40490100
H -3.20921000 2.56917700 1.86919700
H -4.05841000 1.61378400 -0.71677800
H -4.90126600 1.20824900 0.75675000
H -0.84432500 2.11171900 1.51374400
H 2.48836600 -1.76459800 0.98310500
H 2.90364800 0.83469800 -1.60407300
H 3.40996400 2.14917400 -0.53411700
H -0.84319200 2.13995800 -1.95950000
H -1.08846600 0.44842200 -2.42624400
H -2.45898000 1.43543500 -1.90626700
H 3.59330600 1.57437200 2.05728000
H 1.98335800 0.84641100 2.09041200
H 3.39806000 -0.10809500 2.57338400
H 5.32115100 0.88267300 0.40694300
H 6.52223000 -1.15728900 0.03086300
H 4.94782100 -2.11925800 -0.12433700
H -1.36064800 -3.59331100 -0.00469200
H 2.29420700 -2.54727500 -1.07876300
H -3.45948000 -0.58777800 2.30407700
H -5.02912700 -0.97235600 1.56929700

H -3.67958000 -2.11448900 1.42826900
H -4.01735100 -0.49579200 -2.01063500
H -4.09716100 -2.04014100 -1.14257800
H -5.37286800 -0.82711300 -0.91708100
H -0.70158500 3.09378000 -0.11468000

Conformer3a**Conformer 3a_1**

C -1.10282900 -1.82235600 -1.57862900
C -1.99146300 -0.86902000 -0.80121100
C -1.53223800 0.59759200 -0.88467900
C -0.02147600 0.69996200 -0.67892500
C 0.80085100 -0.43681100 -0.68027200
C 0.30240900 -1.82889900 -0.98658100
C 0.60562400 1.94036500 -0.53040100
C 1.98803700 2.04015500 -0.33699000
C 2.79047500 0.90433600 -0.27890200
C 2.17639200 -0.33577000 -0.46853700
C 4.29270000 1.04252900 -0.09655600
C 4.95497800 -0.26101400 0.40280000
C 4.45819900 -1.39980000 -0.50478900
C 2.95760200 -1.62834800 -0.42335300
C 6.47109900 -0.13029300 0.26777200
C 4.51933500 -0.48717200 1.83656100
C 5.30744200 -0.46728000 2.90733900
C -1.91360800 1.16381500 -2.26452300
C -2.28118500 1.38562300 0.20859700
O -3.69305800 1.17622100 0.02232100
C -4.43188200 0.68721100 1.02795700
C -5.88101100 0.53777200 0.61928100
O -3.99392900 0.42794000 2.12154500
C -6.50939900 1.92729700 0.45669000
C -6.01736200 -0.28882100 -0.66165000
O -1.94413400 -1.25742200 0.59011900
C -2.83403500 -2.16533300 1.01818900
C -2.64083800 -2.47146800 2.47320200
O -3.68071300 -2.64719500 0.30742700
O 2.62136400 -2.51757500 -1.49054100
O 4.62143100 2.14513400 0.75390200
C 1.28311500 -2.47140900 -1.96732400
O 2.46354700 3.31611100 -0.23583400
O -0.10918100 3.09898600 -0.59008300

H -1.53568100 -2.82498800 -1.55205900
H -1.07067200 -1.50802900 -2.62573300
H -3.02496900 -0.93706100 -1.14094300
H 0.30126800 -2.42439400 -0.06530200
H 4.73931400 1.29935000 -1.06345900
H 4.69748400 -1.15028100 -1.54447700
H 4.98499400 -2.32530500 -0.25839200
H 2.71151200 -2.14104100 0.51781300
H 6.73860700 -0.01227700 -0.78476700
H 6.96956300 -1.02407400 0.64868900
H 6.84324400 0.73779400 0.81429900
H 3.45197600 -0.63616800 1.99018900
H 4.89579600 -0.61982700 3.89832400
H 6.37850000 -0.31352800 2.83914700
H -1.61930000 2.21253200 -2.32193200
H -2.99298600 1.09330800 -2.41699600
H -1.40907700 0.62546100 -3.06822700
H -1.99236300 1.05377600 1.20284000
H -2.10831600 2.45181100 0.10046300
H -6.36296400 0.01764100 1.44934900
H -7.57042400 1.82463300 0.22230200
H -6.41543800 2.51732700 1.37056200
H -6.02541100 2.46746800 -0.35952100
H -7.07459200 -0.43829800 -0.88921200
H -5.54186600 -1.26567100 -0.55480100
H -5.55422300 0.23394500 -1.50127000
H -2.92892800 -1.58656700 3.04314000
H -3.26384900 -3.31667800 2.75380900
H -1.59095500 -2.68448700 2.67373400
H 4.49243400 1.86305800 1.67004200
H 0.98282000 -3.50102400 -2.17952800
H 1.25643800 -1.90212300 -2.90526300
H 3.34483900 3.27239200 0.17649500
H 0.50502200 3.82654400 -0.42056800

Conformer 3a_2

C 1.52586800 3.07520400 -0.40460100
C 2.52861500 1.93630500 -0.37155600
C 2.15435400 0.77008500 -1.30880800
C 0.67134000 0.43347700 -1.18627900
C -0.22139700 1.26378600 -0.49926700
C 0.16301400 2.59993900 0.08594200

C 0.15036900 -0.73307000 -1.74747900
C -1.19629900 -1.07713100 -1.60452700
C -2.06848900 -0.27570000 -0.87205900
C -1.56113900 0.91004100 -0.33735700
C -3.52050800 -0.67263600 -0.70266100
C -4.20678600 0.04721700 0.47783700
C -3.89552100 1.54869200 0.32924800
C -2.41503300 1.85293300 0.47474900
C -5.71988800 -0.15535800 0.38523200
C -3.63501900 -0.48473600 1.77601300
C -4.32761400 -0.83368700 2.85388400
C 2.48875900 1.17909500 -2.75560000
C 3.05045000 -0.44097900 -0.98009500
O 2.49312900 -1.17036400 0.12151700
C 2.59707300 -2.50738700 0.09738400
C 1.72464800 -3.14836700 1.15517600
O 3.29108300 -3.10875600 -0.68243400
C 2.07446700 -2.63135500 2.55207300
C 0.24787400 -2.89177600 0.83169100
O 2.56043300 1.47446400 0.99757600
C 3.74482600 1.27988500 1.59245400
C 3.59099500 0.81294000 3.01177700
O 4.80849800 1.45304800 1.05158400
O -2.23304000 3.21793700 0.09544800
O -3.56011900 -2.09558700 -0.53523400
C -0.92011200 3.61236400 -0.28695400
O -1.55032000 -2.25543800 -2.19991600
O 0.95831000 -1.59728400 -2.42284600
H 1.88852900 3.89780000 0.21561000
H 1.44680000 3.44938300 -1.42920700
H 3.52825800 2.28323700 -0.63569200
H 0.19117300 2.51347800 1.17884700
H -4.06279300 -0.41035300 -1.62163400
H -4.21270000 1.88562400 -0.66428300
H -4.46312500 2.11599500 1.07098800
H -2.12455200 1.75593000 1.53135300
H -6.08917400 0.20425300 -0.57813400
H -6.23324100 0.40398500 1.16967500
H -5.99823400 -1.20669300 0.49705000
H -2.55060300 -0.57913900 1.80504400
H -3.82230500 -1.19008500 3.74394500
H -5.40977900 -0.78188400 2.89445300

H 2.19804400 0.37972900 -3.43820700
H 3.56292000 1.35557200 -2.86454000
H 1.95874000 2.08662100 -3.04578600
H 3.12495700 -1.10569400 -1.83501300
H 4.05028000 -0.09644200 -0.70536700
H 1.93401600 -4.21797600 1.09342900
H 1.47908300 -3.15919800 3.29937700
H 3.13037600 -2.78397200 2.78607800
H 1.85129100 -1.56532700 2.62387000
H -0.38413500 -3.43976200 1.53368900
H -0.00639600 -3.21266100 -0.18162500
H 0.02258600 -1.82554200 0.91707000
H 3.93850400 -0.22021200 3.06790800
H 4.23328300 1.41865400 3.65050000
H 2.55829400 0.87017800 3.34586700
H -4.47362700 -2.39144400 -0.60469400
H -0.71576400 4.57391100 0.19258800
H -0.89948100 3.75735700 -1.37433100
H -2.36426600 -2.56807500 -1.76521700
H 0.42017800 -2.36010600 -2.67647800

Conformer 3a_3

C -1.67826900 2.72691800 0.36195800
C -2.55846700 1.52416100 0.66450600
C -1.95630900 0.58051200 1.72025600
C -0.46433300 0.37966400 1.47378700
C 0.23367700 1.10974400 0.50709700
C -0.36445200 2.26359500 0.25644900
C 0.24855900 -0.58689200 2.18307900
C 1.59664900 -0.84620100 1.91481700
C 2.26963300 -0.16122600 0.90283100
C 1.56779600 0.82904900 0.21230200
C 3.73526800 -0.40713900 0.61382700
C 4.11326600 -0.01169900 0.82851200
C 3.68134500 1.44741200 1.01944600
C 2.17600800 1.63196800 0.91151400
C 5.63733500 -0.12093100 0.99315200
C 3.45775300 -0.96648100 1.80694200
C 3.07989100 -0.67107600 3.04577200
C -2.20376500 1.19182700 3.11096800
C -2.71934000 -0.76680600 1.67424100
O -2.07332400 -1.67349200 0.77812200

C -2.71260500 -2.13370800 0.29974600
C -1.74216000 -2.85880600 1.21185800
O -3.89346500 -1.99257000 0.49997000
C -2.45251100 -3.41674600 2.43840000
C -0.57864800 -1.92827900 1.58581100
O -2.73107200 0.77182400 0.55802600
C -3.66273000 1.22123700 1.41753100
C -3.70120600 0.39801500 2.67086600
O -4.36918300 2.16883700 1.18540200
O 1.93675800 3.03352200 0.75843500
O 4.02710400 -1.78636300 0.87102600
C 0.65225900 3.40737300 0.27068700
O 2.16299200 -1.79987900 2.71258000
O -0.36340900 -1.31196300 3.15949800
H -2.20636100 3.40727300 0.30879000
H -1.48306500 3.26869800 1.29193600
H -3.54667900 1.84194000 1.00262100
H -0.54664300 1.95398700 1.29364200
H 4.33333000 0.20810000 1.29957700
H 4.14956400 2.05633700 0.23835200
H 4.03645900 1.83289200 1.97866900
H 1.69707600 1.30819800 1.84516400
H 6.15217600 0.48314700 0.23997500
H 5.92794600 0.23449400 1.98333900
H 5.97466300 -1.15648100 0.90477000
H 3.35992000 -1.98820200 1.44837500
H 2.66821700 -1.43113300 3.69955000
H 3.17040100 0.33005600 3.45602400
H -1.73489000 0.57065600 3.87423400
H -3.27686400 1.24598300 3.31618000
H -1.78919400 2.19802900 3.18324700
H -2.70327400 -1.23866800 2.65376600
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H -3.30338800 -4.03828300 2.15750500
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Conformer 3a_4

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C 0.08747500 0.80703600 -0.73363800
C 0.91215500 -0.32641400 -0.77445800
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C 2.06265400 2.10803800 -0.12885700
C 2.86229300 0.96739300 -0.10675000
C 2.26576300 -0.24915700 -0.44676700
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C 4.91385300 -0.29338300 0.68710300
C 4.53380100 -1.35439200 -0.35189900
C 3.03096600 -1.55201500 -0.46933900
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C 4.37340100 -0.58602800 2.07306100
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Conformer 3a_5

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C 4.63355400 -0.51566200 1.77410900
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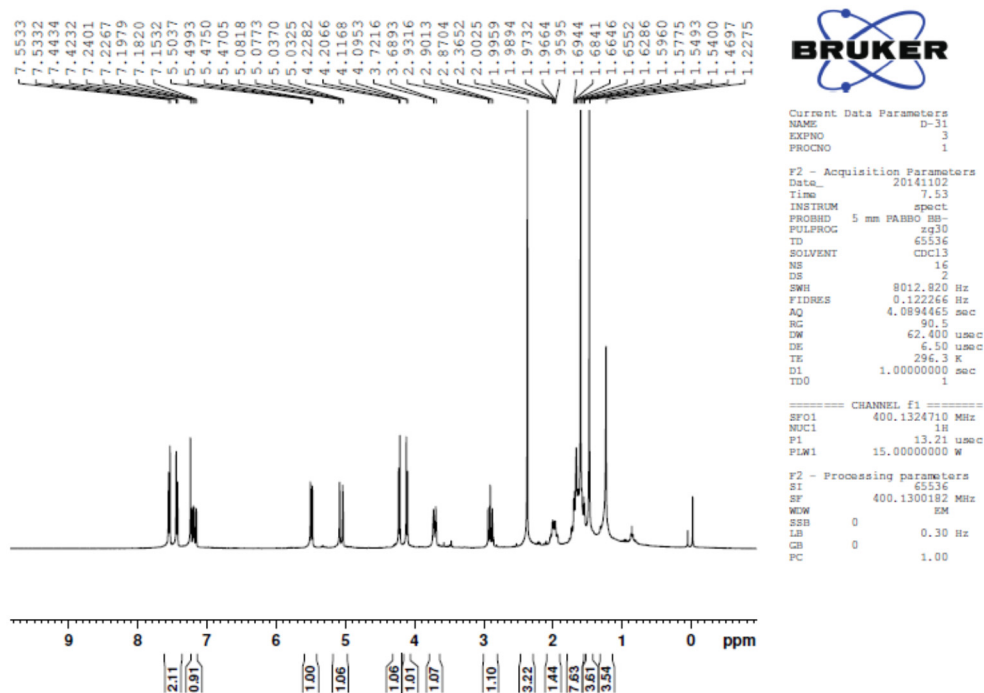
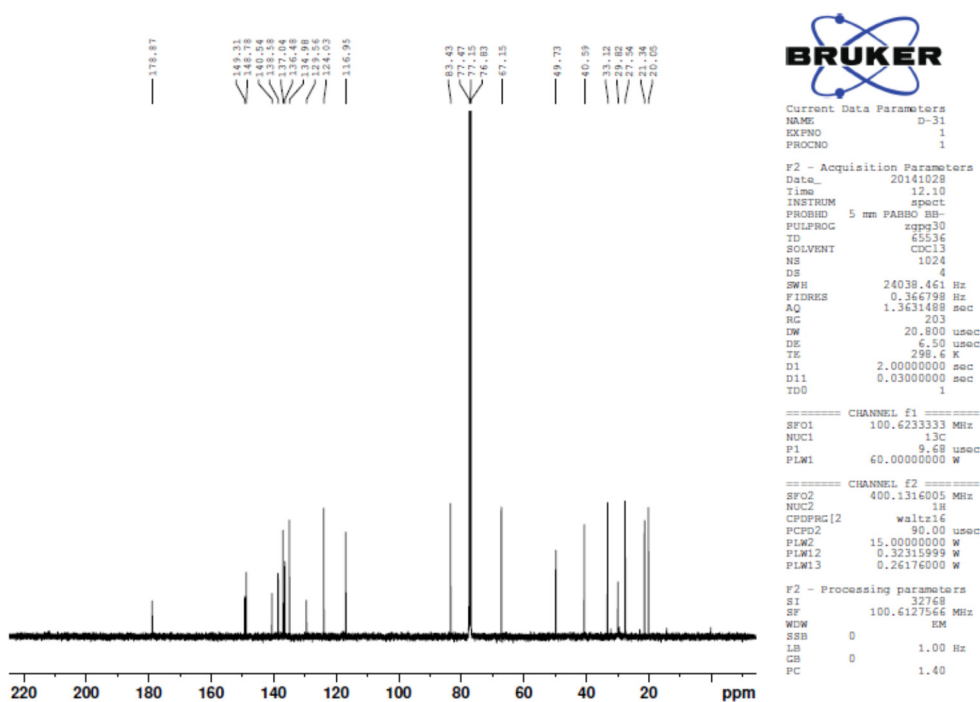
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H 1.33080500 -1.83129900 -2.92070200
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Conformer 3a_6

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C 2.01425500 0.82689800 -1.36490200
C 0.55387300 0.43610100 -1.15504100
C -0.33655700 1.25641000 -0.45034300
C 0.03577600 2.60977800 0.10369300
C 0.04777000 -0.75872400 -1.66904400
C -1.28448200 -1.13309900 -1.47295400
C -2.15570000 -0.33153700 -0.74063600
C -1.66329400 0.87682200 -0.24327600
C -3.60817600 -0.74052300 -0.55656200
C -4.29548000 -0.01899500 0.61429100
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O 2.53081600 -1.09794100 0.03627600

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H 0.32318400 -2.38707200 -2.59643200

Figure S1. ¹H NMR (CDCl₃, 400 MHz) spectrum of 1.Figure S2. ¹³C NMR (CDCl₃, 100 MHz) spectrum of 1.

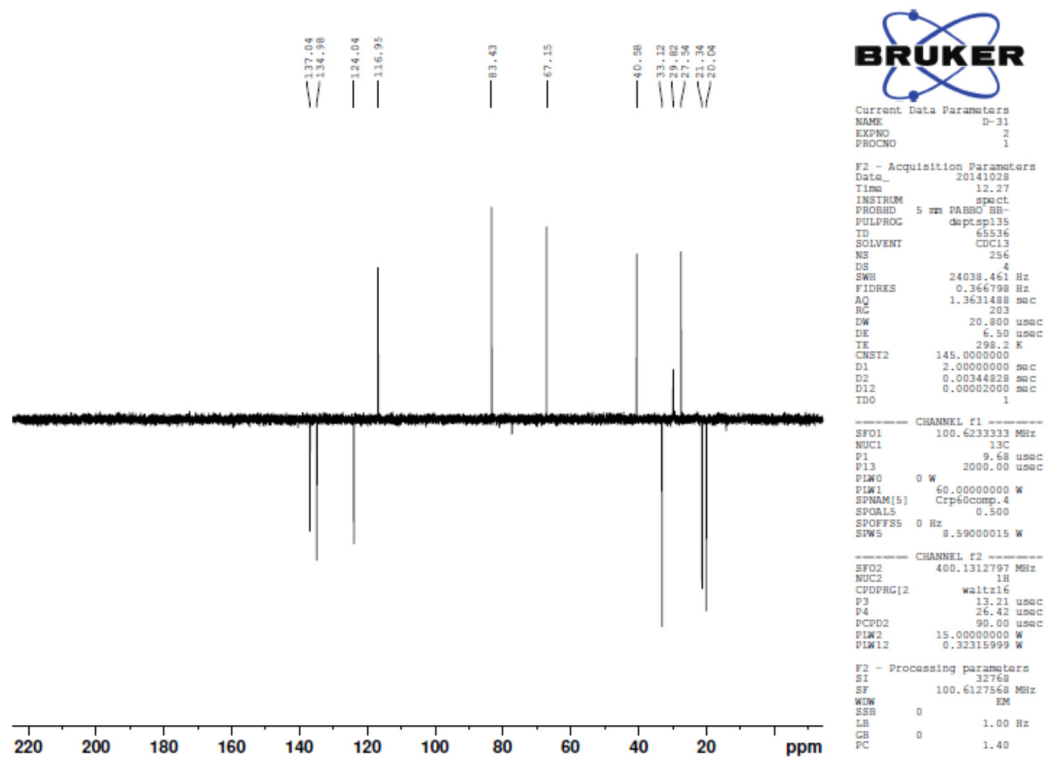
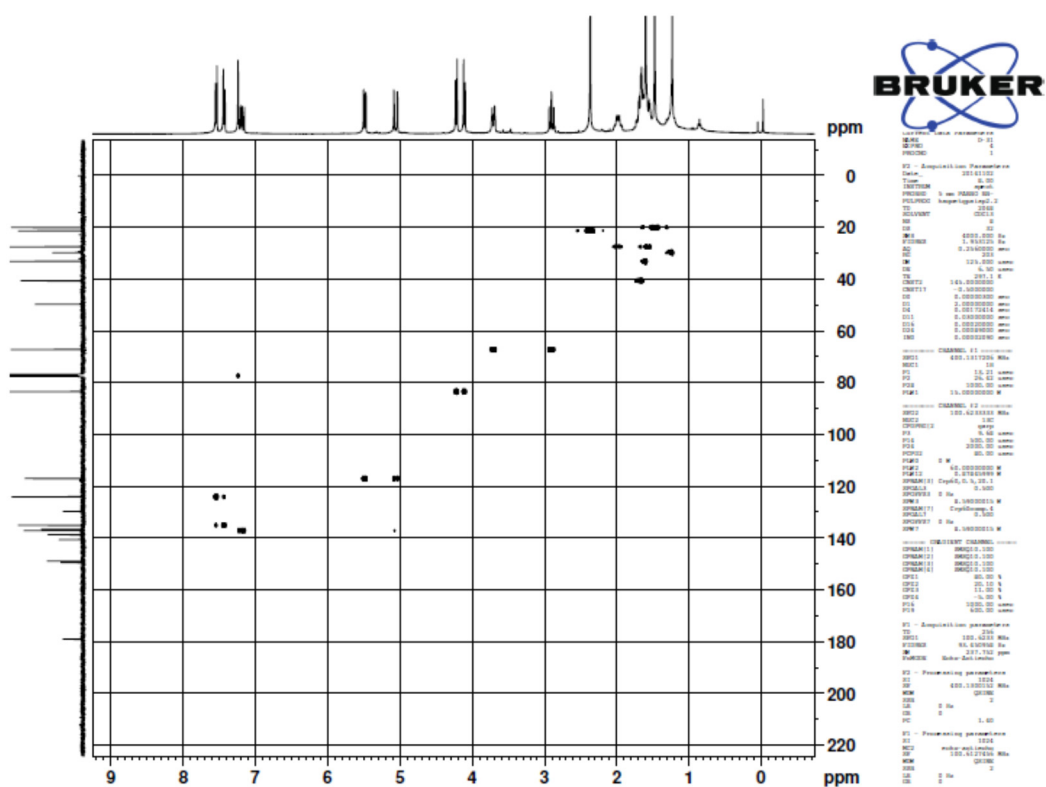
Figure S3. DEPT (CDCl₃, 100 MHz) spectrum of 1.

Figure S4. HSQC spectrum of 1.

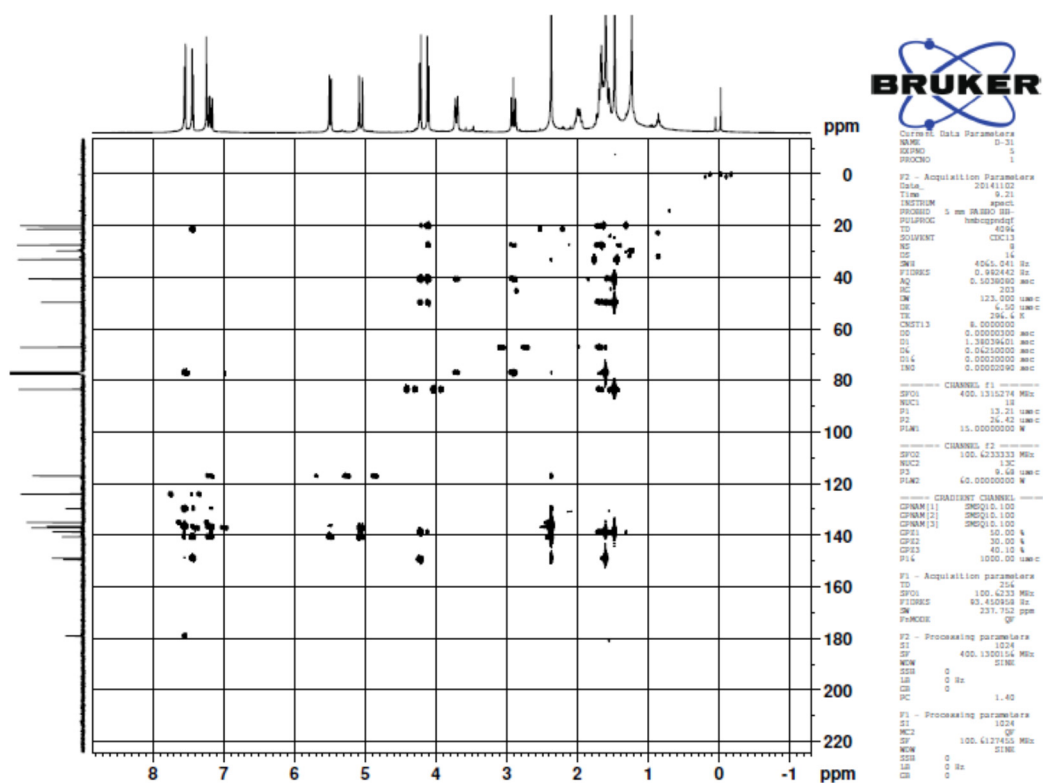


Figure S5. HMBC spectrum of **1**.

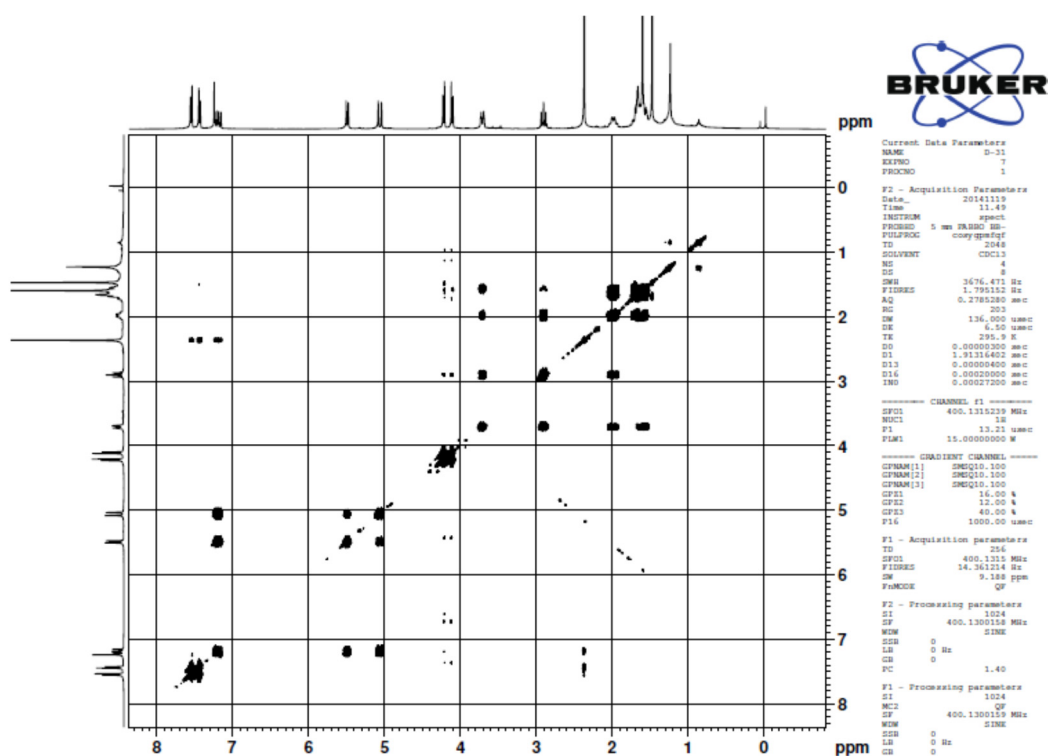


Figure S6. COSY spectrum of **1**.

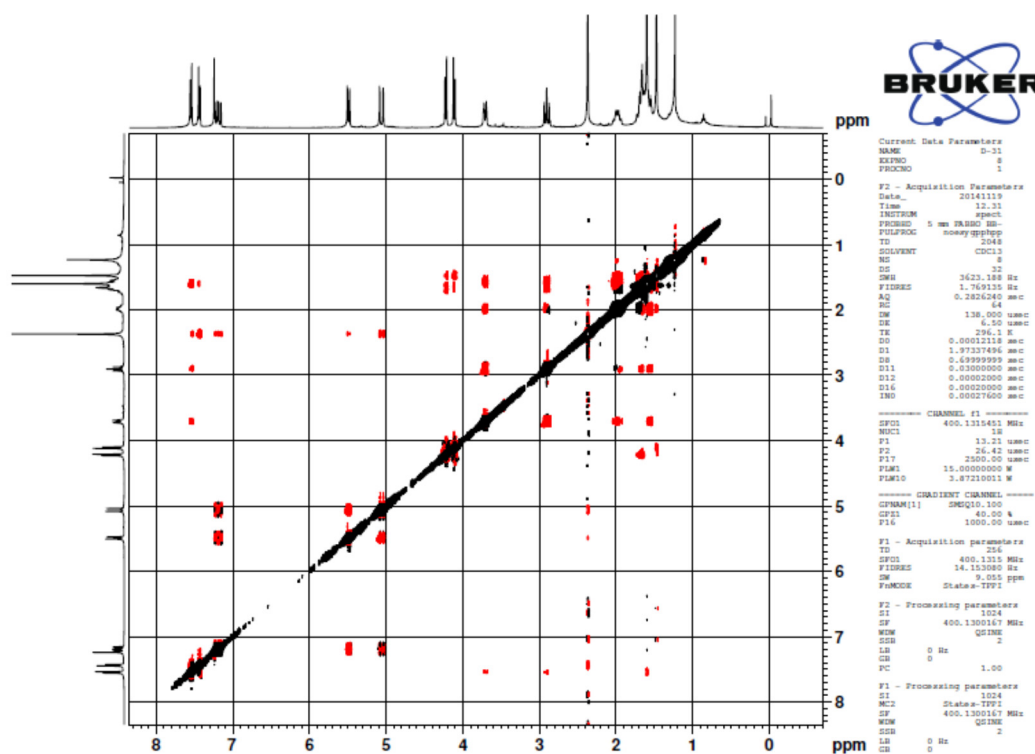


Figure S7. NOESY spectrum of 1.

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Mode: EI +VE +LMR BSCAN (EXP) UP HR NRM
Oper: SIMS.CAS Client: S/N: PT001263
Inlet: S/N: PT200712-01-01

29-Jan-15 Elapse: 05:50.7
Start: 13:40:49

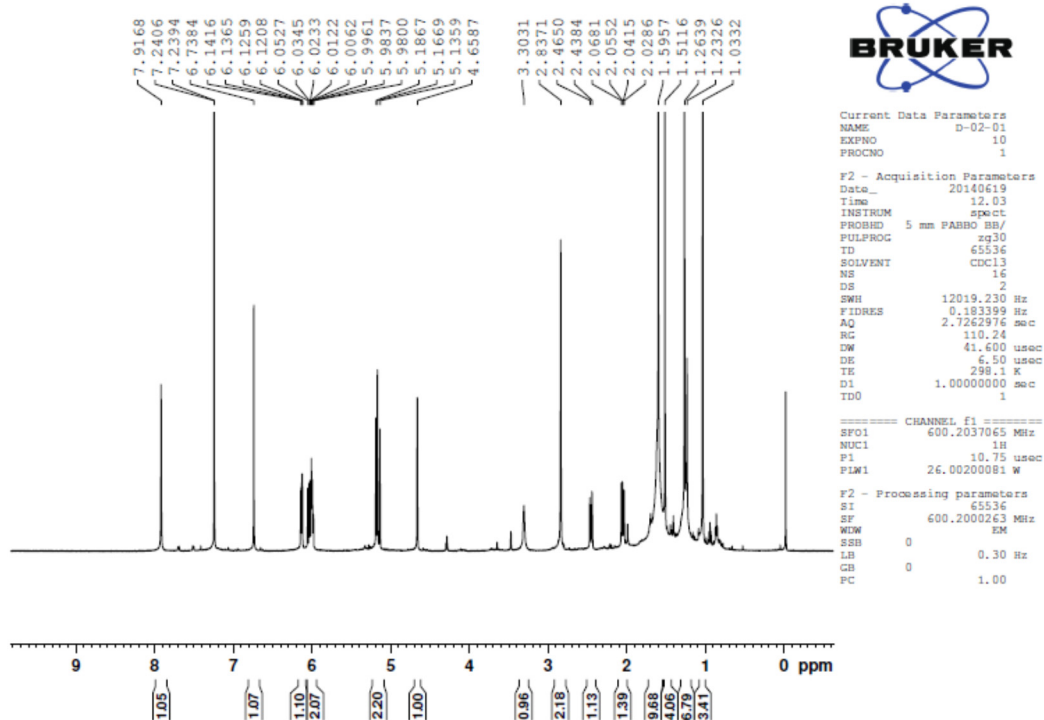
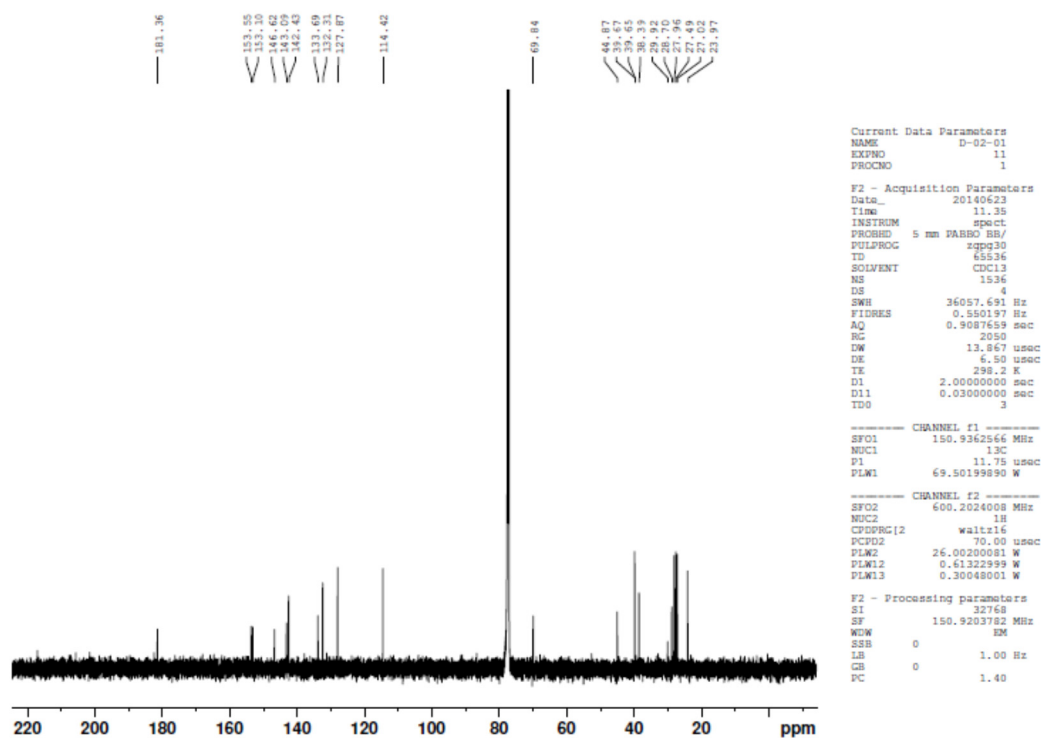
28
29

Limit: (0)
Peak: 1000.00 m/z
Data: CMASS : converted

52607 (amu)

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89.03838	81660	4.66	0.35	0.7	5.3	C7.H5
111.0316	62668	3.57	0.27			
115.0535	169011	9.64	0.73	1.3	6.5	C9.H7
118.0417	83438	4.76	0.36	0.2	6.0	C8.H6.O
127.0526	60747	3.46	0.26	2.2	7.5	C10.H7
128.0623	96598	5.51	0.42	0.3	7.0	C10.H8
139.0546	61387	3.50	0.26	0.2	8.5	C11.H7
141.0699	67789	3.87	0.29	0.5	7.5	C11.H9
152.0615	190280	10.85	0.82	1.1	9.0	C12.H8
153.0699	139776	7.97	0.60	0.5	8.3	C12.H9
165.0708	342433	19.53	1.48	-0.4	9.5	C13.H9
166.0758	113670	6.48	0.49	2.5	9.0	C13.H10
167.0847	55341	3.16	0.24	1.4	8.5	C13.H11
178.0780	134939	7.70	0.58	0.3	10.0	C14.H10
179.0843	109331	6.23	0.47	1.7	9.5	C14.H11
181.1009	56621	3.23	0.24	0.8	8.5	C14.H13
189.0694	63521	3.62	0.27	1.0	11.5	C15.H9
195.0800	53491	3.05	0.23	1.0	9.5	C14.H11.O
197.0951	56052	3.20	0.24	1.5	8.5	C14.H13.O
209.0961	196682	11.22	0.85	0.6	9.5	C15.H13.O
211.0748	107552	6.13	0.46	1.1	9.5	C14.H11.O2
223.0742	57475	3.28	0.25	1.7	10.5	C15.H11.O2
223.1113	135365	7.72	0.58	1.0	9.5	C16.H15.O
224.1186	722425	41.20	3.11	1.5	9.0	C16.H16.O
225.0900	153220	8.74	0.66	1.5	9.5	C15.H13.O2
225.1220	116515	6.64	0.50			
235.0750	116160	6.62	0.50	0.9	11.5	C16.H11.O2
236.0833	300394	17.13	1.29	0.4	11.0	C16.H12.O2
237.0905	306796	17.50	1.32	1.0	10.5	C16.H13.O2
237.1272	55127	3.14	0.24	0.7	9.5	C17.H17.O
238.0973	95887	5.47	0.41	2.1	10.0	C16.H14.O2
249.0908	95602	5.45	0.41	0.8	11.5	C17.H13.O2
250.0985	88560	5.05	0.38	0.9	11.0	C17.H14.O2
251.1065	266606	15.20	1.15	0.7	10.5	C17.H15.O2
252.1154	931414	53.12	4.02	-0.3	10.0	C17.H16.O2
253.0860	188217	10.73	0.81	0.4	10.5	C16.H13.O3
253.1202	220511	12.57	0.95	2.6	9.5	C17.H17.O2
254.1268	55697	3.18	0.24			
265.1219	65086	3.71	0.28	1.0	10.5	C18.H17.O2
267.1400	423525	24.15	1.83	-1.5	9.5	C18.H19.O2
268.1439	66082	3.77	0.28	2.5	9.0	C18.H20.O2
280.1102	158982	9.07	0.69	-0.2	11.0	C18.H16.O3
280.1475	225704	12.87	0.97	-1.2	10.0	C19.H20.O2
294.1265	80180	4.58	0.35	-0.9	11.0	C19.H18.O3
295.1339	1753568	100.00	7.56	-0.5	10.5	C19.H19.O3
296.1369	359505	20.50	1.55			
297.1422	52709	3.01	0.23			
308.1408	106557	6.08	0.46	0.4	11.0	C20.H20.O3
309.1462	72128	4.11	0.31	2.9	10.5	C20.H21.O3
310.1570	1022606	58.32	4.41	-0.1	10.0	C20.H22.O3
311.1600	222788	12.70	0.96			

Figure S8. HREIMS spectrum of 1.

Figure S9. ^1H NMR (CDCl_3 , 600 MHz) spectrum of 2.Figure S10. ^{13}C NMR (CDCl_3 , 150 MHz) spectra of 2.

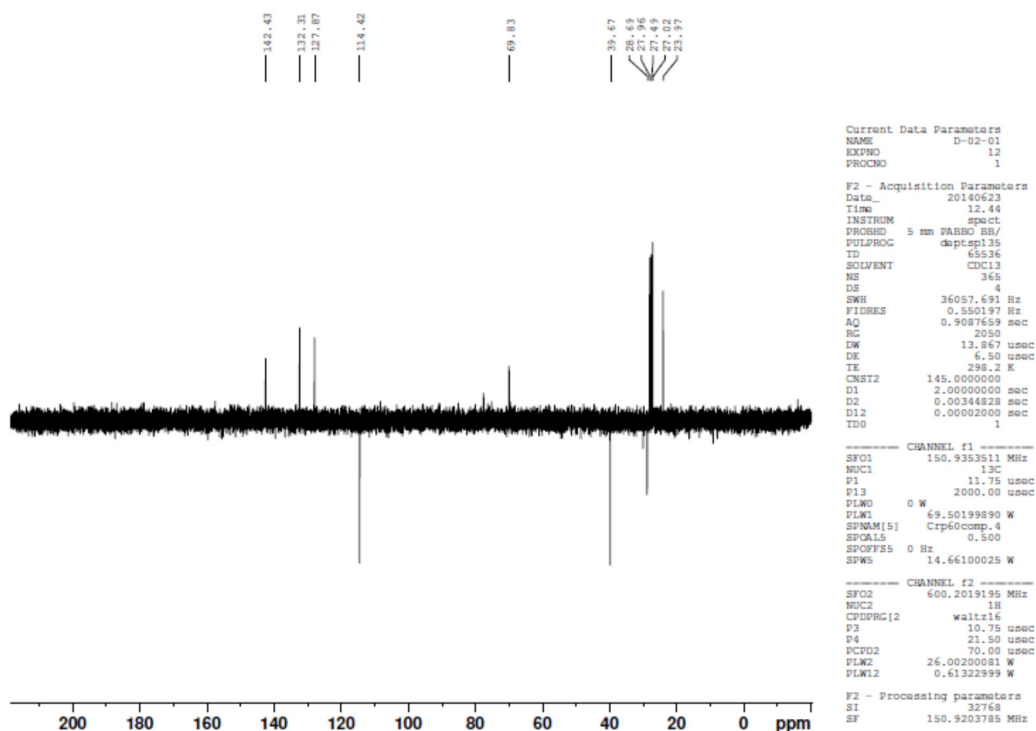
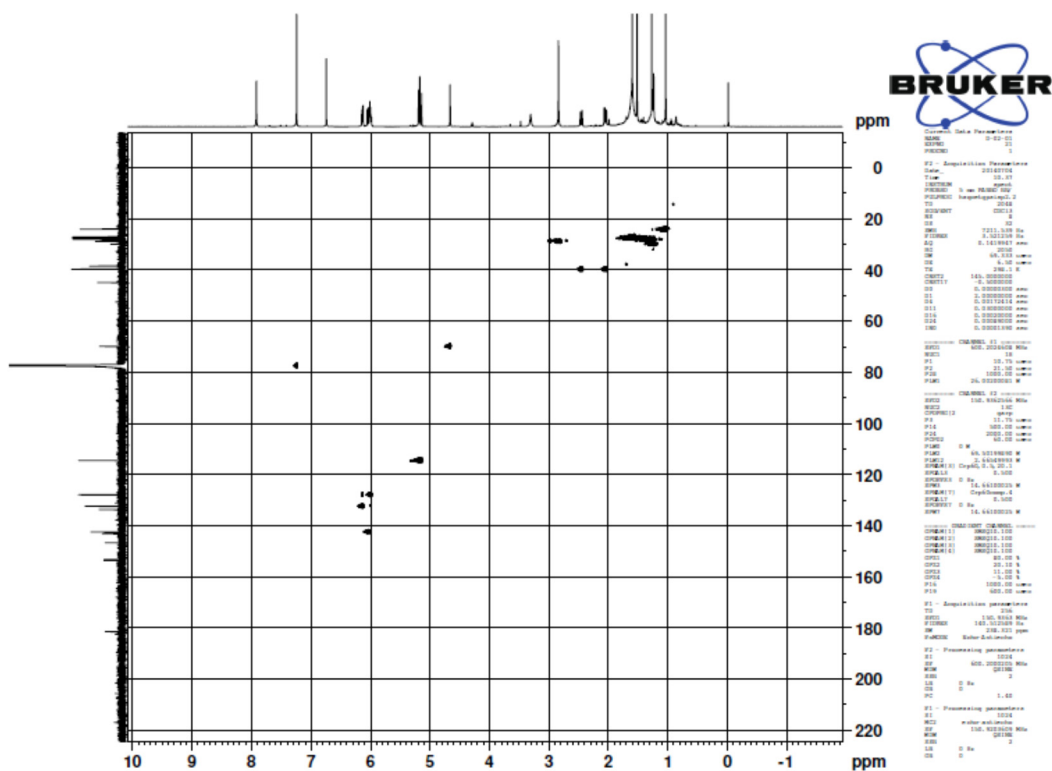
Figure S11. DEPT (CDCl₃, 150 MHz) spectrum of 2.

Figure S12. HSQC spectrum of 2.

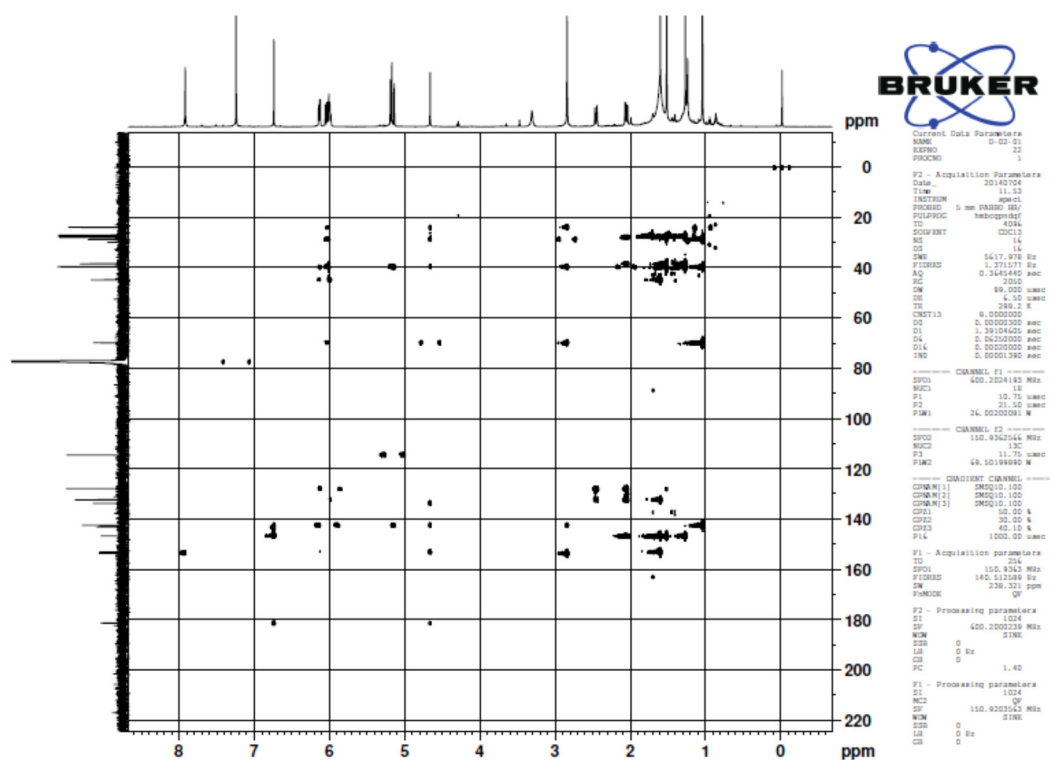


Figure S13. HMBC spectrum of 2.

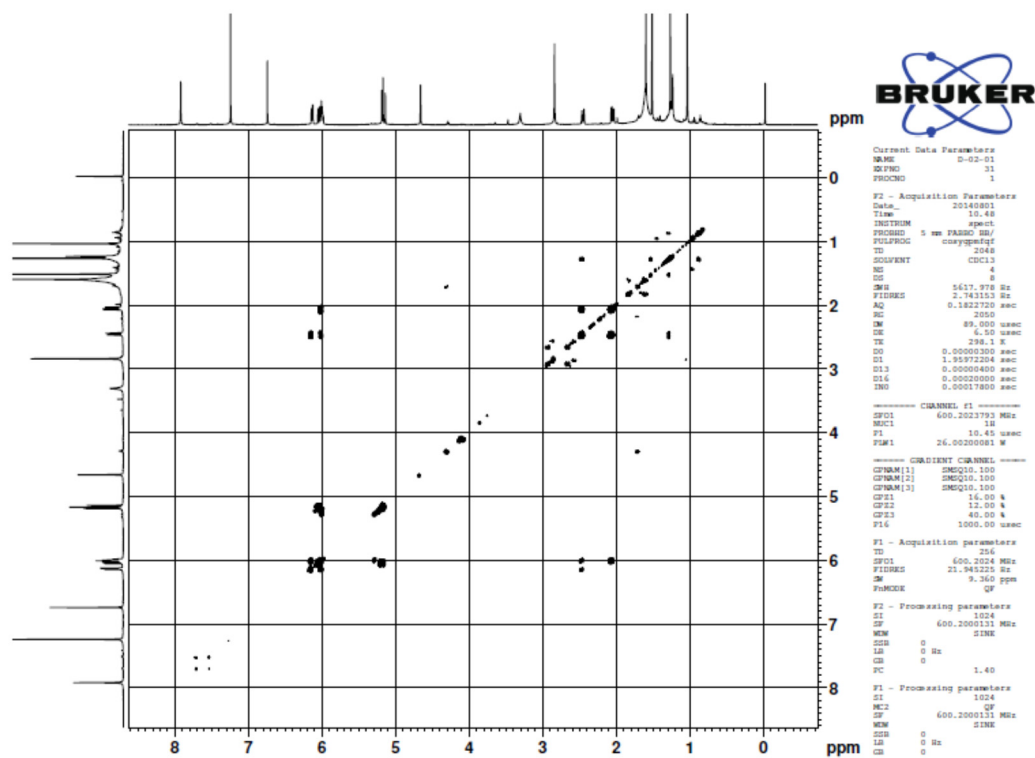


Figure S14. COSY spectrum of 2.

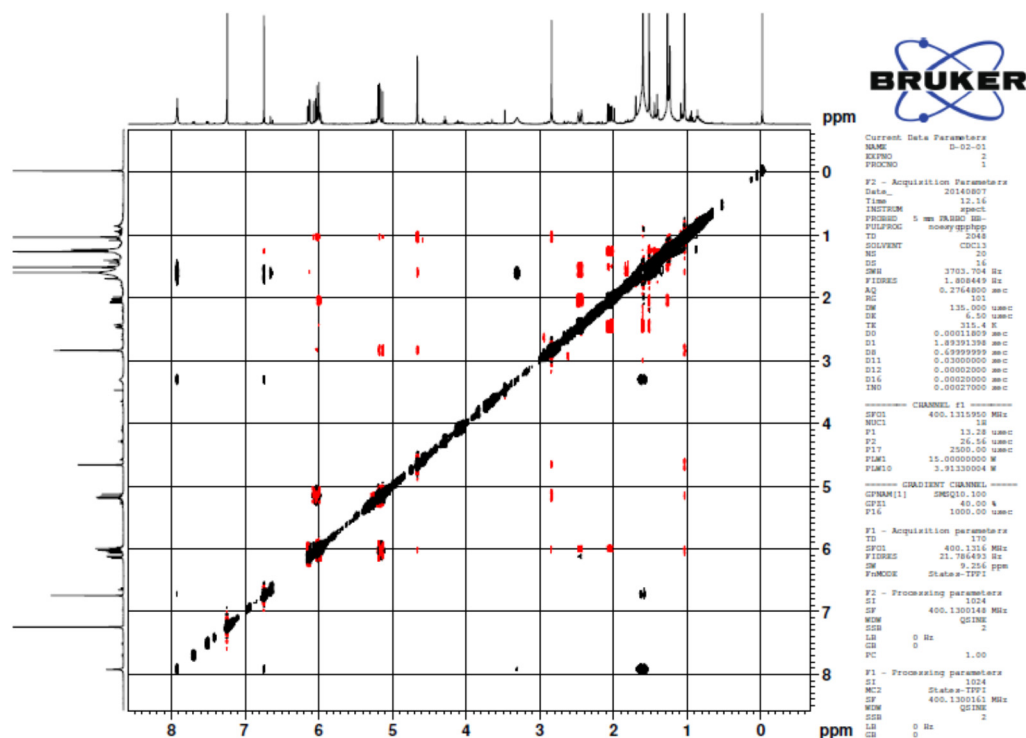
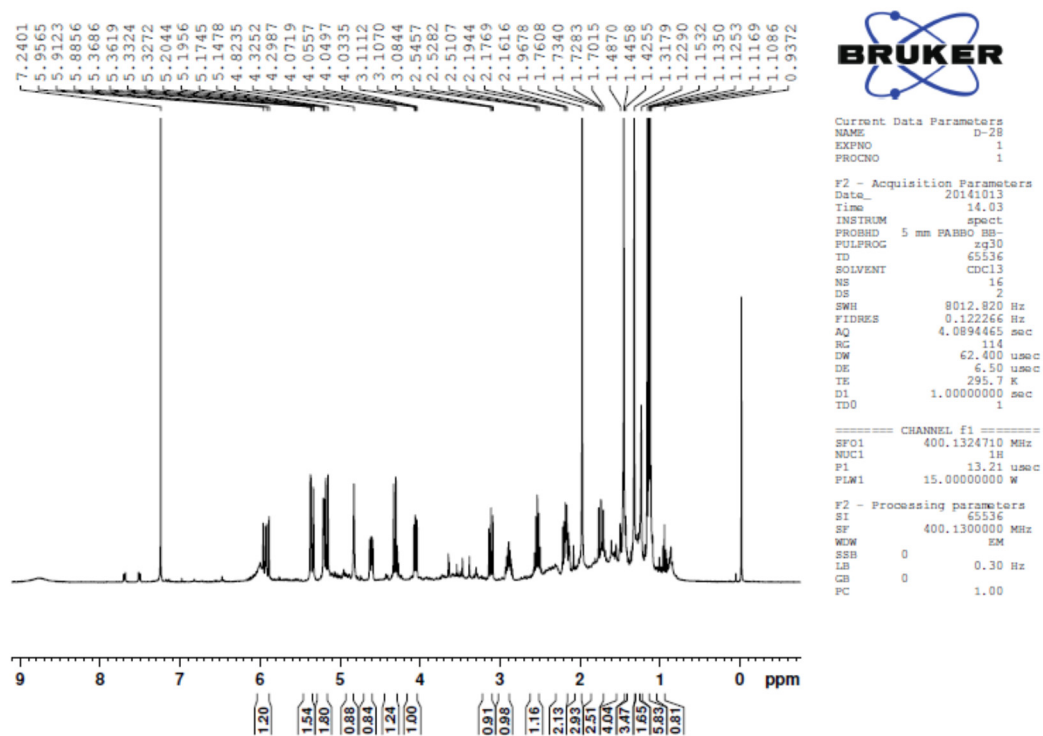
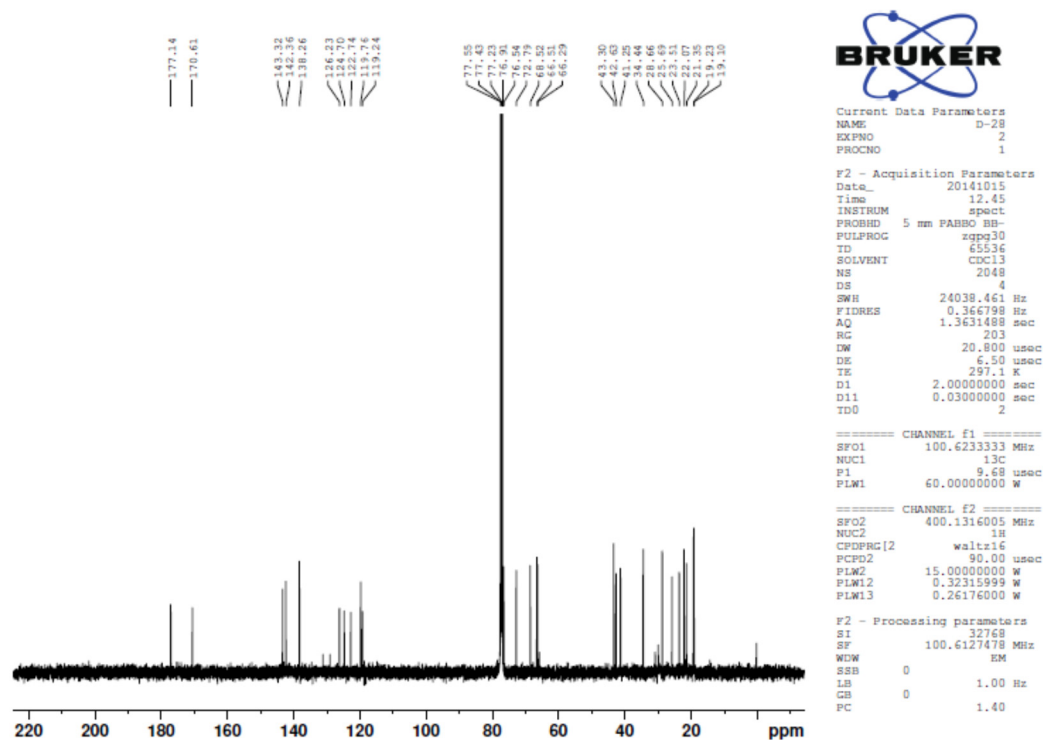


Figure S15. NOESY spectrum of 2.

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 Oper: WANG_J051NM.AC.CN Client: S/N: PT001263 Inlet:
 Limit: { 0 }
 : (443) C22.H100.N.04
 Peak: 1000.00 m/z R+D: -2.0 > 60.0
 Data: CMASS : converted

Mass	Intensity	%RA	%RIC	Delta	R+D	Composition
71.08585	25999	11.73	0.11	0.2	0.5	C5.H11
73.02899	28706	12.95	0.12	0.0	1.5	C3.H5.O2
77.03950	61900	27.93	0.26	-0.4	4.5	C6.H5
79.05518	39533	17.84	0.17	-0.4	3.5	C6.H7
81.06956	32410	14.63	0.14	0.9	2.5	C6.H9
83.08472	24432	11.03	0.10	1.4	1.5	C6.H11
85.06452	33835	15.27	0.14	0.8	1.5	C5.H9.O
91.05419	67528	30.47	0.28	0.6	4.5	C7.H7
105.0345	34120	15.40	0.14	-0.4	5.5	C7.H5.O
111.9514	25287	11.41	0.11			
115.0317	63752	28.77	0.27			
127.0529	31769	14.34	0.13	1.9	7.5	C10.H7
128.0609	61971	27.96	0.26	1.7	7.0	C10.H8
129.0682	31840	14.37	0.13	2.2	6.5	C10.H9
141.0684	28777	12.99	0.12	2.0	7.5	C11.H9
143.0860	25643	11.57	0.11	0.1	6.5	C11.H11
149.0228	133275	60.14	0.56	1.1	6.5	C8.H5.O3
152.0612	31057	14.01	0.13	1.4	9.0	C12.H8
153.0656	27353	12.34	0.11			
154.0681	25714	11.60	0.11	-2.4	8.5	C11.H8.N
165.0683	43237	19.51	0.18	2.2	9.5	C13.H9
165.0906	40388	18.23	0.17	0.9	4.5	C10.H13.O2
171.0798	36969	16.68	0.15	1.2	7.5	C12.H11.O
199.0729	26712	12.05	0.11	3.0	8.5	C13.H11.O2
223.1053	24446	11.12	0.10			
224.1096	25429	11.48	0.11	-2.1	9.5	C15.H14.N.O
232.1096	32196	14.53	0.13	0.3	7.0	C14.H16.O3
236.1444	40388	18.23	0.17	-0.5	9.5	C17.H18.N
250.1229	32980	14.88	0.14	0.2	10.5	C17.H16.N.O
				-2.4	6.0	C14.H18.O4
252.1027	42026	18.96	0.18	-0.2	10.5	C16.H14.N.O2
253.1139	34974	15.78	0.15			
254.1188	30914	13.95	0.13	-0.7	9.5	C16.H16.N.O2
258.1109	34547	15.59	0.14	2.1	8.5	C15.H16.N.O3
264.1371	45517	20.54	0.19	-0.9	6.0	C15.H20.O4
				1.8		
270.1142	91960	41.50	0.39	-1.2	9.5	C16.H16.N.O3
278.1188	28991	13.08	0.12	-0.7	11.5	C18.H16.N.O2
280.1699	79281	35.78	0.33	0.4	9.5	C19.H22.N.O
				-2.4	5.0	C16.H24.O4
282.1128	52711	23.79	0.22	0.2	10.5	C17.H16.N.O3
282.1511	44021	19.86	0.18	-1.7	9.5	C18.H20.N.O2
292.1342	35544	16.04	0.15	-0.5	11.5	C19.H18.N.O2
293.1462	33835	15.27	0.14			
294.1495	25287	11.41	0.11	-0.1	10.5	C19.H20.N.O2
297.1704	53780	24.27	0.23	2.5	9.0	C19.H23.N.O2
308.1633	212414	95.85	0.89	1.8	10.5	C20.H22.N.O2
309.1664	61117	27.58	0.26			
310.1475	103571	46.74	0.43			
314.1766	47796	21.57	0.20	-1.0	8.5	C19.H24.N.O3
324.1609	31270	14.11	0.13	-0.9	10.5	C20.H22.N.O3
325.1663	221603	100.00	0.93	1.5	10.0	C20.H23.N.O3
326.1719	148020	66.80	0.62			
327.1762	30416	13.73	0.13			
328.1592	28421	12.83	0.12			
343.1780	53281	24.04	0.22	0.3	9.0	C20.H25.N.O4

Figure S16. HREIMS spectrum of 2.

Figure S17. ^1H NMR (CDCl_3 , 400 MHz) spectrum of 3.Figure S18. ^{13}C NMR (CDCl_3 , 100 MHz) spectra of 3.

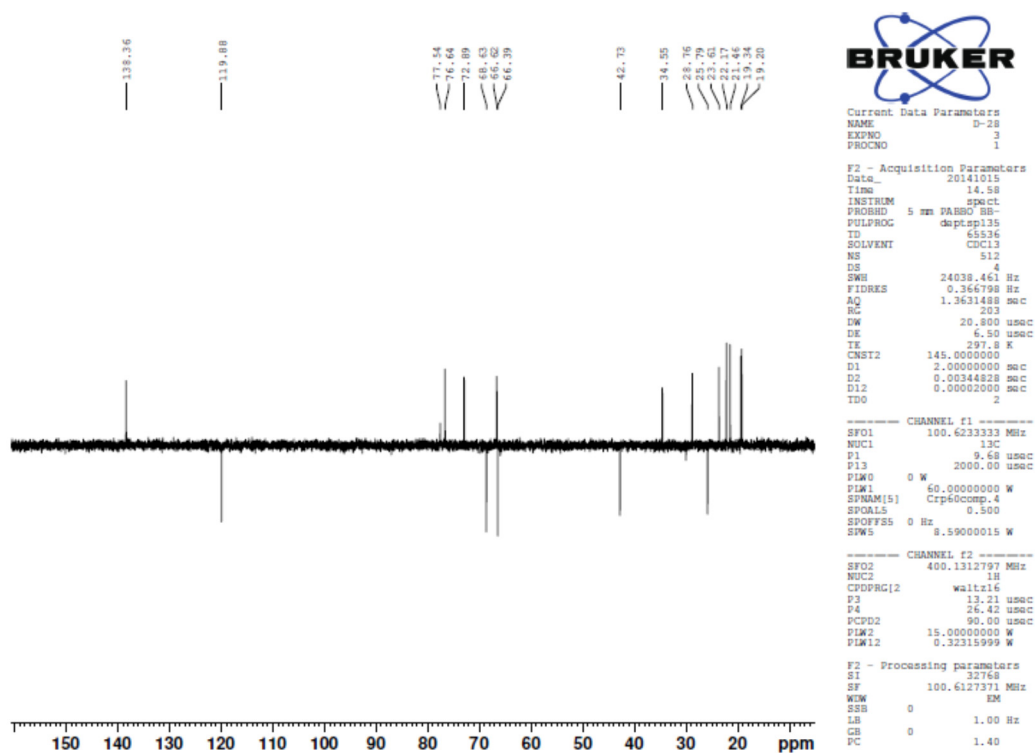
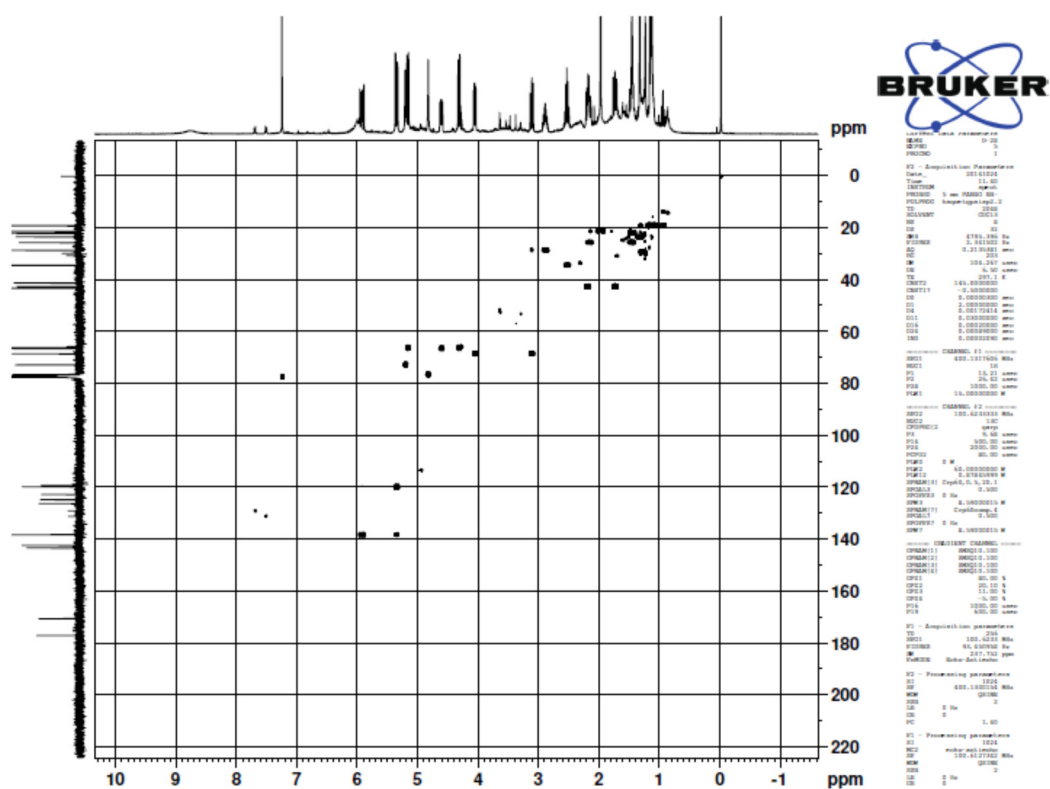
Figure S19. DEPT (CDCl₃, 100 MHz) spectrum of 3.

Figure S20. HSQC spectrum of 3.

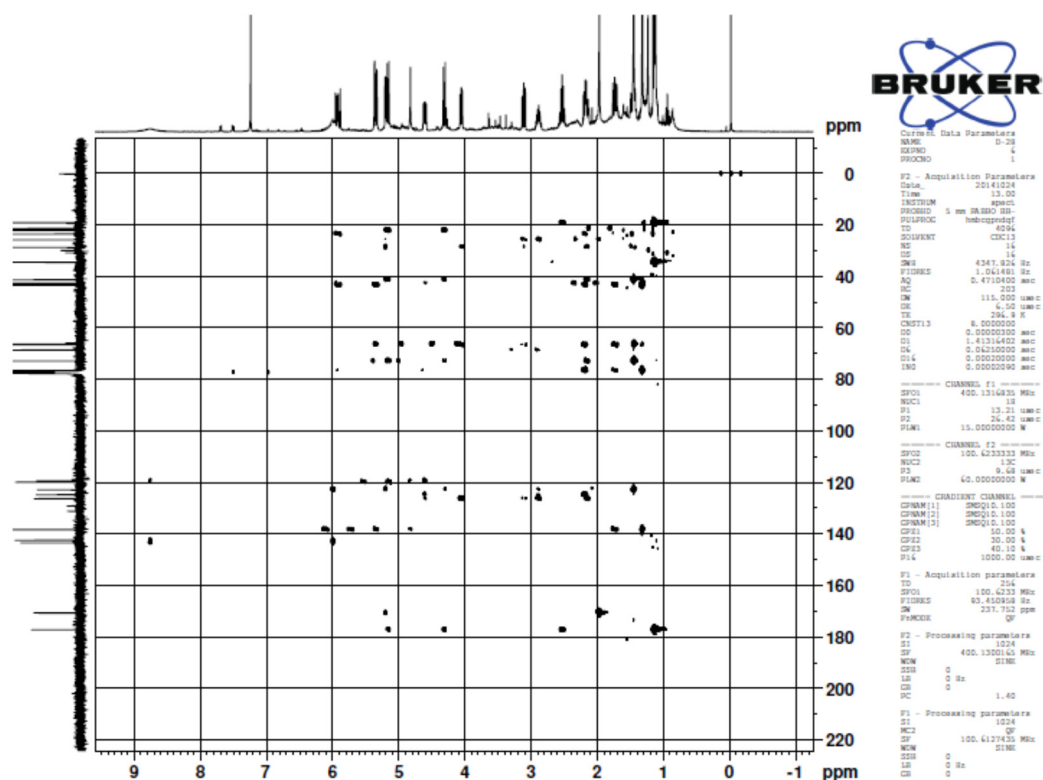


Figure S21. HMBC spectrum of 3.

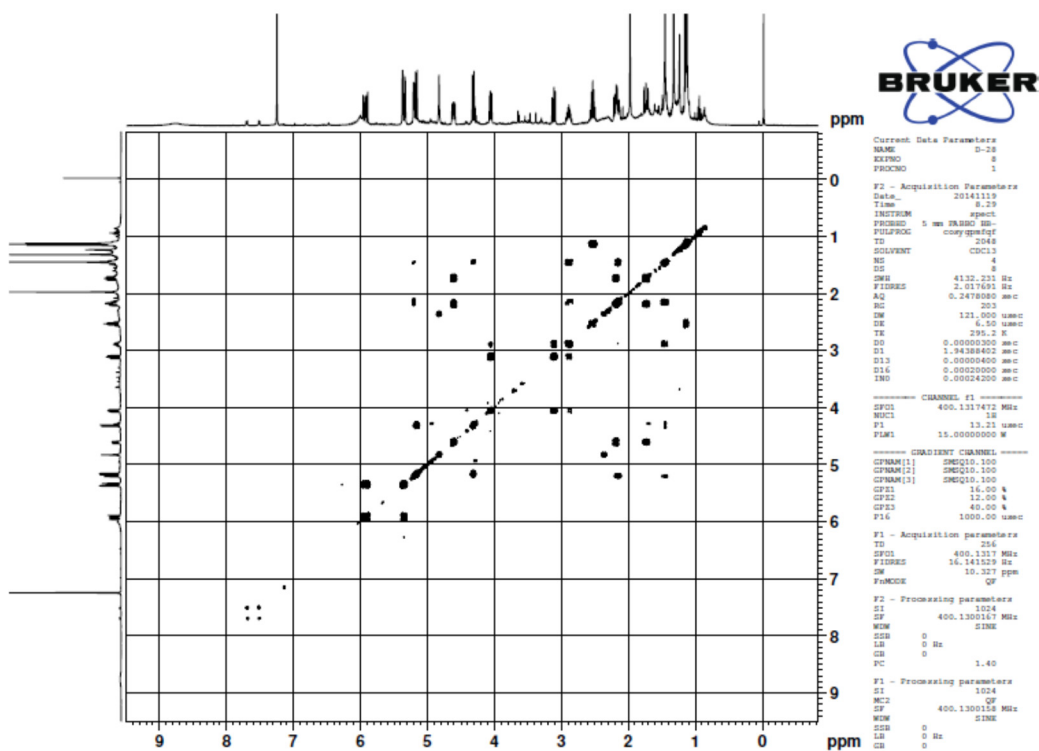


Figure S22. COSY spectrum of 3.

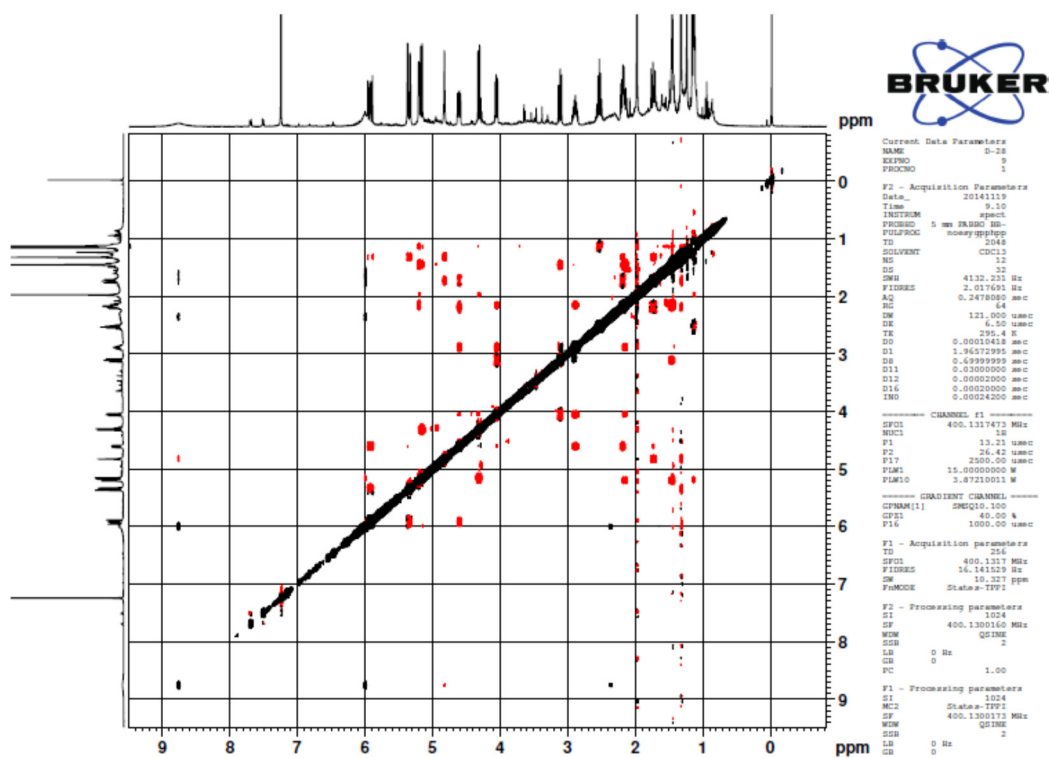


Figure S23. NOESY spectrum of 3.

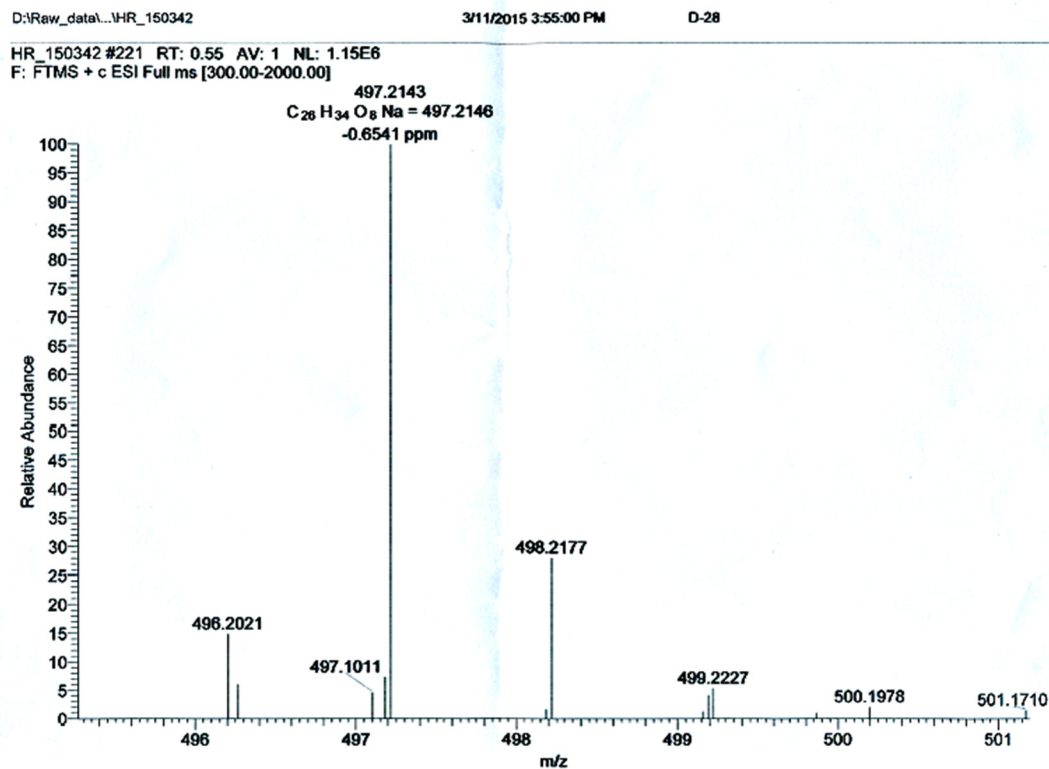


Figure S24. HRESIMS spectrum of 3.