

File Tools Help

Get integral Draw full experimental spectrum Reset integral

Show 2D figure

Water region (PPM):  
4.6 5  
☒ delete water region

DSS region (PPM):  
-0.1 0.1  
☒ delete DSS region

ROI region: -1 to 12 get ROI from exp. spectrum

Num points: 2<sup>14</sup>  
☒ Same as exp. data

Line width: 0.3

Field strength: 500  
☒ Same as exp. data

Lorentzian coeff: 0.8

Gaussian coeff: 0.2

database entries:

- bmse000001(1,3-Diaminopropane)-Initialvalues
- bmse000613(syringin)-Initialvalues
- bmse000614(vanillicacid)-Initialvalues
- bmse000615(2-furoylglycine)-Initialvalues
- bmse000616(2-octenoicacid)-Initialvalues
- bmse000617(2-phenylbutyricacid)-Initialvalues
- bmse000618(3-hydroxy-4-methoxycinnamicacid)-Initialvalues
- bmse000619(3-methyladipicacid)-Initialvalues
- bmse000620(3-methylsalicylicacid)-Initialvalues
- bmse000621(3-pyridinealoxime)-Initialvalues
- bmse000622(3-pyridinecarbonitrile)-Initialvalues
- bmse000623(4-hydroxybenzylalcohol)-Initialvalues
- bmse000624(4-methylsalicylicacid)-Initialvalues
- bmse000625(4-methylvalericacid)-Initialvalues
- bmse000626(5-methoxytryptamine)-Initialvalues
- bmse000627(bilirubin)-Initialvalues
- bmse000628(cis-fenpropimorph)-Initialvalues
- bmse000629(L-4-hydroxyphenylglycine)-Initialvalues
- bmse000630(N-cyclohexylformamide)-Initialvalues
- bmse000631(O-phospho-DL-threonine)-Initialvalues
- bmse000632(sulfoaceticacid)-Initialvalues

Load

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

☒ Save automatically simulation info

File Tools Help

Show 2D figure

Water region (PPM):  
   
☒ delete water region

DSS region (PPM):  
   
☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integral

Num points:   
☒ Same as exp. data

Line width:   
Field strength:   
☒ Same as exp. data

Lorentzian coeff:   
Gaussian coeff:

database entries:

ROI region:  to 

get ROI from exp. spectrum

compound\_name

	1	2
1		
2		
3		
4		

☒ Save automatically

simulation info

Process

Copy selected cells

Optimization

Paste cells

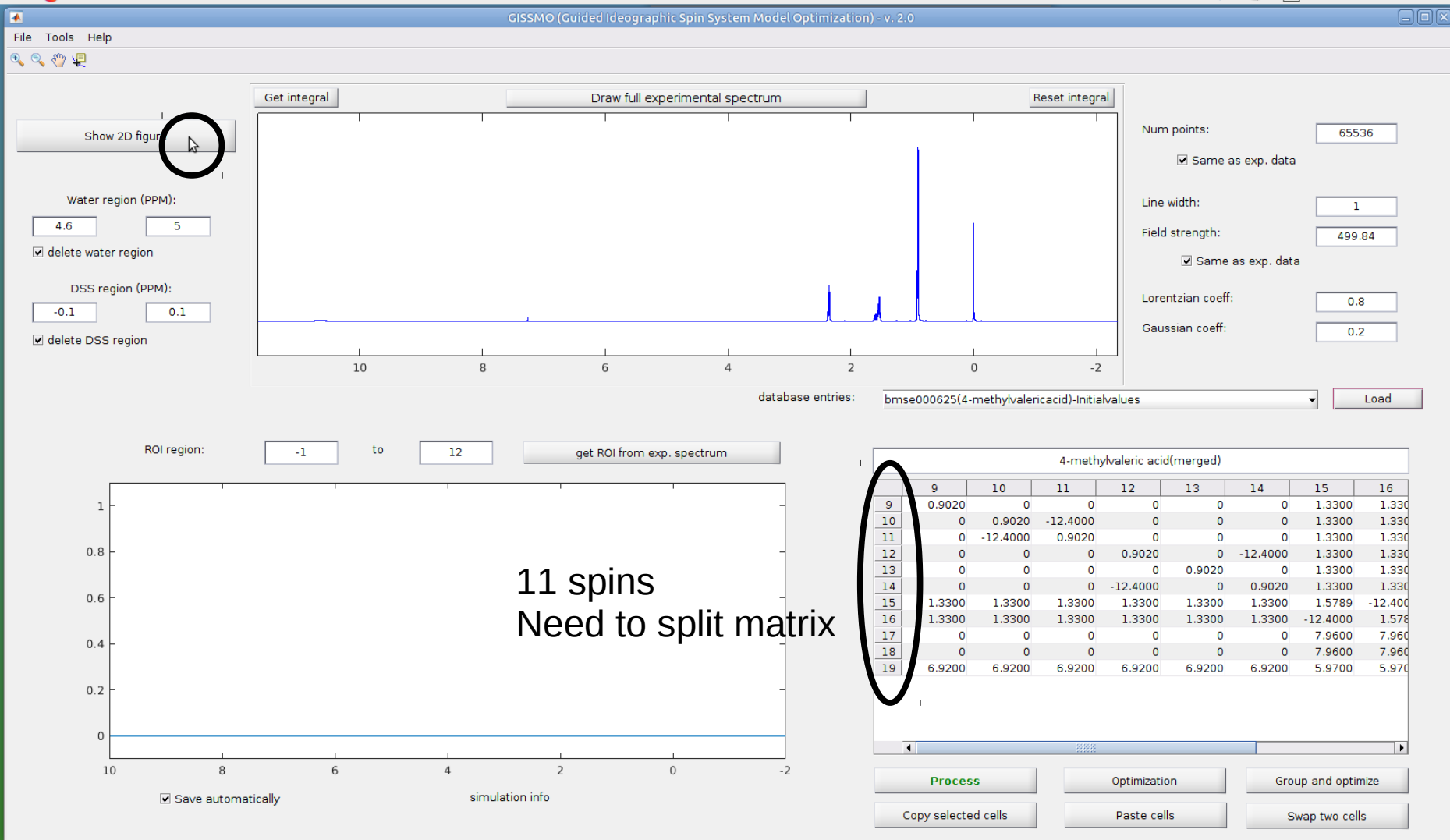
Group and optimize

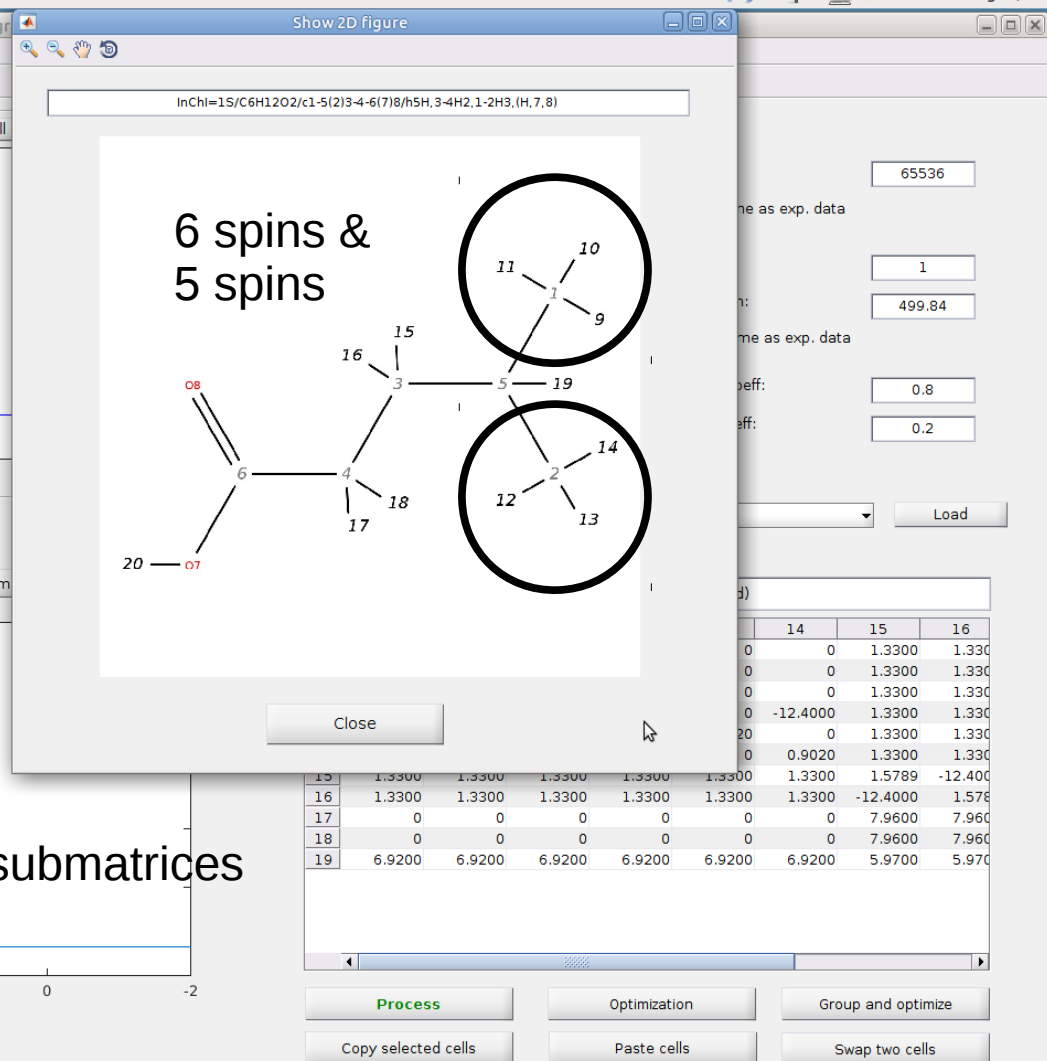
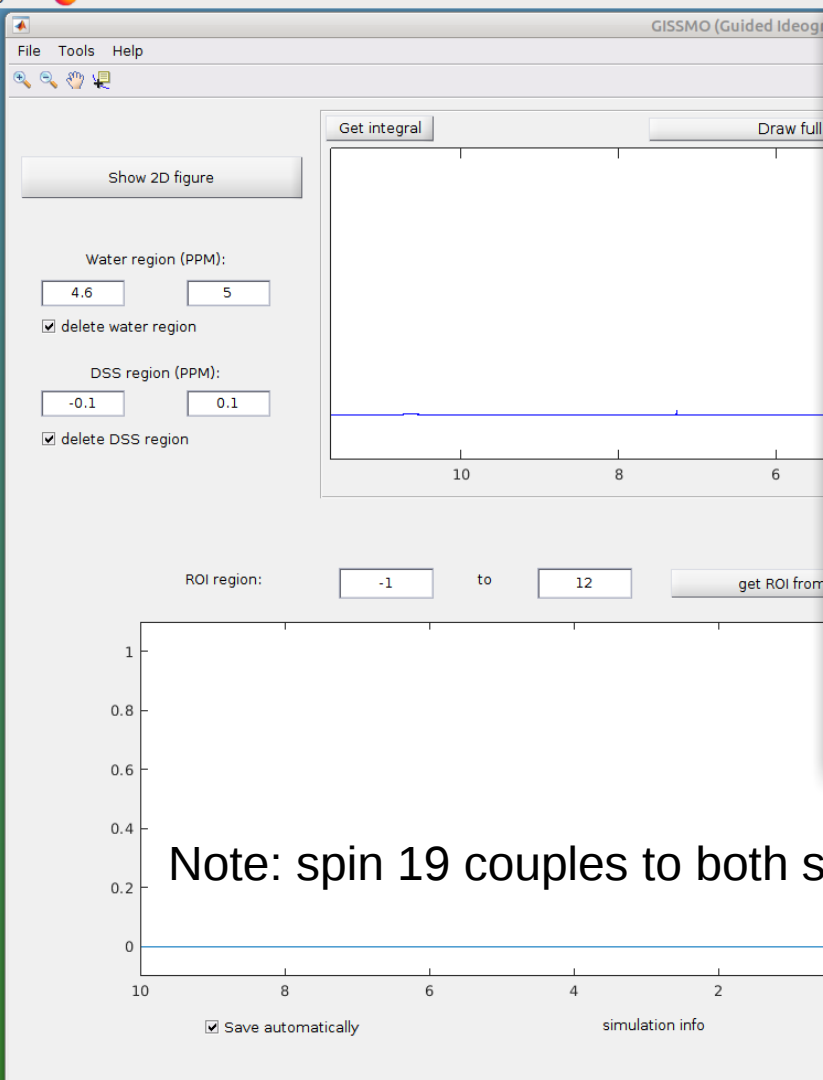
Swap two cells

Load

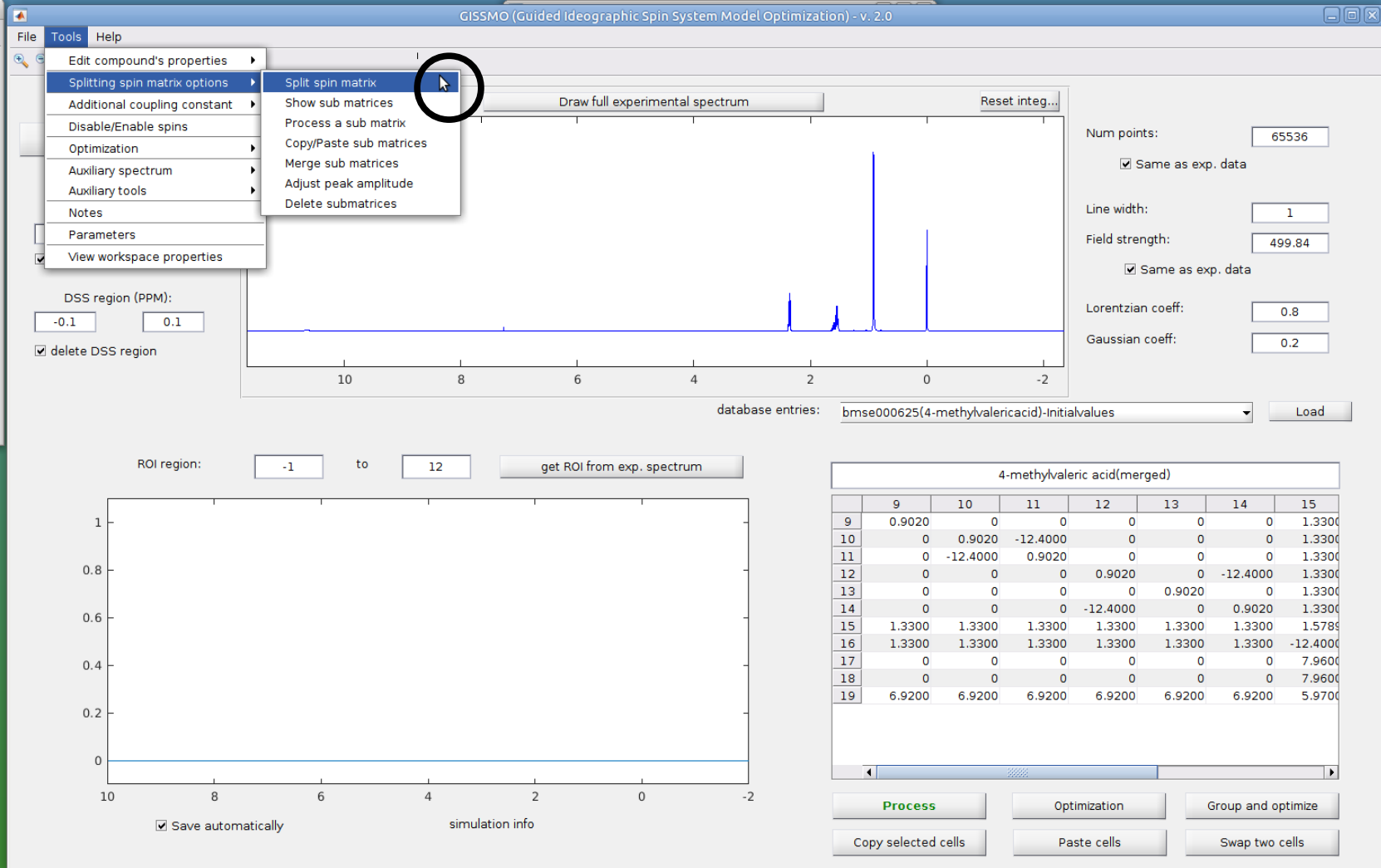
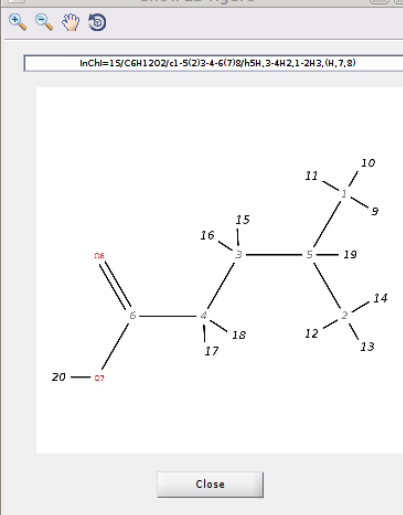
[Terminal] GISSMO (Guided Ideog...

Right Ctrl

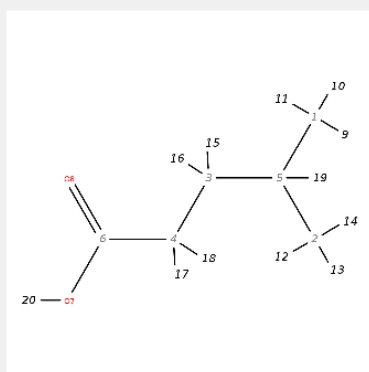








InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

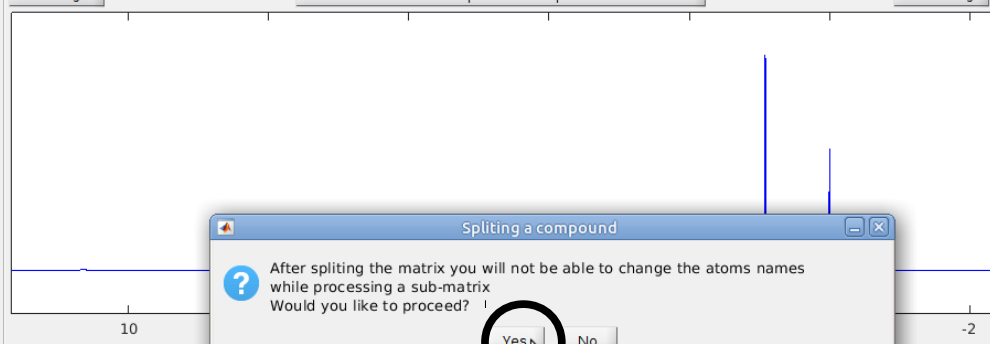
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Splitting a compound

After splitting the matrix you will not be able to change the atoms names while processing a sub-matrix. Would you like to proceed?

Yes No

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvalericacid-Initialvalues

Load

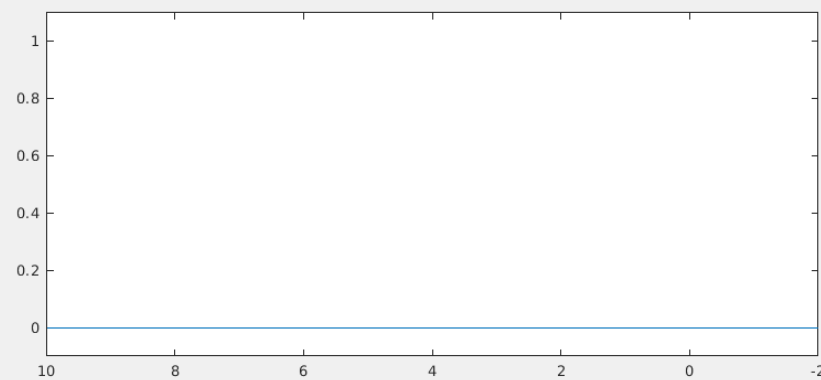
ROI region:

-1

to

12

get ROI from exp. spectrum



☒ Save automatically

simulation info

4-methylvalericacid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5788
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process

Optimization

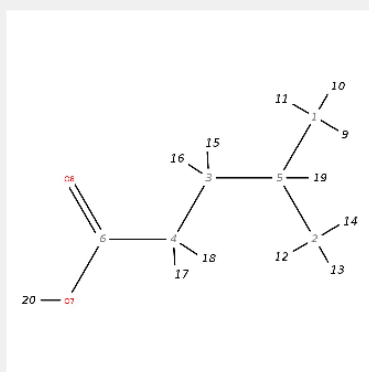
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

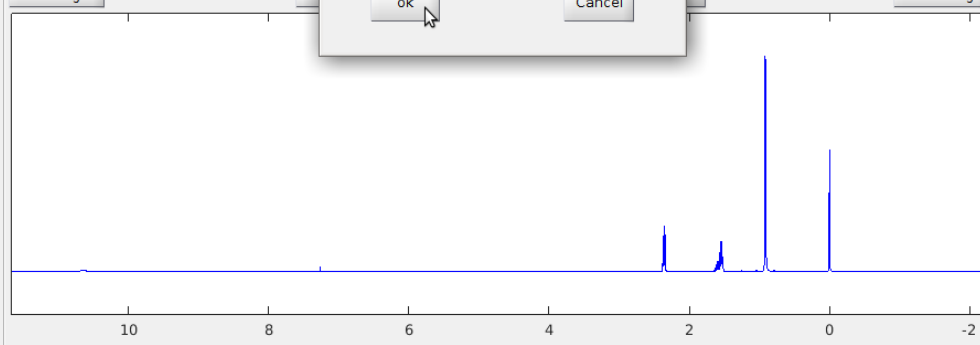
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



Reset integ...

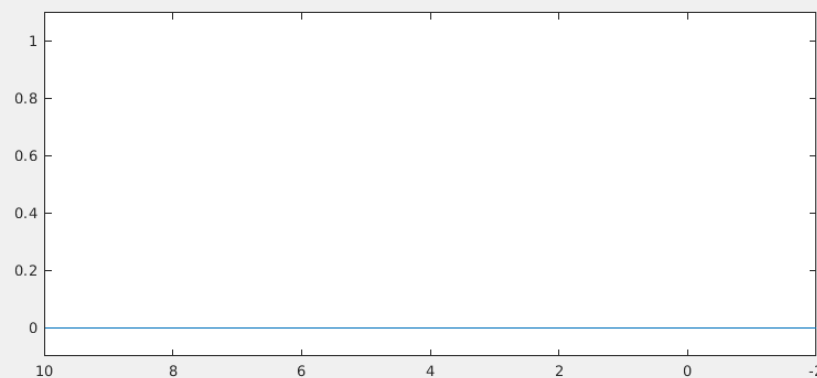
database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

ROI region:

-1 to 12

get ROI from exp. spectrum



☒ Save automatically

simulation info

Number of subMatrices

Number of sub-matrices

2

ok

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5788
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process

Optimization

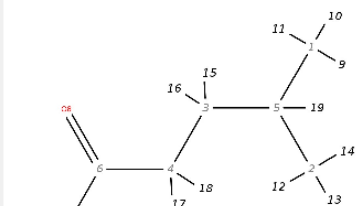
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

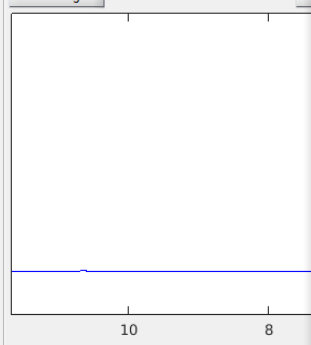
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

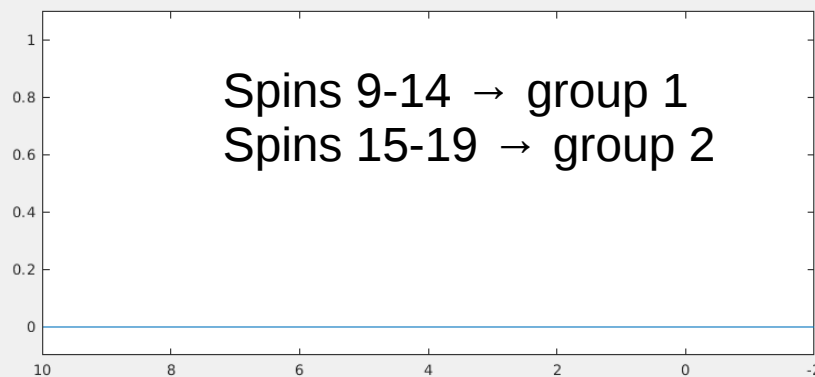
Get integral



ROI region:

-1 to 12

get ROI from exp. spectrum



☒ Save automatically

simulation info

Spins 9-14 → group 1  
Spins 15-19 → group 2

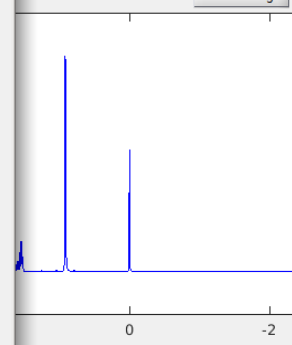
Split

Cancel

Split matrix

atom name	sub matrix id
9	subMatrix(1)
10	subMatrix(1)
11	subMatrix(1)
12	subMatrix(1)
13	subMatrix(1)
14	subMatrix(1)
15	choose
16	choose
17	subMatrix(1)
18	subMatrix(2)
19	choose

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

bmse000625(4-methylvalericacid)-InitialValues

Load

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5788
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process

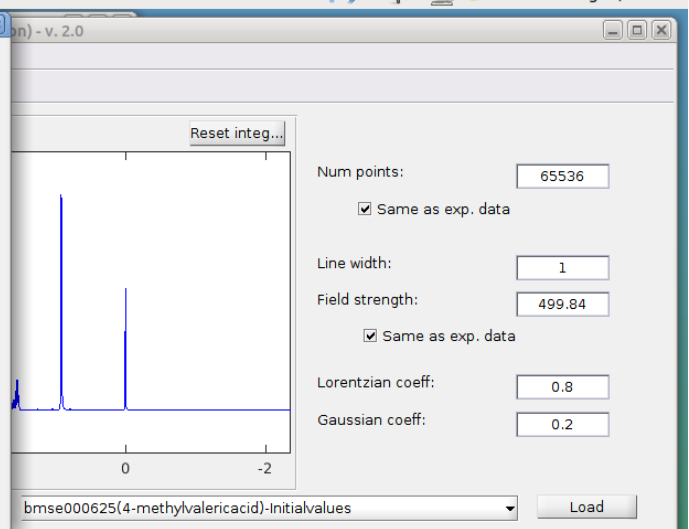
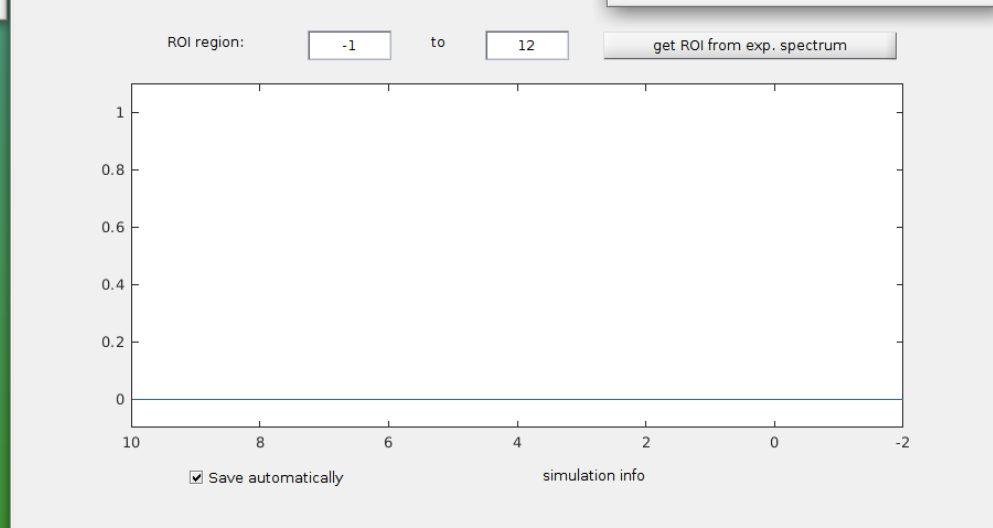
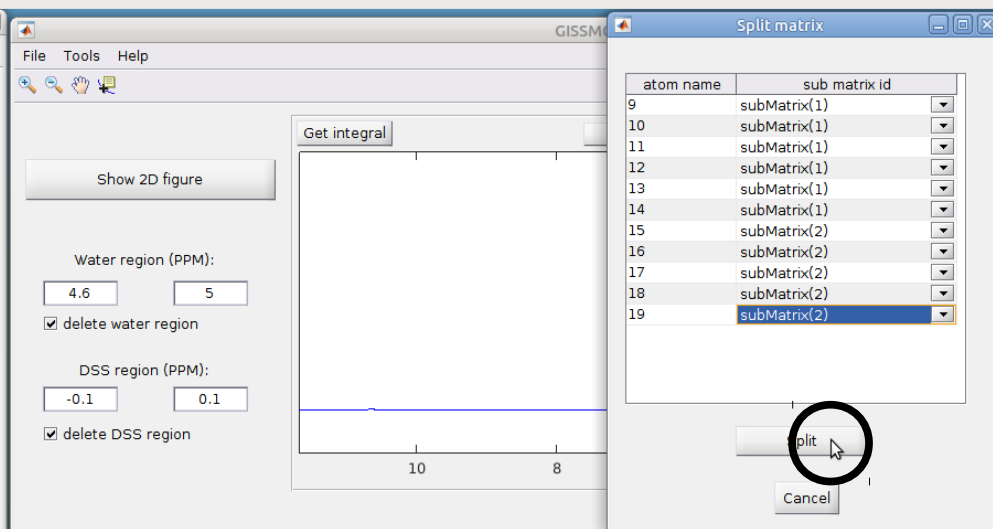
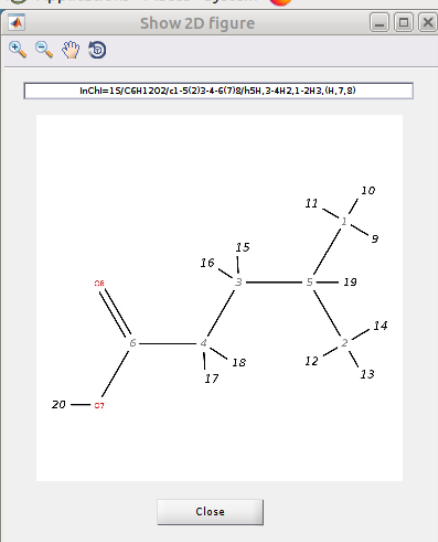
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



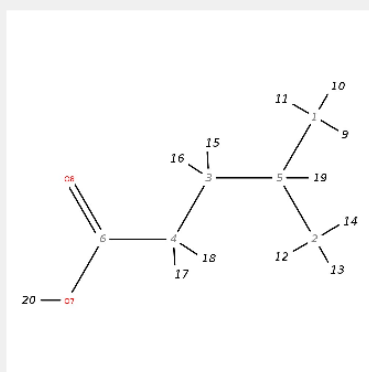
4-methylvalericacid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5789
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

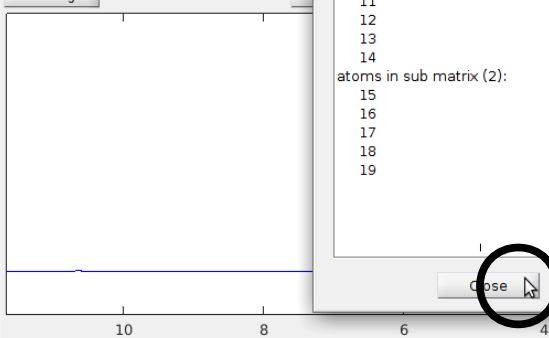
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



Show sub-matrices

Sub matrices:

atoms in sub matrix (1):

9  
10  
11  
12  
13  
14

atoms in sub matrix (2):

15  
16  
17  
18  
19

Close

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

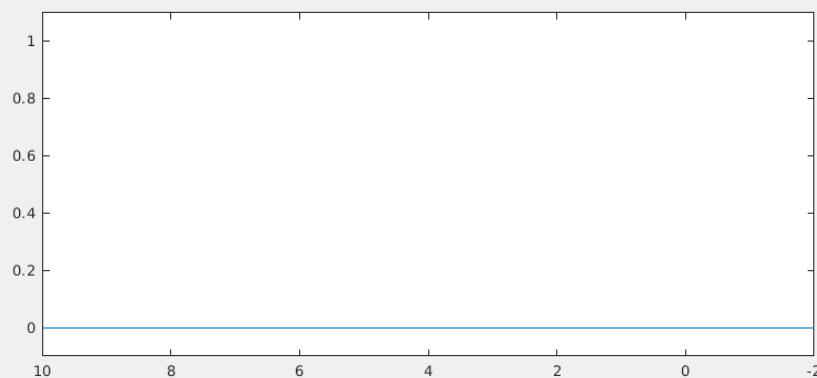
ROI region:

-1

to

12

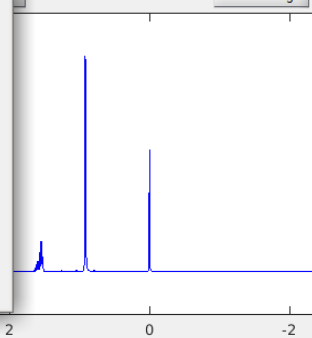
get ROI from exp. spectrum



☒ Save automatically

simulation info

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5788
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process

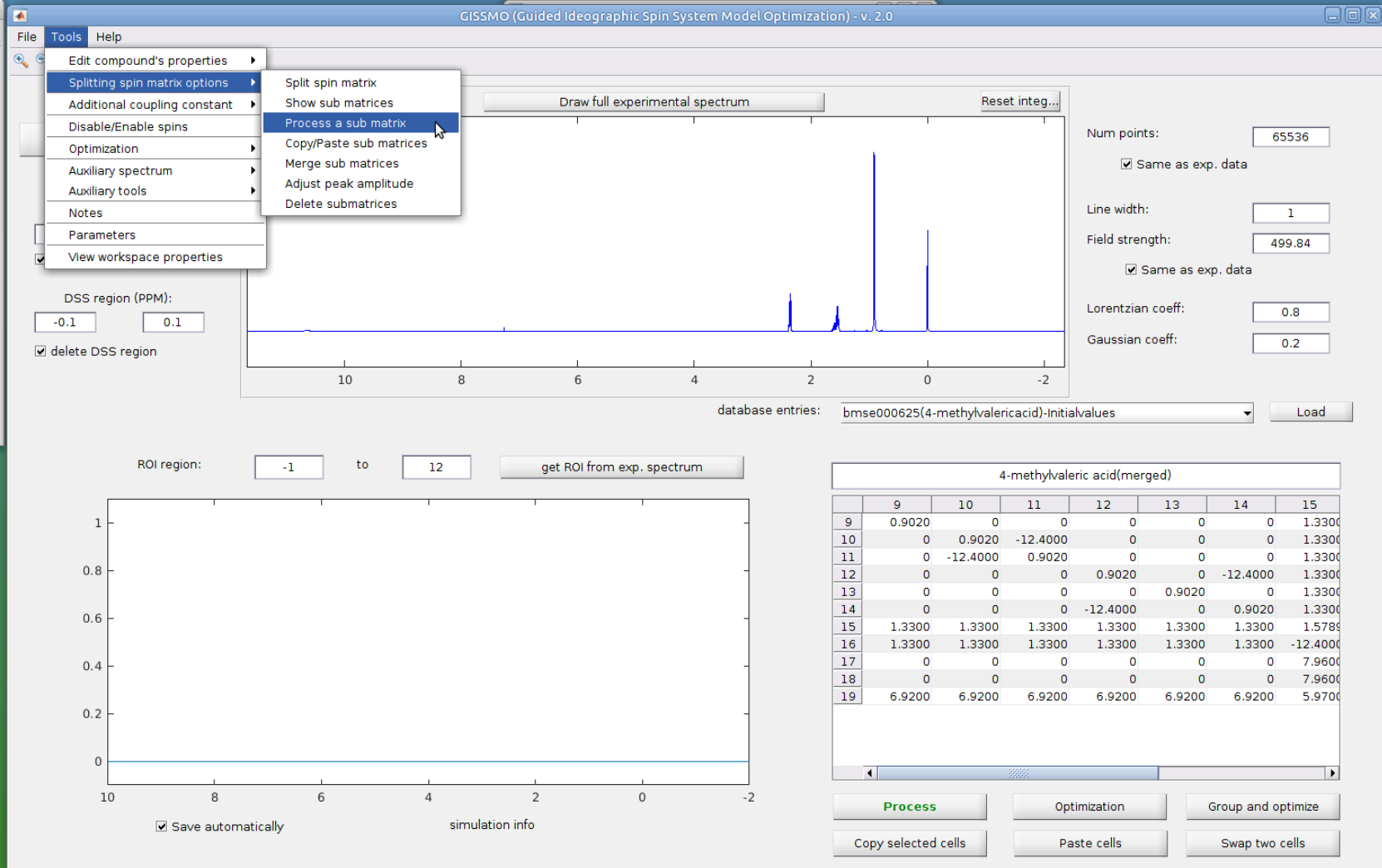
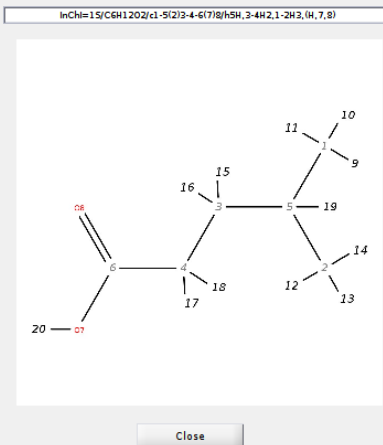
Optimization

Group and optimize

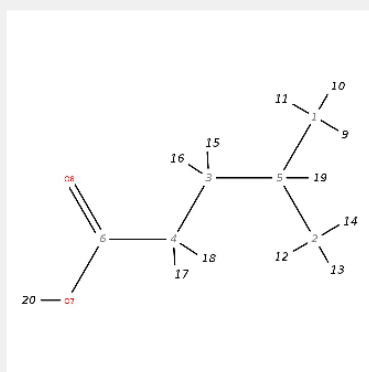
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

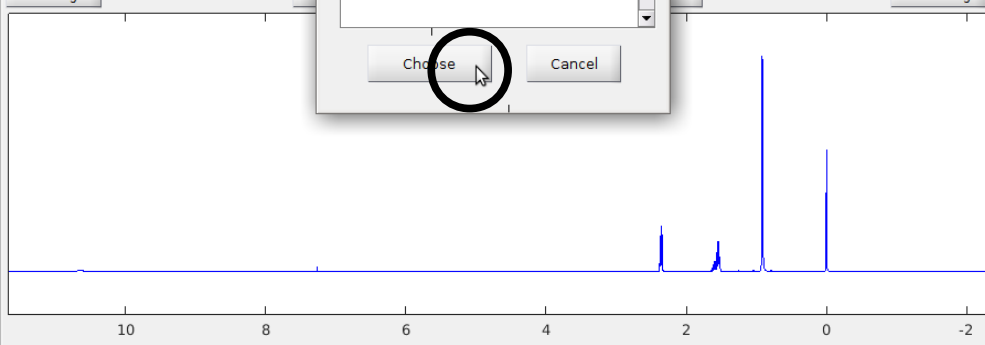
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



Reset integ...

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

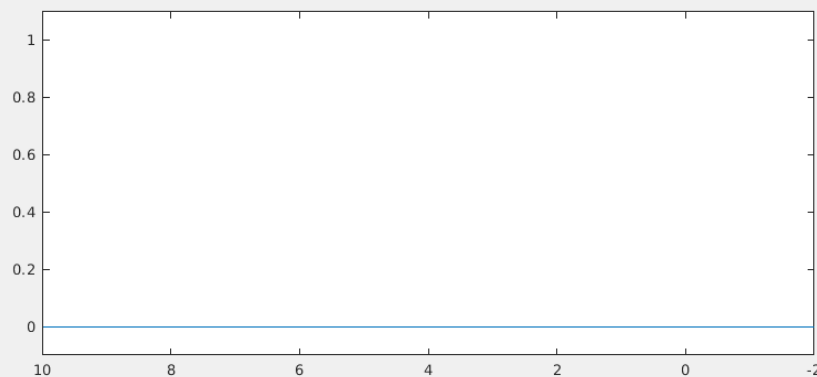
ROI region:

-1

to

12

get ROI from exp. spectrum



☒ Save automatically

simulation info

Choose a submatrix to process

choose a sub matrix

subMatrix(1)

subMatrix(2)

Choose

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9020	0	0	0	0	0	1.3300
10	0	0.9020	-12.4000	0	0	0	1.3300
11	0	-12.4000	0.9020	0	0	0	1.3300
12	0	0	0	0.9020	0	-12.4000	1.3300
13	0	0	0	0	0.9020	0	1.3300
14	0	0	0	-12.4000	0	0.9020	1.3300
15	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	1.5788
16	1.3300	1.3300	1.3300	1.3300	1.3300	1.3300	-12.4000
17	0	0	0	0	0	0	7.9600
18	0	0	0	0	0	0	7.9600
19	6.9200	6.9200	6.9200	6.9200	6.9200	6.9200	5.9700

Process

Optimization

Group and optimize

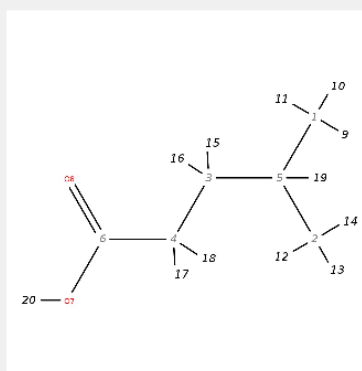
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

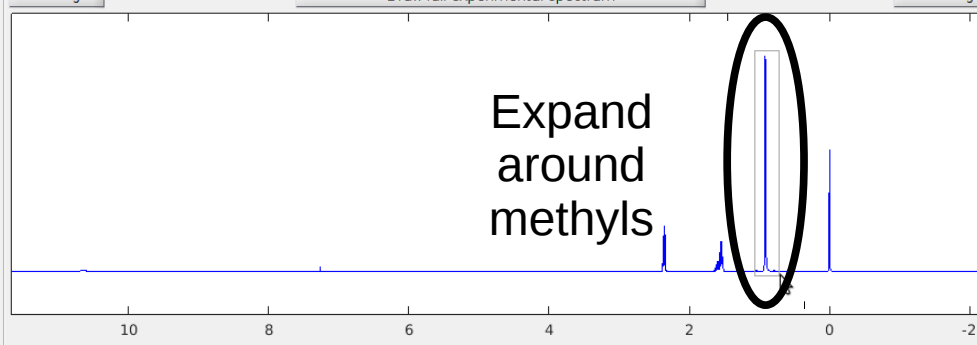
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

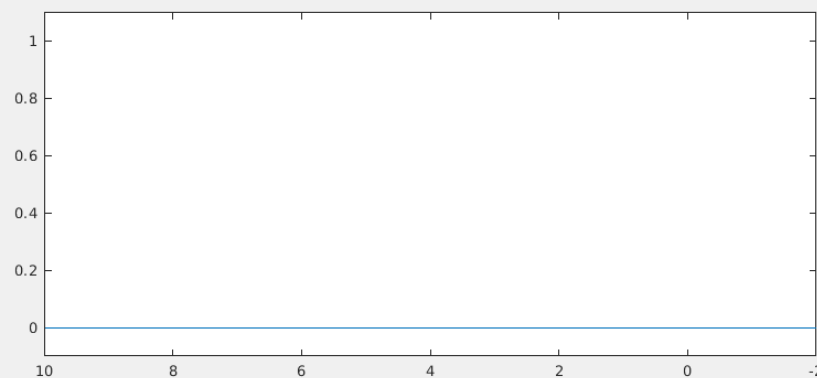
ROI region:

-1

to

12

get ROI from exp. spectrum



☒ Save automatically

simulation info

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9020	0	0	0	0	0
10	0	0.9020	-12.4000	0	0	0
11	0	-12.4000	0.9020	0	0	0
12	0	0	0	0.9020	0	-12.4000
13	0	0	0	0	0.9020	0
14	0	0	0	-12.4000	0	0.9020

Methyl spins

Process

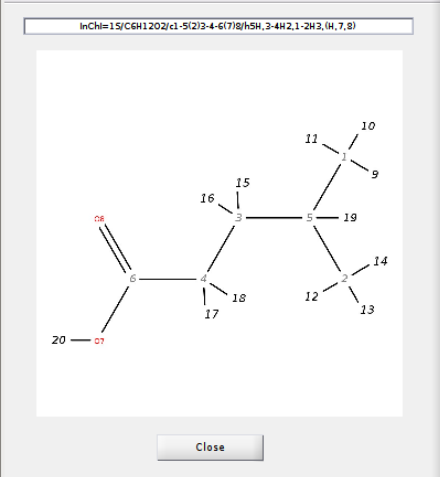
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



File Tools Help

Show 2D figure

Water region (PPM):  
   
☒ delete water region

DSS region (PPM):  
   
☒ delete DSS region

Get integral Draw full experimental spectrum Reset integ...

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

ROI region:  to  get ROI from exp. spectrum

☒ Save automatically simulation info

Num points:   
☒ Same as exp. data

Line width:   
 Field strength:   
☒ Same as exp. data

Lorentzian coeff:   
 Gaussian coeff:

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9020	0	0	0	0	0
10	0	0.9020	-12.4000	0	0	0
11	0	-12.4000	0.9020	0	0	0
12	0	0	0	0.9020	0	-12.4000
13	0	0	0	0	0.9020	0
14	0	0	0	-12.4000	0	0.9020

Process

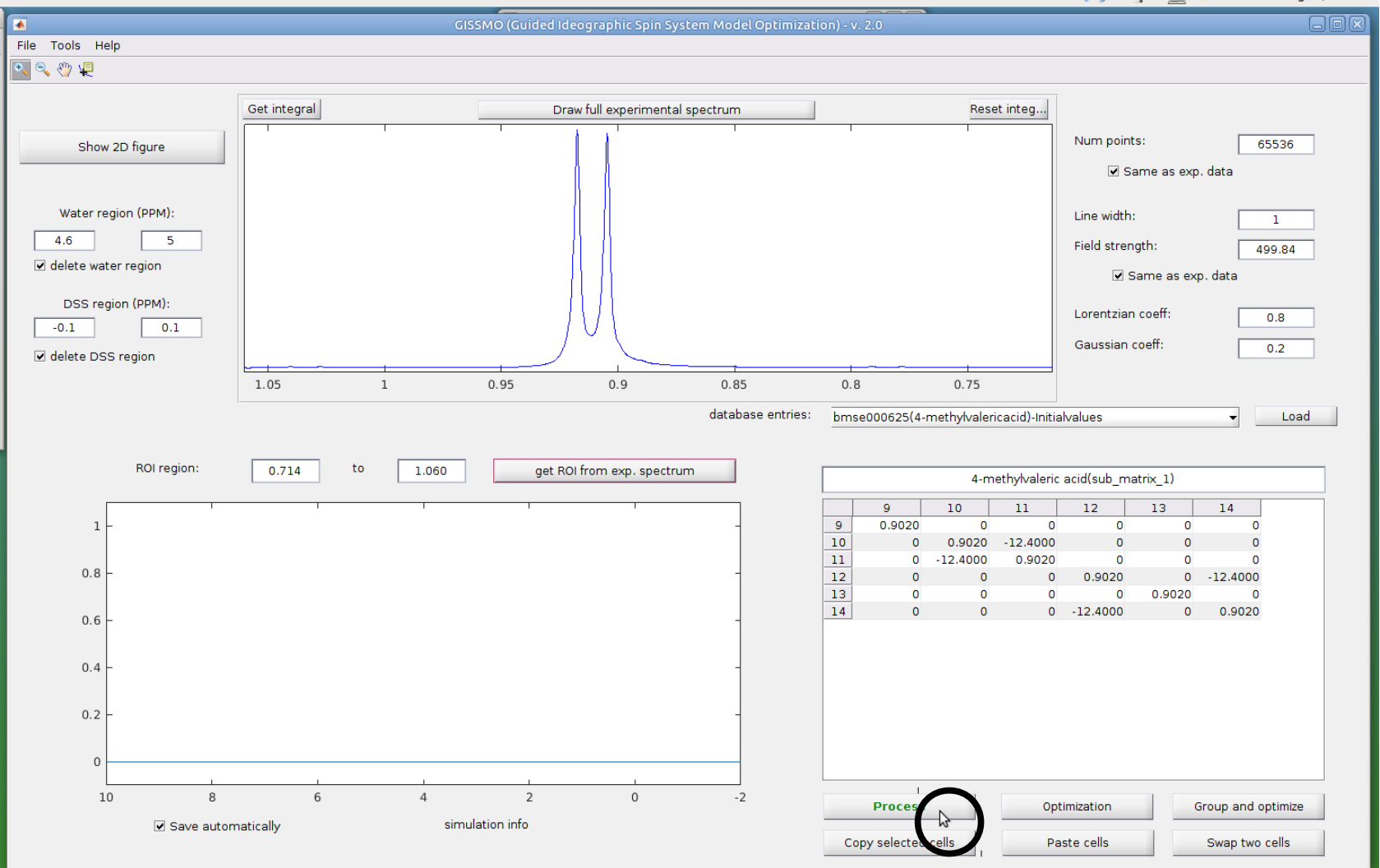
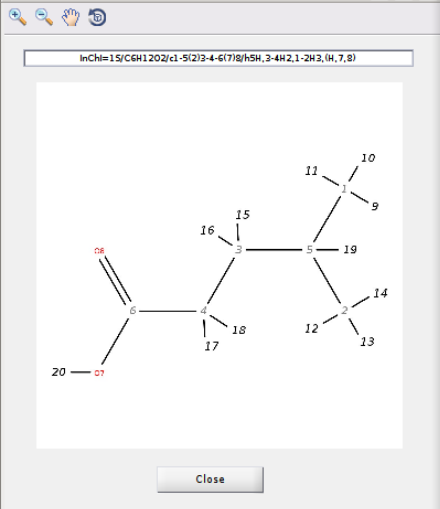
Optimization

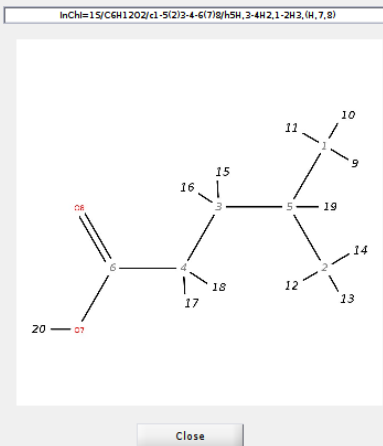
Group and optimize

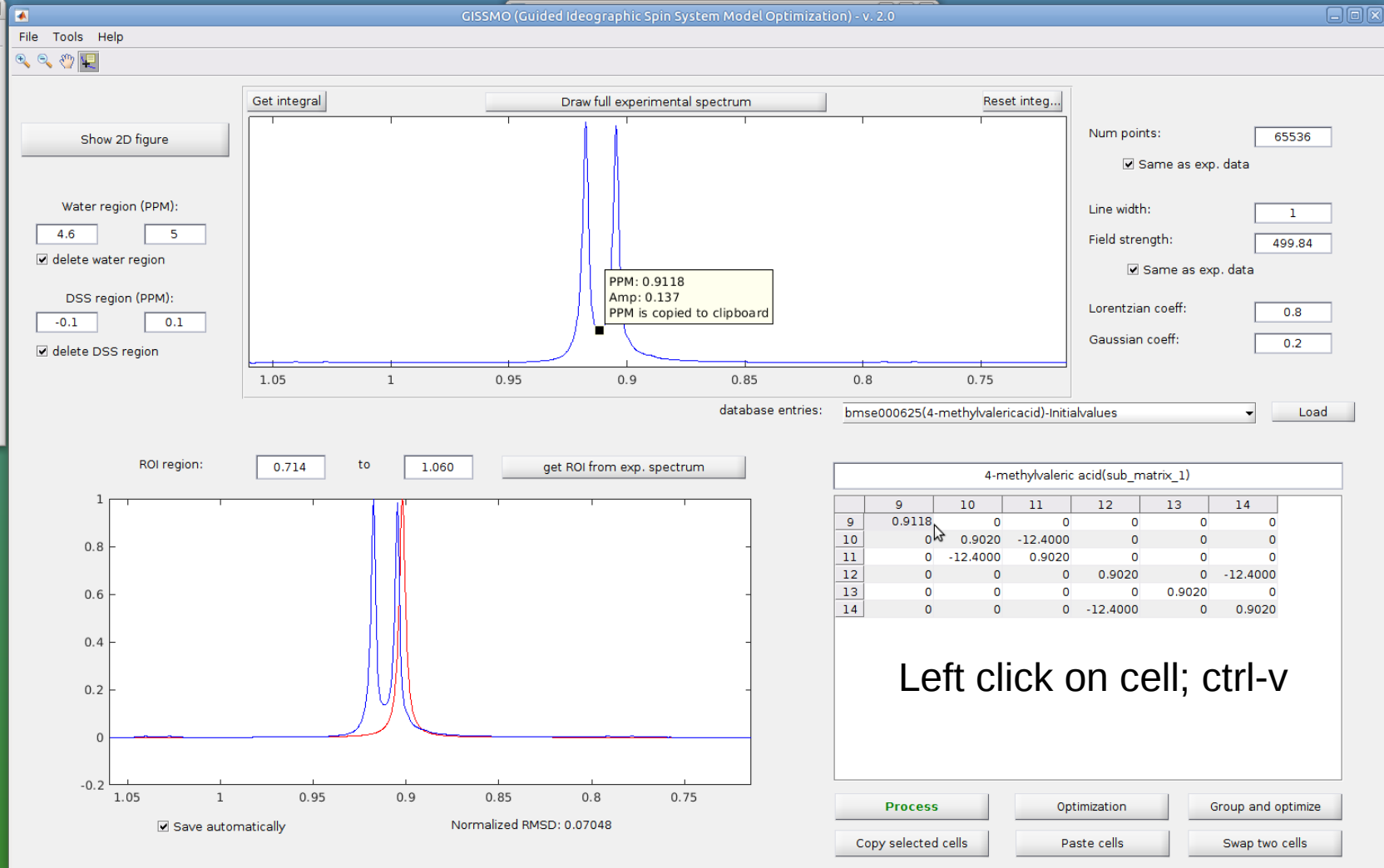
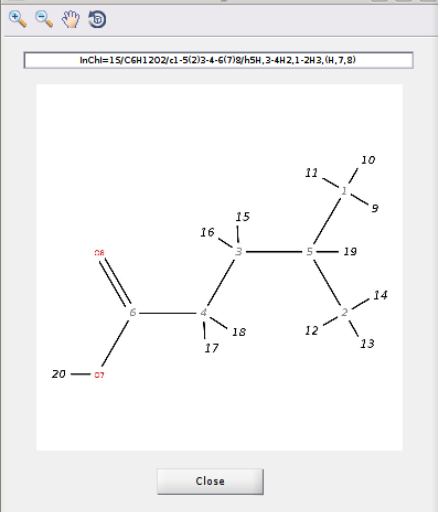
Copy selected cells

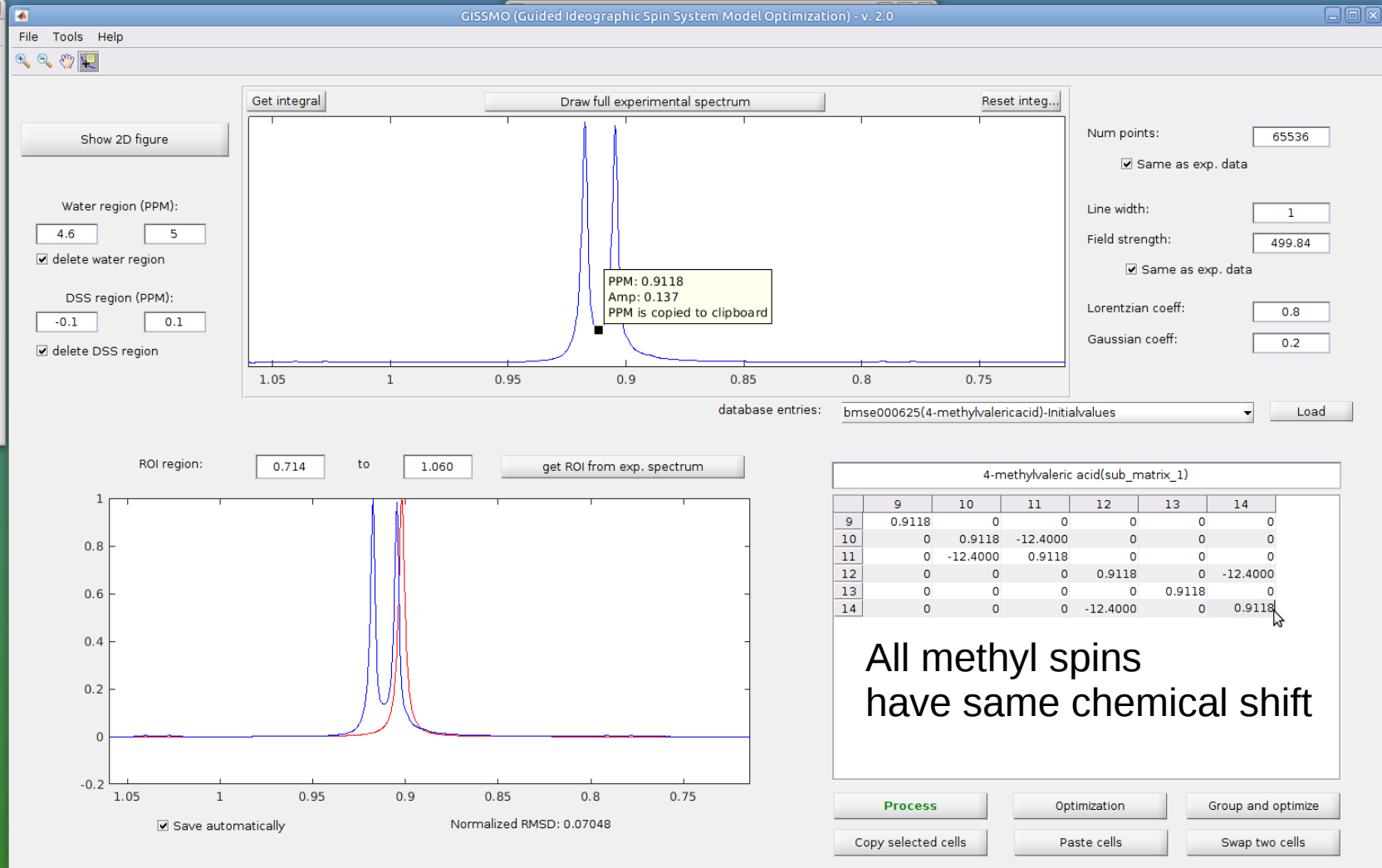
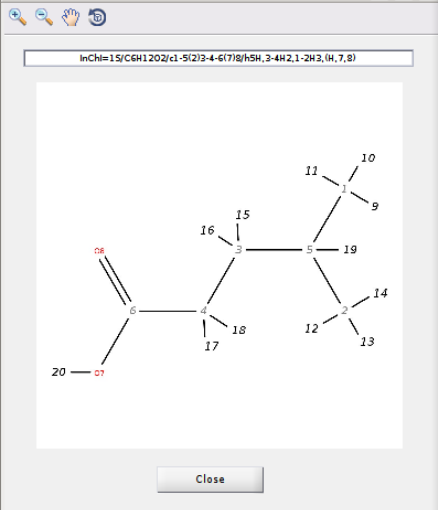
Paste cells

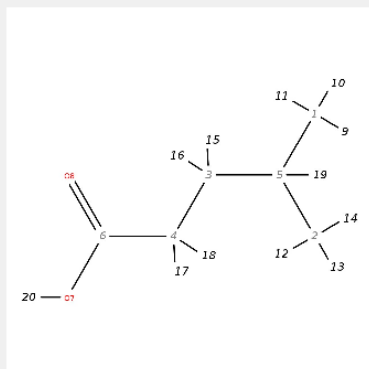
Swap two cells



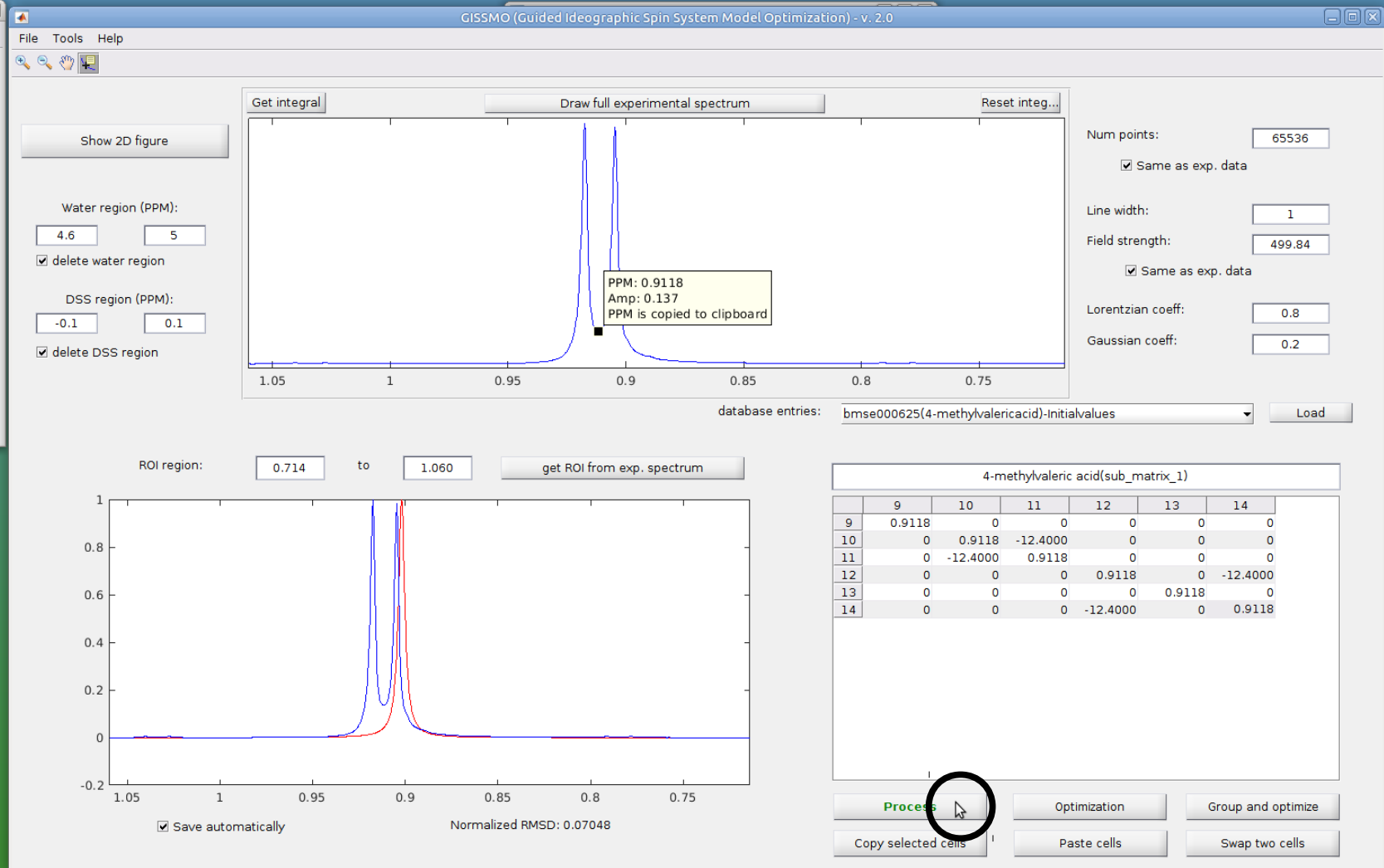




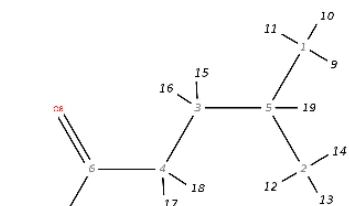




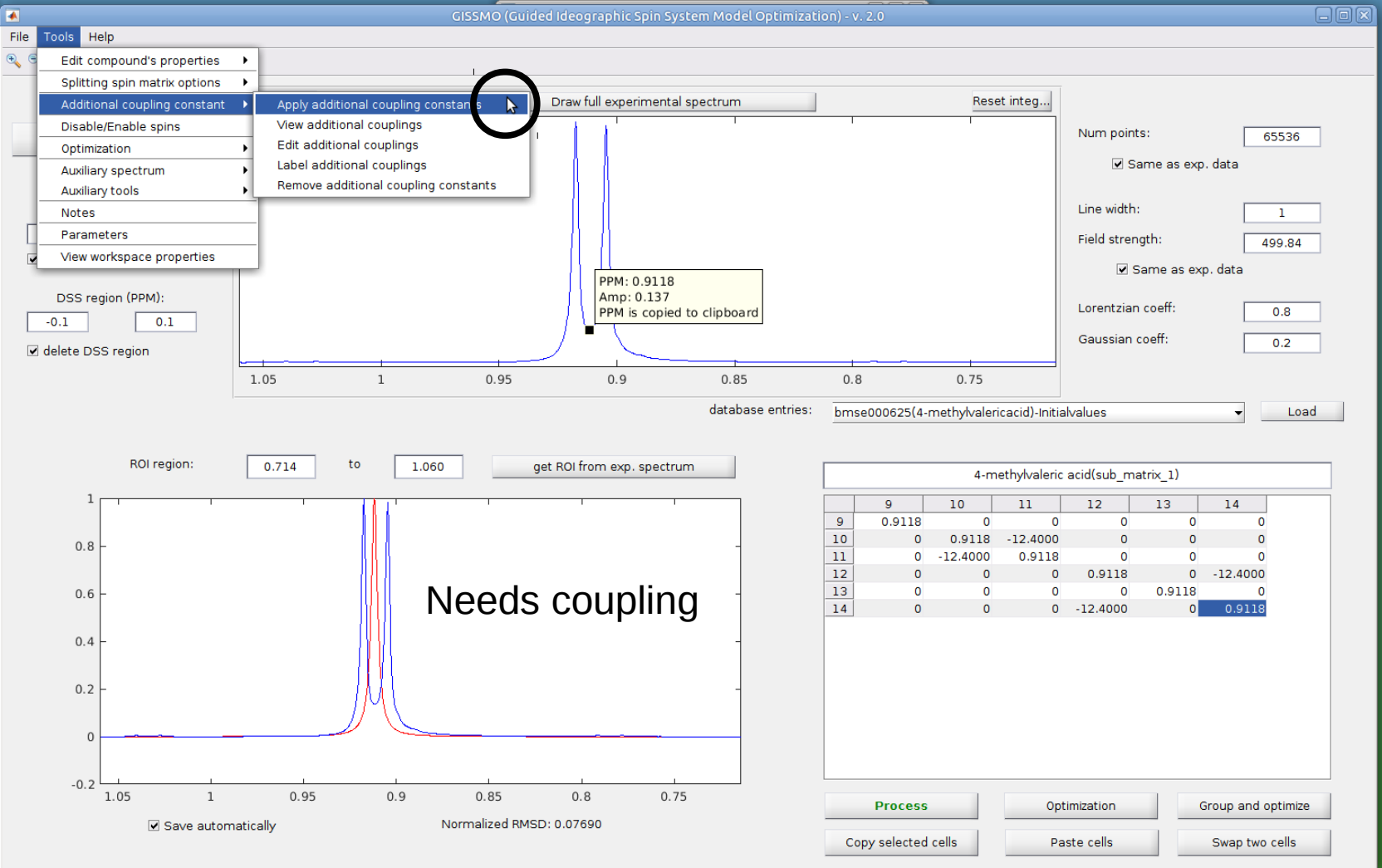
Close



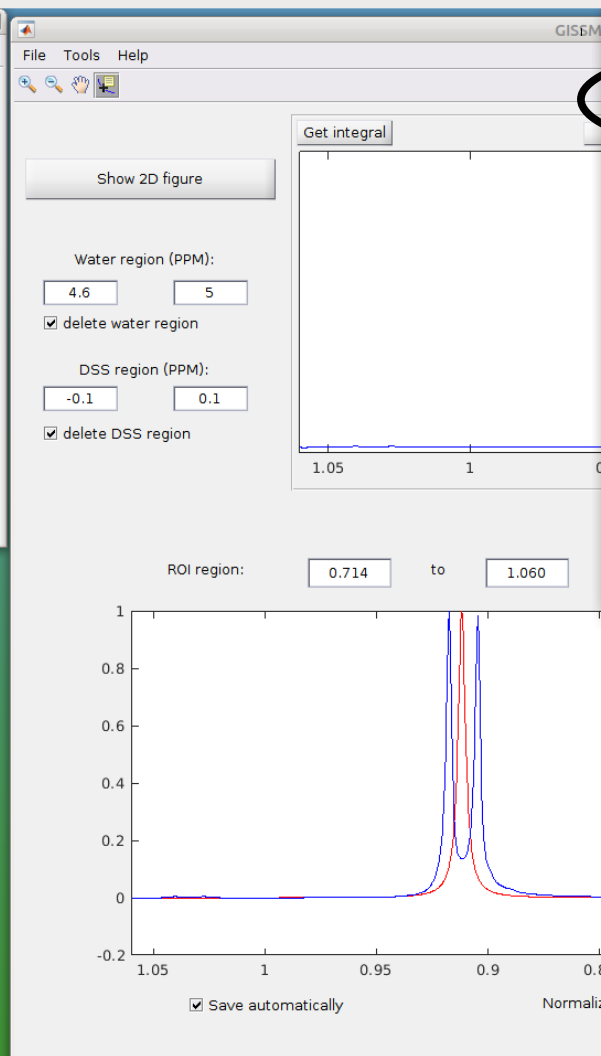
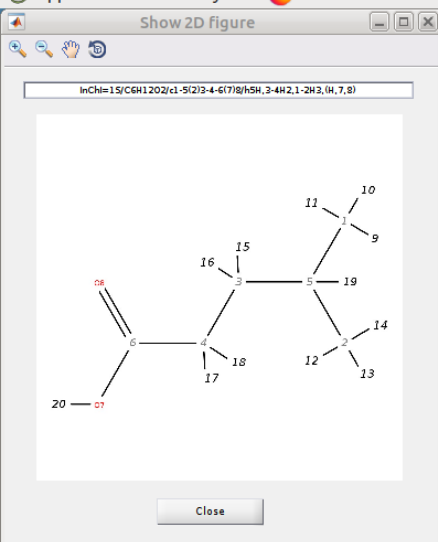
InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close







Apply different additional couplings to different spin groups

Number of groups of spins 2 Create

Total number of additional couplings 2

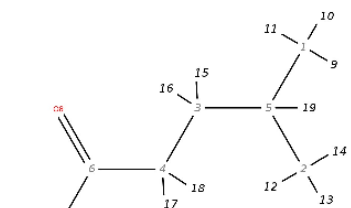
Apply Cancel

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

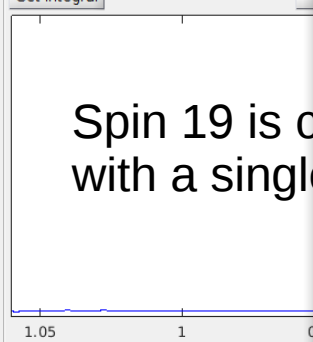
☒ delete water region

DSS region (PPM):

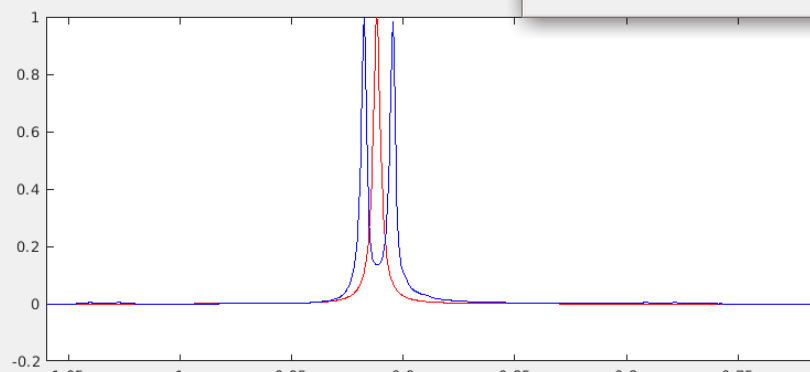
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 0.714 to 1.060



☒ Save automatically

Normalized RMSD: 0.07690

Number of groups of spins

1

Total number of additional couplings

1

Create

Spin 19 is coupled to 1 group of 6 identical spins with a single coupling constant

Apply

Cancel

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

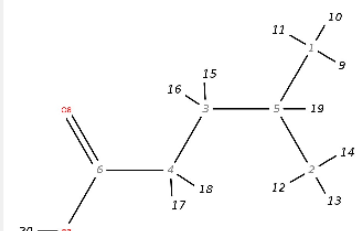
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

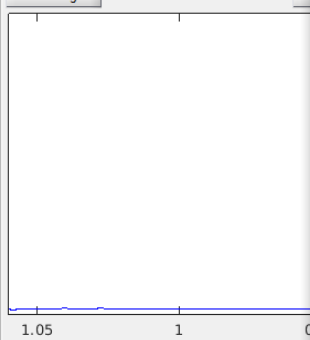
☒ delete water region

DSS region (PPM):

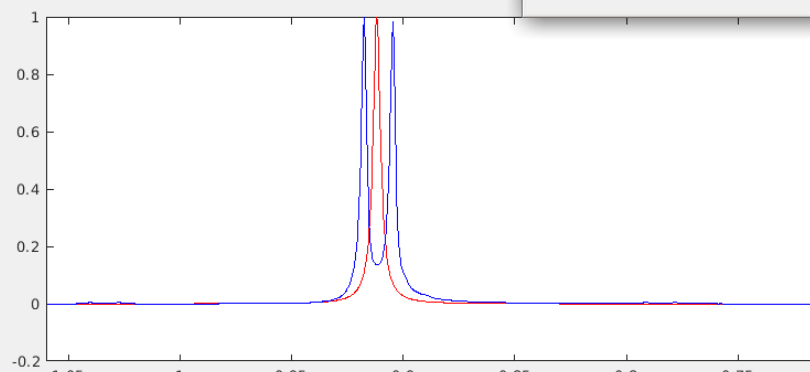
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 0.714 to 1.060



☒ Save automatically

Normalized RMSD: 0.07690

Apply different additional couplings to different spin groups

Number of groups of spins

1

Create

Total number of additional couplings

1

Select spins

Spin names	Group ID
1 9	select
2 10	select
3 11	group(1)
4 12	select
5 13	select
6 14	select

Additional couplings

Coupling constant	Group ID
1	select

Apply

Cancel

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

Group and optimize

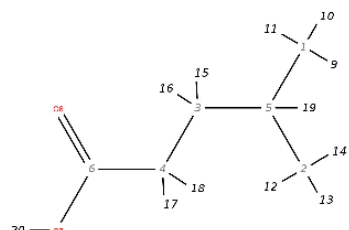
Copy selected cells

Paste cells

Swap two cells

Show 2D figure

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6

5

☒ delete water region

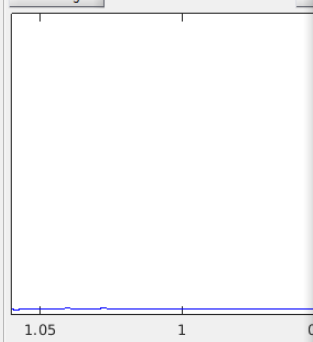
DSS region (PPM):

-0.1

0.1

☒ delete DSS region

Get integral

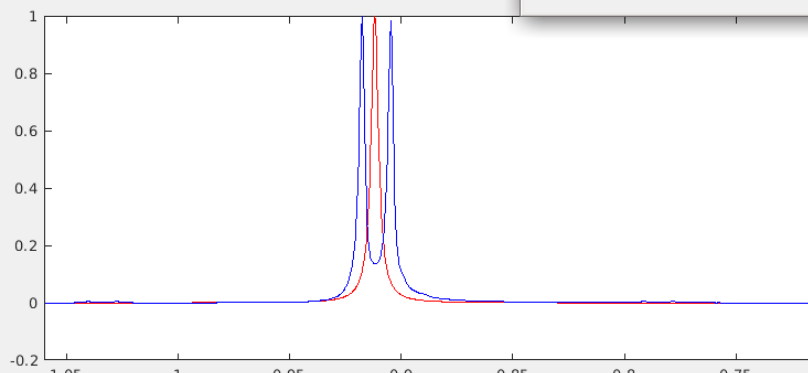


ROI region:

0.714

to

1.060

☒ Save automatically

Normalized RMSD: 0.07690

Apply different additional couplings to different spin groups

Number of groups of spins

1

Create

Total number of additional couplings

1

Select spins

Spin names	Group ID
1 9	group(1)
2 10	group(1)
3 11	group(1)
4 12	group(1)
5 13	group(1)
6 14	select

select

group(1)

Additional couplings

Coupling constant	Group ID
1	select

Set all methyl spins to group 1

Apply

Cancel

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

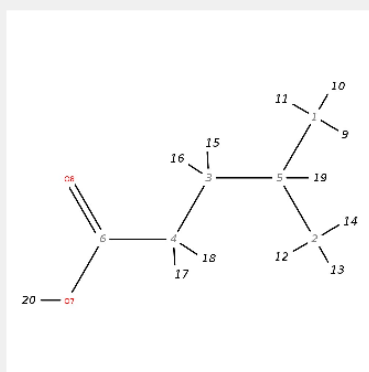
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

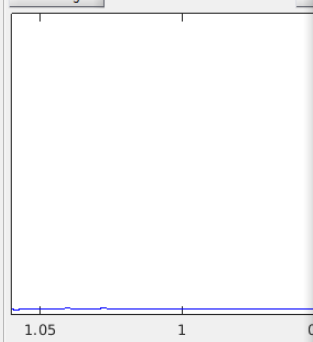
☒ delete water region

DSS region (PPM):

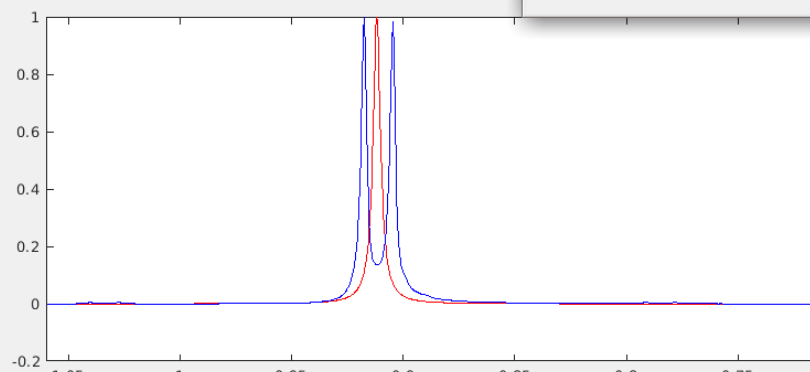
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 0.714 to 1.060



☒ Save automatically

Normalized RMSD: 0.07690

Number of groups of spins

1

Create

Total number of additional couplings

1

Select spins

Spin names	Group ID
1 9	group(1)
2 10	group(1)
3 11	group(1)
4 12	group(1)
5 13	group(1)
6 14	group(1)

Additional couplings

Coupling constant	Group ID
1	select
	select
	group(1)

Couplings are to group 1

Apply

Cancel

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

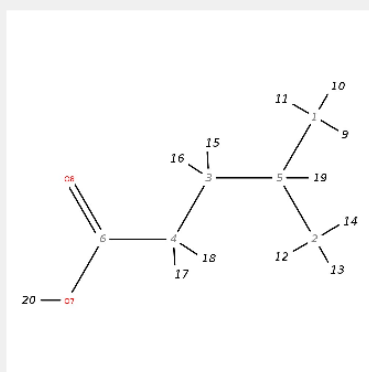
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

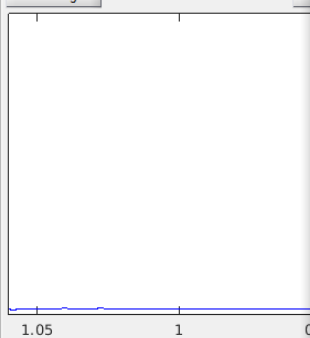
☒ delete water region

DSS region (PPM):

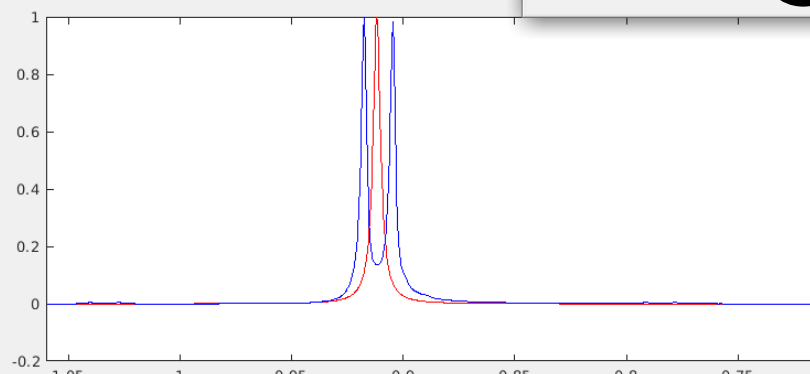
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 0.714 to 1.060



☒ Save automatically

Normalized RMSD: 0.07690

Number of groups of spins

1

Create

Total number of additional couplings

1

Select spins

Spin names	Group ID
1 9	group(1)
2 10	group(1)
3 11	group(1)
4 12	group(1)
5 13	group(1)
6 14	group(1)

Additional couplings

Coupling constant	Group ID
1 7	group(1)

Apply

Cancel

Must add coupling constant

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

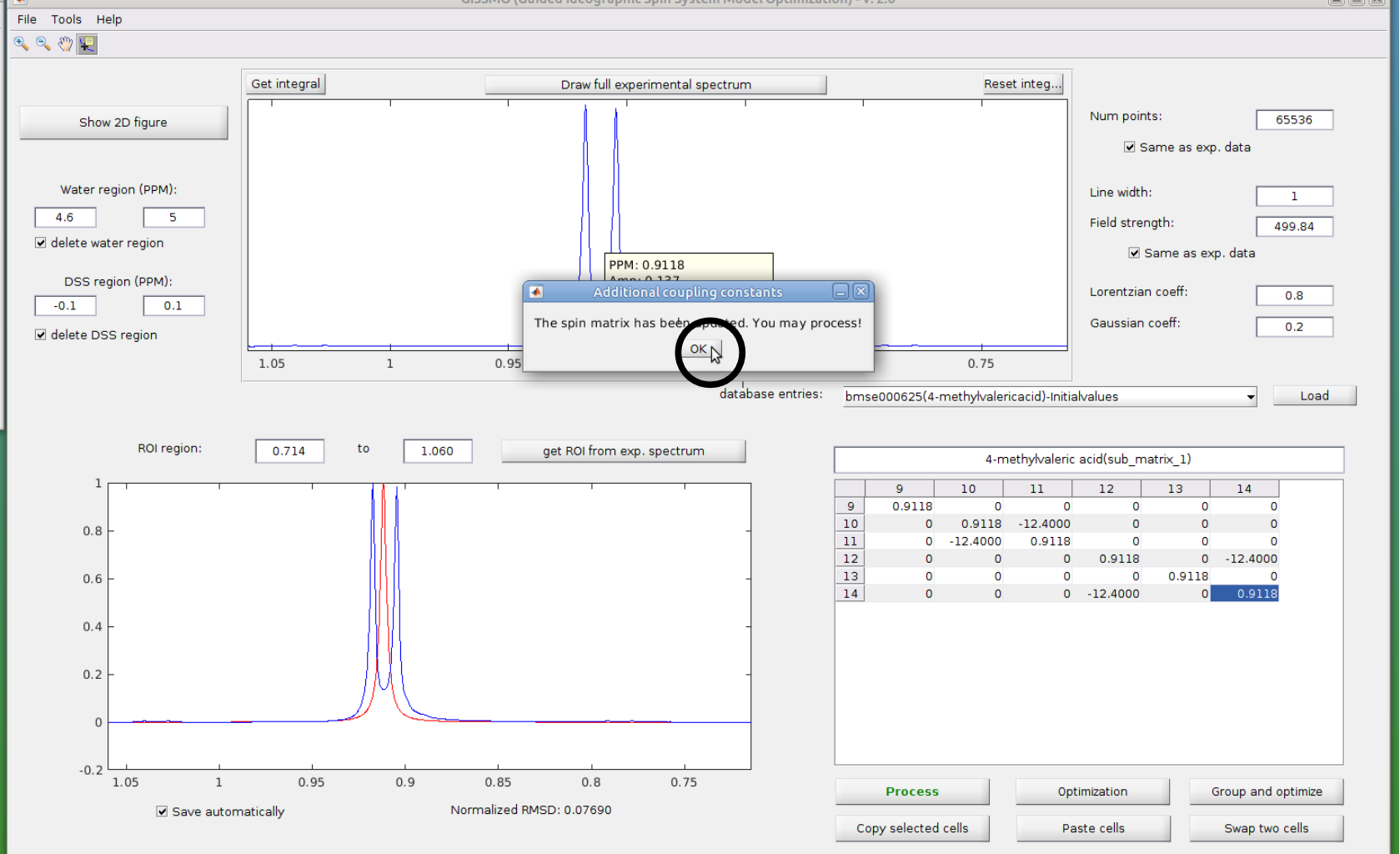
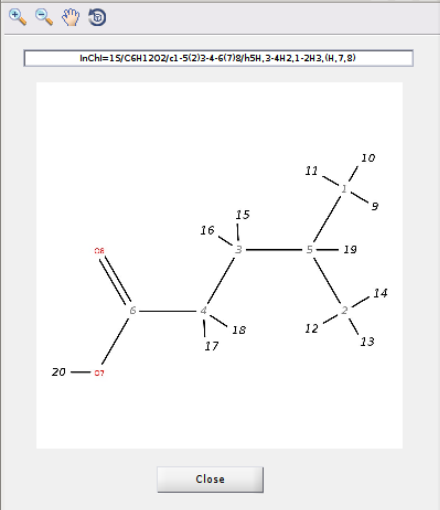
Optimization

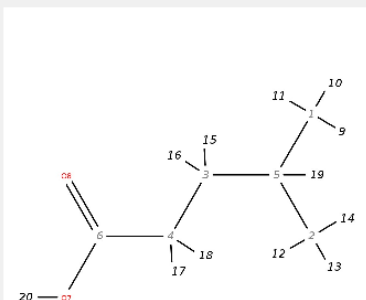
Group and optimize

Copy selected cells

Paste cells

Swap two cells





Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

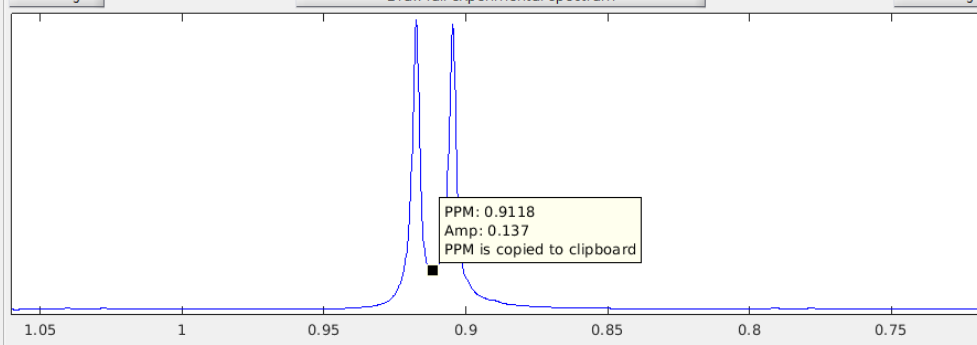
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



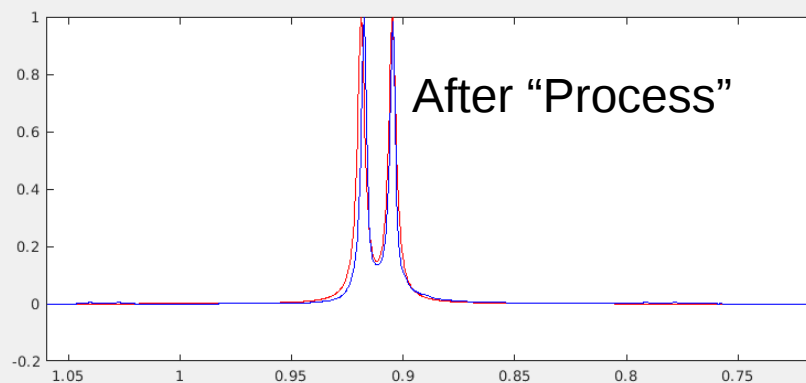
database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

ROI region:

0.714 to 1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02970

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

Group and optimize

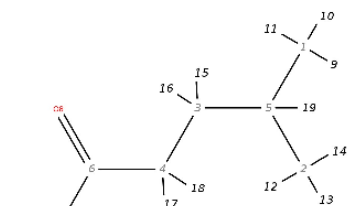
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

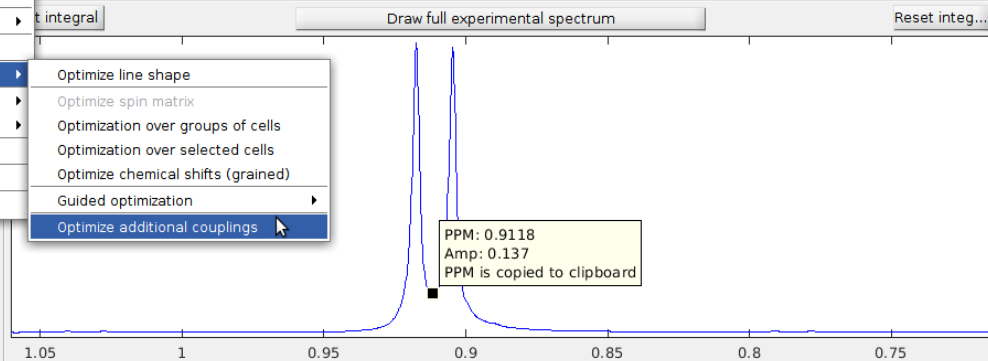
File Tools Help

- Edit compound's properties
- Splitting spin matrix options
- Additional coupling constant
- Disable/Enable spins
- Optimization
  - Optimize line shape
  - Optimize spin matrix
  - Optimization over groups of cells
  - Optimization over selected cells
  - Optimize chemical shifts (grained)
  - Guided optimization
  - Optimize additional couplings
- Auxiliary spectrum
- Auxiliary tools
- Notes
- Parameters
- View workspace properties

DSS region (PPM):

-0.1 0.1

☒ delete DSS region



Num points: 65536

☒ Same as exp. data

Line width: 1

Field strength: 499.84

☒ Same as exp. data

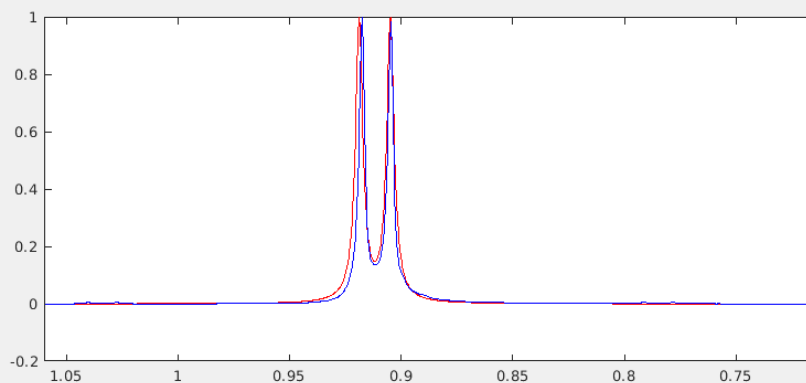
Lorentzian coeff: 0.8

Gaussian coeff: 0.2

## Optimize additional couplings

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

ROI region: 0.714 to 1.060 get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02970

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

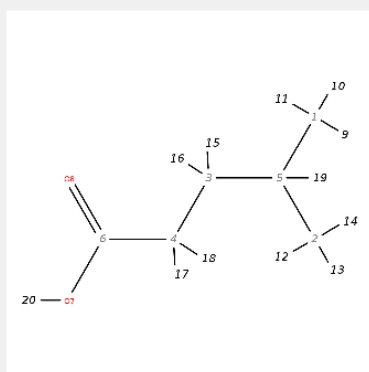
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

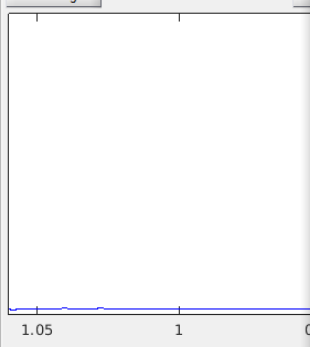
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

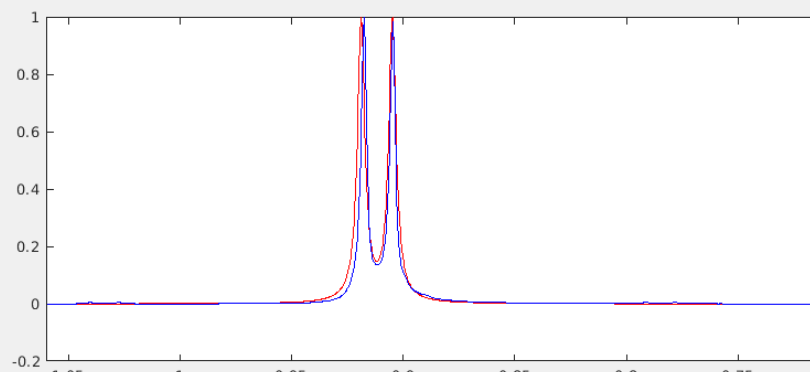
Get integral



ROI region:

0.714 to 1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02970

choose additional couplings for optimization

Choose additional couplings to be optimized

	spins	coupling constant	spin groups ID	coupling groups ID	optimize	keep va
1	9,10,11,1...		7 group(1)	group(1)	<input checked="" type="checkbox"/>	group(1)

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

values

Load

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

Group and optimize

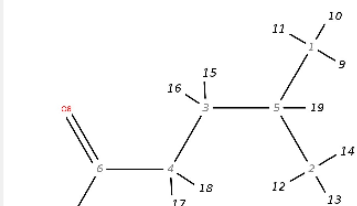
Copy selected cells

Paste cells

Swap two cells

Show 2D figure

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

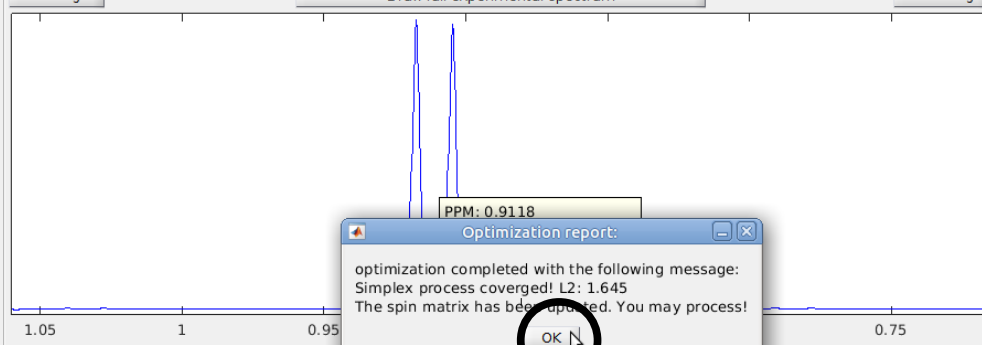
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Optimization report:  
optimization completed with the following message:  
Simplex process covered! L2: 1.645  
The spin matrix has been updated. You may process!

OK

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

Database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

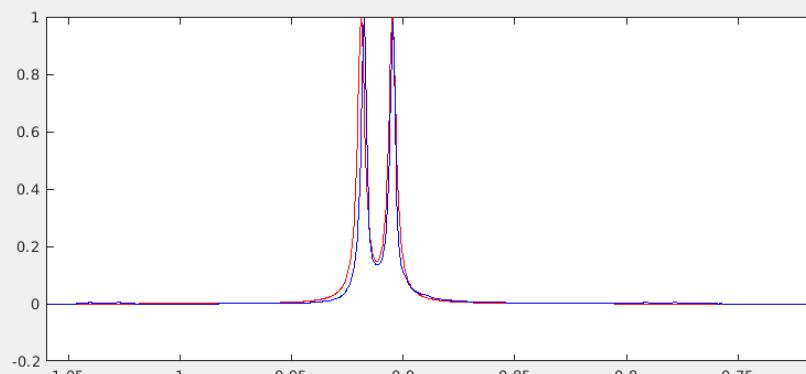
ROI region:

0.714

to

1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02970

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells

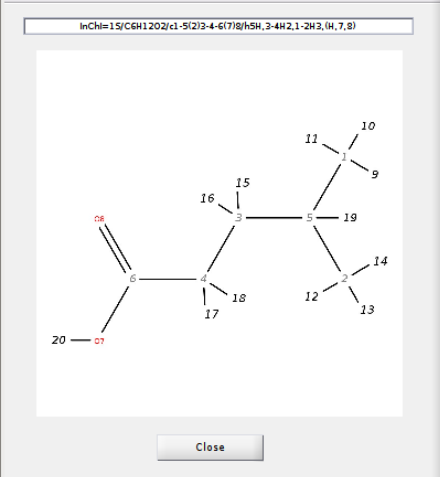
[Terminal]

GISSMO (Guided Ideog...

Reporting properties

Show 2D figure

Optimization report:



File Tools Help

Show 2D figure

Water region (PPM):  
   
☒ delete water region

DSS region (PPM):  
   
☒ delete DSS region

Get integral Draw full experimental spectrum Reset integ...

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

Num points:   
☒ Same as exp. data

Line width:   
 Field strength:   
☒ Same as exp. data

Lorentzian coeff:   
 Gaussian coeff:

ROI region:  to  get ROI from exp. spectrum

☒ Save automatically

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Copy selected cells

Optimization

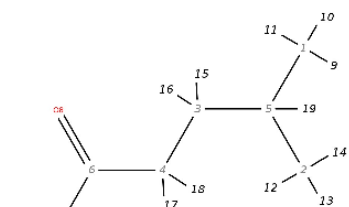
Paste cells

Group and optimize

Swap two cells

Normalized RMSD: 0.02534

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

- Edit compound's properties
- Splitting spin matrix options
- Additional coupling constant
  - Apply additional coupling constants
  - View additional couplings
  - Edit additional couplings
  - Label additional couplings
  - Remove additional coupling constants
- Disable/Enable spins
- Optimization
- Auxiliary spectrum
- Auxiliary tools
- Notes
- Parameters
- View workspace properties

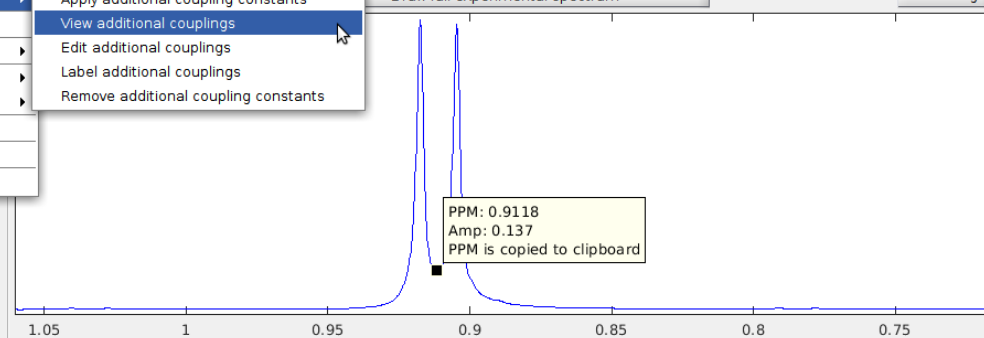
DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Draw full experimental spectrum

Reset integ...



Num points: 65536

☒ Same as exp. data

Line width: 1

Field strength: 499.84

☒ Same as exp. data

Lorentzian coeff: 0.8

Gaussian coeff: 0.2

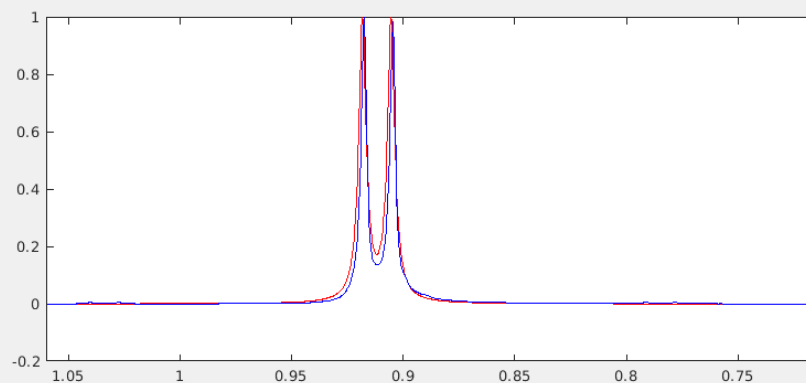
database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

ROI region:

0.714 to 1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02534

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

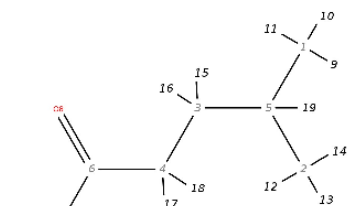
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

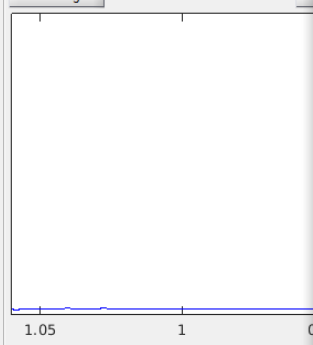
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



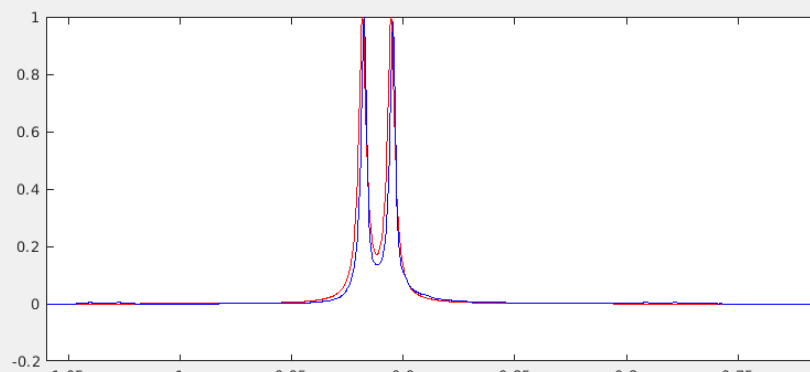
ROI region:

0.714

to

1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02534

View additional coupling constants

spin names	coupling	spins group ID	couplings group ID
1 9,10,11,1...	6.4194	group(1)	group(1)

ok

Reset integ...

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

4-methylvaleric acid)-Initial values

Load

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

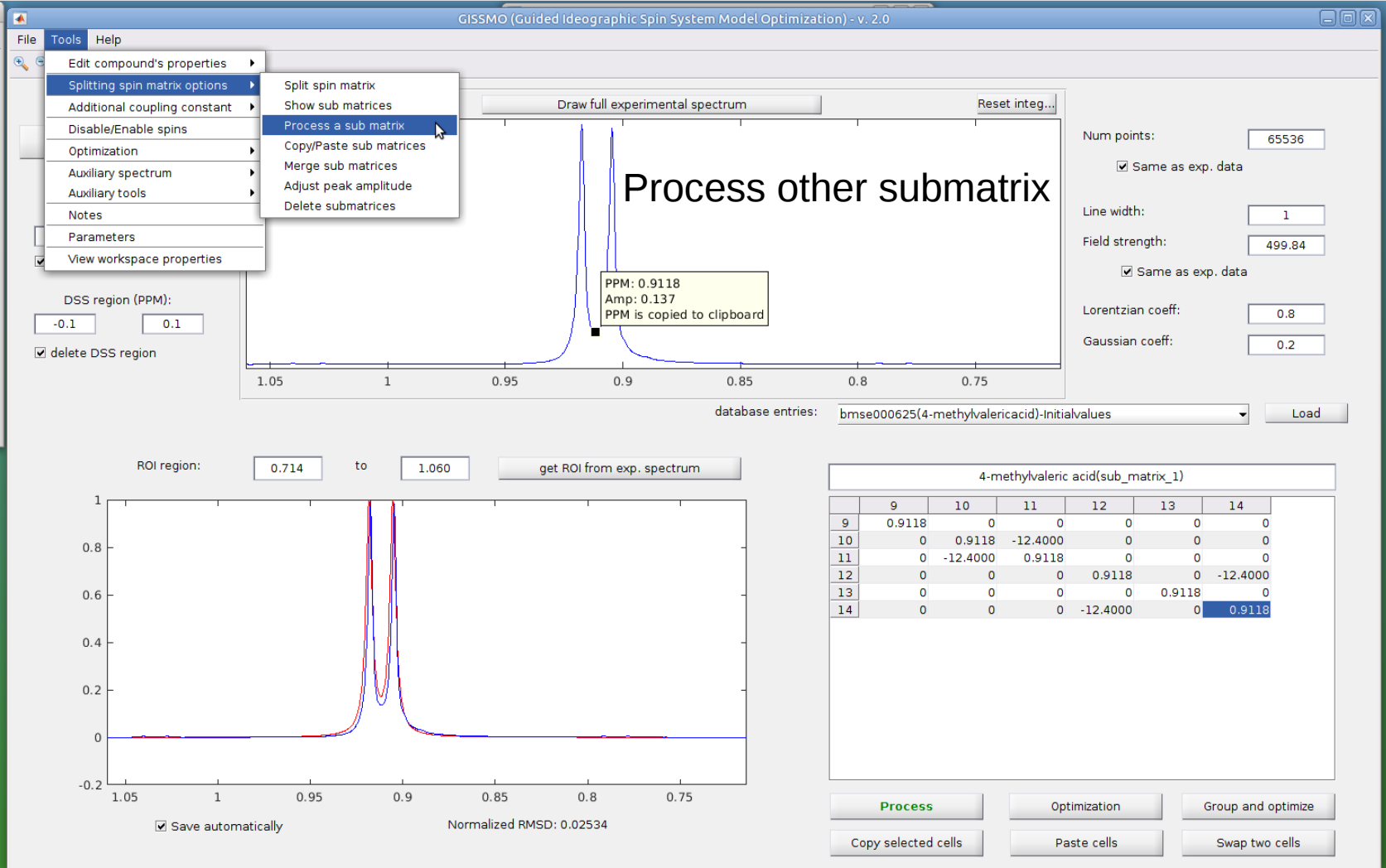
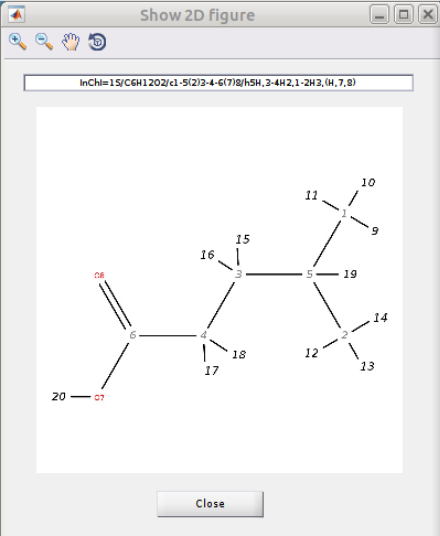
Optimization

Group and optimize

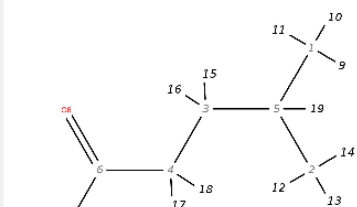
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

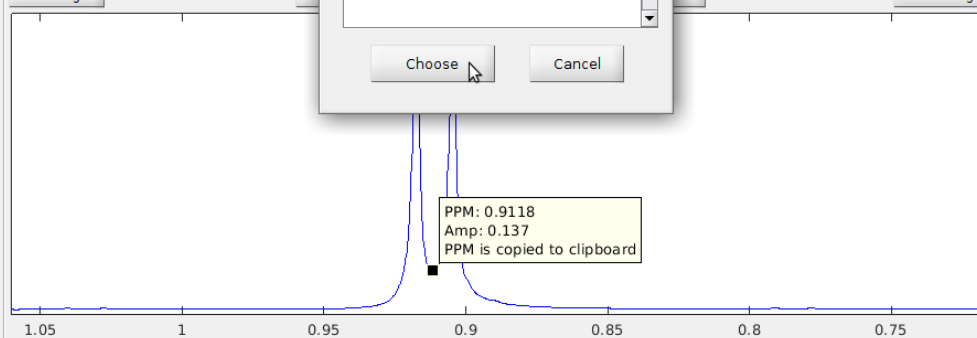
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



Reset integ...

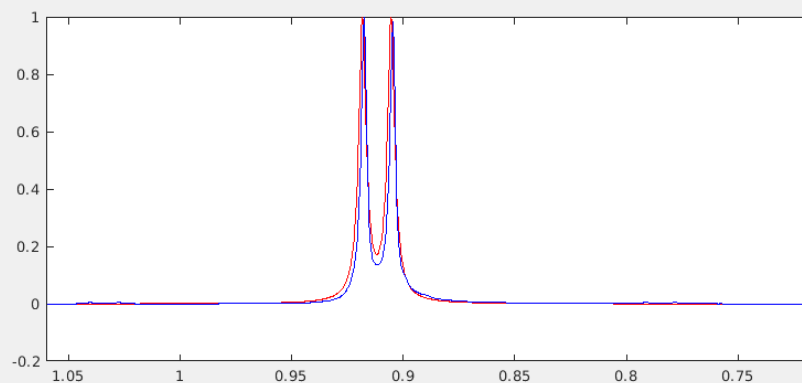
database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

ROI region:

0.714 to 1.060

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02534

4-methylvaleric acid(sub\_matrix\_1)

	9	10	11	12	13	14
9	0.9118	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0
11	0	-12.4000	0.9118	0	0	0
12	0	0	0	0.9118	0	-12.4000
13	0	0	0	0	0.9118	0
14	0	0	0	-12.4000	0	0.9118

Process

Optimization

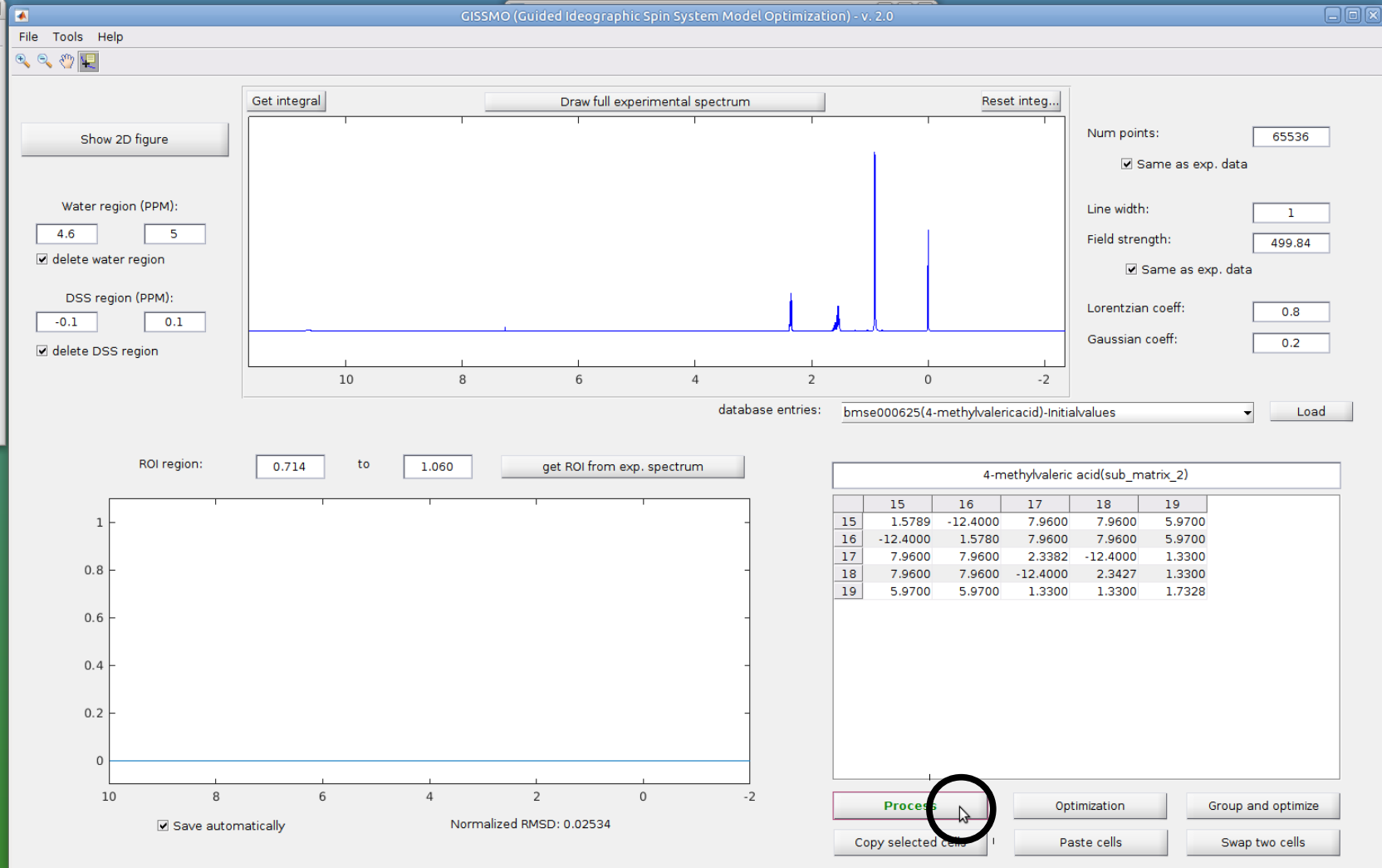
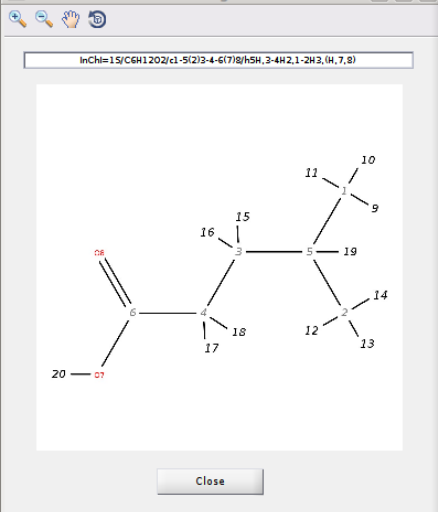
Group and optimize

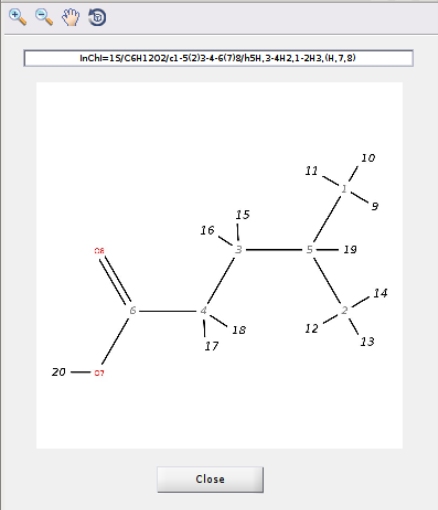
Copy selected cells

Paste cells

Swap two cells







File Tools Help

Get integral Draw full experimental spectrum Reset integ...

Show 2D figure

Water region (PPM):  
   
☒ delete water region

DSS region (PPM):  
   
☒ delete DSS region

Warning Dialog  
 Simulated spectrum is empty; It seems the ROI does not contain the spins CS. You may need to reprocess.  
 OK

Num points:   
☒ Same as exp. data

Line width:   
 Field strength:   
☒ Same as exp. data

Lorentzian coeff:   
 Gaussian coeff:

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

ROI region:  to  get ROI from exp. spectrum

Normalized RMSD: 0.02534

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3382	-12.4000	1.3300
18	7.9600	7.9600	-12.4000	2.3427	1.3300
19	5.9700	5.9700	1.3300	1.3300	1.7328

Process Optimization Group and optimize  
 Copy selected cells Paste cells Swap two cells

☒ Save automatically

File Tools Help

Show 2D figure

Chemical structure diagram showing atom numbering (1-20) and labels (D6, D7).

Close

Water region (PPM):  
4.6 5  
☒ delete water region

DSS region (PPM):  
-0.1 0.1  
☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...

Expand

Num points: 65536  
☒ Same as exp. data

Line width: 1

Field strength: 499.84  
☒ Same as exp. data

Lorentzian coeff: 0.8

Gaussian coeff: 0.2

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

ROI region: 0.714 to 1.060 get ROI from exp. spectrum

Normalized RMSD: 0.08384

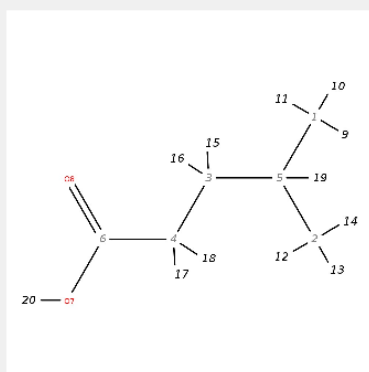
☒ Save automatically

4-methylvaleric acid(sub\_matrix\_2)

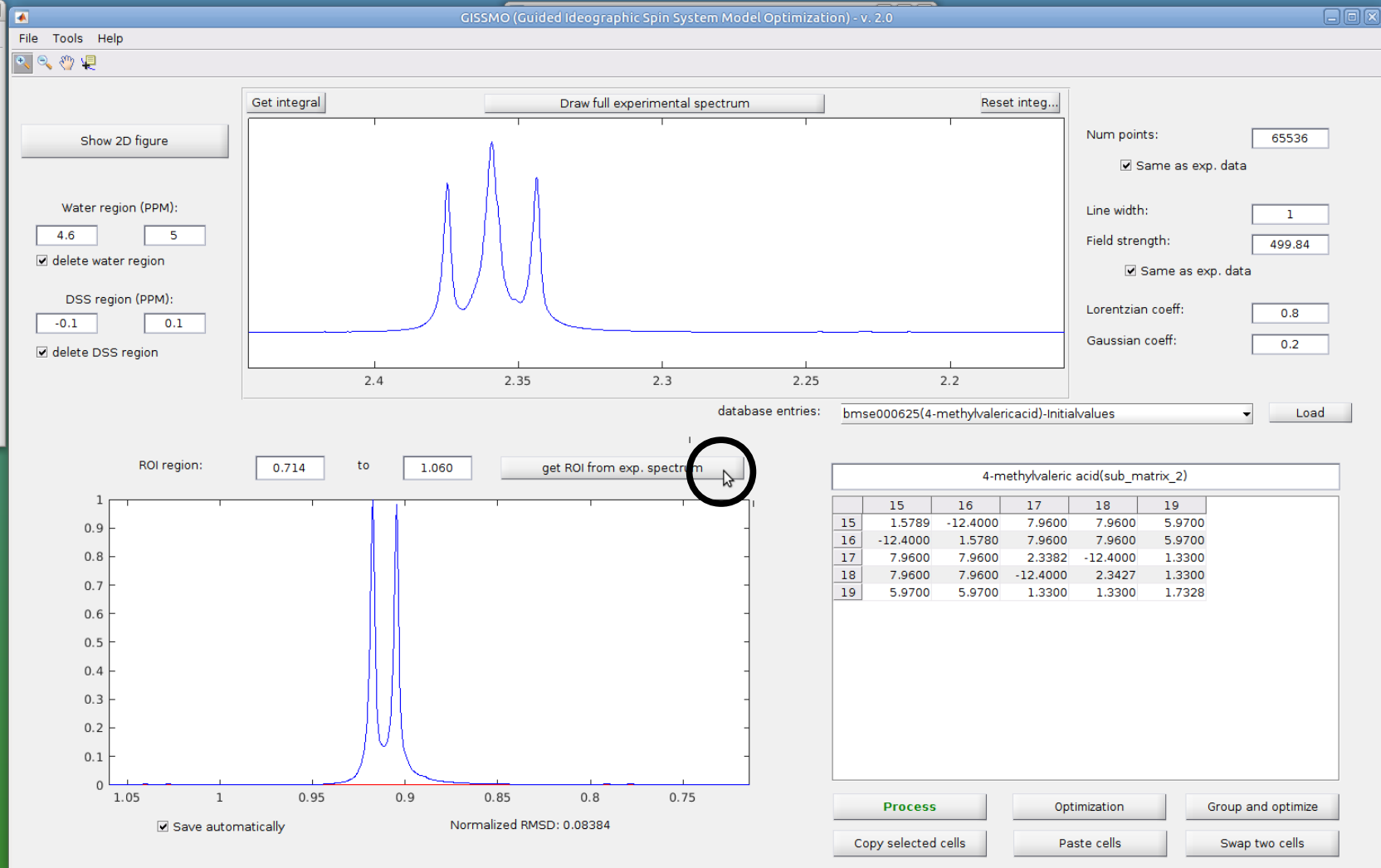
	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3382	-12.4000	1.3300
18	7.9600	7.9600	-12.4000	2.3427	1.3300
19	5.9700	5.9700	1.3300	1.3300	1.7328

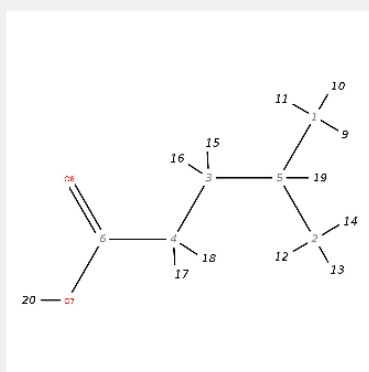
Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells



Close





Close

GISSMO (Guided Ideographic Spin System Model Optimization) - v. 2.0

File Tools Help

Get integral Draw full experimental spectrum Reset integ...

Show 2D figure

Water region (PPM):  
   
☒ delete water region

DSS region (PPM):  
   
☒ delete DSS region

Num points:   
☒ Same as exp. data

Line width:   
 Field strength:   
☒ Same as exp. data

Lorentzian coeff:   
 Gaussian coeff:

database entries:  Load

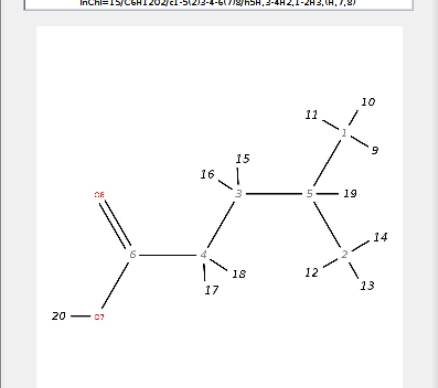
ROI region:  to

Normalized RMSD: 0.08384

4-methylvaleric acid(sub\_matrix\_2)

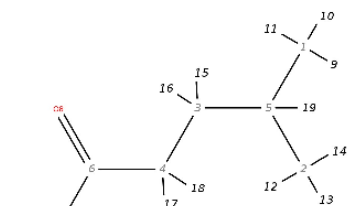
	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3382	-12.4000	1.3300
18	7.9600	7.9600	-12.4000	2.3427	1.3300
19	5.9700	5.9700	1.3300	1.3300	1.7328

Process Optimization Group and optimize  
 Copy selected cells Paste cells Swap two cells



Close

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

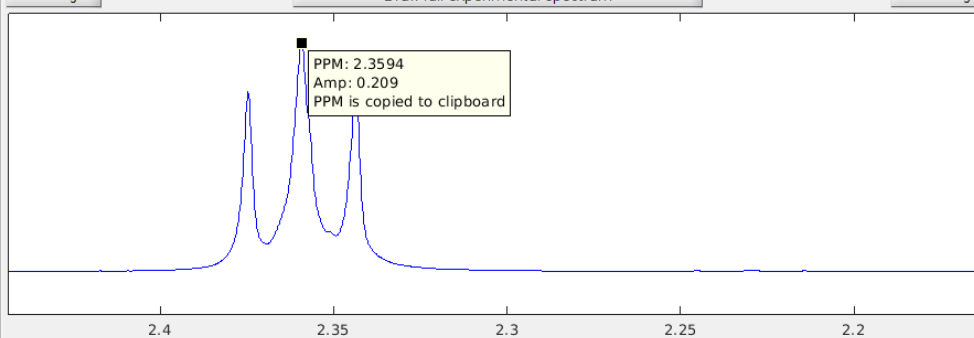
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

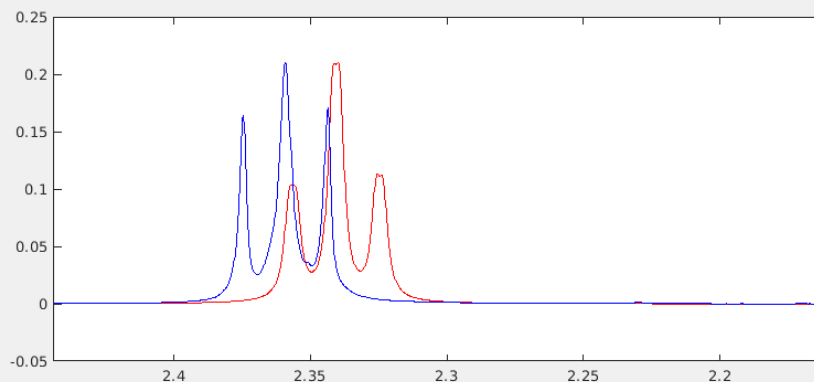
ROI region:

2.161

to

2.444

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.08384

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3382	-12.4000	1.3300
18	7.9600	7.9600	2.4000	2.3427	1.3300
19	5.9700	5.9700	1.3300	1.3300	1.7328

Left-click;ctrl-v

Process

Optimization

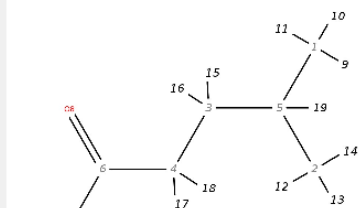
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

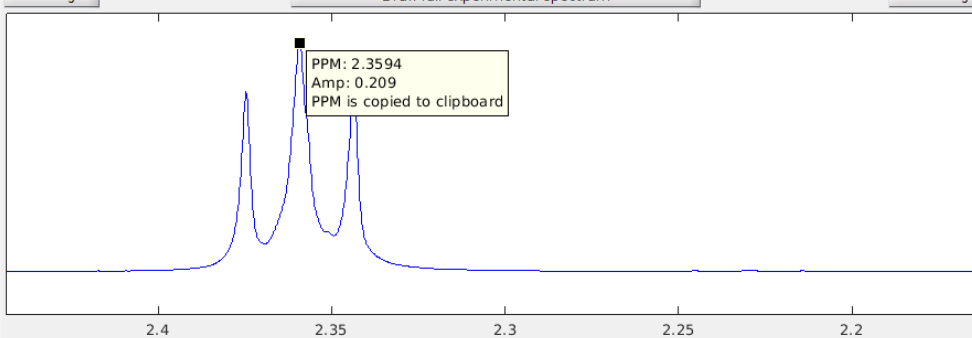
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

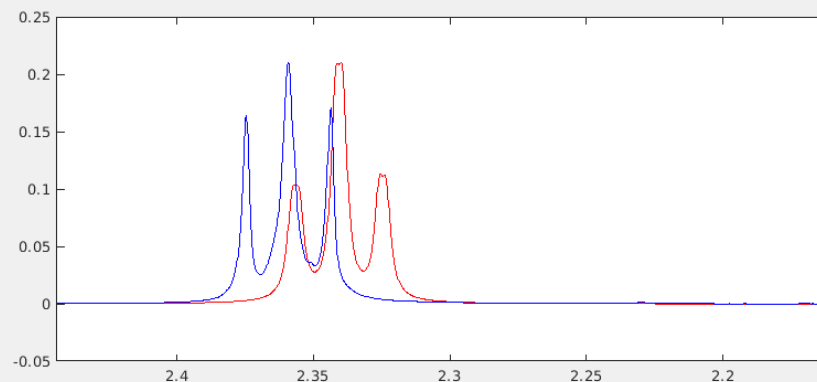
ROI region:

2.161

to

2.444

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.08384

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3594	12.4000	1.3300
18	7.9600	7.9600	-12.4000	2.3594	1.3300
19	5.9700	5.9700	1.3300	1.3300	1.7328

Left-click;ctrl-v  
process

Process

Optimization

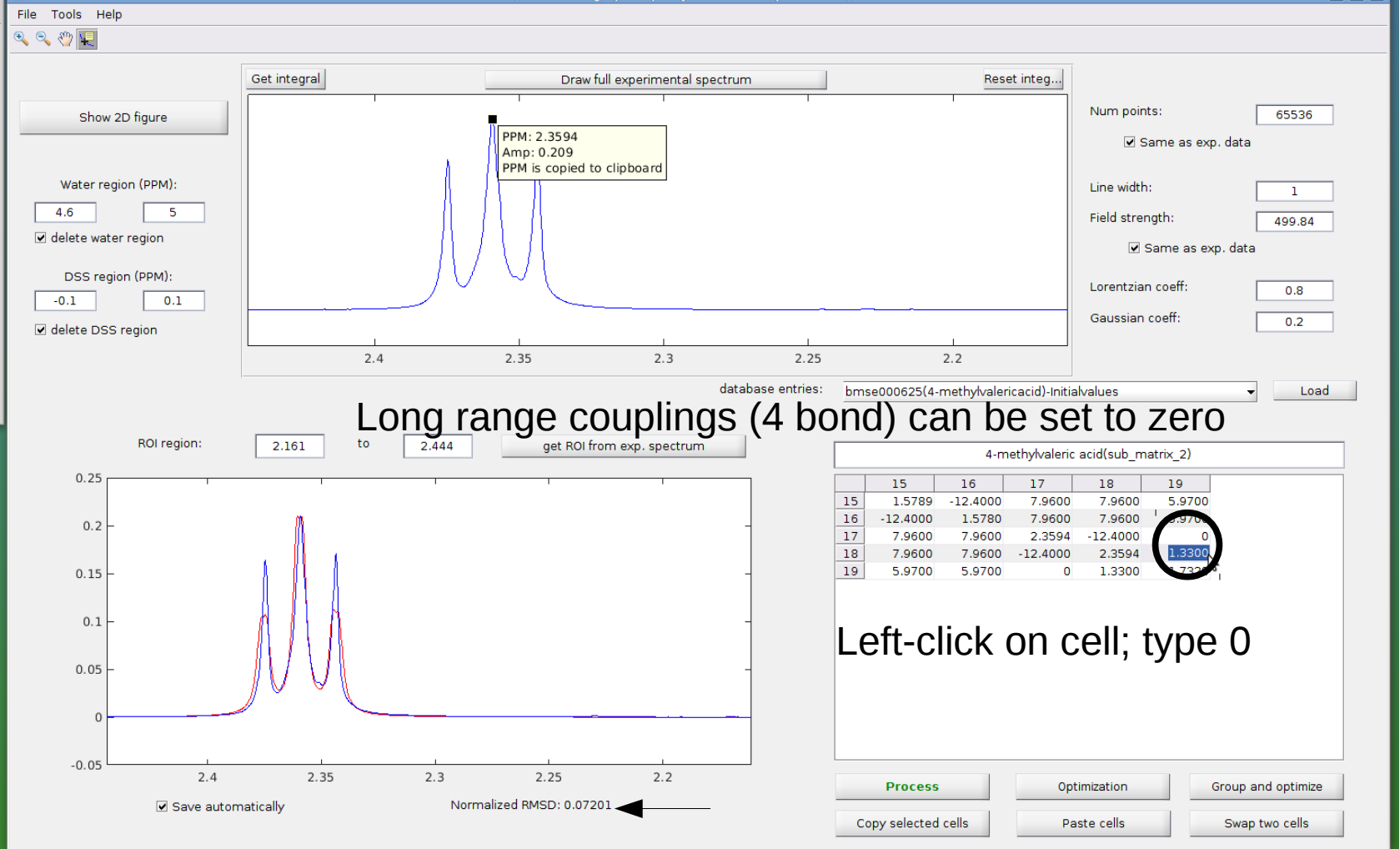
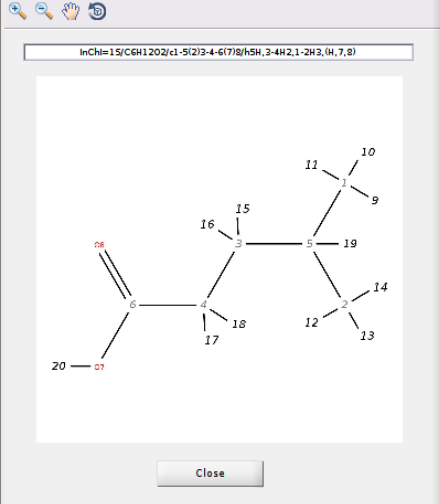
Group and optimize

Copy selected cells

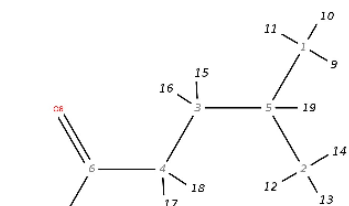
Paste cells

Swap two cells





InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

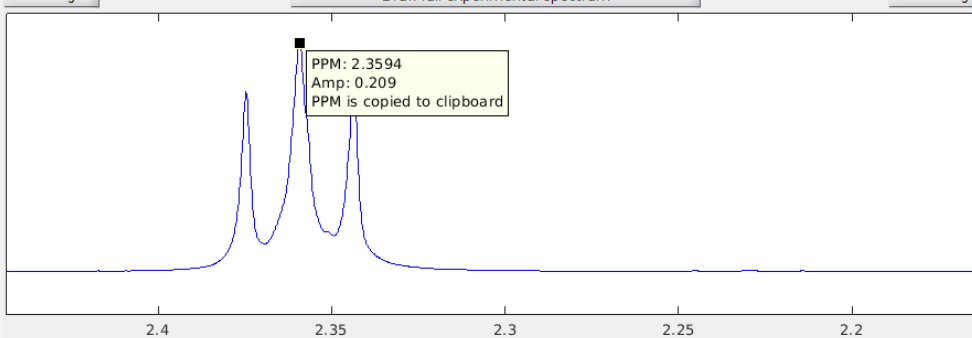
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

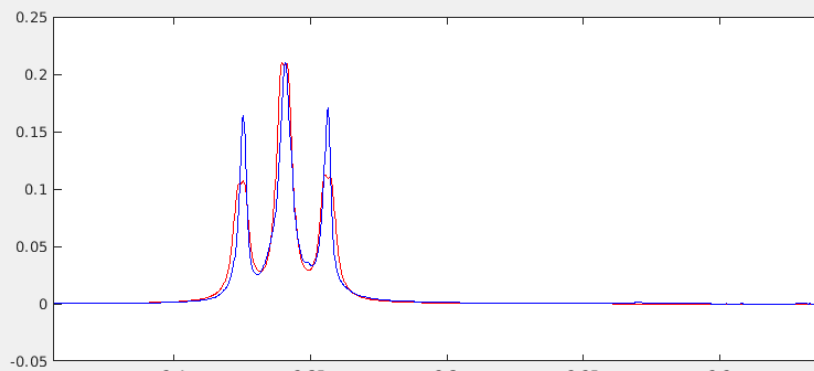
ROI region:

2.161

to

2.444

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.07201

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	7.9600	7.9600	5.9700
16	-12.4000	1.5780	7.9600	7.9600	5.9700
17	7.9600	7.9600	2.3594	-12.4000	0
18	7.9600	7.9600	-12.4000	2.3594	0
19	5.9700	5.9700	0	1.3300	1.7328

Process

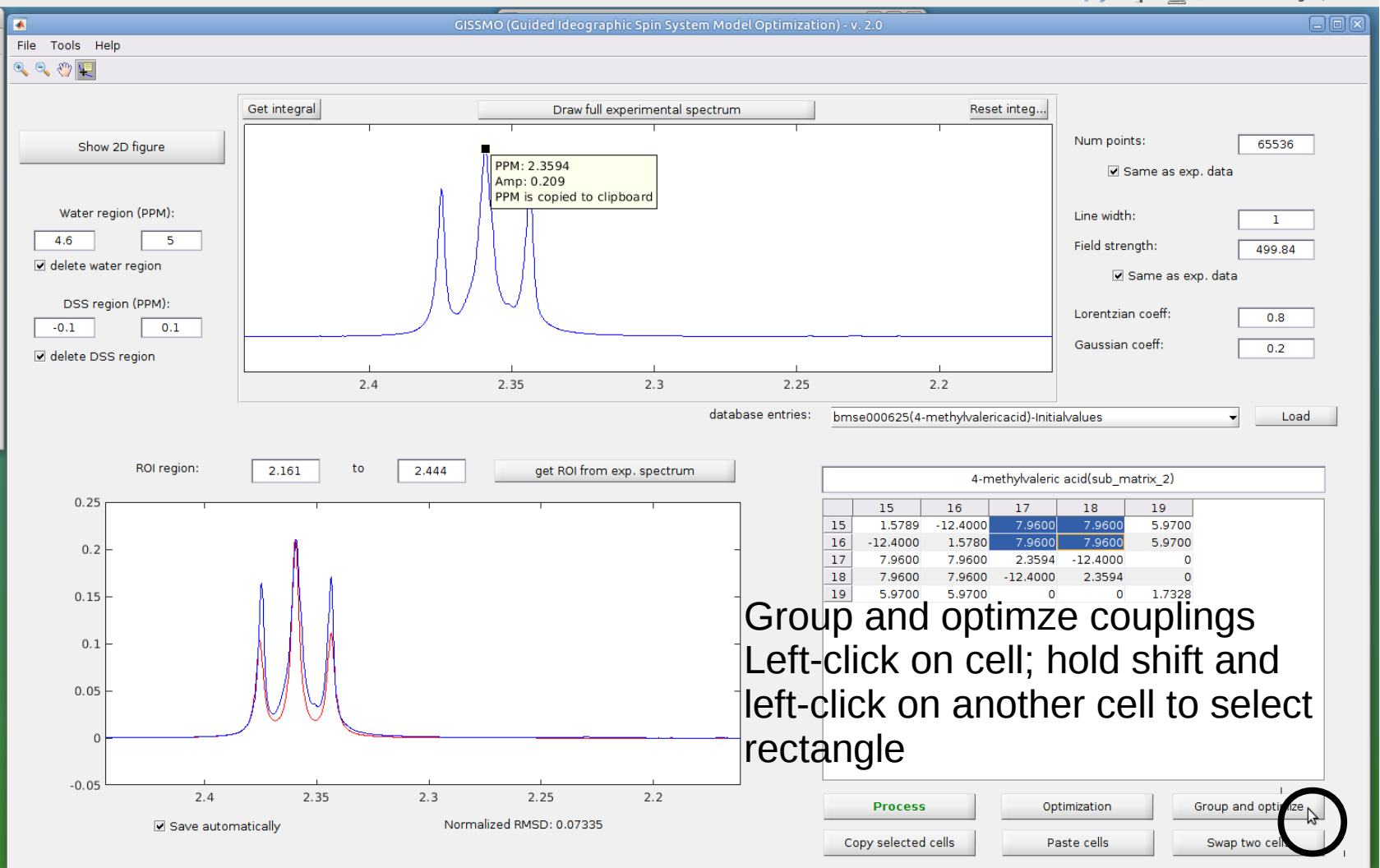
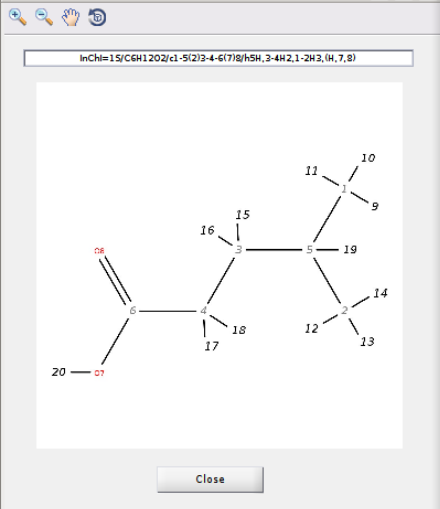
Optimization

Group and optimize

Copy selected cells

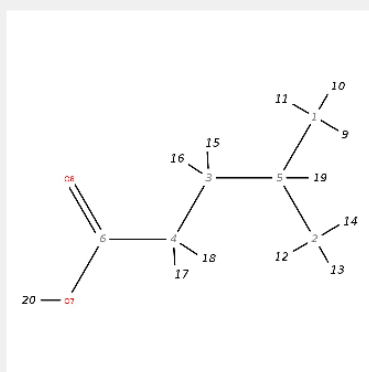
Paste cells

Swap two cells



Group and optimize couplings  
Left-click on cell; hold shift and left-click on another cell to select rectangle

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

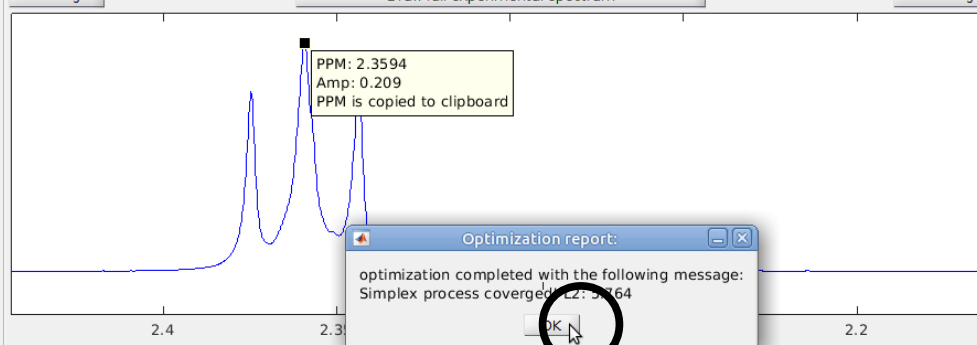
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Optimization report:

optimization completed with the following message:  
Simplex process covered: 2: 5.764

OK

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

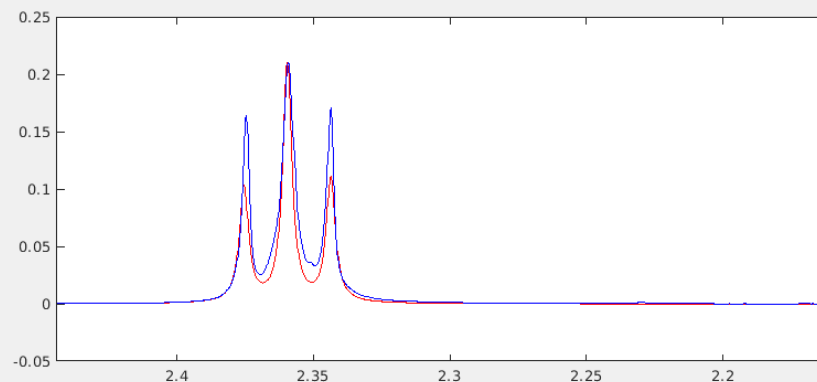
ROI region:

2.161

to

2.444

get ROI from exp. spectrum



☒ Save automatically

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5780	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Process

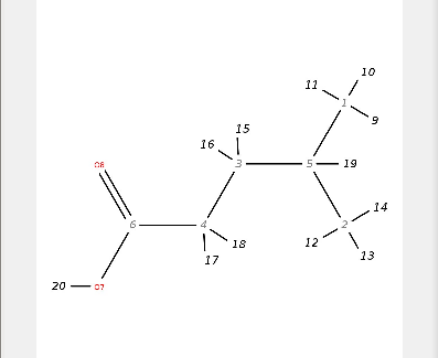
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



Close

Show 2D figure

Water region (PPM):

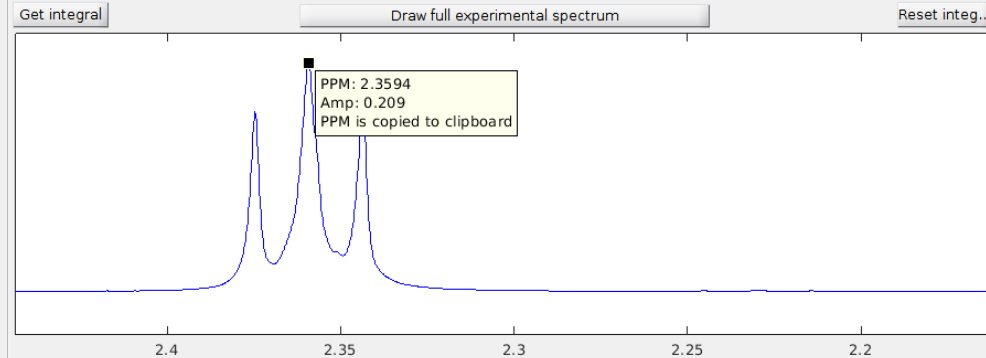
4.6 5

☒ delete water region

DSS region (PPM):

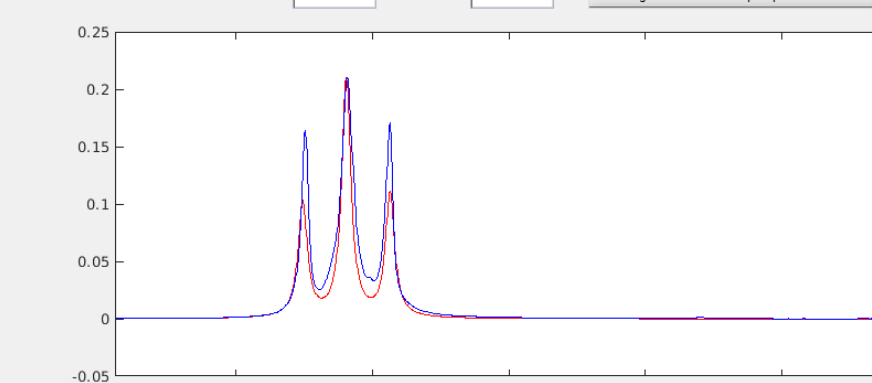
-0.1 0.1

☒ delete DSS region



database entries: bmse000625(4-methylvaleric acid)-Initial values Load

ROI region: 2.161 to 2.444 get ROI from exp. spectrum



☒ Save automatically

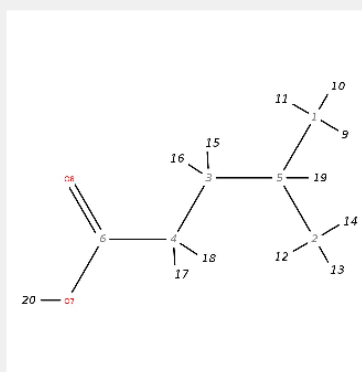
4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5780	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

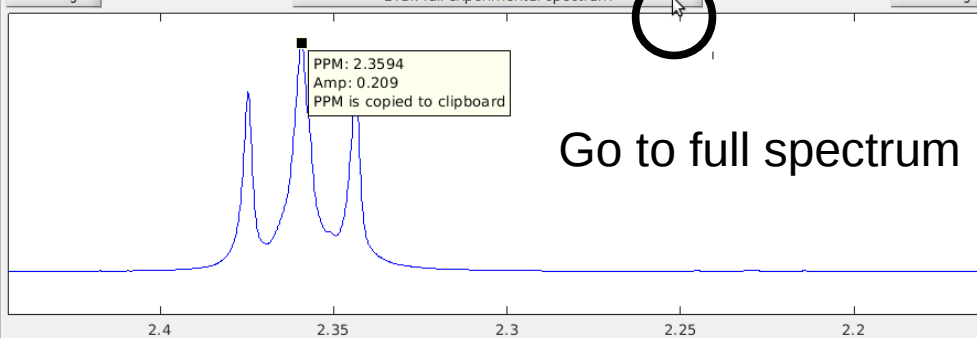
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

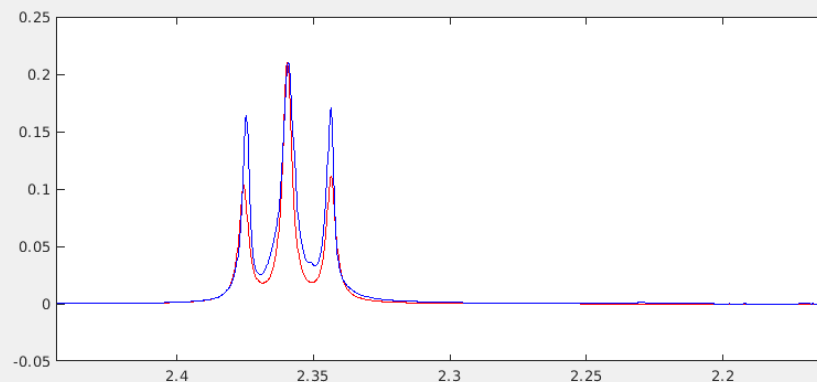
ROI region:

2.161

to

2.444

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.07324

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5789	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5780	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Process

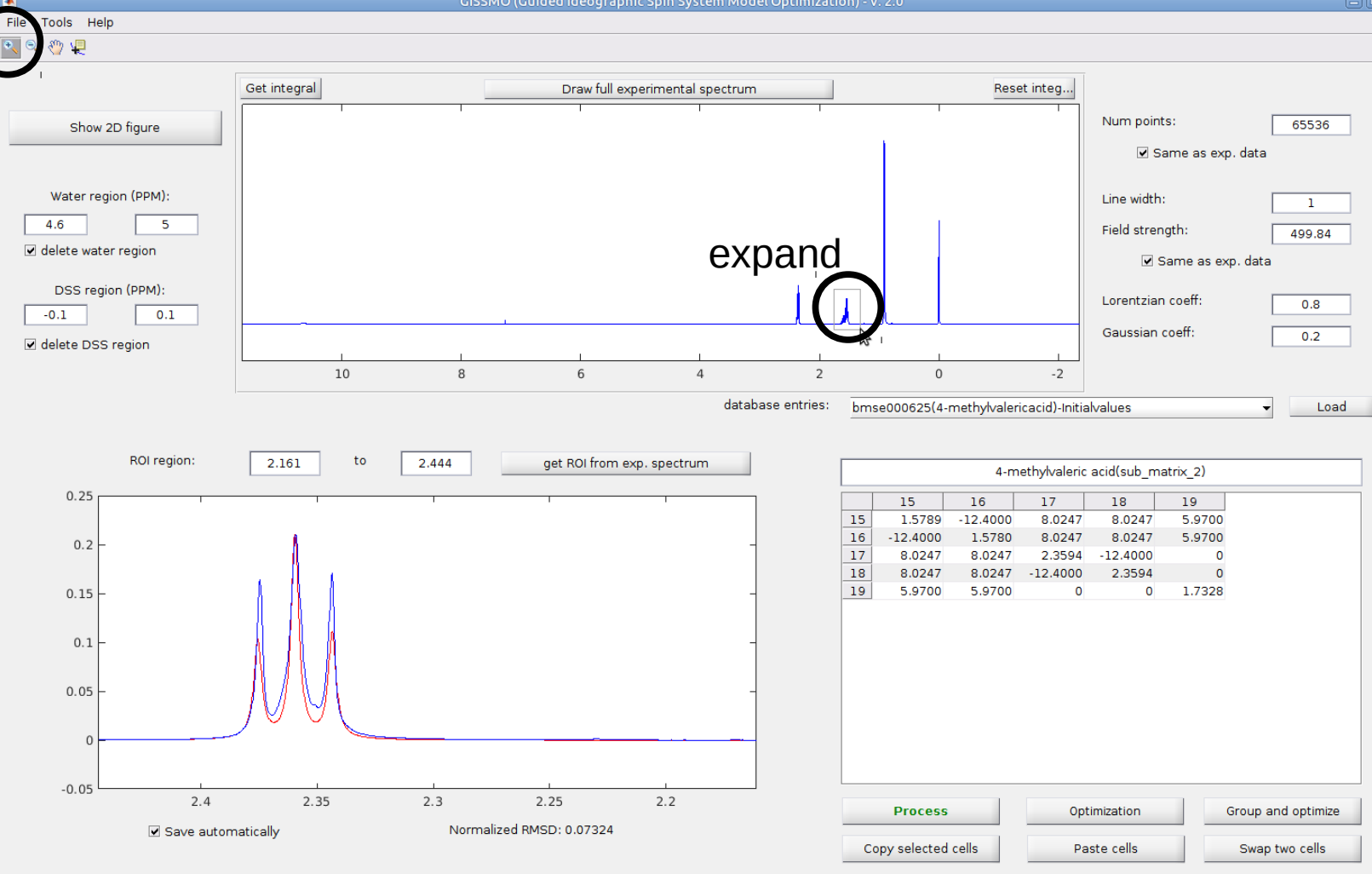
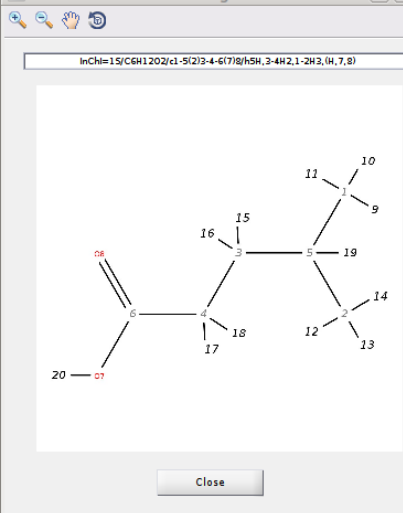
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



inChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):  
4.6 5  
☒ delete water region

DSS region (PPM):  
-0.1 0.1  
☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...

Pick peak 15,16

PPM: 1.5405  
Jcp: 0.044  
PPM is copied to clipboard

Num points: 65536  
☒ Same as exp. data

Line width: 1

Field strength: 499.84  
☒ Same as exp. data

Lorentzian coeff: 0.8

Gaussian coeff: 0.2

database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

ROI region: 1.312 to 1.752 get ROI from exp. spectrum

After process & Go to ROI...

Normalized RMSD: 0.07324

☒ Save automatically

4-methylvaleric acid(sub\_matrix\_2)

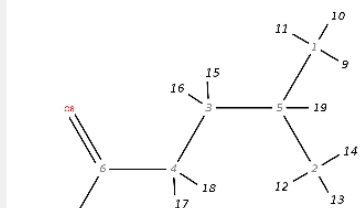
	15	16	17	18	19
15	1.5789	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5780	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells



InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

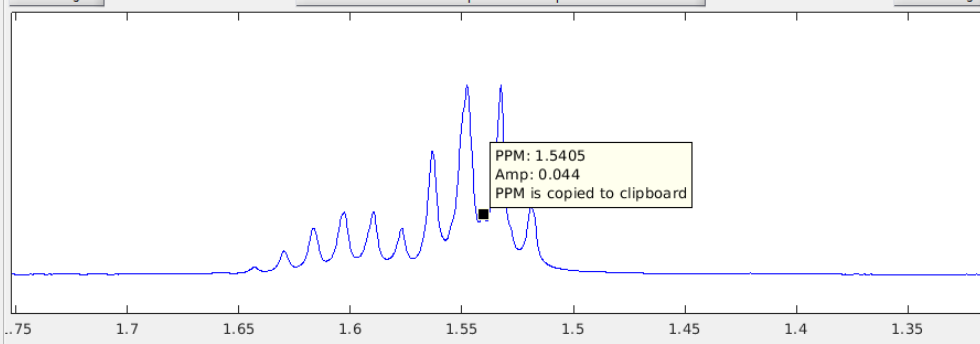
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

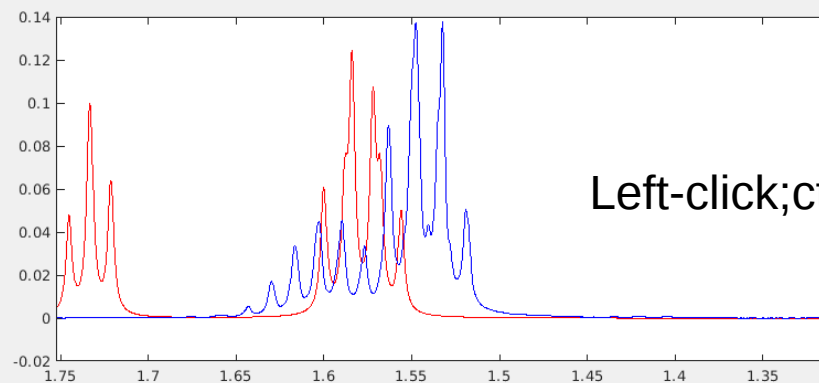
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.07324

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5780	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Left-click;ctrl-v on both 15,16 diagonals

Process

Optimization

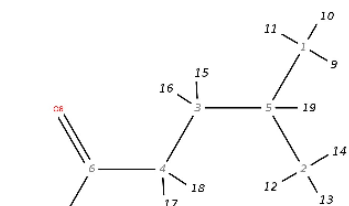
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

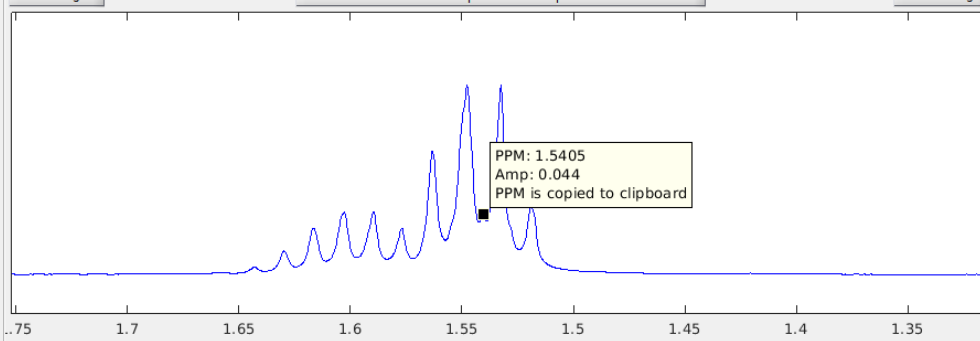
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

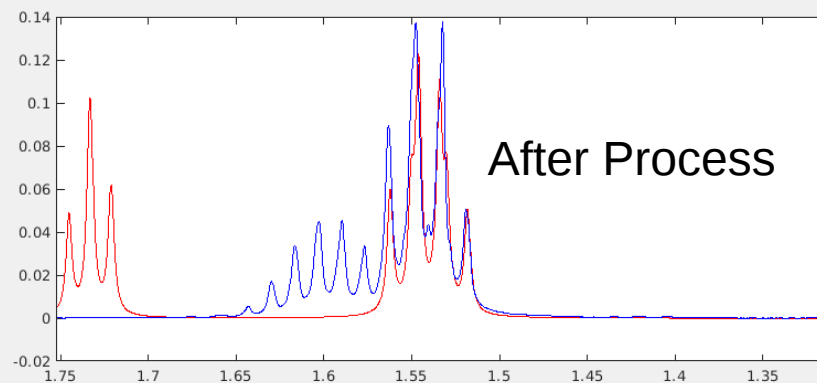
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.04061

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.7328

Process

Optimization

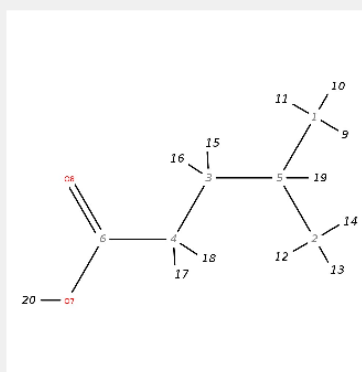
Group and optimize

Copy selected cells

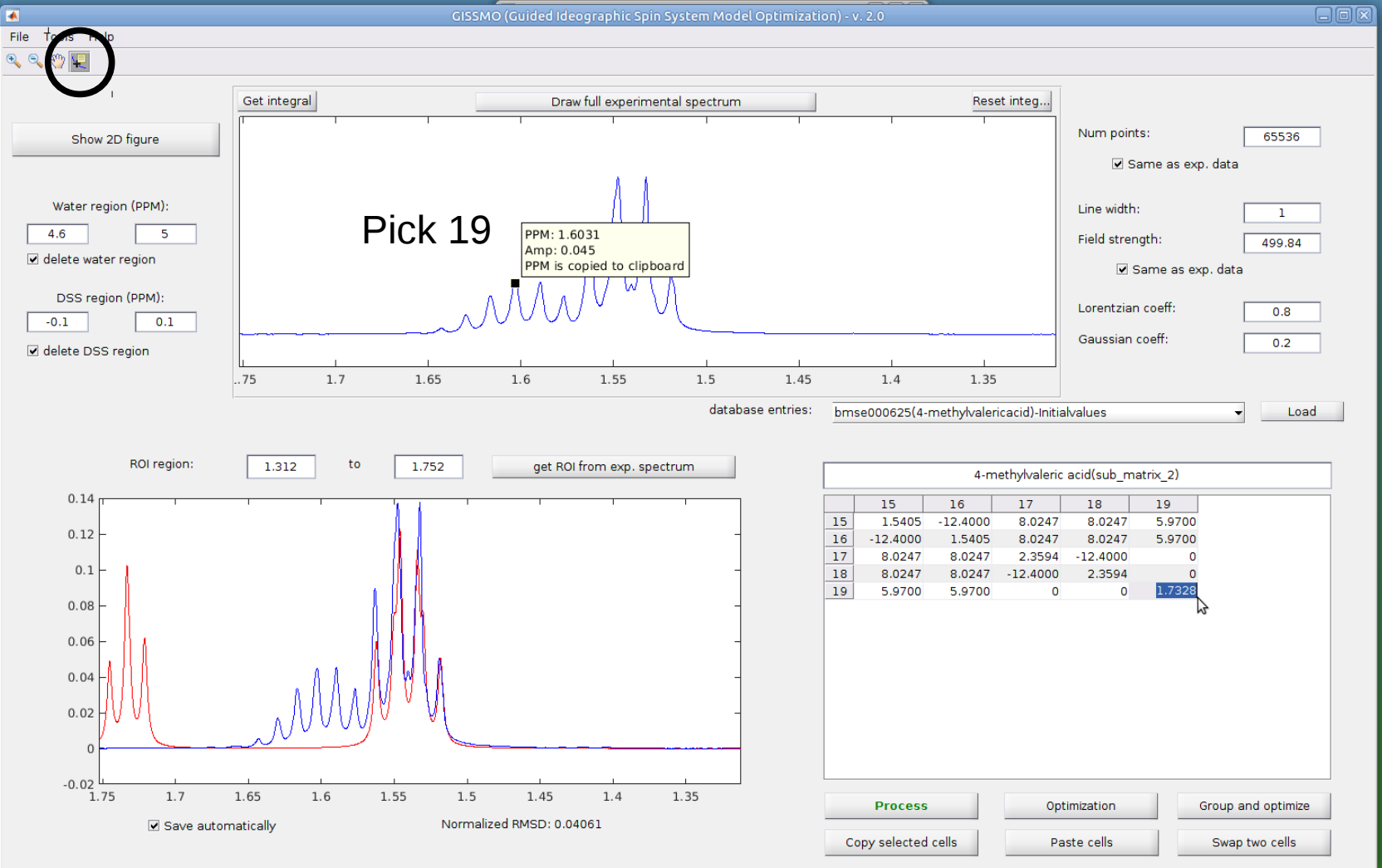
Paste cells

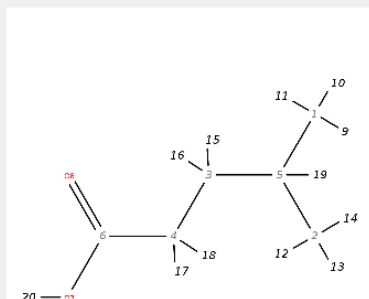
Swap two cells

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close





Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

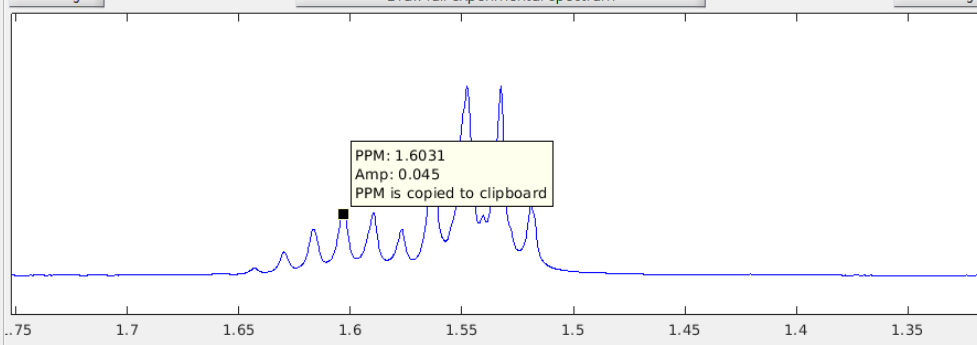
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

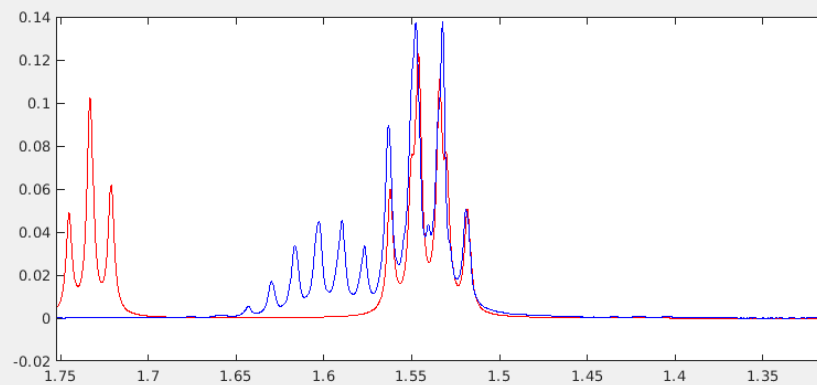
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.04061

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Left-click;ctrl-v  
Then process

Process

Optimization

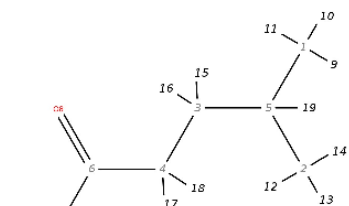
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

- Edit compound's properties
- Splitting spin matrix options
- Additional coupling constant
  - Apply additional coupling constants
  - View additional couplings
  - Edit additional couplings
  - Label additional couplings
  - Remove additional coupling constants
- Disable/Enable spins
- Optimization
- Auxiliary spectrum
- Auxiliary tools
- Notes
- Parameters
- ☒ View workspace properties

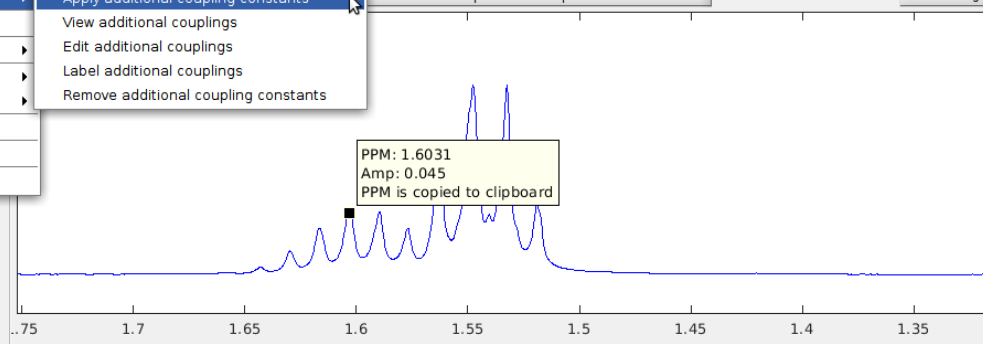
DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Draw full experimental spectrum

Reset integ...



Num points: 65536

☒ Same as exp. data

Line width: 1

Field strength: 499.84

☒ Same as exp. data

Lorentzian coeff: 0.8

Gaussian coeff: 0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

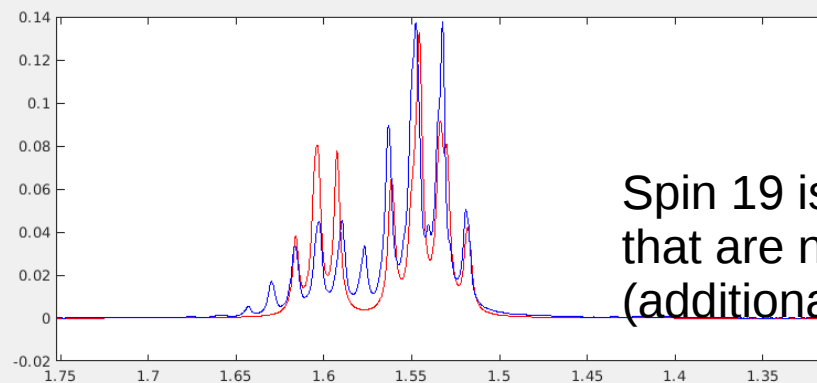
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.03341

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Spin 19 is coupled to the methyls that are not in this submatrix (additional coupling)

Process

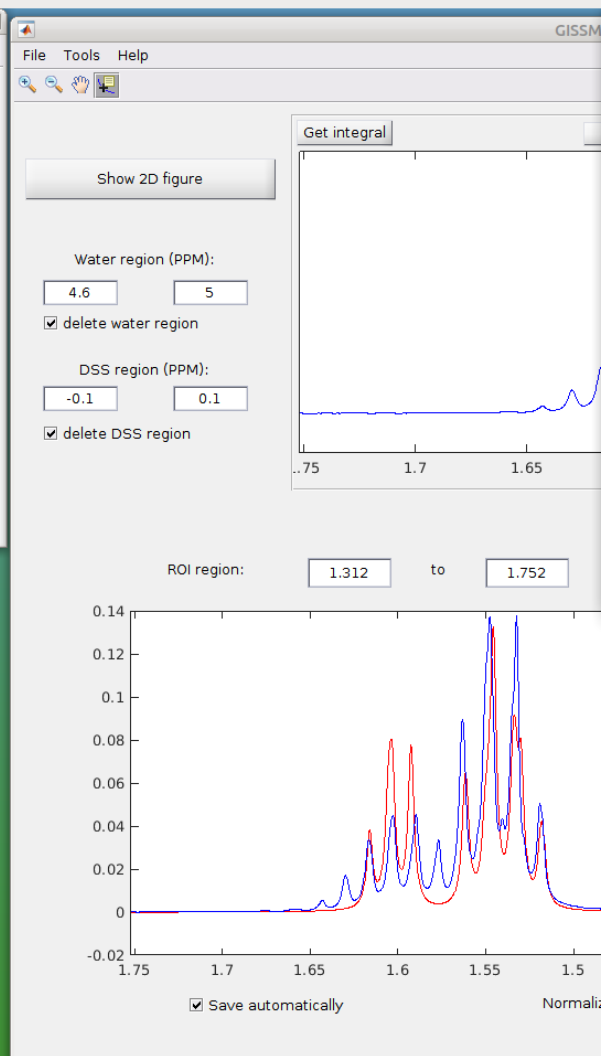
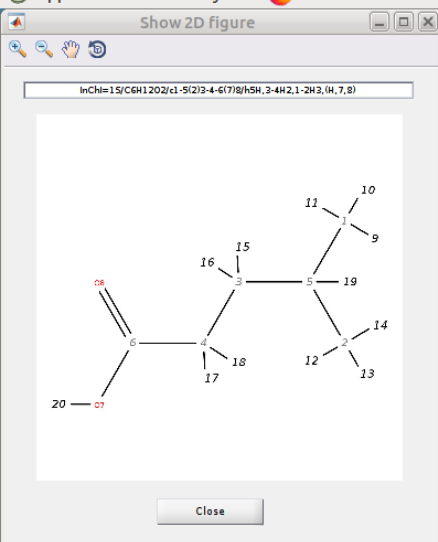
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



Apply different additional couplings to different spin groups

Number of groups of spins: 1

Total number of additional couplings: 6

Create

Here one spin (19) makes up a group and is coupled to 6 other spins (methyls)

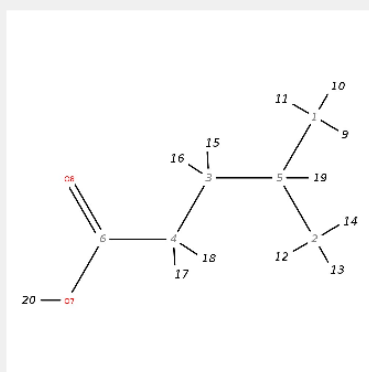
Apply Cancel

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

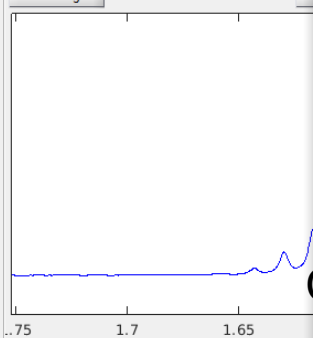
☒ delete water region

DSS region (PPM):

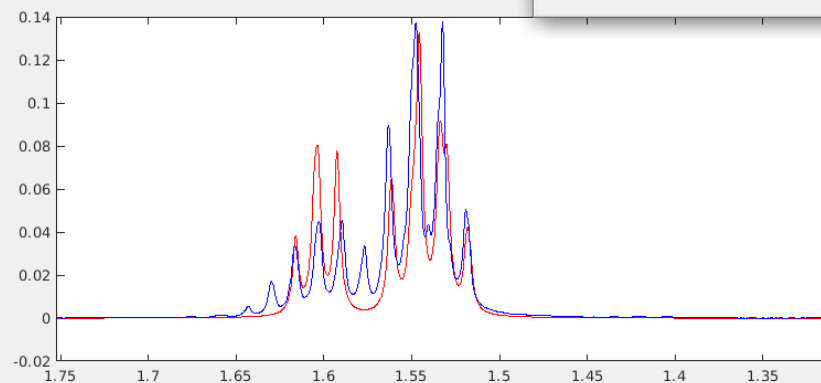
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 1.312 to 1.752



☒ Save automatically

Normalized RMSD: 0.03341

Apply different additional couplings to different spin groups

Number of groups of spins

1

Create

Total number of additional couplings

6

Select spins

Spin names	Group ID
1 15	select
2 16	select
3 17	select
4 18	select
5 19	select
	select
	group(1)

Additional couplings

Coupling constant	Group ID
1	select
2	select
3	select
4	select
5	select
6	select

Apply

Cancel

Only spin 19 is selected

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Process

Optimization

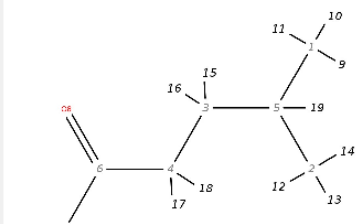
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

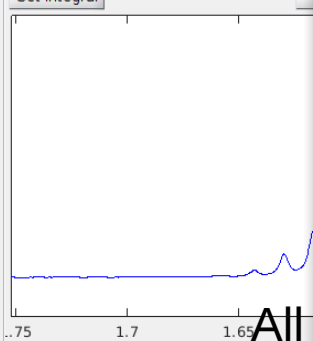
☒ delete water region

DSS region (PPM):

-0.1 0.1

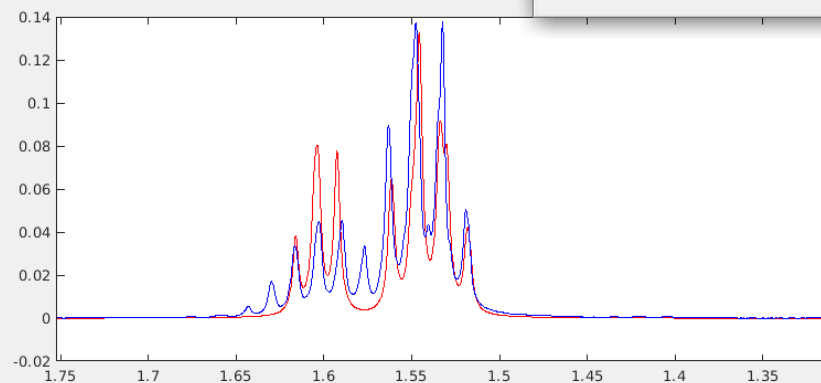
☒ delete DSS region

Get integral



ROI region:

1.312 to 1.752



☒ Save automatically

Normalized RMSD: 0.03341

Number of groups of spins

1

Create

Total number of additional couplings

6

Select spins

	Spin names	Group ID
1	15	select
2	16	select
3	17	select
4	18	select
5	19	group(1)

Additional couplings

	Coupling constant	Group ID
1		group(1)
2		group(1)
3		group(1)
4		group(1)
5		group(1)
6		select

select  
group(1)

Apply

Cancel

All couplings are identical and can be one ID

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Process

Optimization

Group and optimize

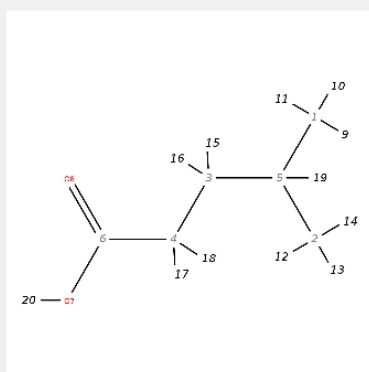
Copy selected cells

Paste cells

Swap two cells



InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

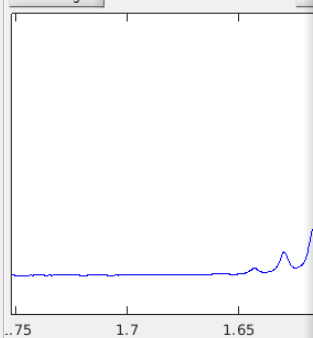
☒ delete water region

DSS region (PPM):

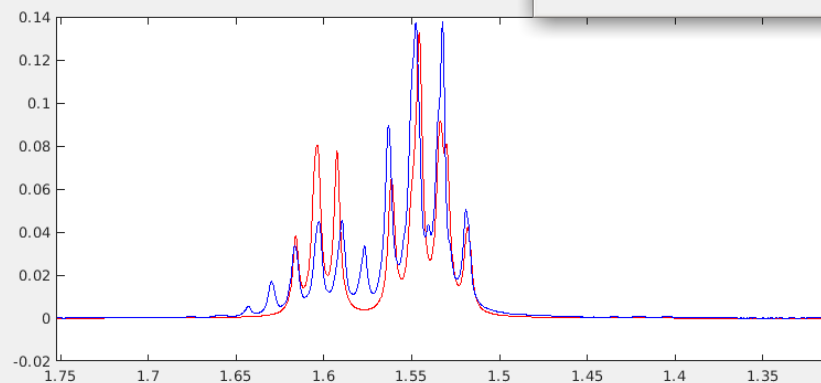
-0.1 0.1

☒ delete DSS region

Get integral



ROI region: 1.312 to 1.752



☒ Save automatically

Normalized RMSD: 0.03341

Apply different additional couplings to different spin groups

Number of groups of spins

1

Create

Total number of additional couplings

6

Select spins

	Spin names	Group ID
1	15	select
2	16	select
3	17	select
4	18	select
5	19	group(1)

Additional couplings

	Coupling constant	Group ID
1		group(1)
2		group(1)
3		group(1)
4		group(1)
5		group(1)
6		group(1)

Apply

Cancel

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Process

Optimization

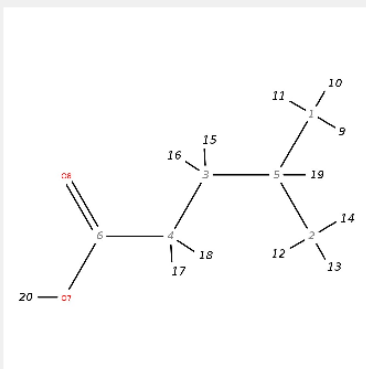
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

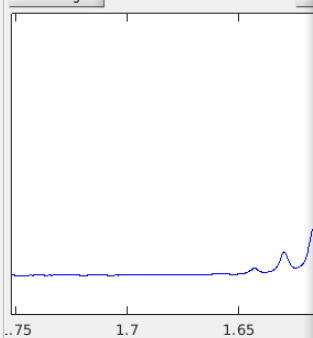
☒ delete water region

DSS region (PPM):

-0.1 0.1

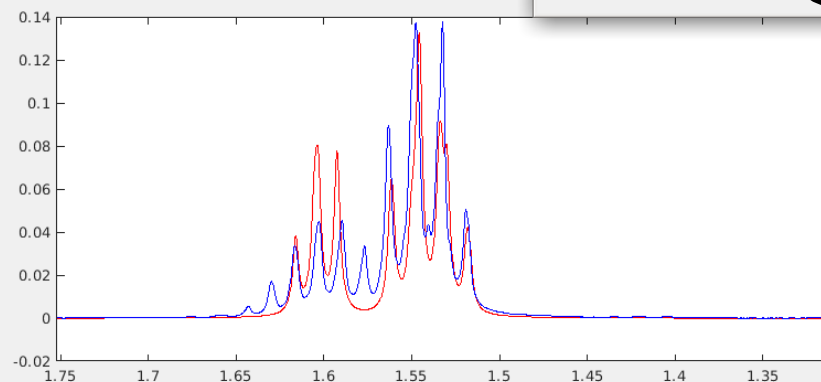
☒ delete DSS region

Get integral



ROI region:

1.312 to 1.752



☒ Save automatically

Normalized RMSD: 0.03341

Apply different additional couplings to different spin groups

Number of groups of spins

1

Create

Total number of additional couplings

6

Select spins

	Spin names	Group ID
1	15	select
2	16	select
3	17	select
4	18	select
5	19	group(1)

Additional couplings

	Coupling constant	Group ID
1	7	group(1)
2	7	group(1)
3	7	group(1)
4	7	group(1)
5	7	group(1)
6	7	group(1)

Must set estimated coupling constants

Apply

Cancel

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

Process

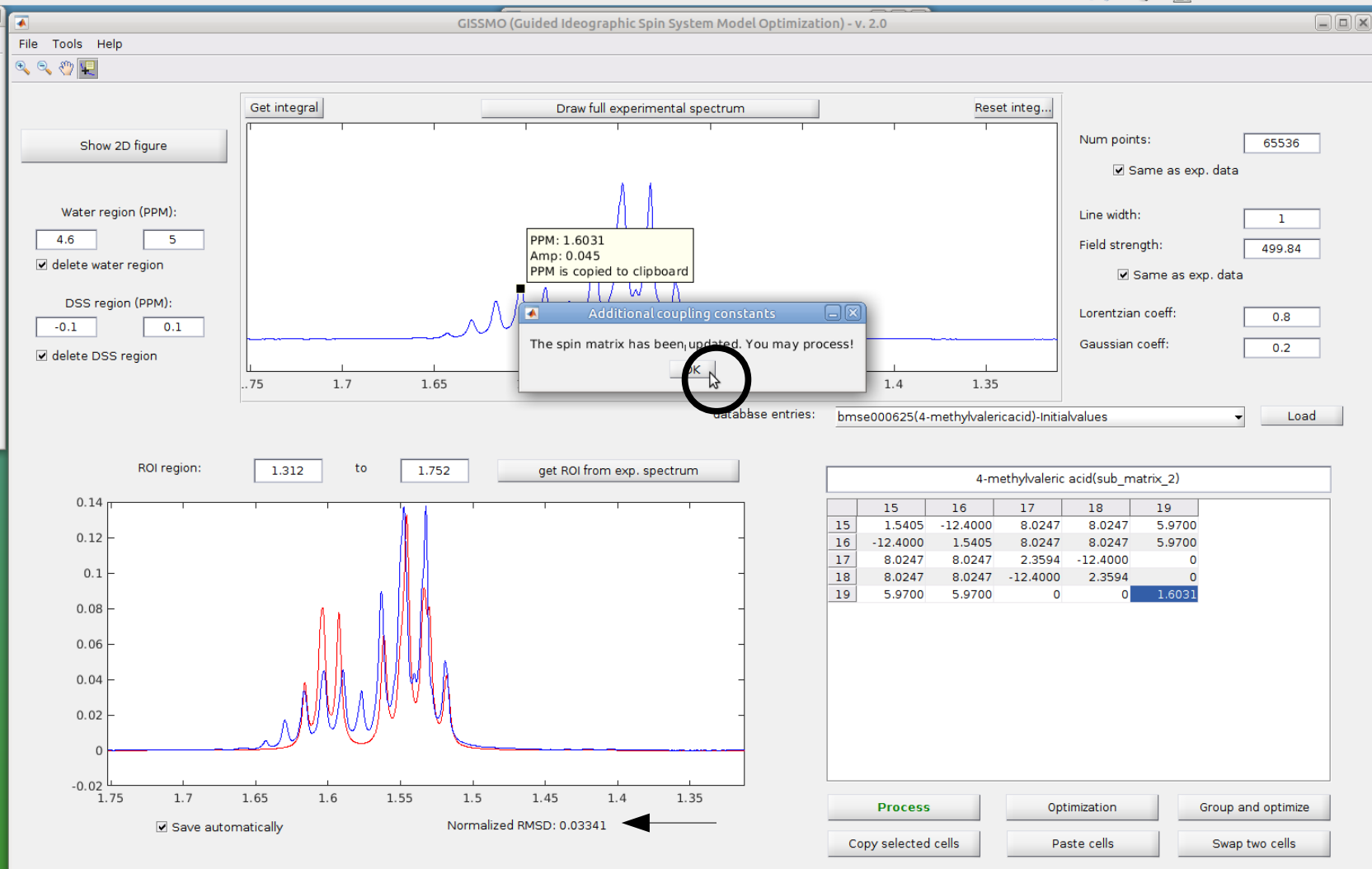
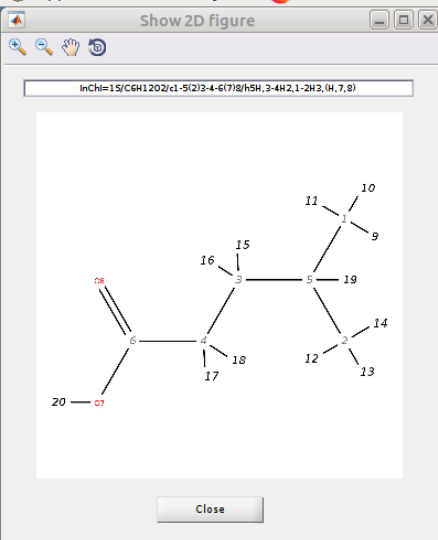
Optimization

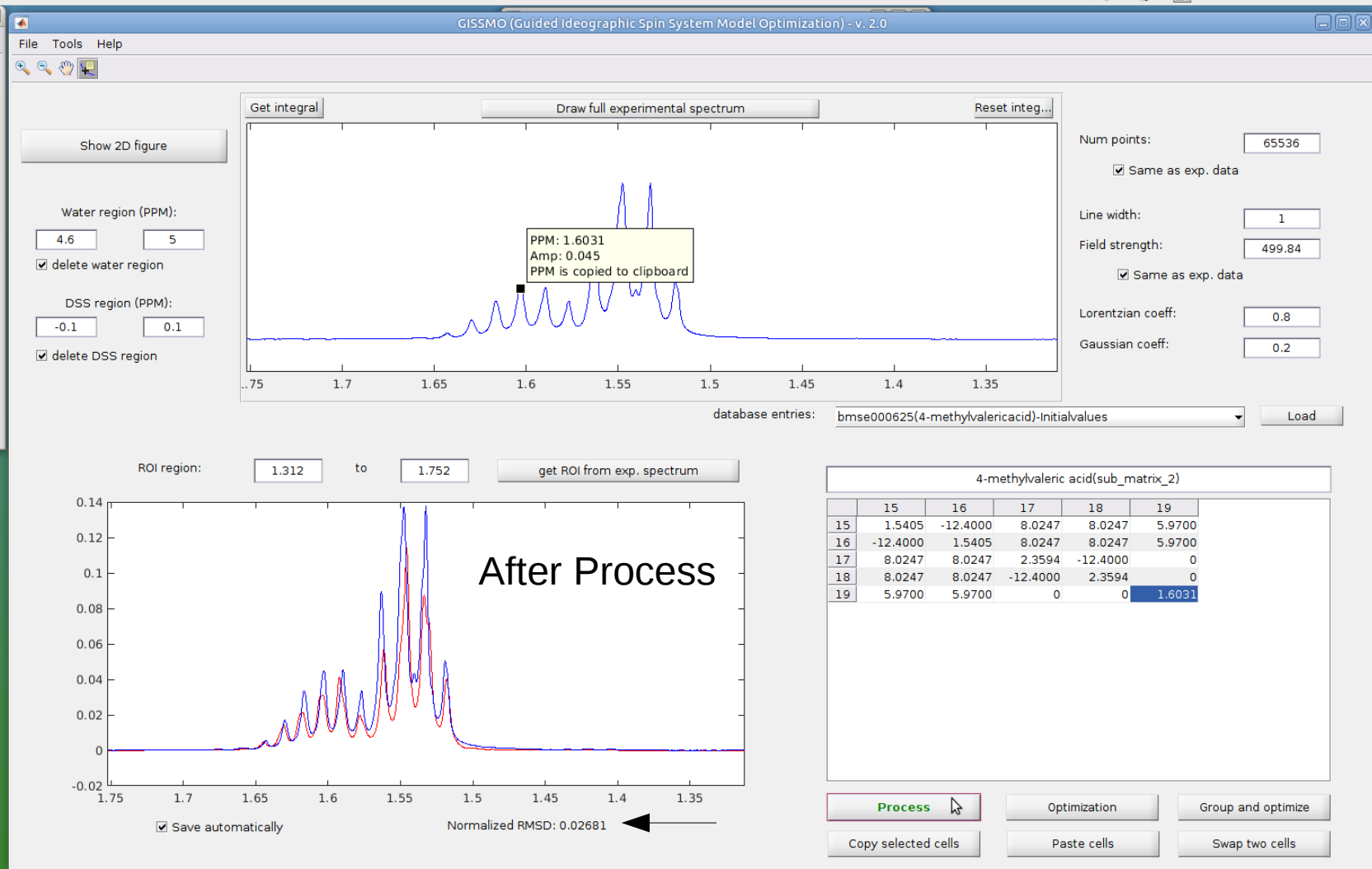
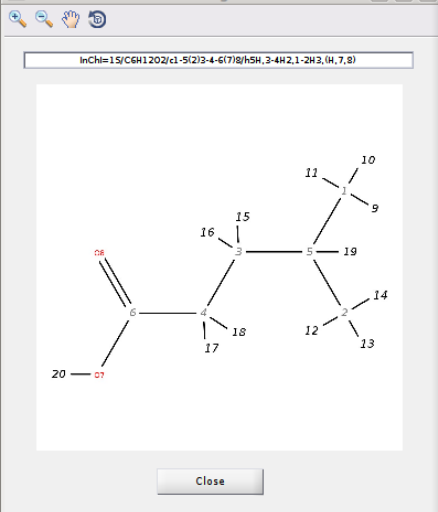
Group and optimize

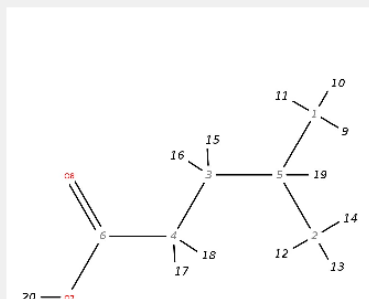
Copy selected cells

Paste cells

Swap two cells







Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

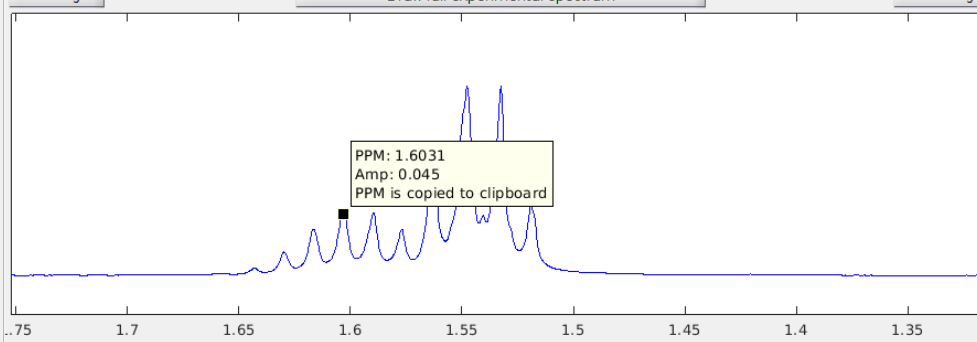
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

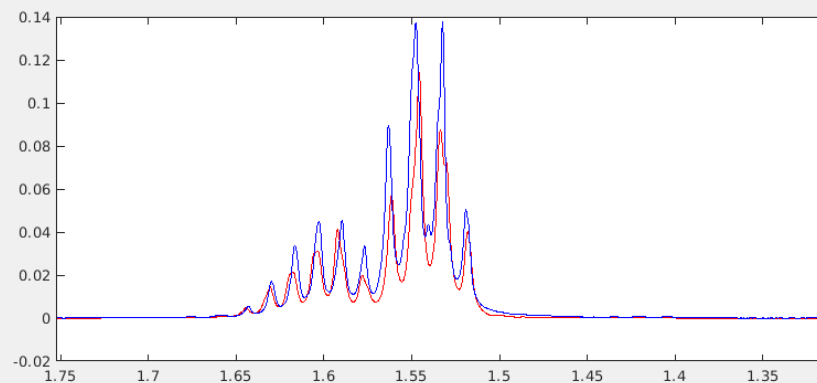
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02681

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	5.9700
16	-12.4000	1.5405	8.0247	8.0247	5.9700
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	5.9700	5.9700	0	0	1.6031

15,16 couplings to 19

Process

Optimization

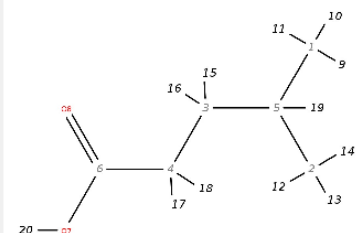
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

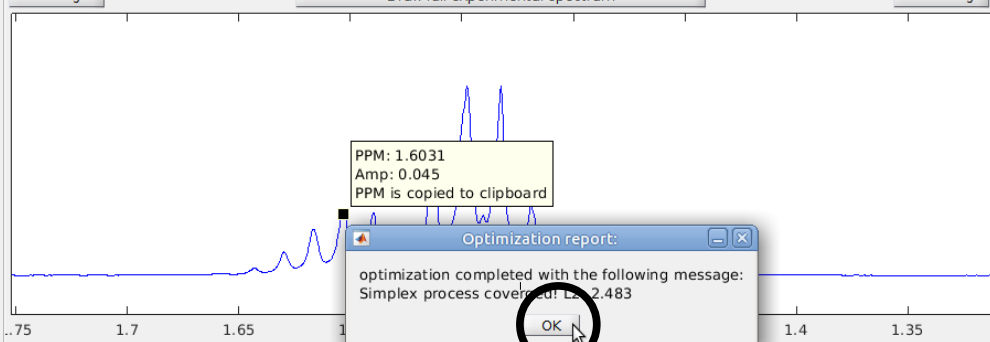
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

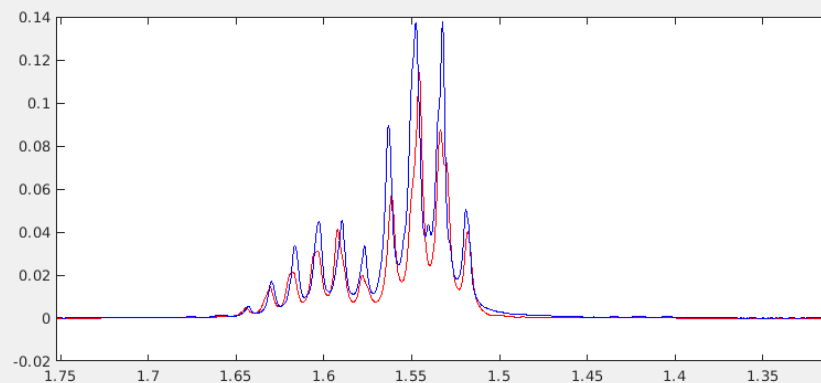
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02681

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5405	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Process

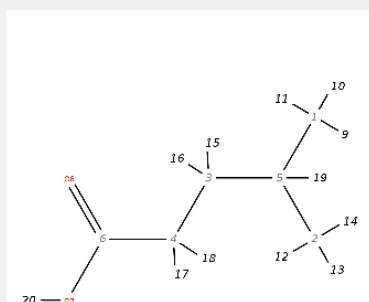
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



Close



Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

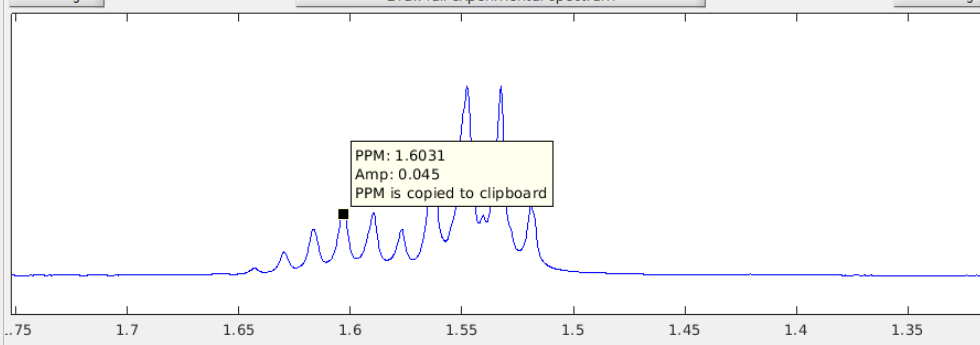
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

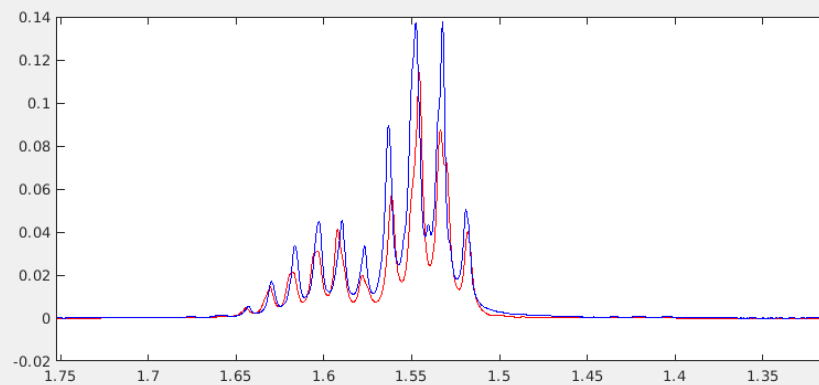
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02681

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5405	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Process

Optimization

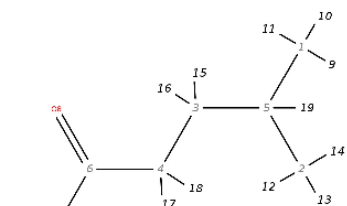
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

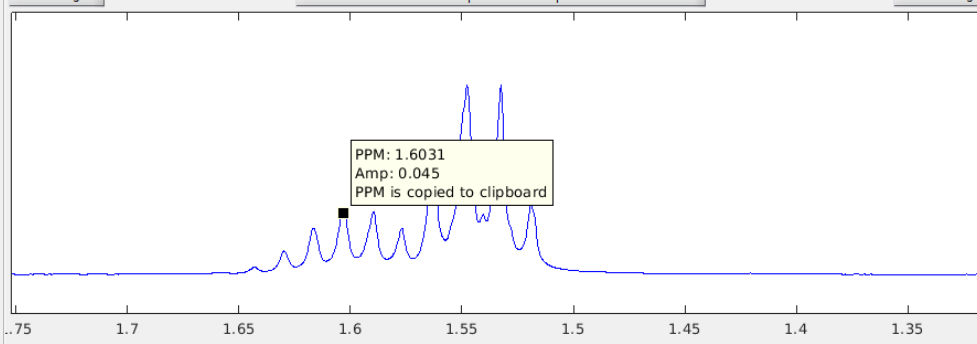
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

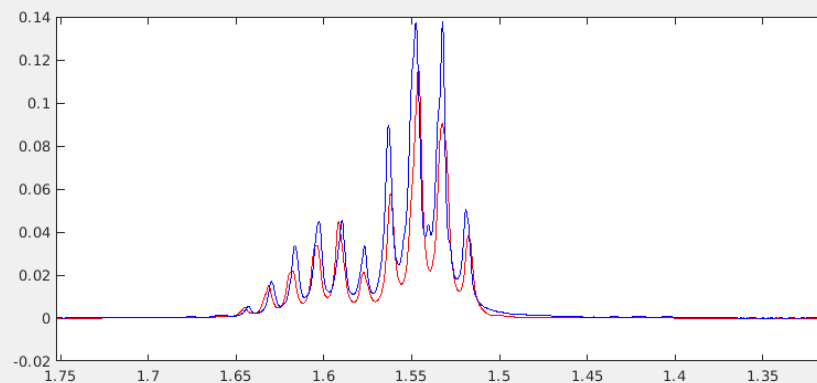
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02539

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5405	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5405	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Left-click 15,15; hold shift  
and left-click 16,16  
Group and optimize

Process

Optimization

Group and optimize

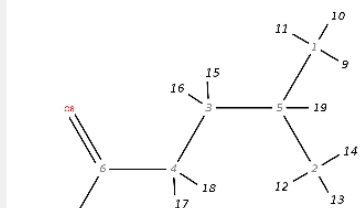
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

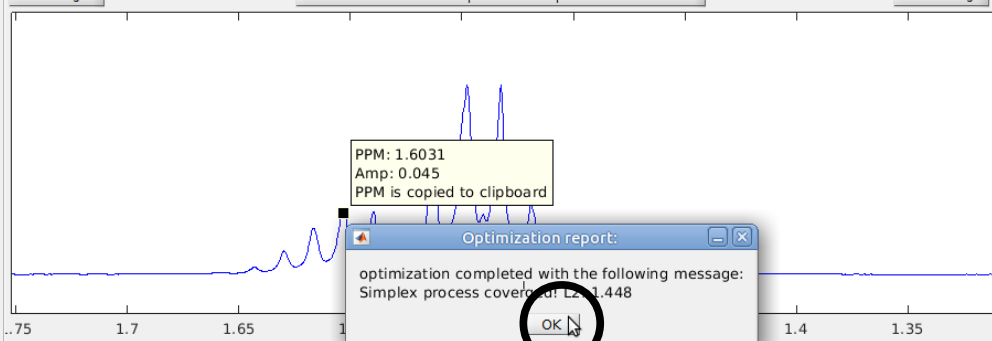
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

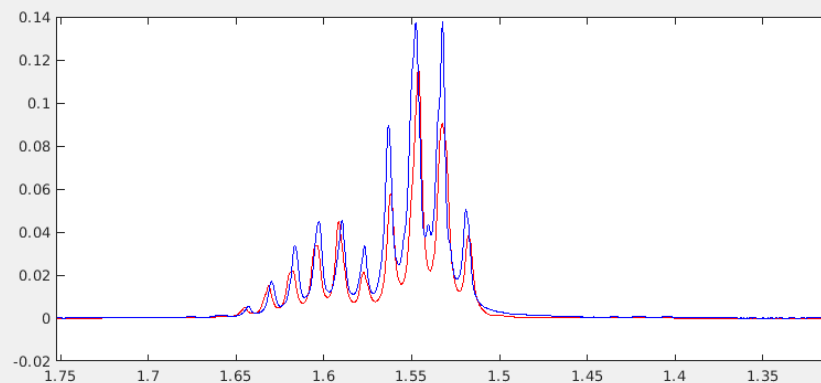
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02539

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Process

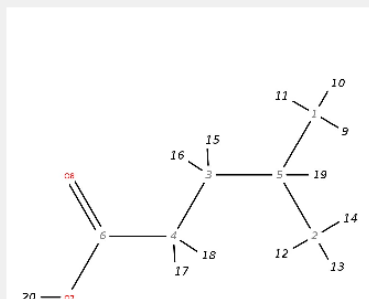
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

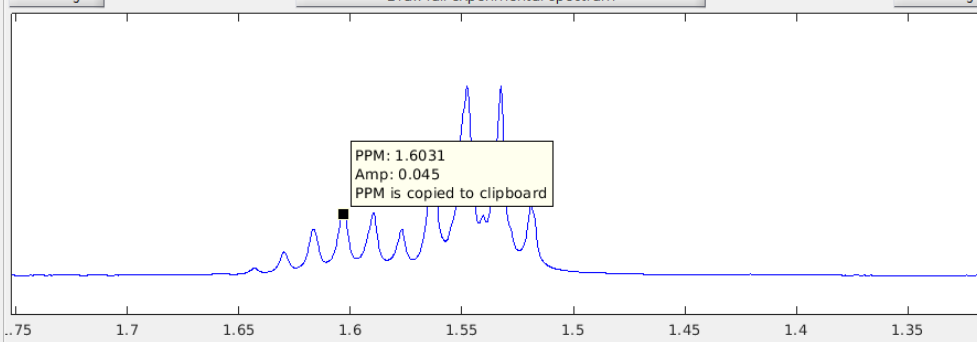
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

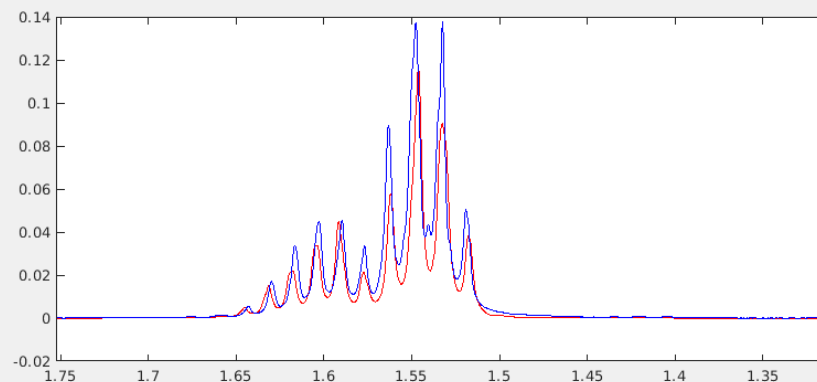
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.02539

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Process

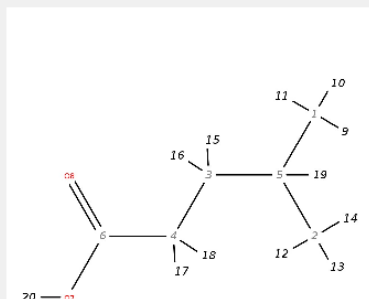
Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

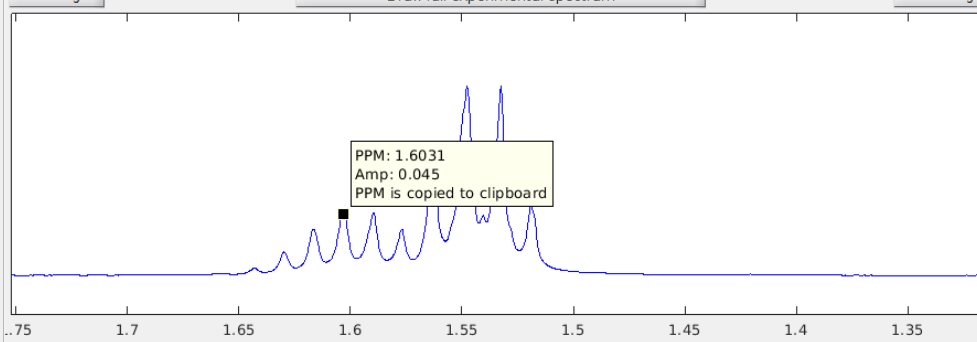
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

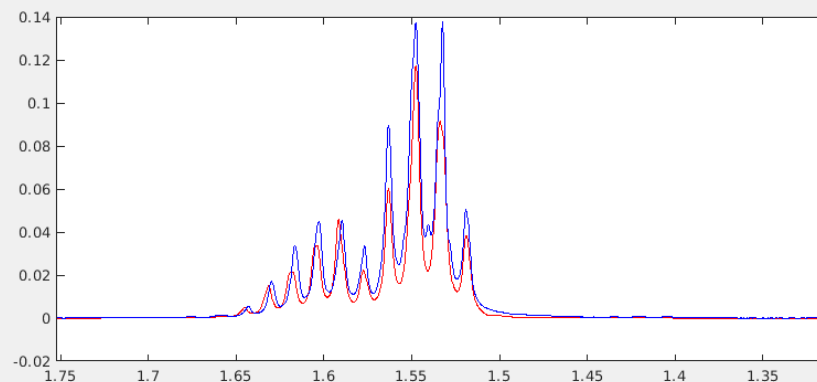
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01855

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6031

Optimize 19,19

Process

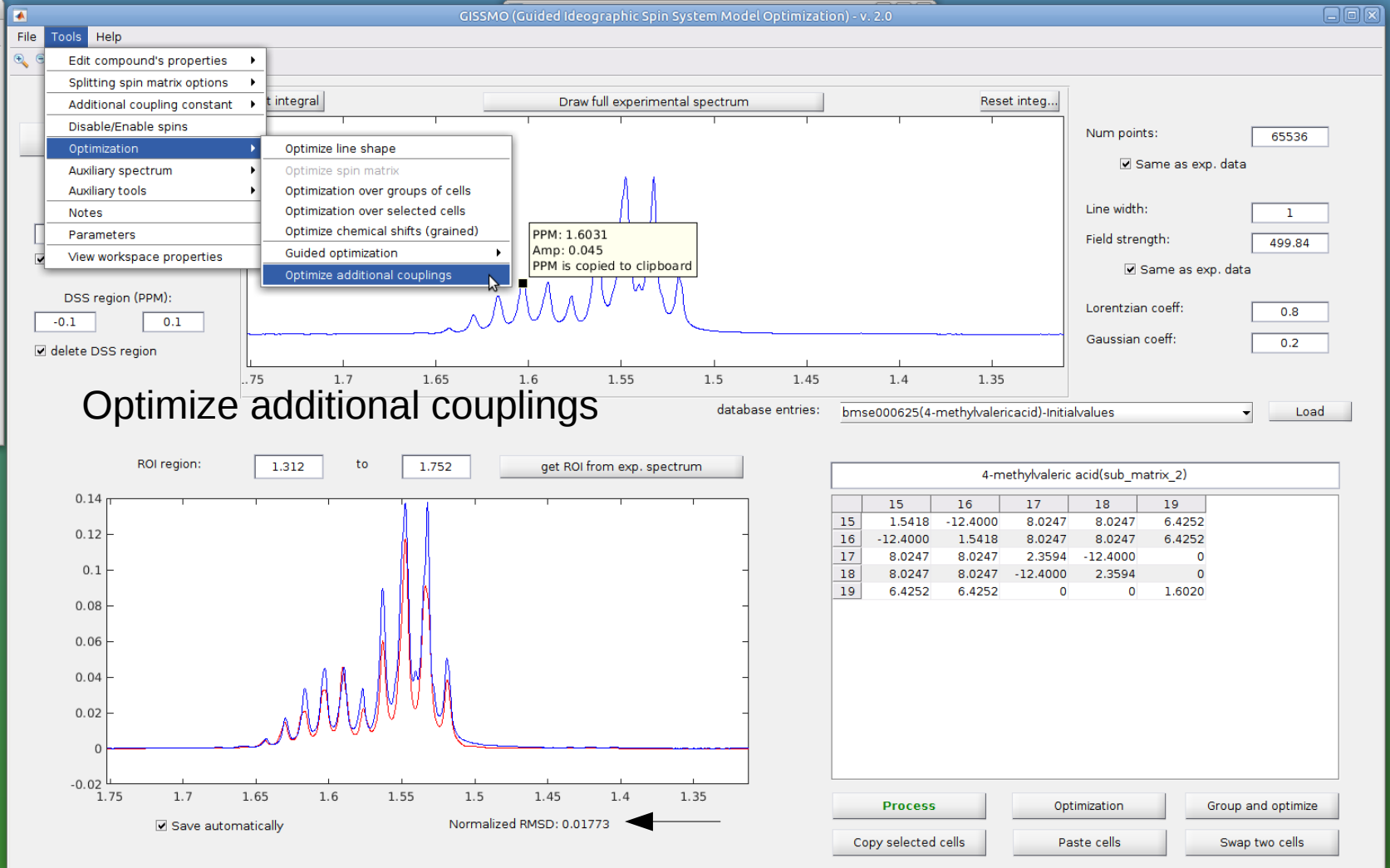
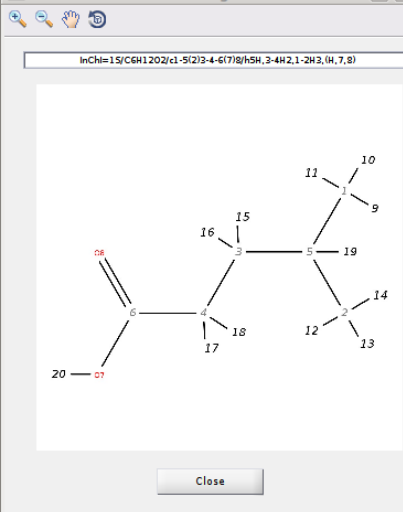
Optimization

Group and optimize

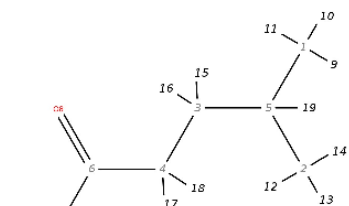
Copy selected cells

Paste cells

Swap two cells



InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Show 2D figure

Water region (PPM):

4.6 5

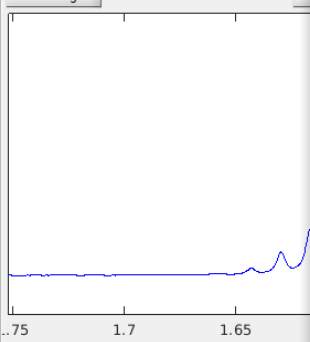
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



choose additional couplings for optimization

Choose additional couplings to be optimized

	spins	coupling constant	spin groups ID	coupling groups ID	optimize	keep va
1	19		7 group(1)	group(1)	<input checked="" type="checkbox"/>	group(1)
2	19		7 group(1)	group(2)	<input checked="" type="checkbox"/>	group(2)
3	19		7 group(1)	group(3)	<input checked="" type="checkbox"/>	group(3)
4	19		7 group(1)	group(4)	<input checked="" type="checkbox"/>	group(4)
5	19		7 group(1)	group(5)	<input checked="" type="checkbox"/>	group(5)
6	19		7 group(1)	group(6)	<input checked="" type="checkbox"/>	group(6)

Ok

Cancel

Slide right

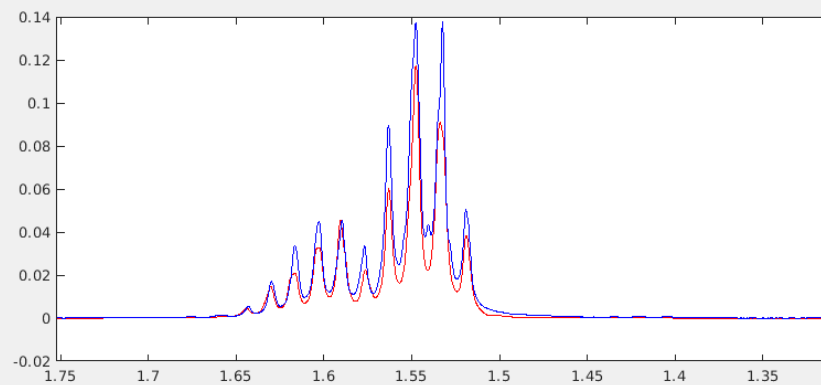
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01773

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

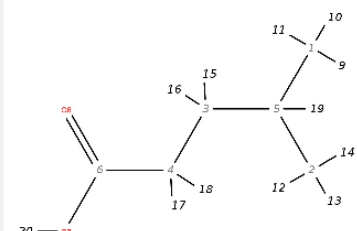
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

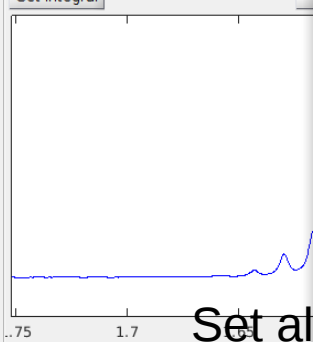
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



Set all to one group for a single coupling constant

choose additional couplings for optimization

Choose additional couplings to be optimized

coupling constant	spin groups ID	coupling groups ID	opt	size	keep values the same
1	7 group(1)	group(1)	<input checked="" type="checkbox"/>		group(1)
2	7 group(1)	group(2)	<input checked="" type="checkbox"/>		group(1)
3	7 group(1)	group(3)	<input checked="" type="checkbox"/>		group(1)
4	7 group(1)	group(4)	<input checked="" type="checkbox"/>		group(1)
5	7 group(1)	group(5)	<input checked="" type="checkbox"/>		group(1)
6	7 group(1)	group(6)	<input checked="" type="checkbox"/>		group(6)

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

values

Load

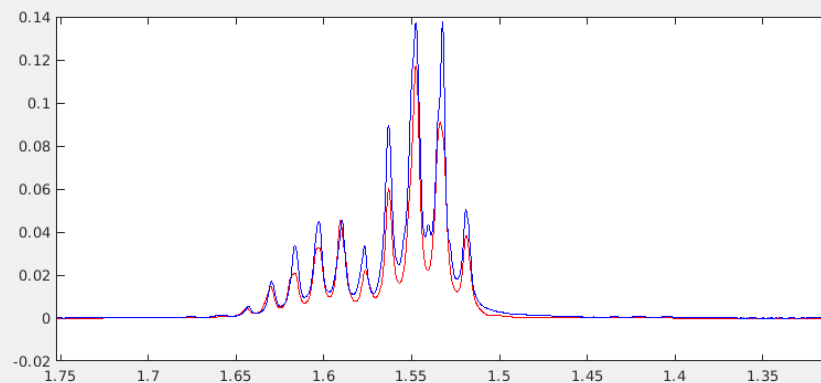
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01773

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

Group and optimize

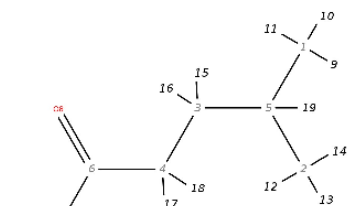
Copy selected cells

Paste cells

Swap two cells

Show 2D figure

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

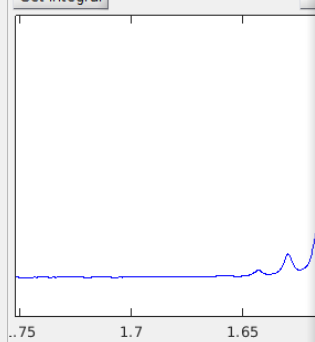
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



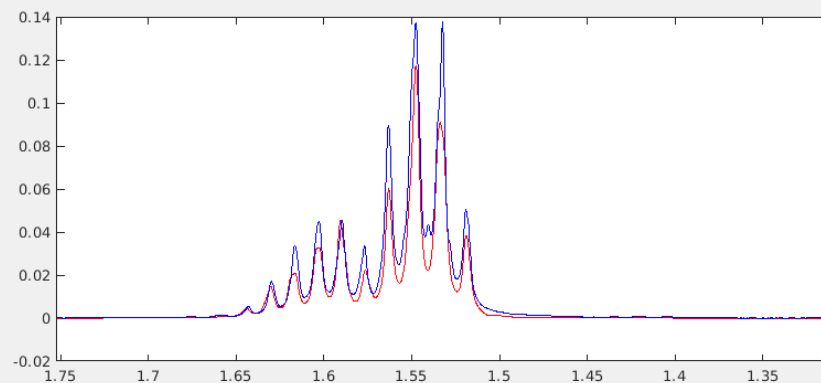
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01773

choose additional couplings for optimization

Choose additional couplings to be optimized

	coupling constant	spin groups ID	coupling groups ID	optimize	keep values the same
1		7 group(1)	group(1)	<input checked="" type="checkbox"/>	group(1)
2		7 group(1)	group(2)	<input checked="" type="checkbox"/>	group(1)
3		7 group(1)	group(3)	<input checked="" type="checkbox"/>	group(1)
4		7 group(1)	group(4)	<input checked="" type="checkbox"/>	group(1)
5		7 group(1)	group(5)	<input checked="" type="checkbox"/>	group(1)
6		7 group(1)	group(6)	<input checked="" type="checkbox"/>	group(1)

OK

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

values

Load

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

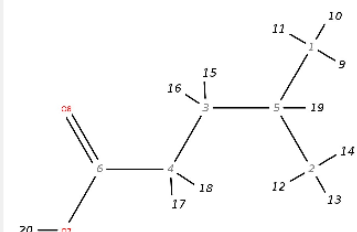
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

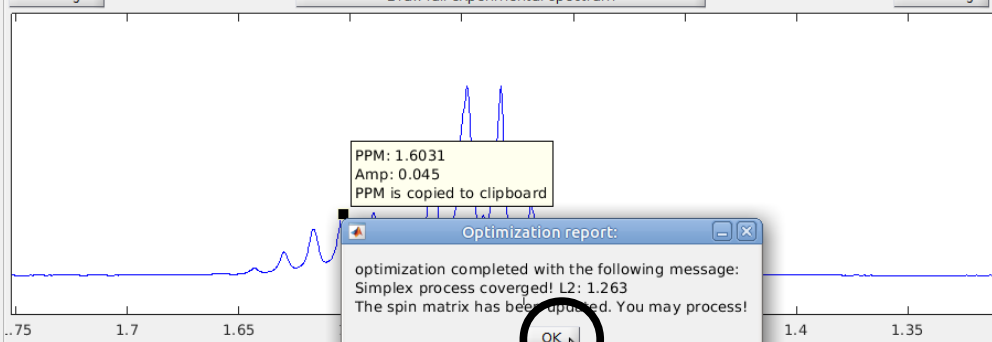
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Optimization report:  
optimization completed with the following message:  
Simplex process covered! L2: 1.263  
The spin matrix has been updated. You may process!

OK

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

Database entries: bmse000625(4-methylvalericacid)-Initialvalues

Load

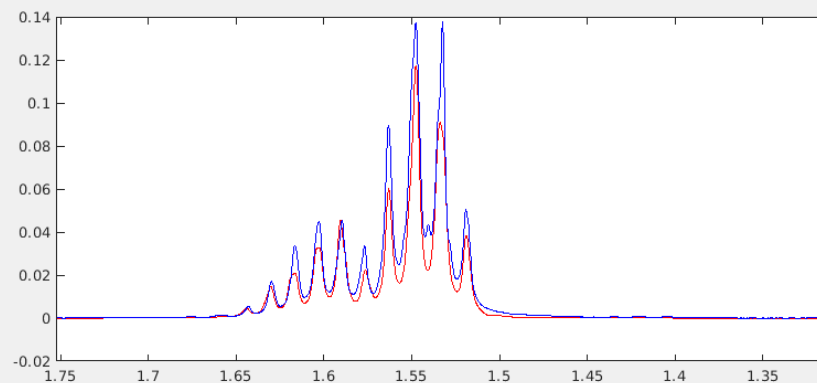
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01773

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

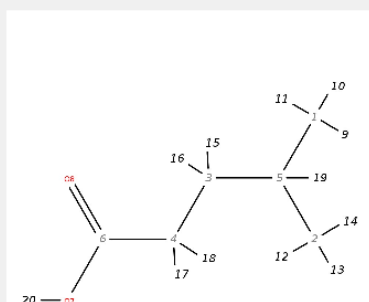
Group and optimize

Copy selected cells

Paste cells

Swap two cells





Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

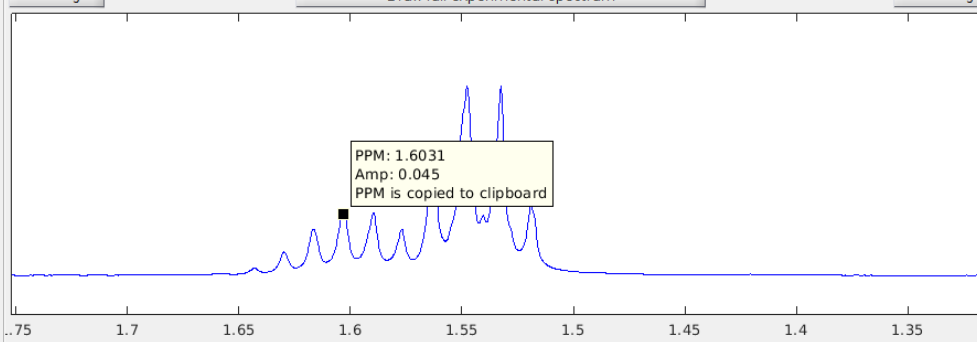
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

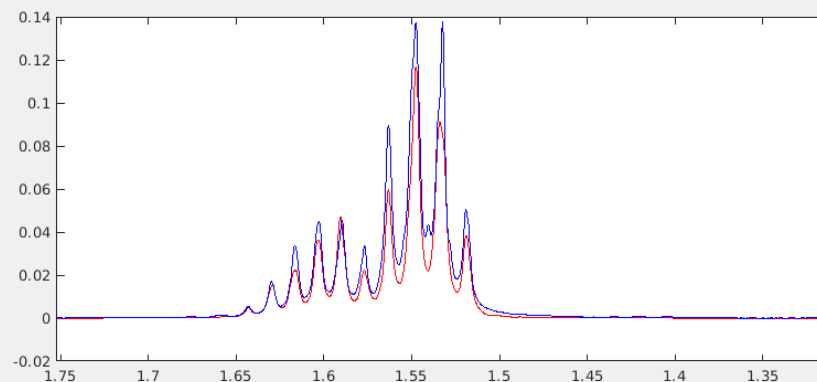
ROI region:

1.312

to

1.752

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01745

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

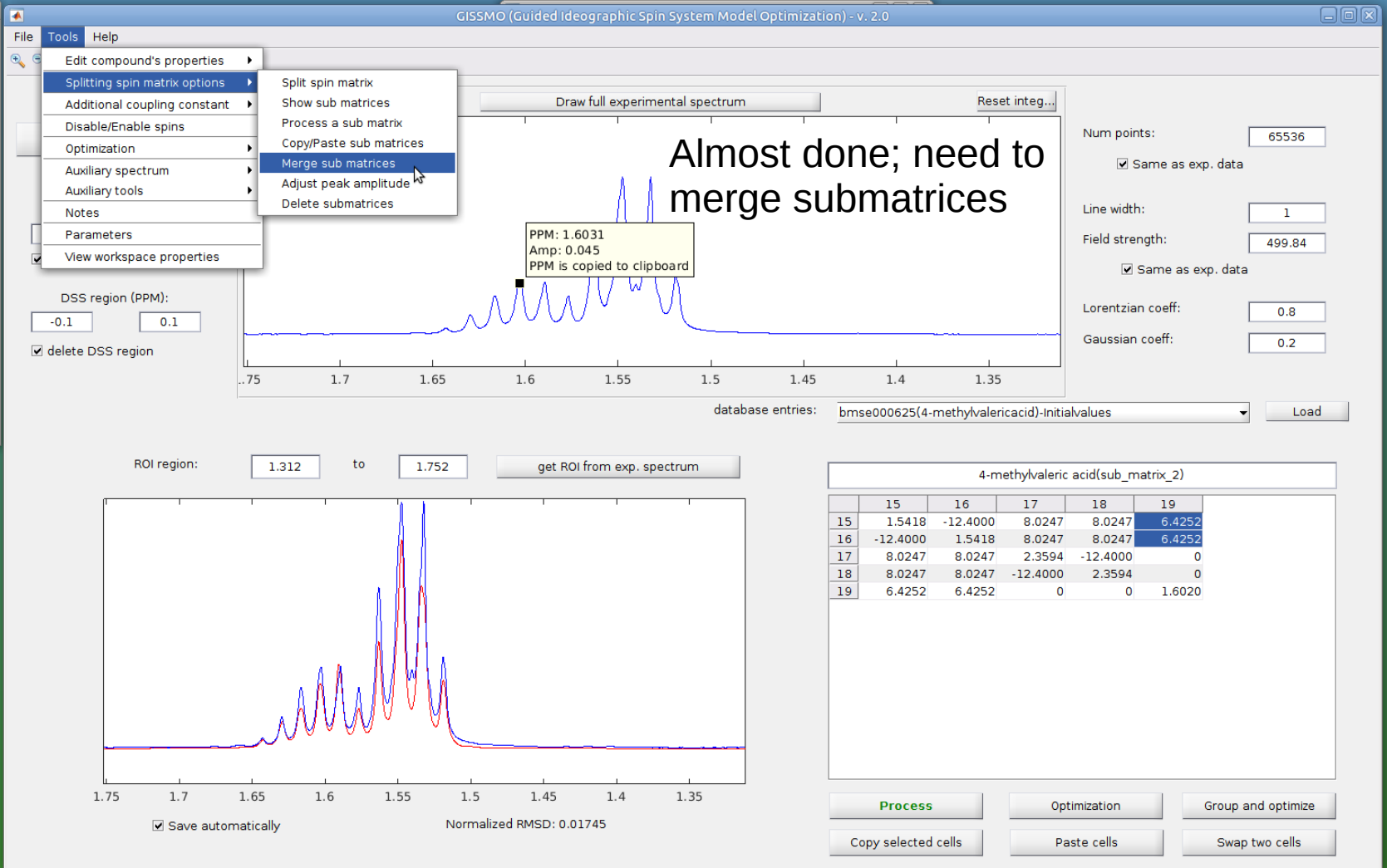
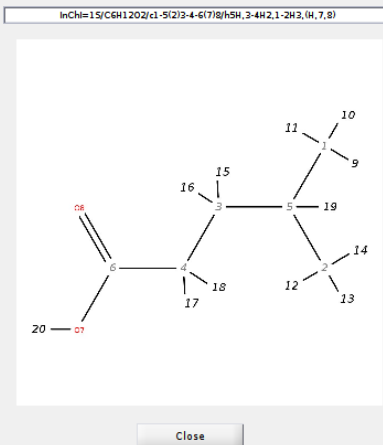
Optimization

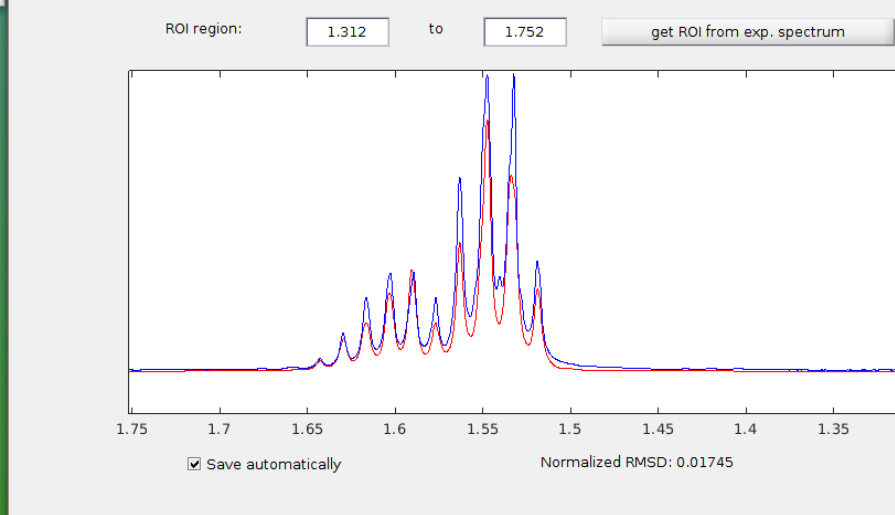
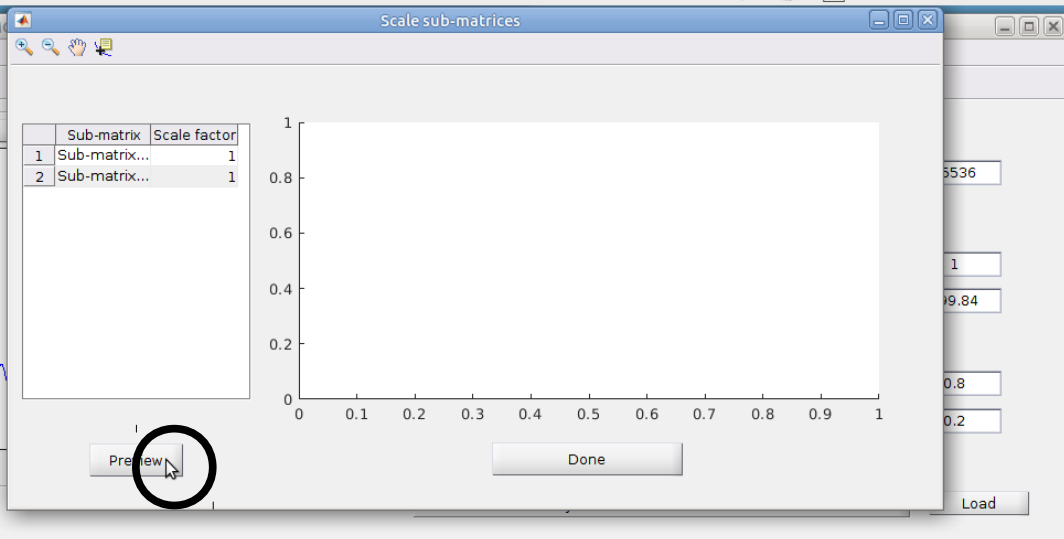
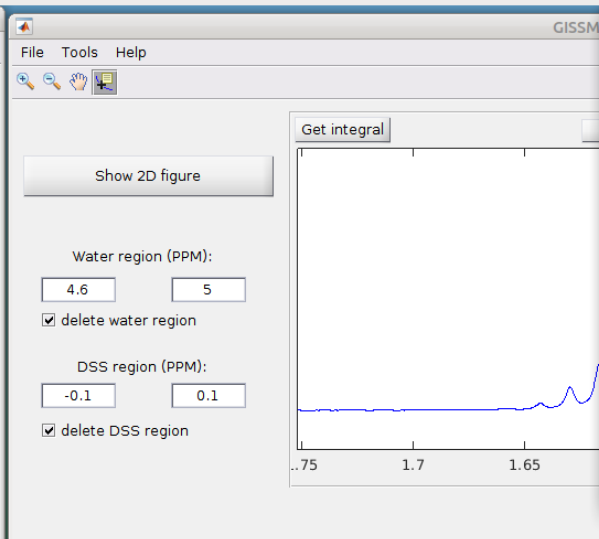
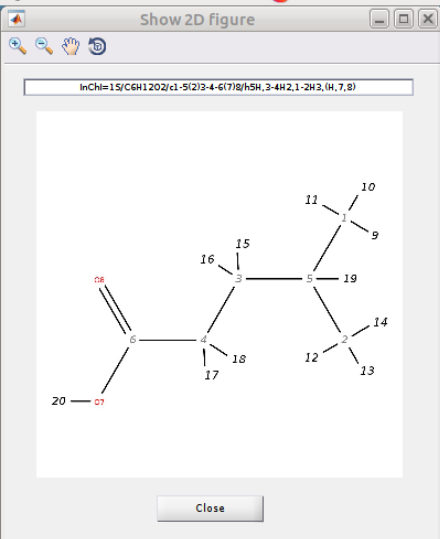
Group and optimize

Copy selected cells

Paste cells

Swap two cells



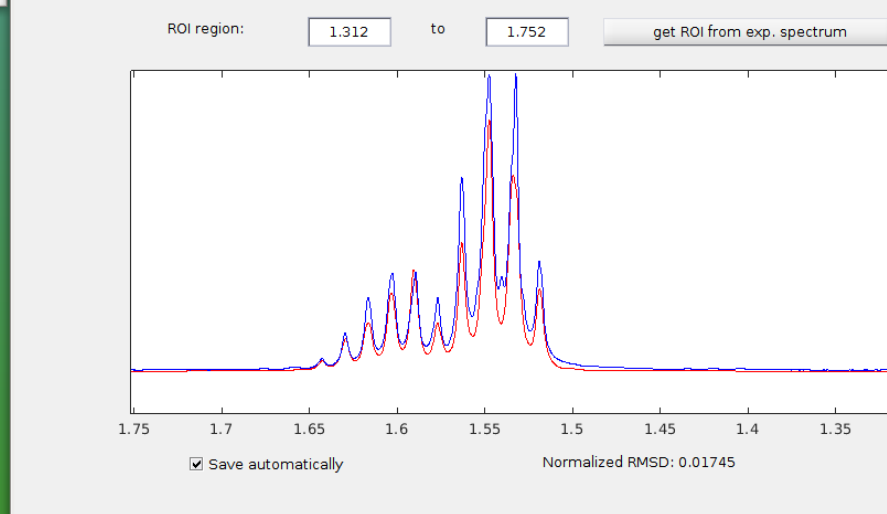
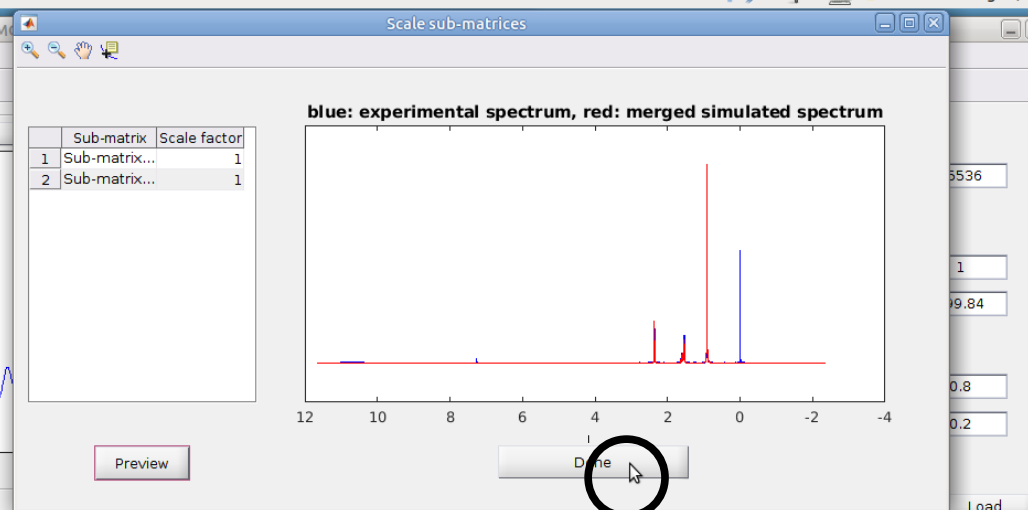
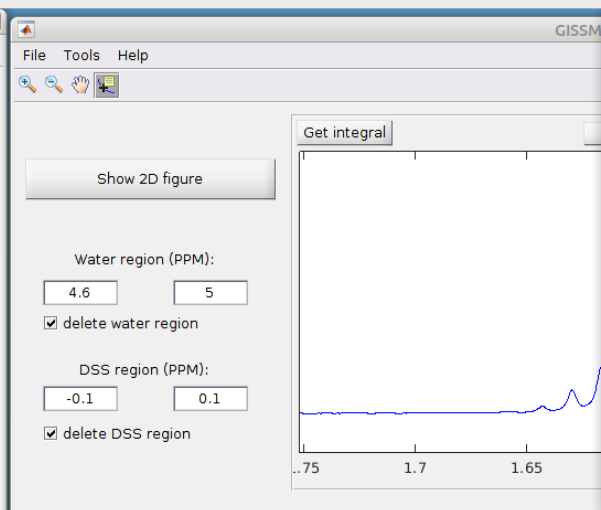
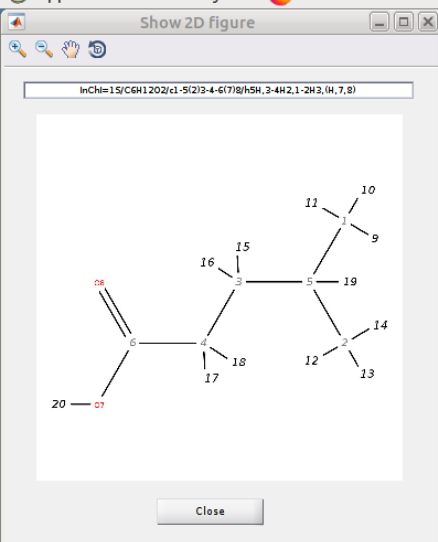


4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

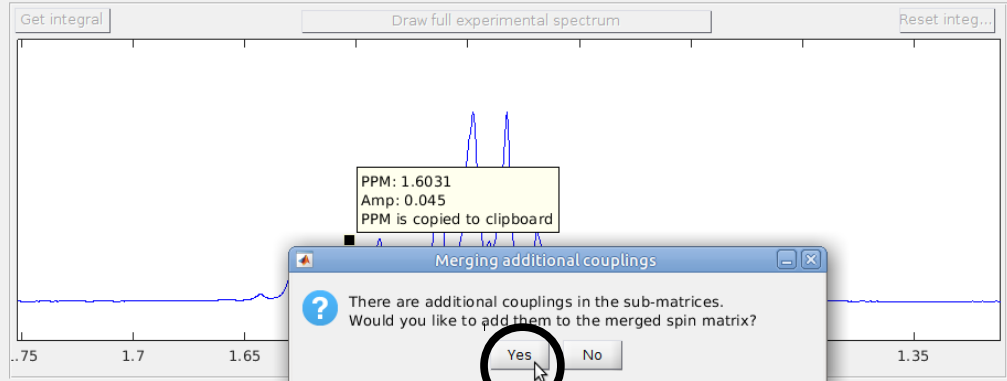
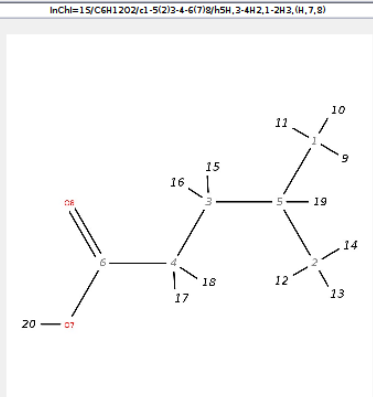


4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process Optimization Group and optimize

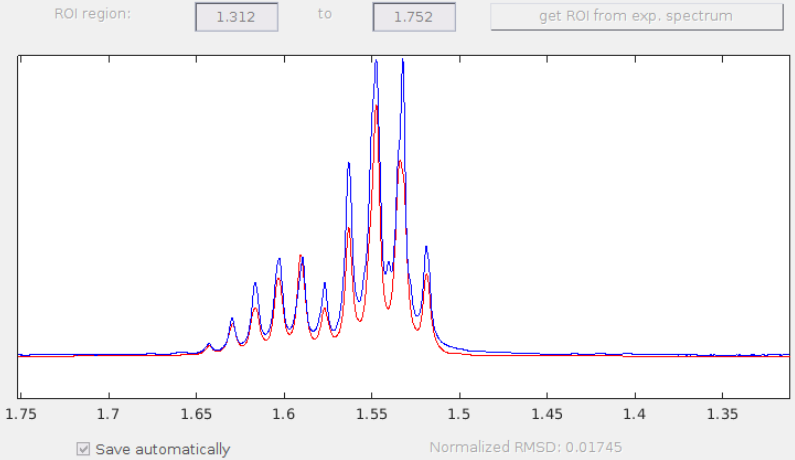
Copy selected cells Paste cells Swap two cells



Merging additional couplings

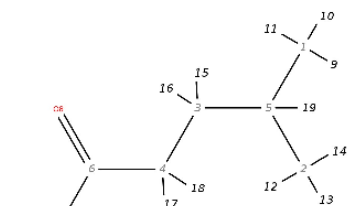
There are additional couplings in the sub-matrices. Would you like to add them to the merged spin matrix?

Yes No



4-methylvaleric acid(sub_matrix_2)					
	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

InChI=1S/CGH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

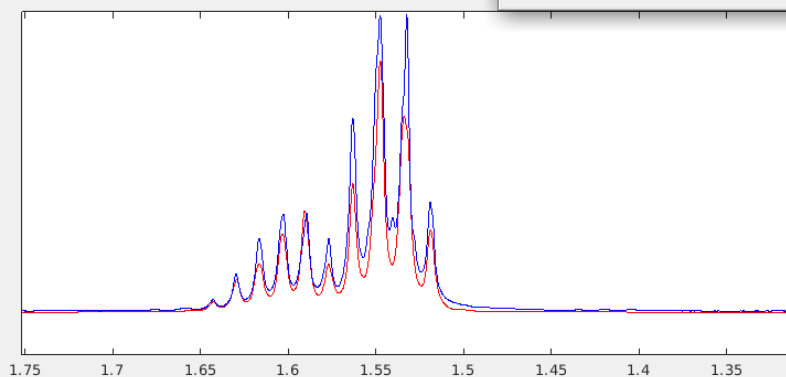
DSS region (PPM):

-0.1 0.1

☒ delete DSS region

ROI region:

1.312 to 1.752



☒ Save automatically

Normalized RMSD: 0.01745

Coupling determined in submatrix 1

Merge additional couplings

Note that the average of additional couplings between two spins will be conveyed to the merged matrix

Additional couplings:

	assigned to (spin names)	coupling	from the spin (spin name)
1	9,10,11,12,13,14	6.4194	19
2	19	6.6846	13
3	19	6.6846	14
4	19	6.6846	15
5	19	6.6846	16
6	19	6.6846	17
7	19	6.6846	18

19  
not listed

Done

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

valeric acid)-Initial values

Load

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

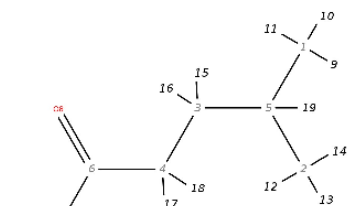
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

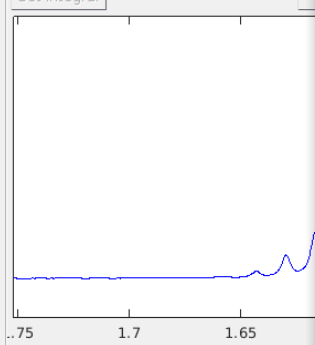
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

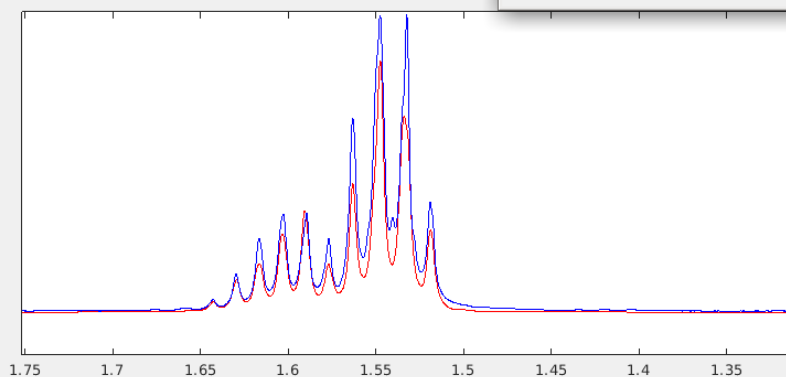
Get integral



ROI region:

1.312 to 1.752

Done



☒ Save automatically

Normalized RMSD: 0.01745

Note that the average of additional couplings between two spins will be conveyed to the merged matrix

Additional couplings:

	assigned to (spin names)	coupling	from the spin (spin name)
1	9,10,11,12,13,14	6.4194	19
2	19	6.6846	discard
3	19	6.6846	discard
4	19	6.6846	9
5	19	6.6846	10
6	19	6.6846	11
7	19	6.6846	12

2-7 determined from submatrix 2

Cancel

Reset integ...

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

valeric acid)-Initial values

Load

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

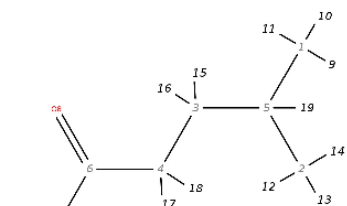
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

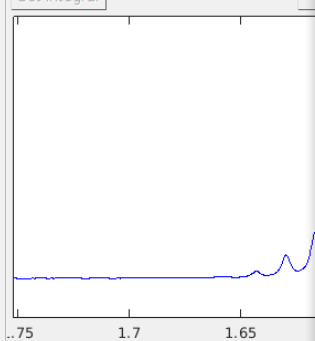
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral

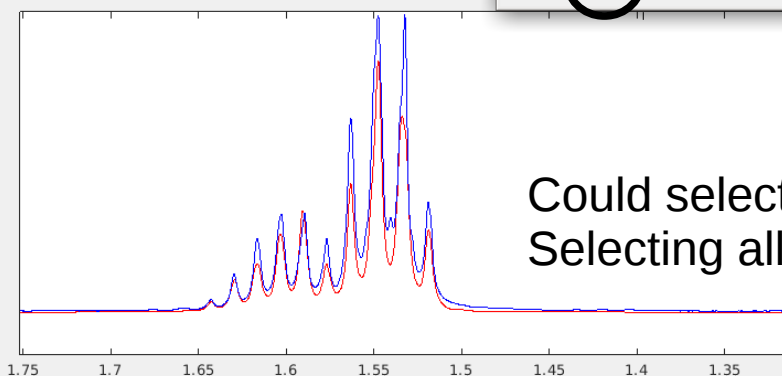


ROI region:

1.312

to

1.752



☒ Save automatically

Normalized RMSD: 0.01745

Note that the average of additional couplings between two spins will be conveyed to the merged matrix

Additional couplings:

	assigned to (spin names)	coupling	from the spin (spin name)
1	9,10,11,12,13,14	6.4194	19
2	19	6.6846	9
3	19	6.6846	10
4	19	6.6846	11
5	19	6.6846	12
6	19	6.6846	13
7	19	6.6846	14

Done

Cancel

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

valeric acid)-Initial values

Load

4-methylvaleric acid(sub\_matrix\_2)

	15	16	17	18	19
15	1.5418	-12.4000	8.0247	8.0247	6.4252
16	-12.4000	1.5418	8.0247	8.0247	6.4252
17	8.0247	8.0247	2.3594	-12.4000	0
18	8.0247	8.0247	-12.4000	2.3594	0
19	6.4252	6.4252	0	0	1.6020

Process

Optimization

Group and optimize

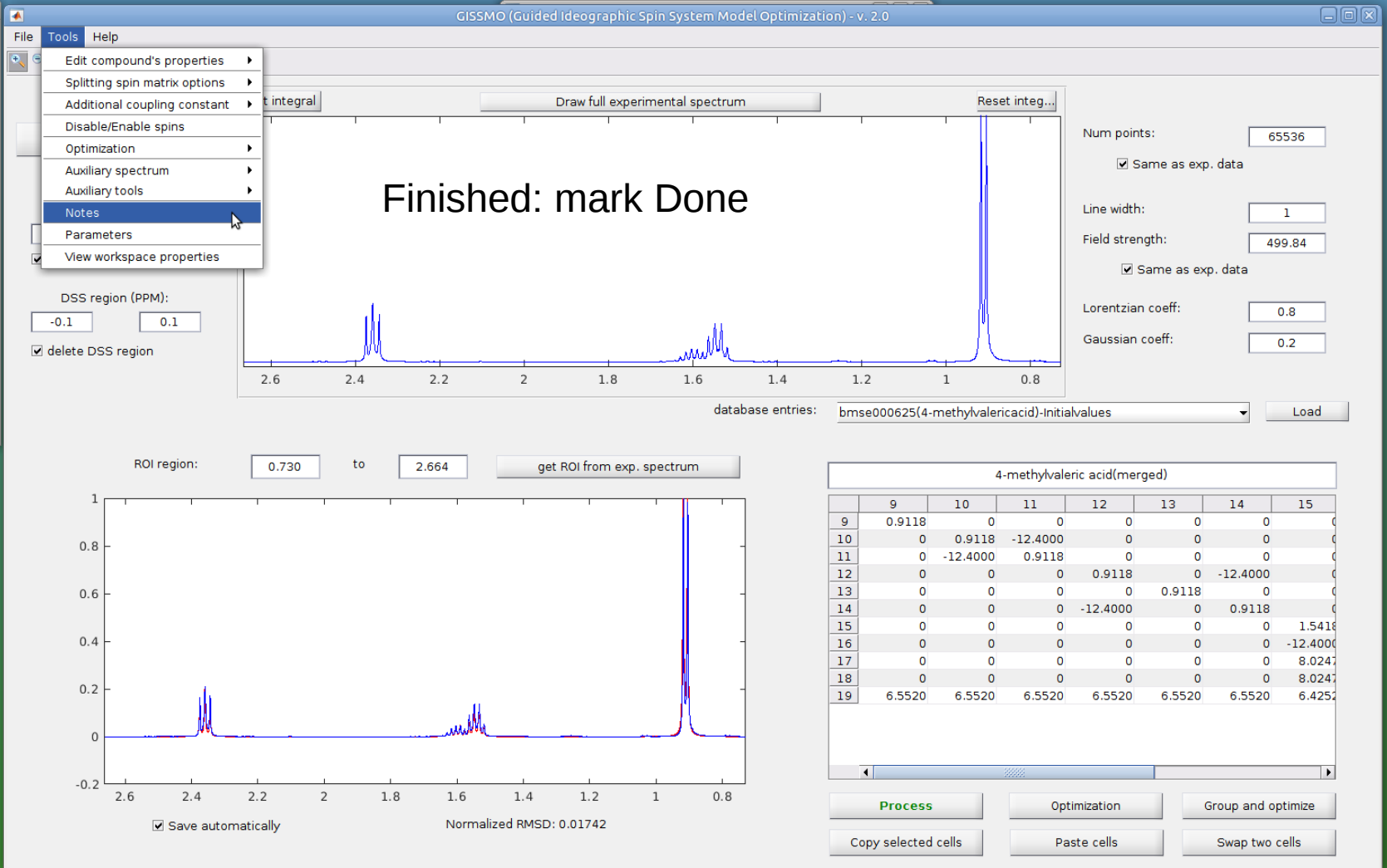
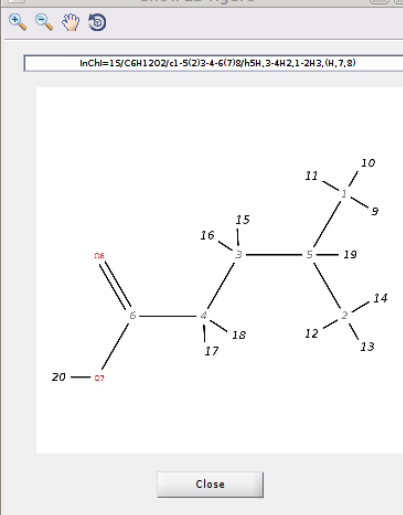
Copy selected cells

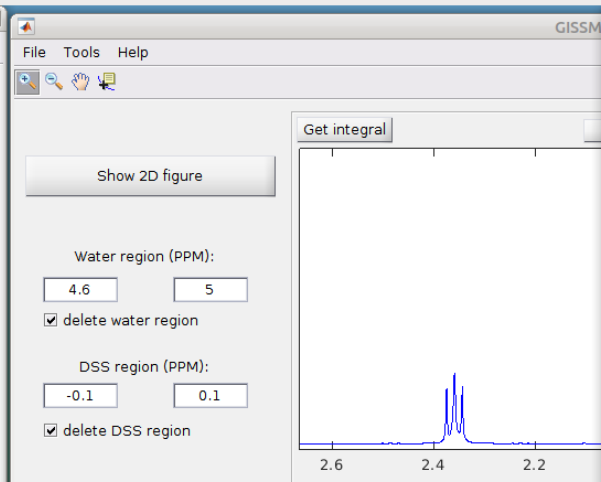
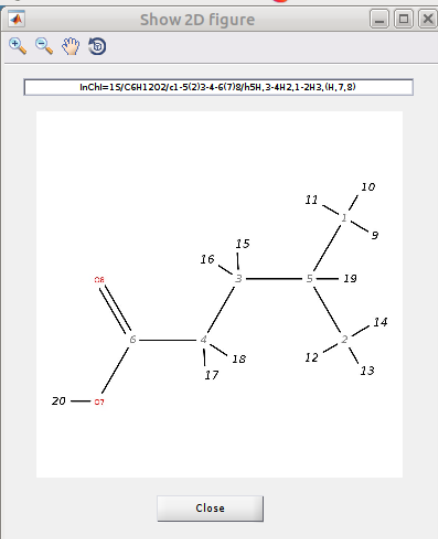
Paste cells

Swap two cells

Could select only 1 or 2-7 (and discard others)  
Selecting all gives average







Notes

Status:

Initial values

choose status

Initial values

Active

Approximately done

Complicated

Done

Difficult

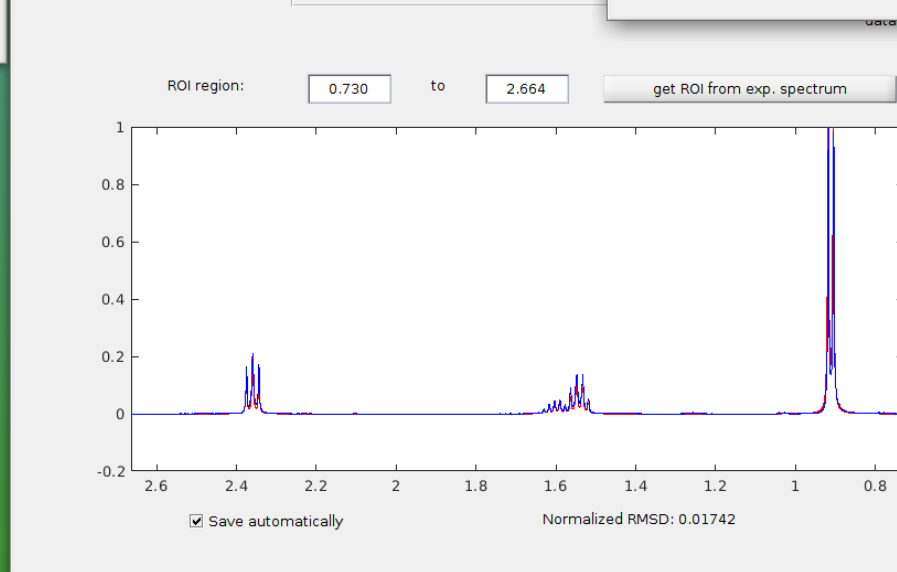
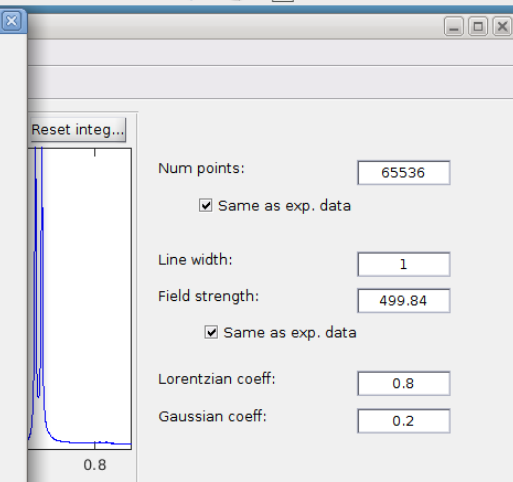
No C-H proton

2H exchange

Problem

Apply

Cancel



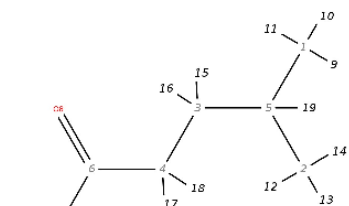
database entries: bmse000625(4-methylvalericacid)-Initialvalues Load

	9	10	11	12	13	14	15
9	0.9118	0	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0	0
11	0	-12.4000	0.9118	0	0	0	0
12	0	0	0	0.9118	0	-12.4000	0
13	0	0	0	0	0.9118	0	0
14	0	0	0	-12.4000	0	0.9118	0
15	0	0	0	0	0	0	1.5418
16	0	0	0	0	0	0	-12.4000
17	0	0	0	0	0	0	8.0247
18	0	0	0	0	0	0	8.0247
19	6.5520	6.5520	6.5520	6.5520	6.5520	6.5520	6.4252

Process Optimization Group and optimize

Copy selected cells Paste cells Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

File Tools Help

Show 2D figure

Water region (PPM):

4.6 5

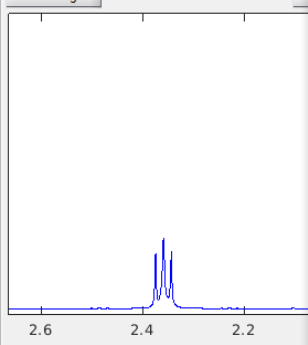
☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral



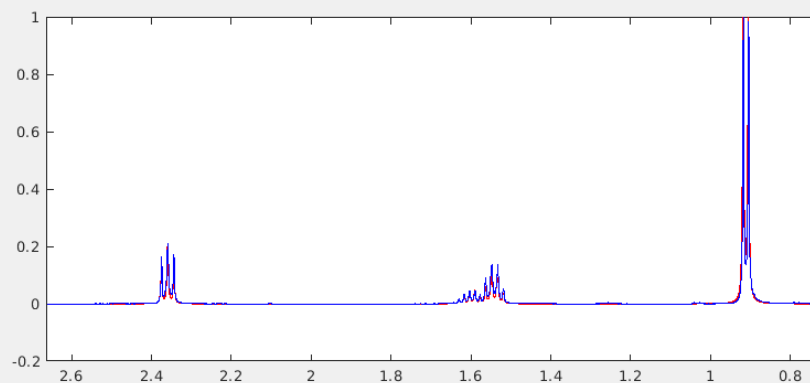
ROI region:

0.730

to

2.664

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01742

Notes

Status:

Done

Notes:

Apply

Cancel

Reset integ...

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000625(4-methylvaleric acid)-Initial values

Load

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9118	0	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0	0
11	0	-12.4000	0.9118	0	0	0	0
12	0	0	0	0.9118	0	-12.4000	0
13	0	0	0	0	0.9118	0	0
14	0	0	0	-12.4000	0	0.9118	0
15	0	0	0	0	0	0	1.5418
16	0	0	0	0	0	0	-12.4000
17	0	0	0	0	0	0	8.0247
18	0	0	0	0	0	0	8.0247
19	6.5520	6.5520	6.5520	6.5520	6.5520	6.5520	6.4252

Process

Optimization

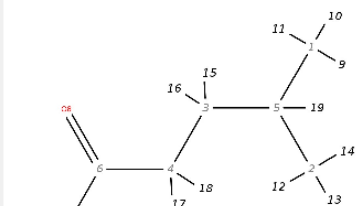
Group and optimize

Copy selected cells

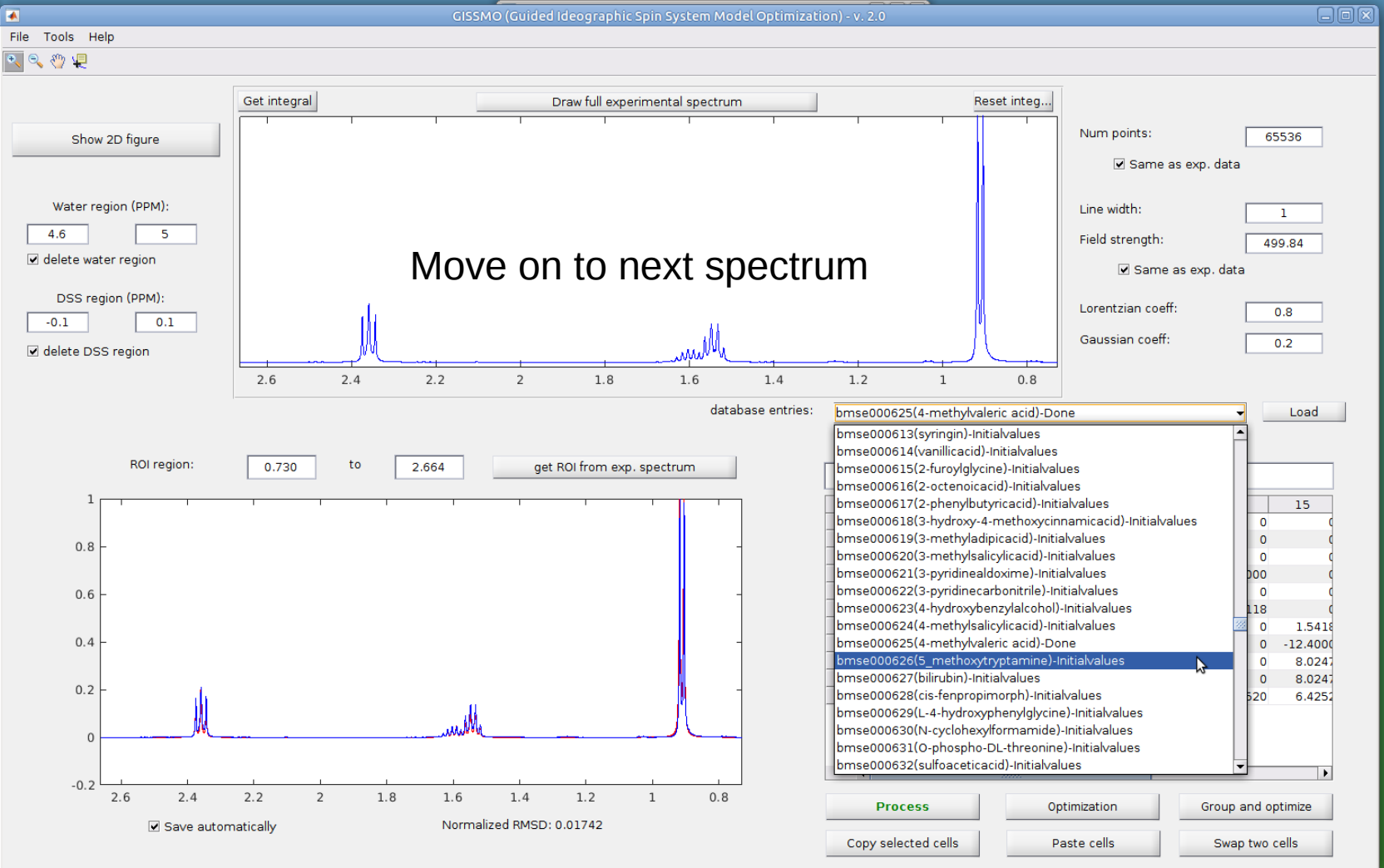
Paste cells

Swap two cells

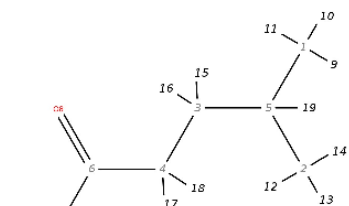
InChI=1S/C6H12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close



InChI=1S/CEH12O2/c1-5(2)3-4-6(7)8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

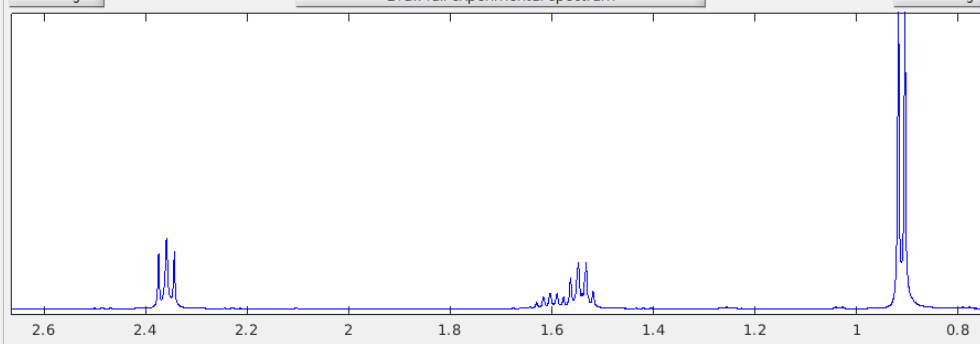
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000626(5\_methoxytryptamine)-Initialvalues

Load

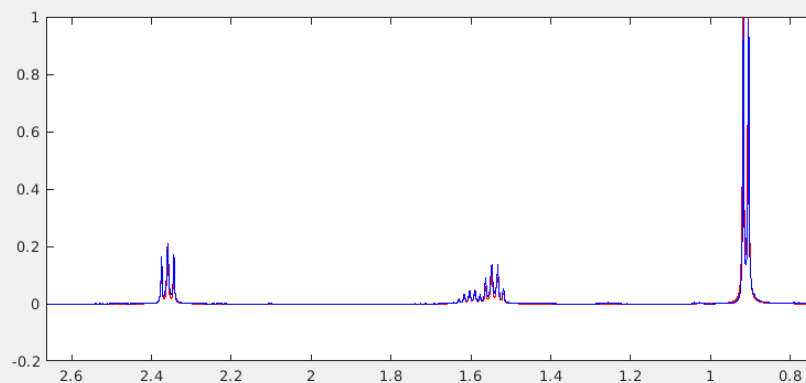
ROI region:

0.730

to

2.664

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01742

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9118	0	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0	0
11	0	-12.4000	0.9118	0	0	0	0
12	0	0	0	0.9118	0	-12.4000	0
13	0	0	0	0	0.9118	0	0
14	0	0	0	-12.4000	0	0.9118	0
15	0	0	0	0	0	0	1.5418
16	0	0	0	0	0	0	-12.4000
17	0	0	0	0	0	0	8.0247
18	0	0	0	0	0	0	8.0247
19	6.5520	6.5520	6.5520	6.5520	6.5520	6.5520	6.4252

Process

Optimization

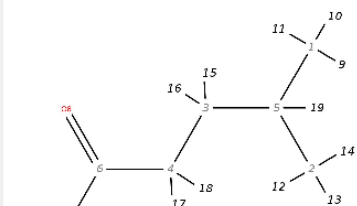
Group and optimize

Copy selected cells

Paste cells

Swap two cells

InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...

Don't forget to save current workspace

Yes

No

Would you like to save the current workspace?

Num points:

65536

☒ Same as exp. data

Line width:

1

Field strength:

499.84

☒ Same as exp. data

Lorentzian coeff:

0.8

Gaussian coeff:

0.2

database entries: bmse000626(5\_methoxytryptamine)-Initialvalues

Load

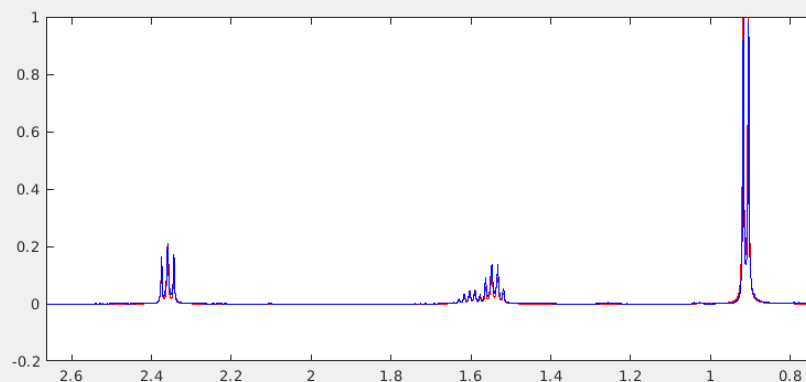
ROI region:

0.730

to

2.664

get ROI from exp. spectrum



☒ Save automatically

Normalized RMSD: 0.01742

4-methylvaleric acid(merged)

	9	10	11	12	13	14	15
9	0.9118	0	0	0	0	0	0
10	0	0.9118	-12.4000	0	0	0	0
11	0	-12.4000	0.9118	0	0	0	0
12	0	0	0	0.9118	0	-12.4000	0
13	0	0	0	0	0.9118	0	0
14	0	0	0	-12.4000	0	0.9118	0
15	0	0	0	0	0	0	1.5418
16	0	0	0	0	0	0	-12.4000
17	0	0	0	0	0	0	8.0247
18	0	0	0	0	0	0	8.0247
19	6.5520	6.5520	6.5520	6.5520	6.5520	6.5520	6.4252

Process

Optimization

Group and optimize

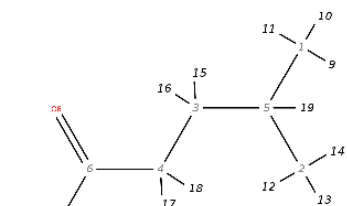
Copy selected cells

Paste cells

Swap two cells



InChI=1S/CEH12O2/c1-5/2/3-4-6/7/8/h5H,3-4H2,1-2H3,(H,7,8)



Close

Show 2D figure

Water region (PPM):

4.6 5

☒ delete water region

DSS region (PPM):

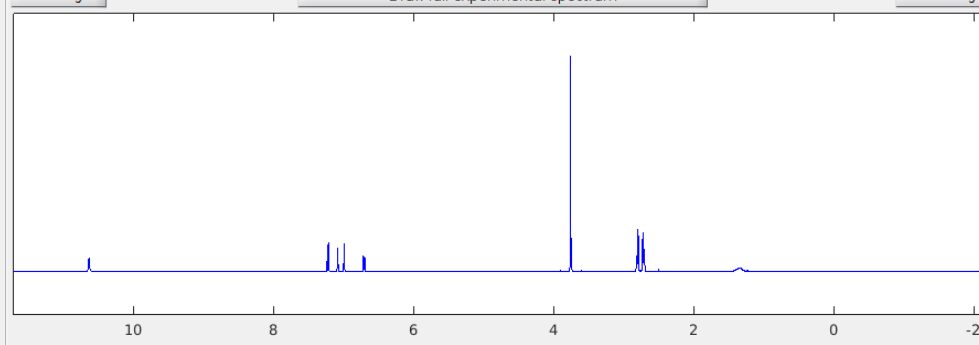
-0.1 0.1

☒ delete DSS region

Get integral

Draw full experimental spectrum

Reset integ...



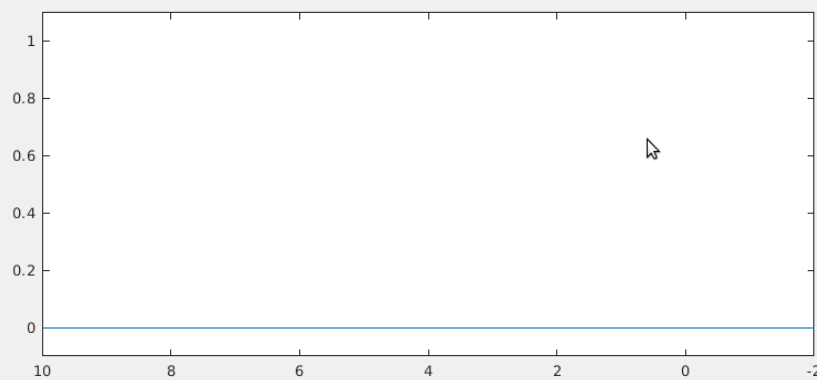
database entries: bmse000626(5\_methoxytryptamine)-Initialvalues

Load

ROI region:

-1 to 12

get ROI from exp. spectrum



☒ Save automatically

simulation info

5\_methoxytryptamine(merged)

	15	16	17	18	19	20	21
15	3.8264	0	0	0	0	0	0
16	0	3.8264	-12.4000	0	0	0	0
17	0	-12.4000	3.8264	0	0	0	0
18	0	0	0	6.7301	8.4300	0	0
19	0	0	0	8.4300	7.2147	0	0
20	0	0	0	0	0	2.9464	-12.4000
21	0	0	0	0	0	-12.4000	2.9464
22	0	0	0	0	0	5.8000	5.8000
23	0	0	0	0	0	5.8000	5.8000
24	0	0	0	1.3300	0.5000	0	0
25	0	0	0	0	0	1.3300	1.3300

Process

Optimization

Group and optimize

Copy selected cells

Paste cells

Swap two cells