Electronic Supplementary Material (ESI) for RSC Advances.
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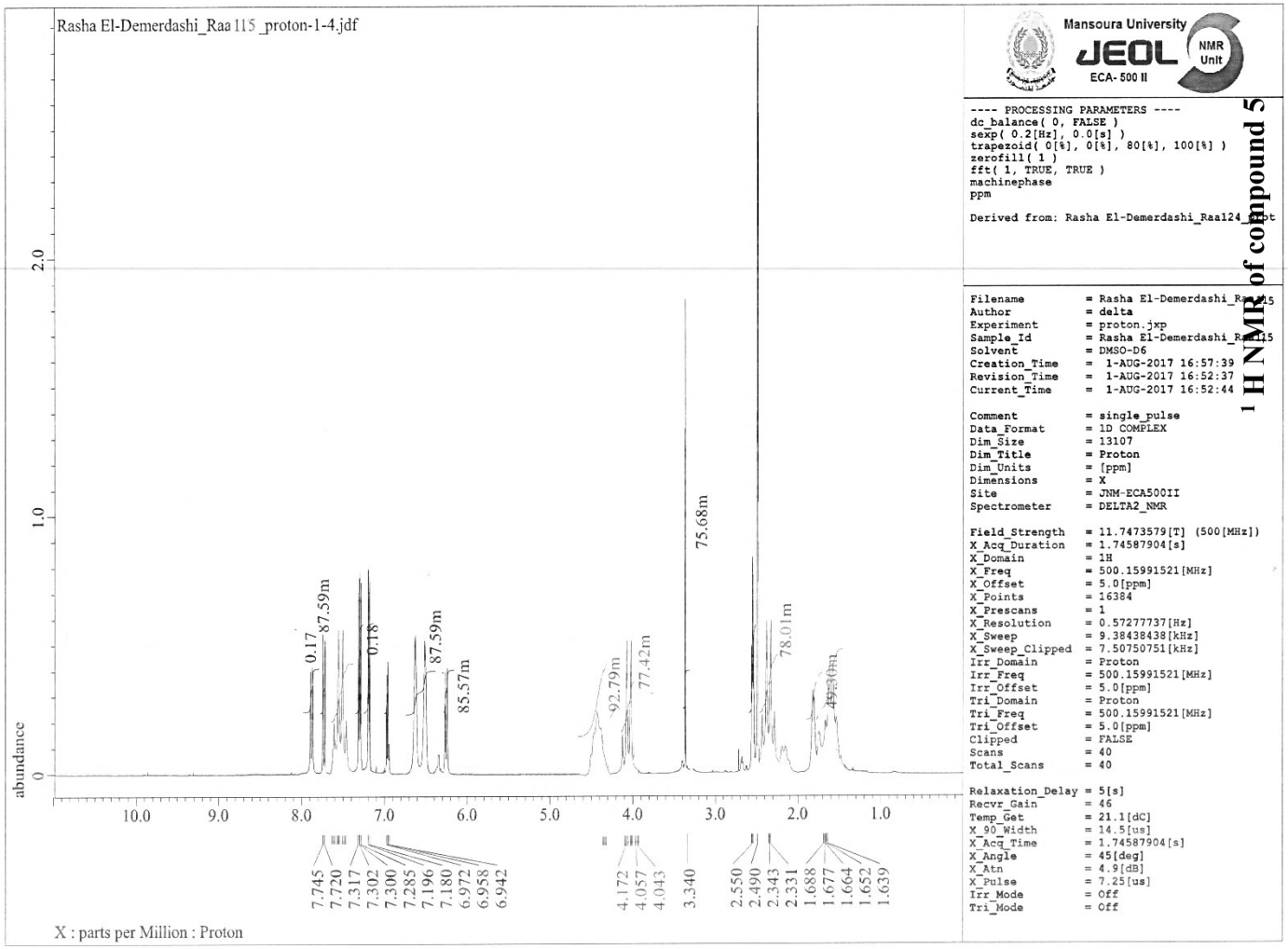
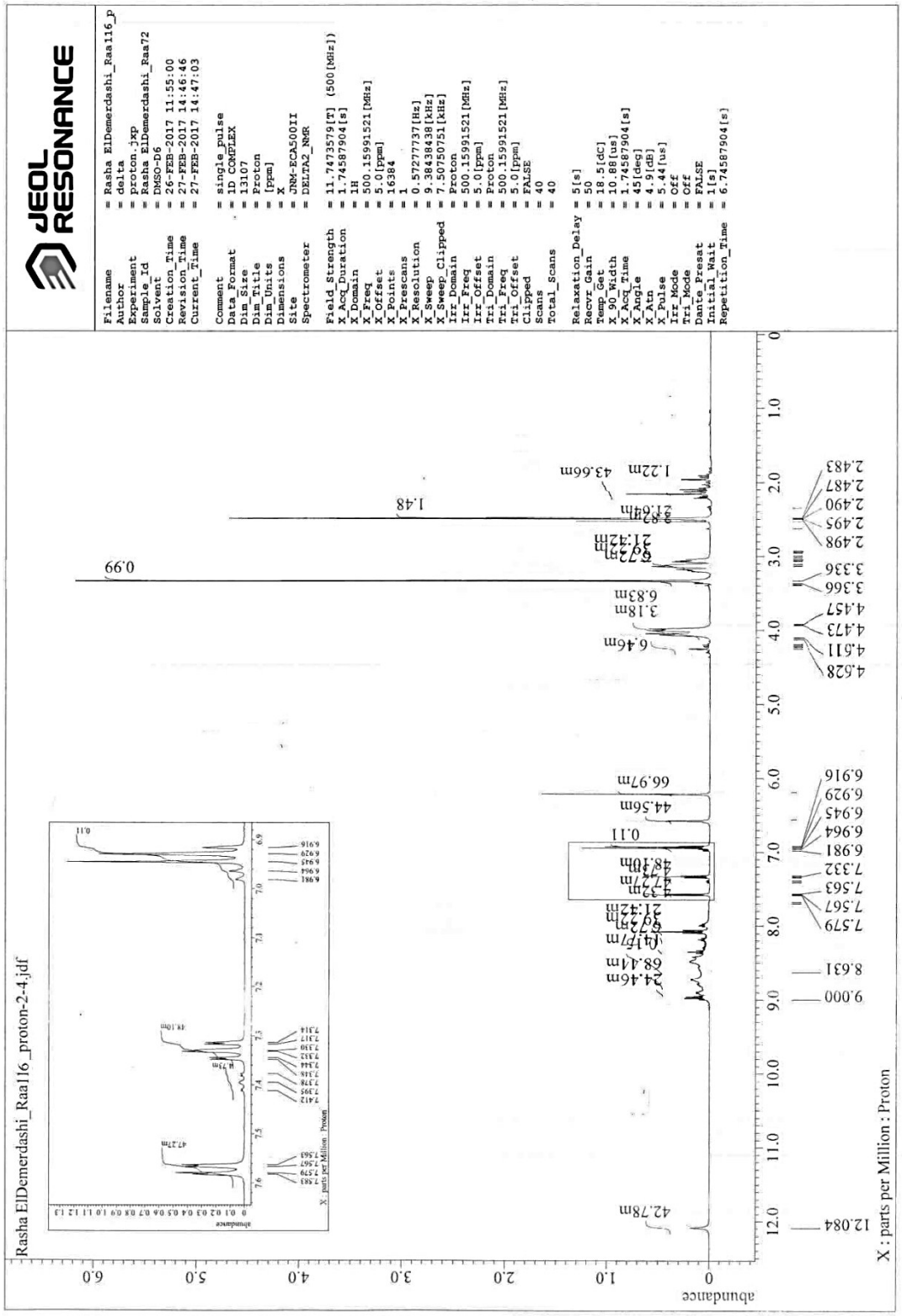


Mansoura University
JEOL ECA-500 II
NMR Unit

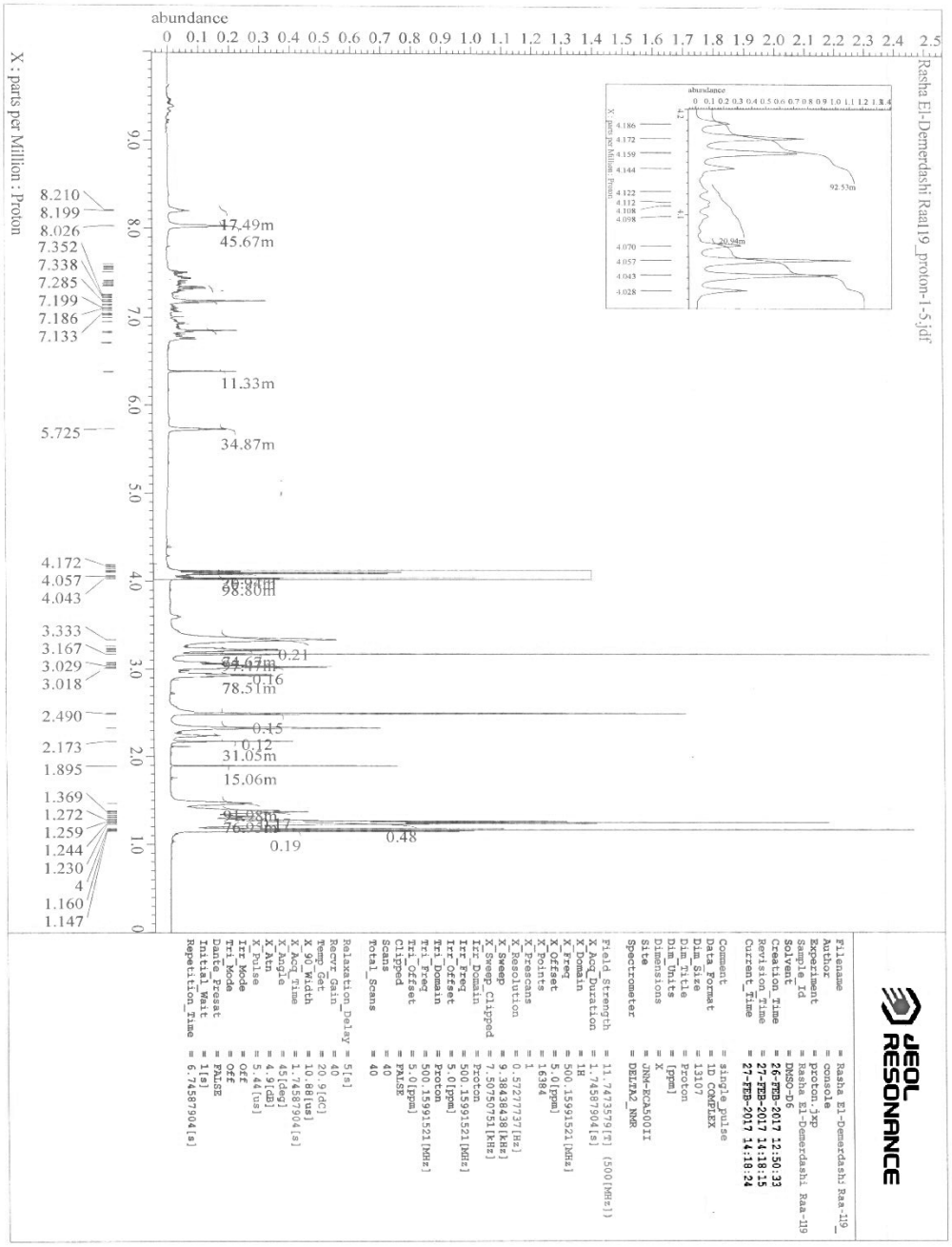
```
---- PROCESSING PARAMETERS ----
dc_balance( 0, FALSE )
sexp( 0.2[Hz], 0.0[s] )
trapezoid( 0[%], 0[%], 80[%], 100[%] )
zerofill( 1 )
fft( 1, TRUE, TRUE )
machinephase
ppm

Derived from: Rasha El-Demerdashi_Raa124_prot
```

```
Filename          = Rasha El-Demerdashi_Raa115
Author            = delta
Experiment        = proton.jxp
Sample_Id         = Rasha El-Demerdashi_Raa115
Solvent           = DMSO-D6
Creation_Time     =  1-AUG-2017 16:57:39
Revision_Time     =  1-AUG-2017 16:52:37
Current_Time      =  1-AUG-2017 16:52:44

Comment           = single_pulse
Data_Format       = 1D COMPLEX
Dim_Size          = 13107
Dim_Title         = Proton
Dim_Units         = [ppm]
Dimensions        = X
Site              = JNM-ECA500II
Spectrometer      = DELTA2_NMR

Field_Strength    = 11.7473579[T]  (500[MHz])
X_Acq_Duration    = 1.74587904[s]
X_Domain          = 1H
X_Freq            = 500.15991521[MHz]
X_Offset          = 5.0[ppm]
X_Points          = 16384
X_Prescans        = 1
X_Resolution      = 0.57277737[Hz]
X_Sweep           = 9.38438438[kHz]
X_Sweep_Clipped   = 7.50750751[kHz]
Irr_Domain        = Proton
Irr_Freq          = 500.15991521[MHz]
Irr_Offset        = 5.0[ppm]
Tri_Domain        = Proton
Tri_Freq          = 500.15991521[MHz]
Tri_Offset        = 5.0[ppm]
Clipped           = FALSE
Scans             = 40
Total_Scans       = 40

Relaxation_Delay  = 5[s]
Recvr_Gain        = 46
Temp_Get          = 21.1[dC]
X_90_Width        = 14.5[us]
X_Acq_Time        = 1.74587904[s]
X_Angle           = 45[deg]
X_Atn             = 4.9[dB]
X_Pulse           = 7.25[us]
Irr_Mode          = Off
Tri_Mode          = Off
```

^{1}H NMR of compound 5



^{1}H NMR of compound 6



^{1}H NMR of compound 7

Rasha El-Demerdashi_Raa118 _proton-1-4.jdf

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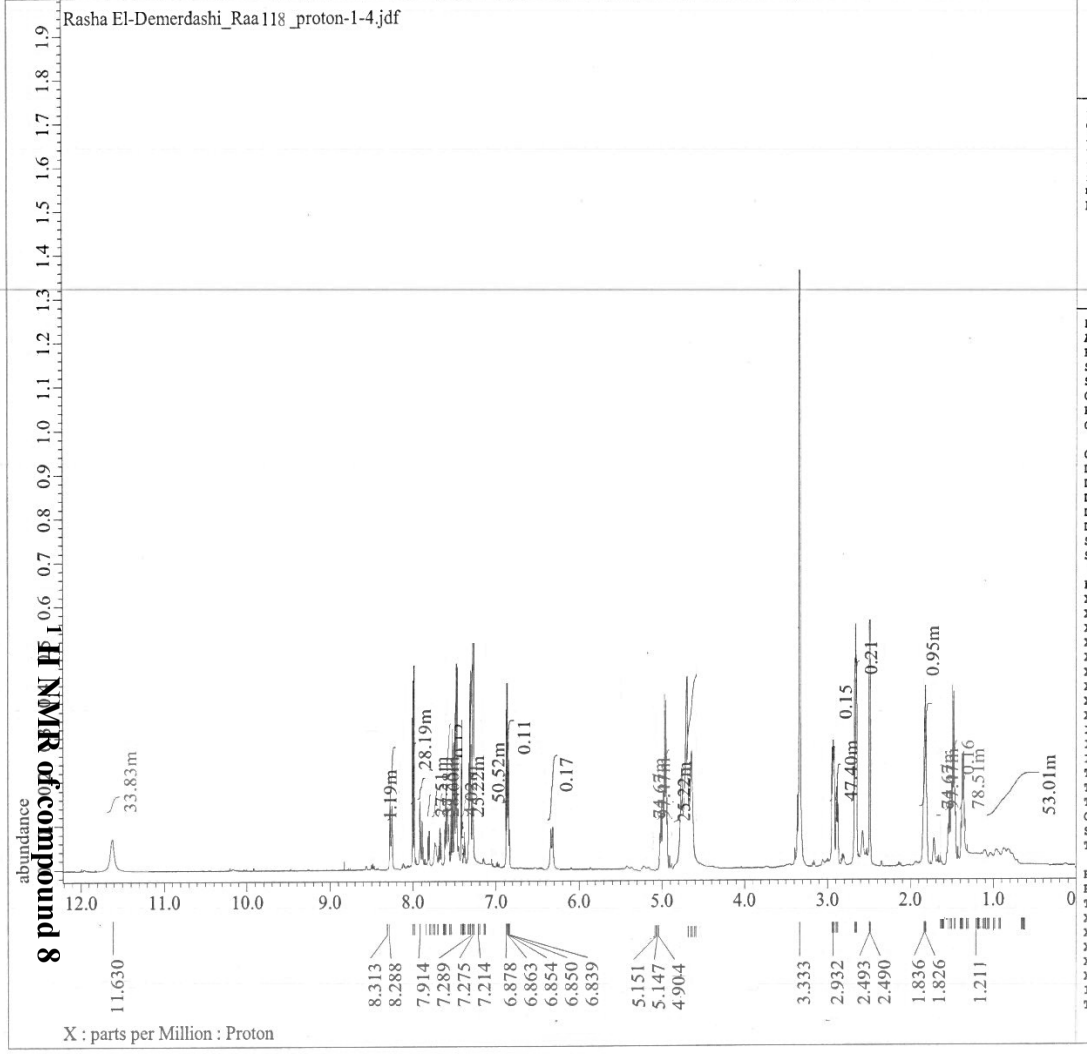
1H NMR of compound 8



X : parts per Million : Proton

```
---- PROCESSING PARAMETERS ----
dc_balance( 0, FALSE )
sexp( 0.2[Hz], 0.0[s] )
trapezoid( 0[%], 0[%], 80[%], 100[%] )
zerofill( 1 )
fft( 1, TRUE, TRUE )
machinephase
ppm
```

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Filename          = Rasha El-Demerdashi_Raa118
Author            = delta
Experiment        = proton.jxp
Sample_Id         = Rasha El-Demerdashi_Raa118
Solvent           = DMSO-D6
Creation_Time     =  1-AUG-2017 17:20:16
Revision_Time     = 15-AUG-2017 12:40:40
Current_Time      = 15-AUG-2017 12:41:07

Comment           = single_pulse
Data_Format       = 1D COMPLEX
Dim_Size          = 13107
Dim_Title         = Proton
Dim_Units         = [ppm]
Dimensions        = X
Site              = JNM-ECA500II
Spectrometer      = DELTA2_NMR

Field_Strength    = 11.7473579[T] (500[MHz])
X_Acq_Duration    = 1.74587904[s]
X_Domain          = 1H
X_Freq            = 500.15991521[MHz]
X_Offset          = 5.0[ppm]
X_Points          = 16384
X_Prescans        = 1
X_Resolution      = 0.57277737[Hz]
X_Sweep           = 9.38438438[kHz]
X_Sweep_Clipped   = 7.50750751[kHz]
Irr_Domain        = Proton
Irr_Freq          = 500.15991521[MHz]
Irr_Offset        = 5.0[ppm]
Tri_Domain        = Proton
Tri_Freq          = 500.15991521[MHz]
Tri_Offset        = 5.0[ppm]
Clipped           = FALSE
Scans             = 40
Total_Scans       = 40

Relaxation_Delay  = 5[s]
Recvr_Gain        = 44
Temp_Get          = 20.9[dC]
X_90_Width        = 14.5[us]
X_Acq_Time        = 1.74587904[s]
X_Angle           = 45[deg]
X_Atn             = 4.9[dB]
X_Pulse           = 7.25[us]
Irr_Mode          = Off
Tri_Mode          = Off
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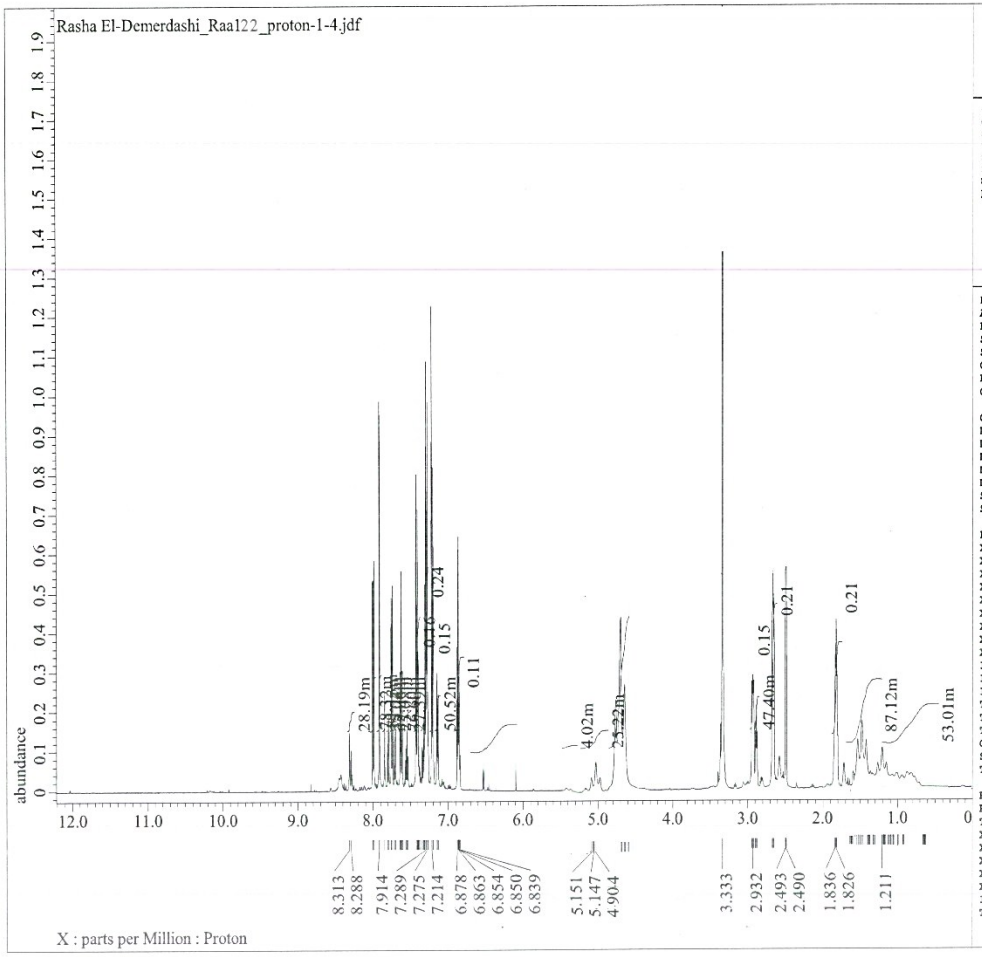

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```
---- PROCESSING PARAMETERS ----
dc_balance( 0, FALSE )
sexp( 0.2[Hz], 0.0[s] )
trapezoid( 0[%], 0[%], 80[%], 100[%] )
zerofill( 1 )
fft( 1, TRUE, TRUE )
machinephase
ppm
```

```
Filename          = Rasha El-Demerdashi_Raa122
Author            = delta
Experiment        = proton.jxp
Sample_Id         = Rasha El-Demerdashi_Raa122
Solvent           = DMSO-D6
Creation_Time     =  1-AUG-2017 17:20:16
Revision_Time     = 15-AUG-2017 12:40:40
Current_Time      = 15-AUG-2017 12:41:07

Comment           = single_pulse
Data_Format       = 1D COMPLEX
Dim_Size          = 13107
Dim_Title         = Proton
Dim_Units         = [ppm]
Dimensions        = X
Site              = JNM-ECA500II
Spectrometer      = DELTA2_NMR

Field_Strength    = 11.7473579[T] (500[MHz])
X_Acq_Duration    = 1.74587904[s]
X_Domain          = 1H
X_Freq            = 500.15991521[MHz]
X_Offset          = 5.0[ppm]
X_Points          = 16384
X_Prescans        = 1
X_Resolution      = 0.57277737[Hz]
X_Sweep           = 9.38438438[kHz]
X_Sweep_Clipped   = 7.50750751[kHz]
Irr_Domain        = Proton
Irr_Freq          = 500.15991521[MHz]
Irr_Offset        = 5.0[ppm]
Tri_Domain        = Proton
Tri_Freq          = 500.15991521[MHz]
Tri_Offset        = 5.0[ppm]
Clipped           = FALSE
Scans             = 40
Total_Scans       = 40

Relaxation_Delay  = 5[s]
Recvr_Gain        = 44
Temp_Get          = 20.9[dC]
X_90_Width        = 14.5[us]
X_Acq_Time        = 1.74587904[s]
X_Angle           = 45[deg]
X_Atn             = 4.9[dB]
X_Pulse           = 7.25[us]
Irr_Mode          = Off
Tri_Mode          = Off
```

^{1}H NMR of compound 9