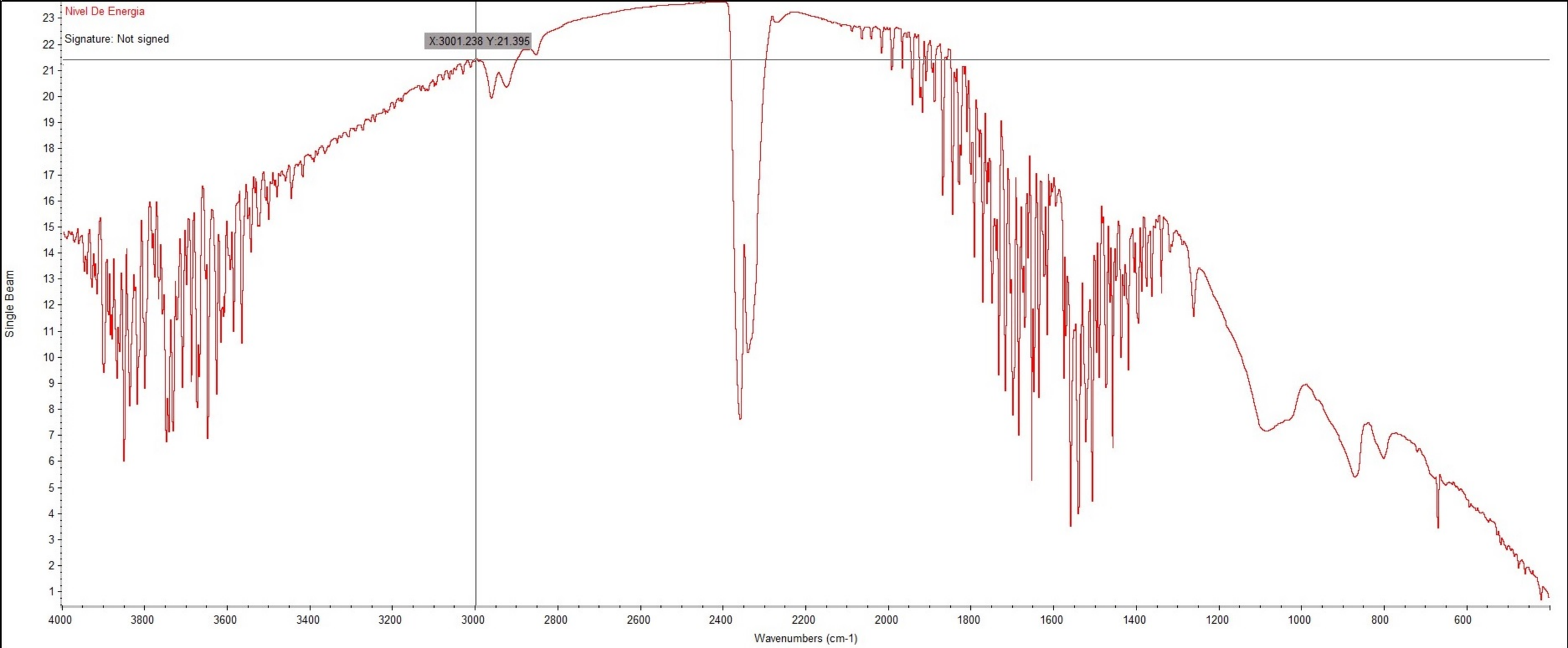
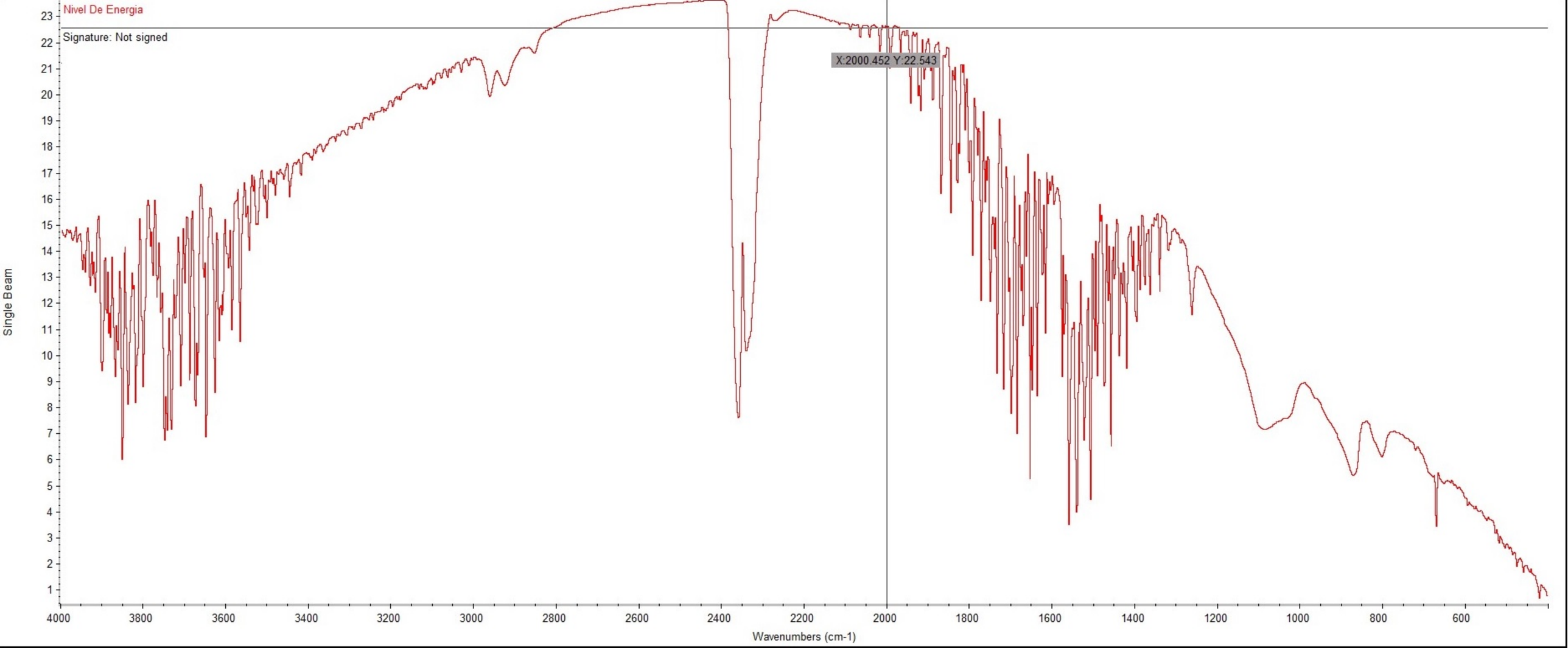
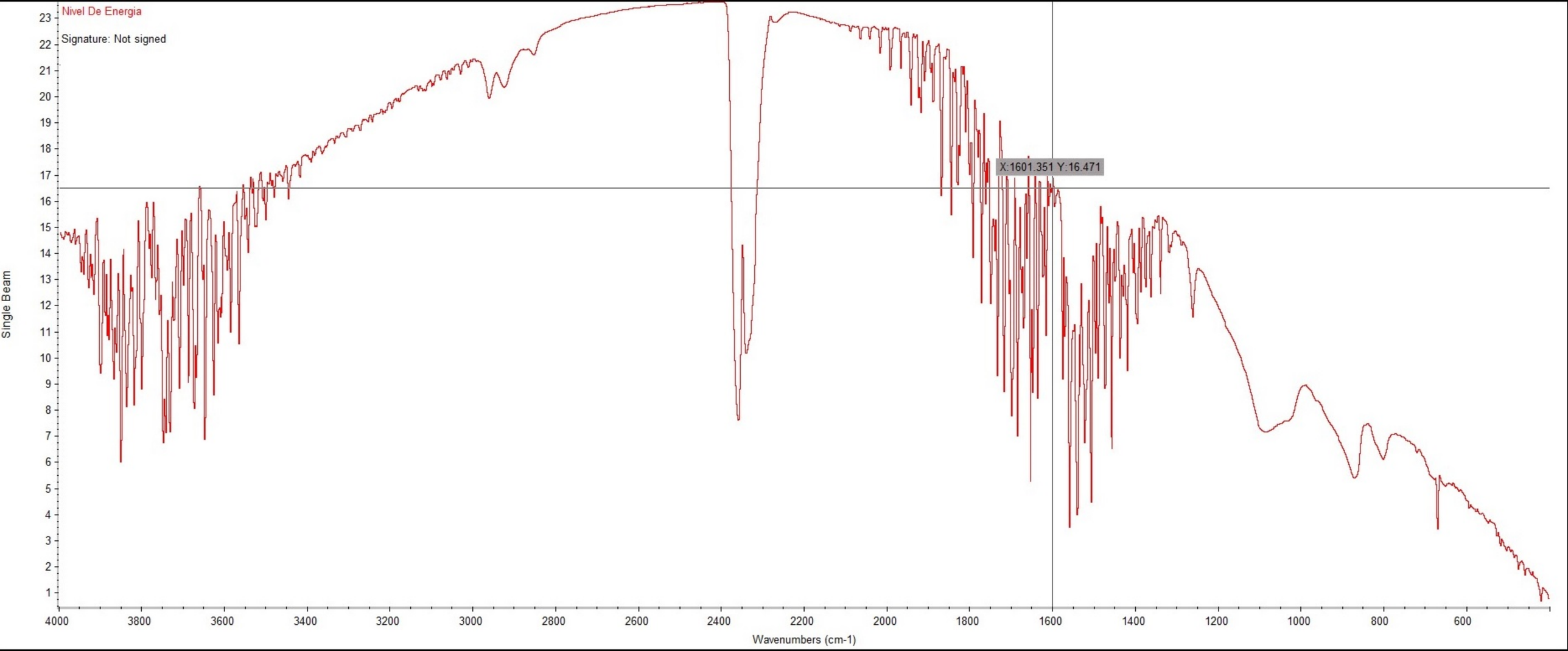
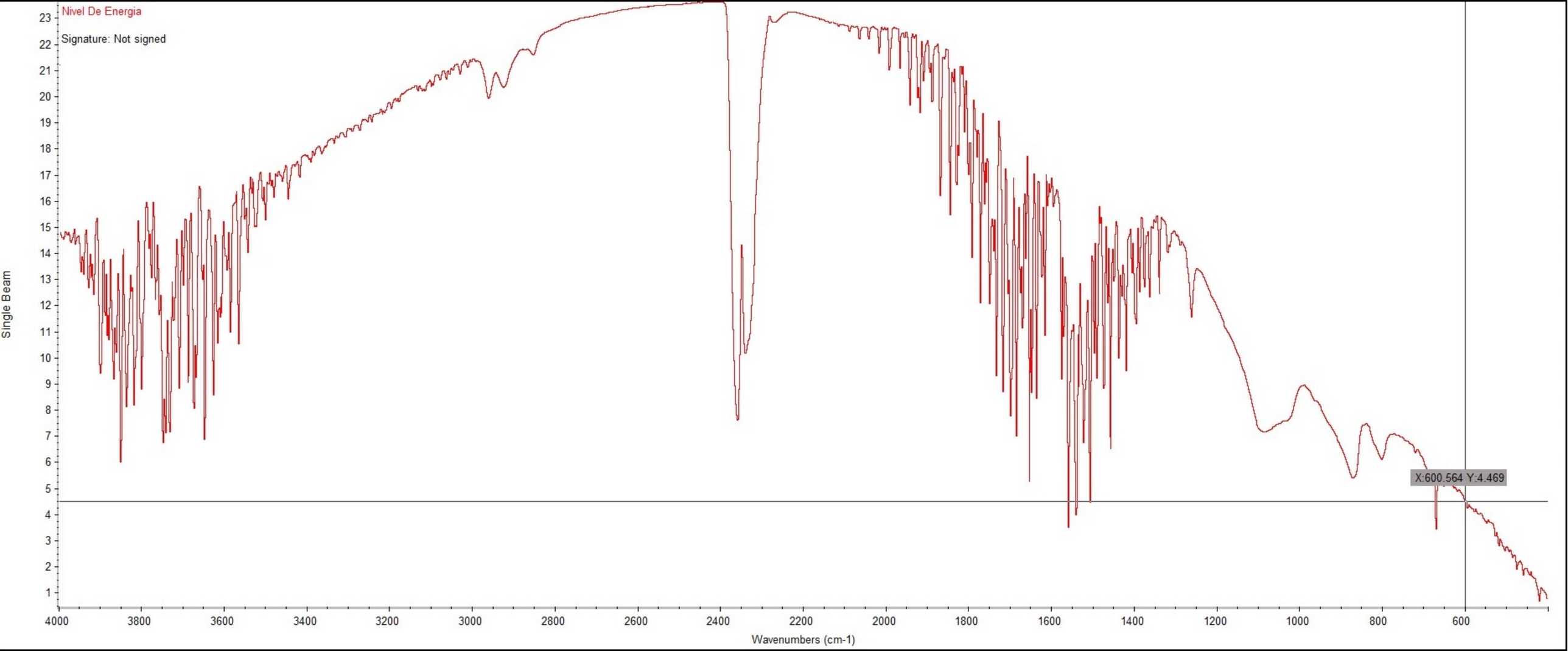
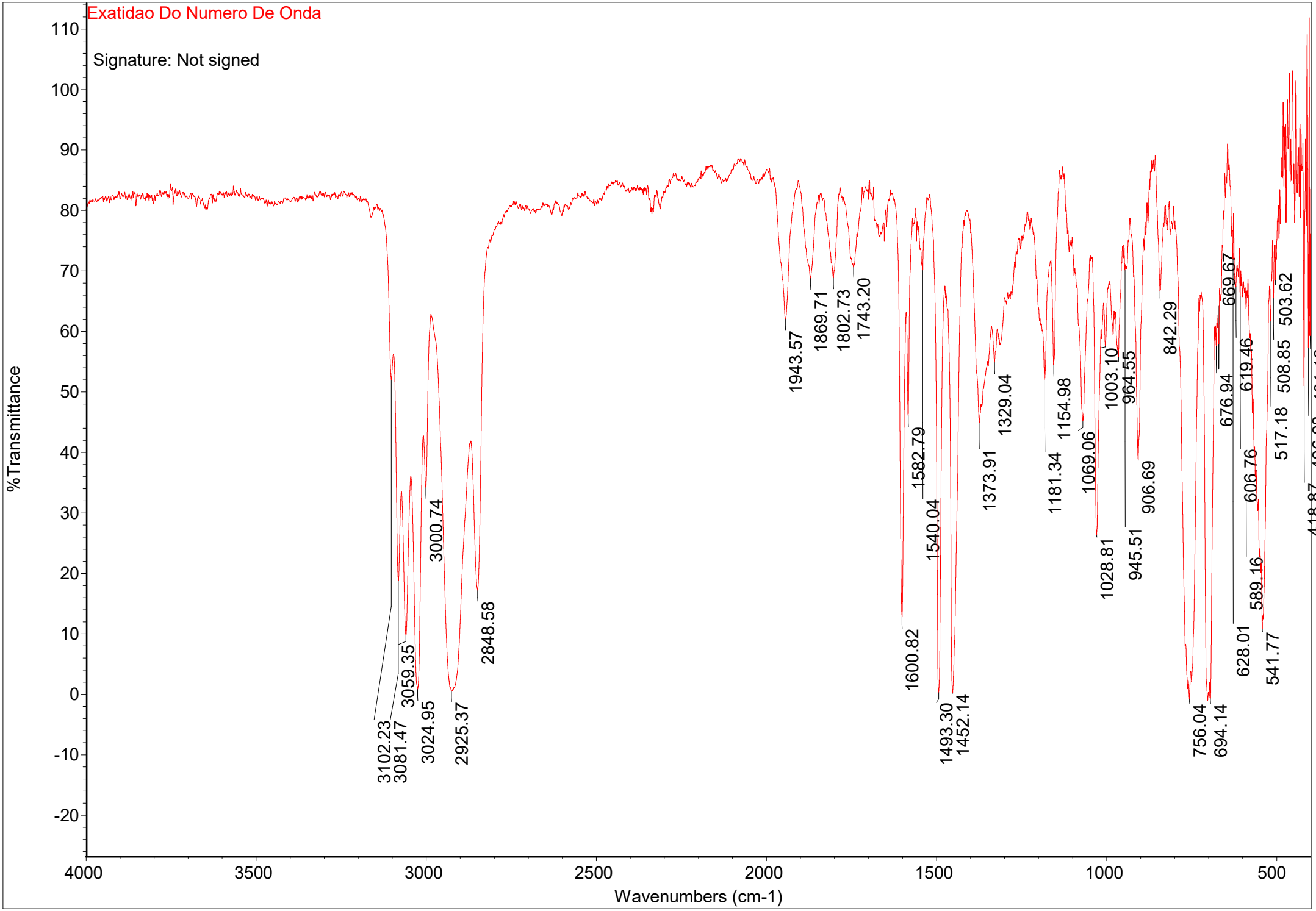
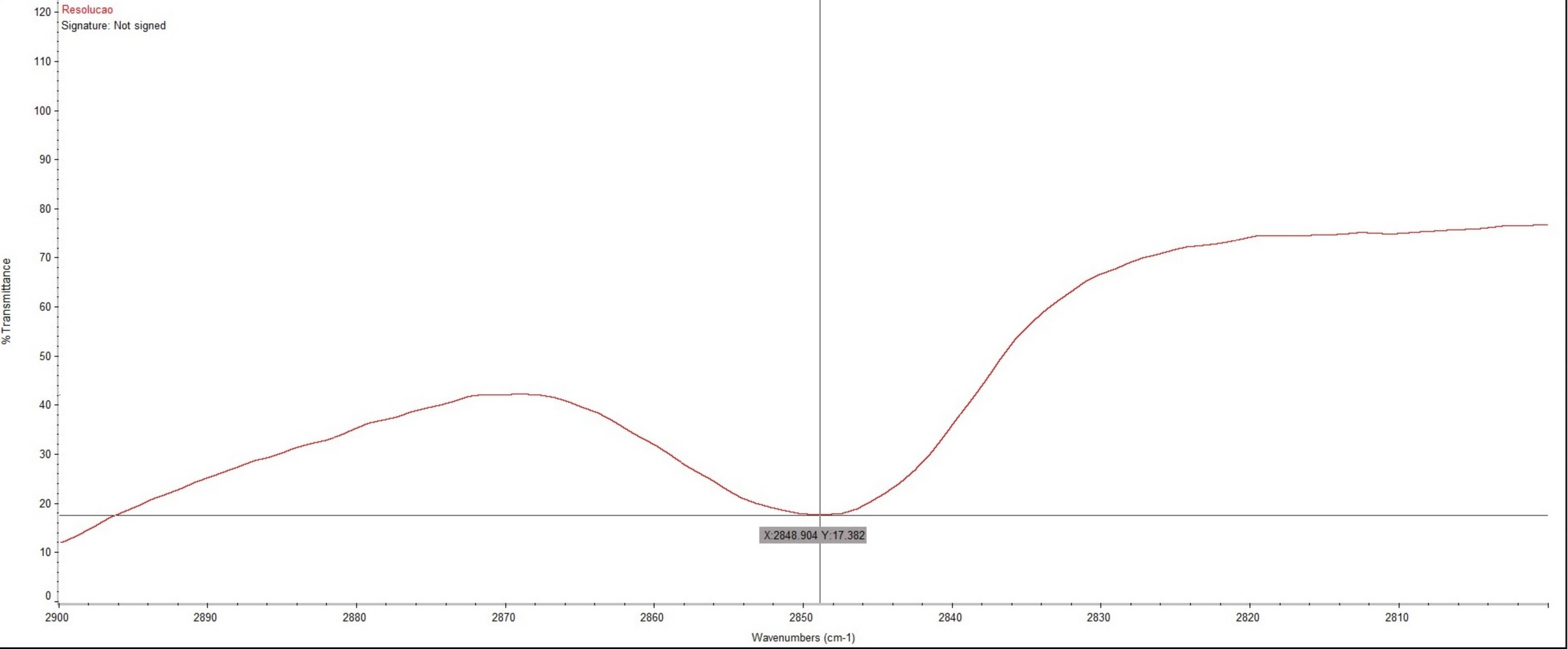

Nivel De Energia
Signature: Not signed
X:3001.238 Y:21.395
Single Beam
Wavenumbers (cm-1)
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600

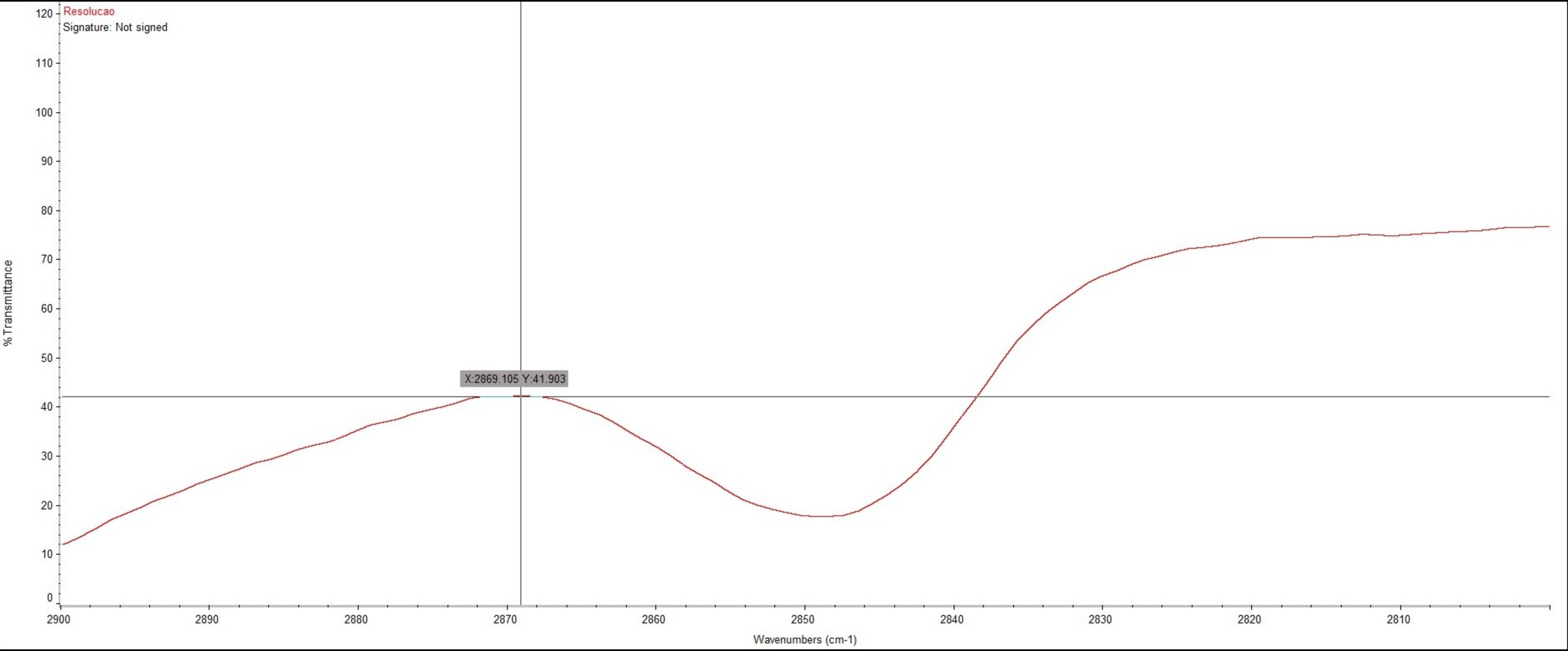

Nivel De Energia
Signature: Not signed
X:2000.452 Y:22.543
Single Beam
Wavenumbers (cm-1)
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600

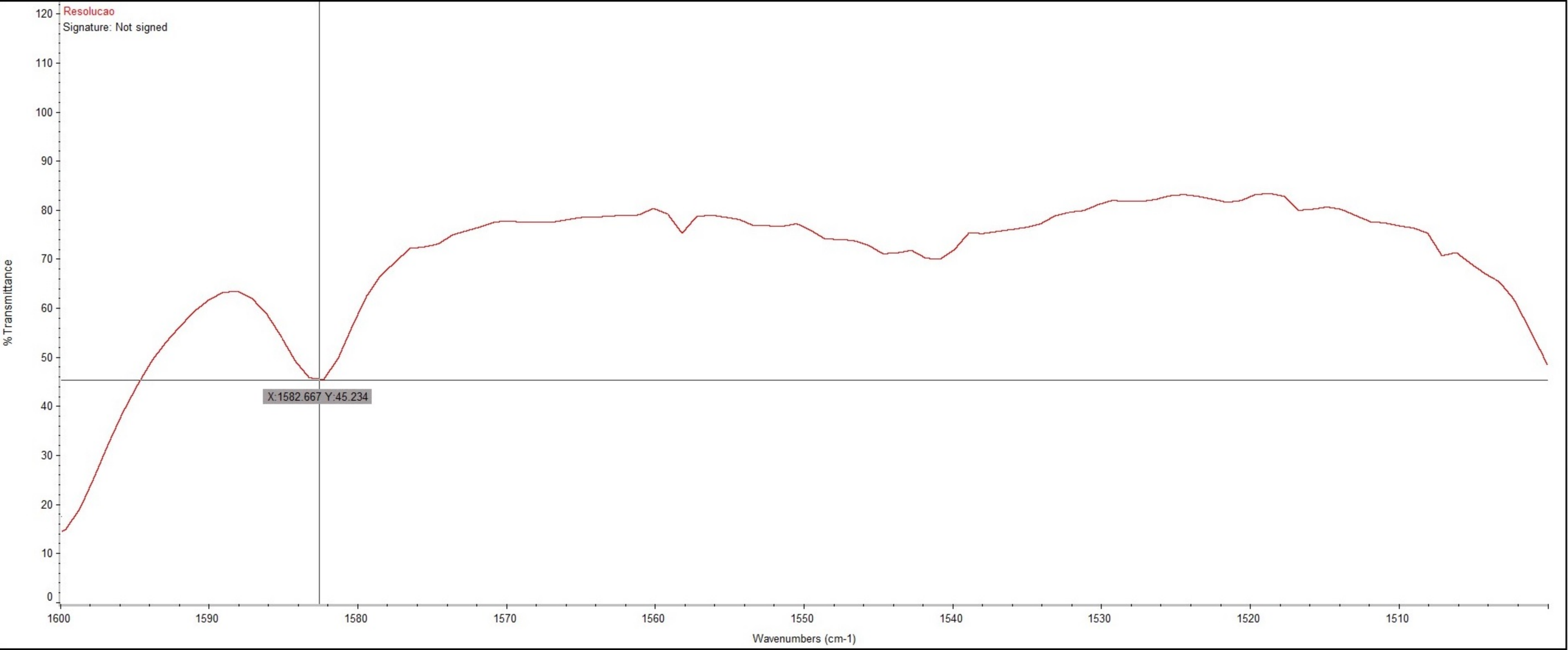

Nivel De Energia
Signature: Not signed
X:1601.351 Y:16.471
Single Beam
Wavenumbers (cm-1)
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600

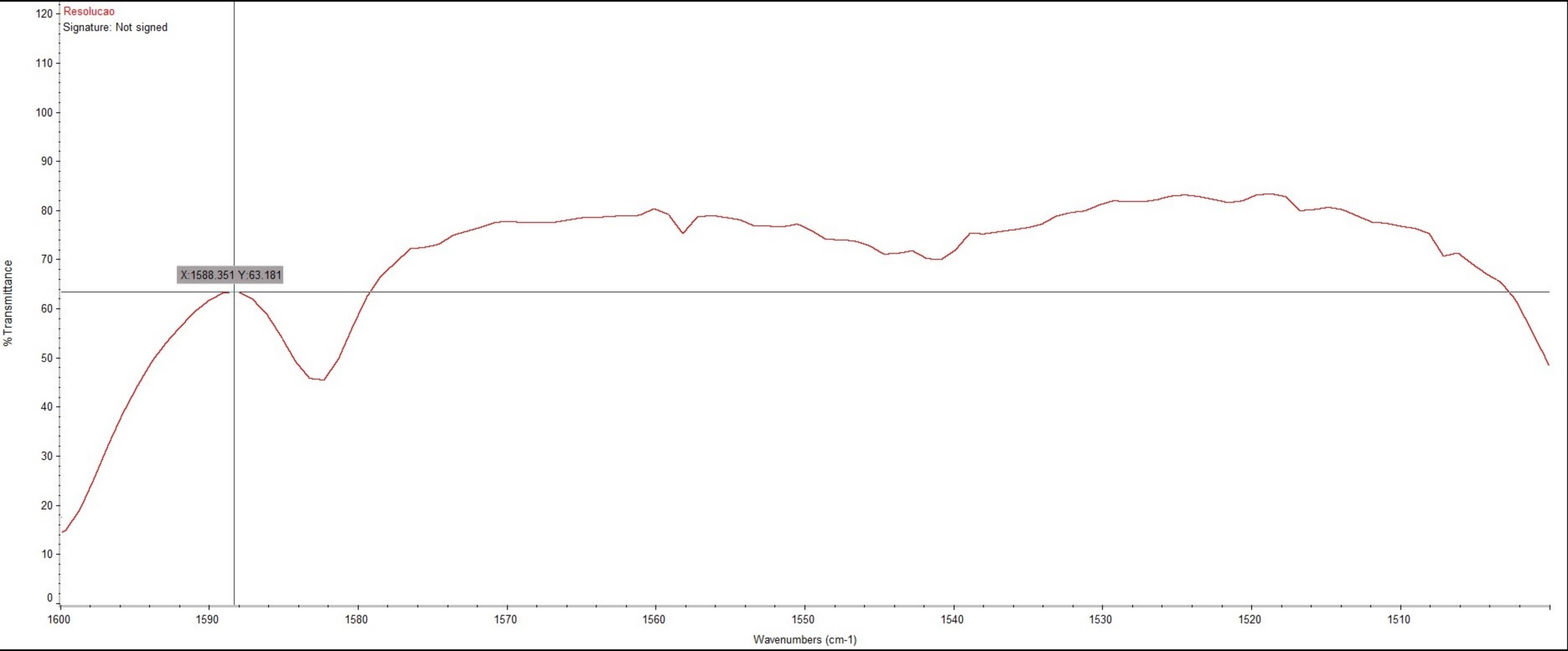

Nivel De Energia
Signature: Not signed
Single Beam
Wavenumbers (cm-1)
X:600.564 Y:4.469

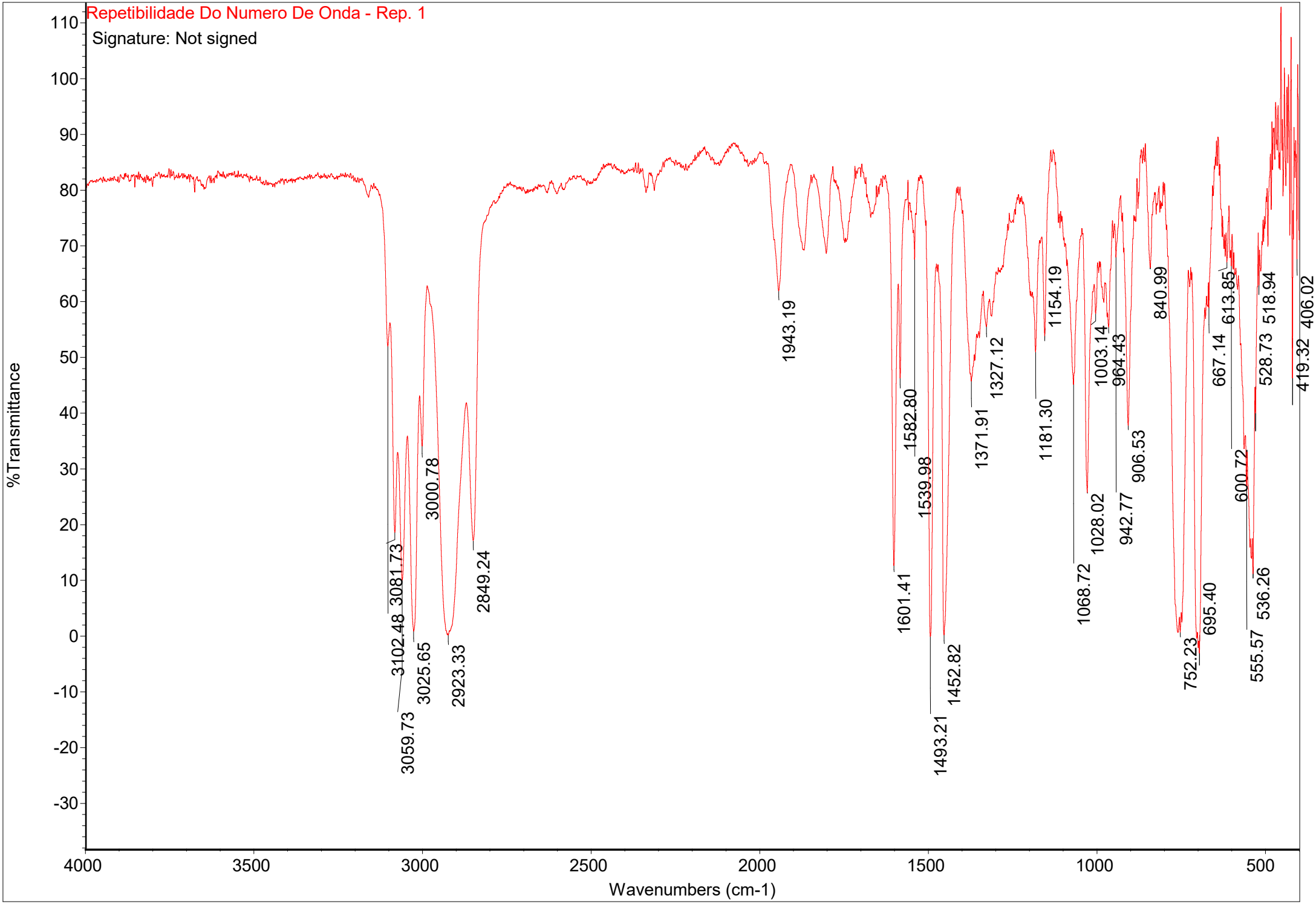

Exatidao Do Numero De Onda
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
4000
3500
3000
2500
2000
1500
1000
500
3102.23
3081.47
3059.35
3024.95
3000.74
2925.37
2848.58
1943.57
1869.71
1802.73
1743.20
1600.82
1582.79
1540.04
1493.30
1452.14
1373.91
1329.04
1181.34
1154.98
1069.06
1028.81
1003.10
964.55
945.51
906.69
842.29
756.04
694.14
676.94
669.67
628.01
619.46
606.76
589.16
541.77
517.18
508.85
503.62
418.87
406.08
401.12

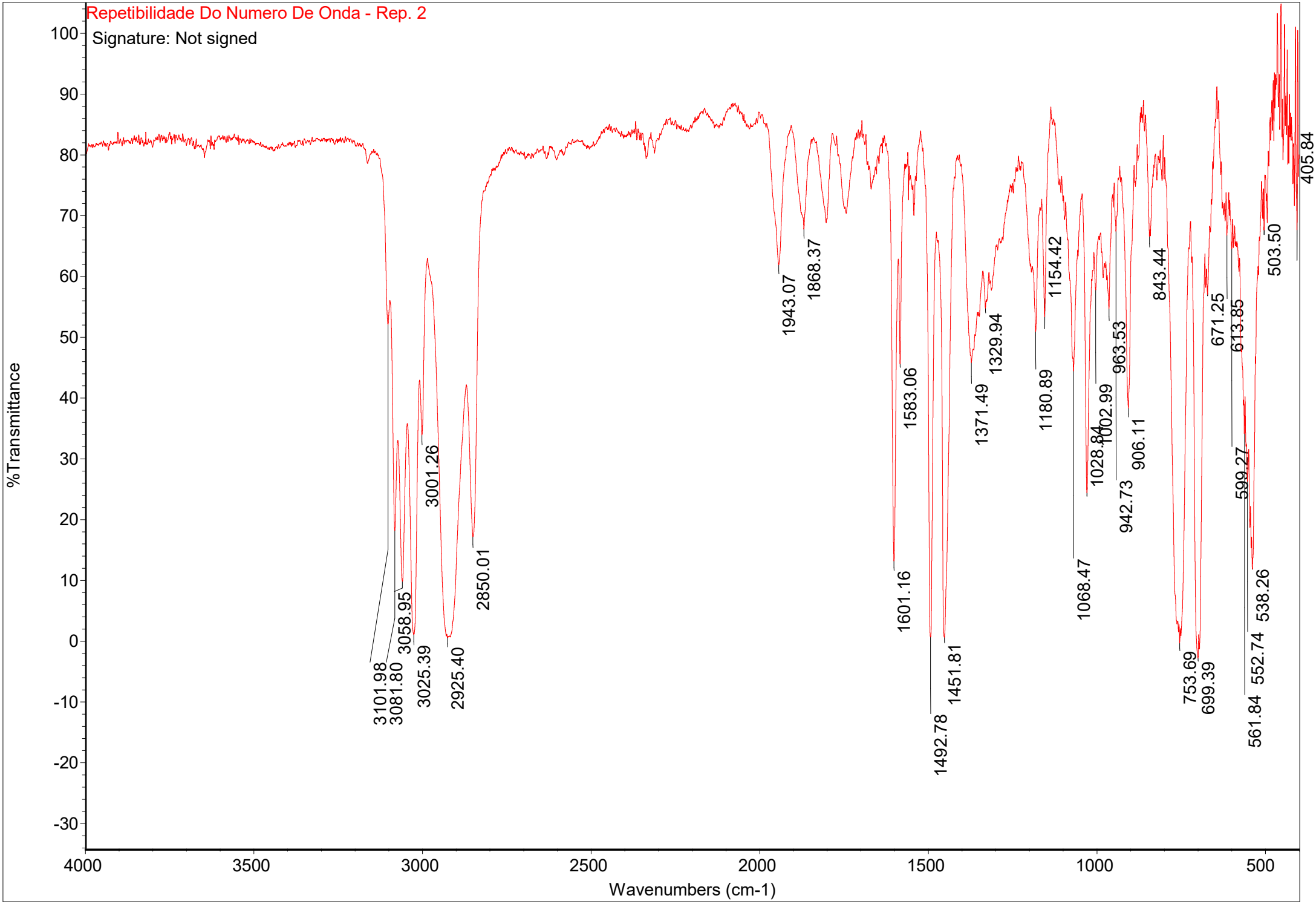

Resolucao
Signature: Not signed
% Transmittance
120
110
100
90
80
70
60
50
40
30
20
10
0
X:2848.904 Y:17.382
2900
2890
2880
2870
2860
2850
2840
2830
2820
2810
Wavenumbers (cm-1)

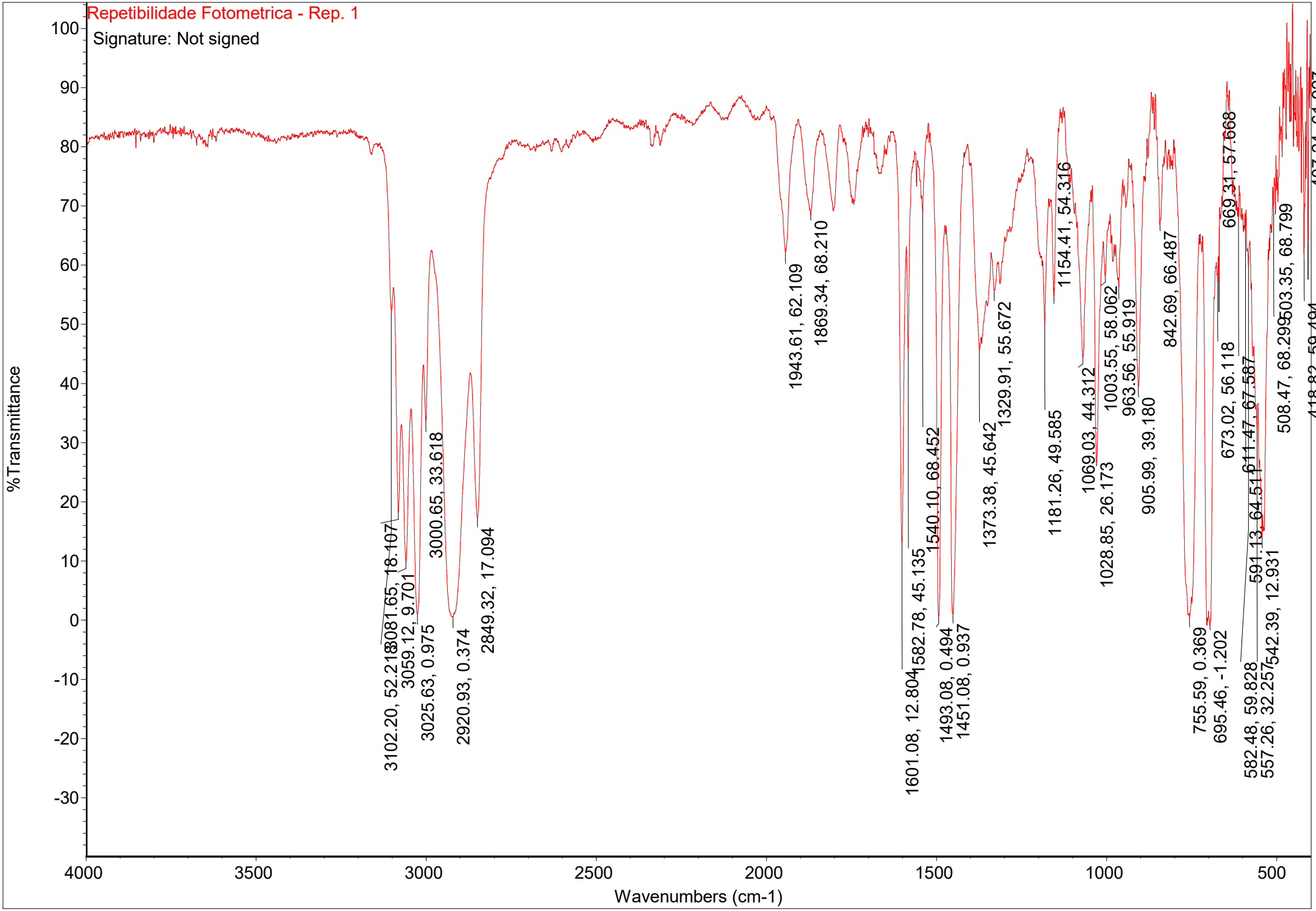

Resolucao
Signature: Not signed
X:2869.105 Y:41.903
% Transmittance
Wavenumbers (cm-1)
120
110
100
90
80
70
60
50
40
30
20
10
0
2900
2890
2880
2870
2860
2850
2840
2830
2820
2810


Resolucao
Signature: Not signed
120
110
100
90
80
70
60
50
40
30
20
10
0
% Transmittance
X:1582.667 Y:45.234
1600
1590
1580
1570
1560
1550
1540
1530
1520
1510
Wavenumbers (cm-1)

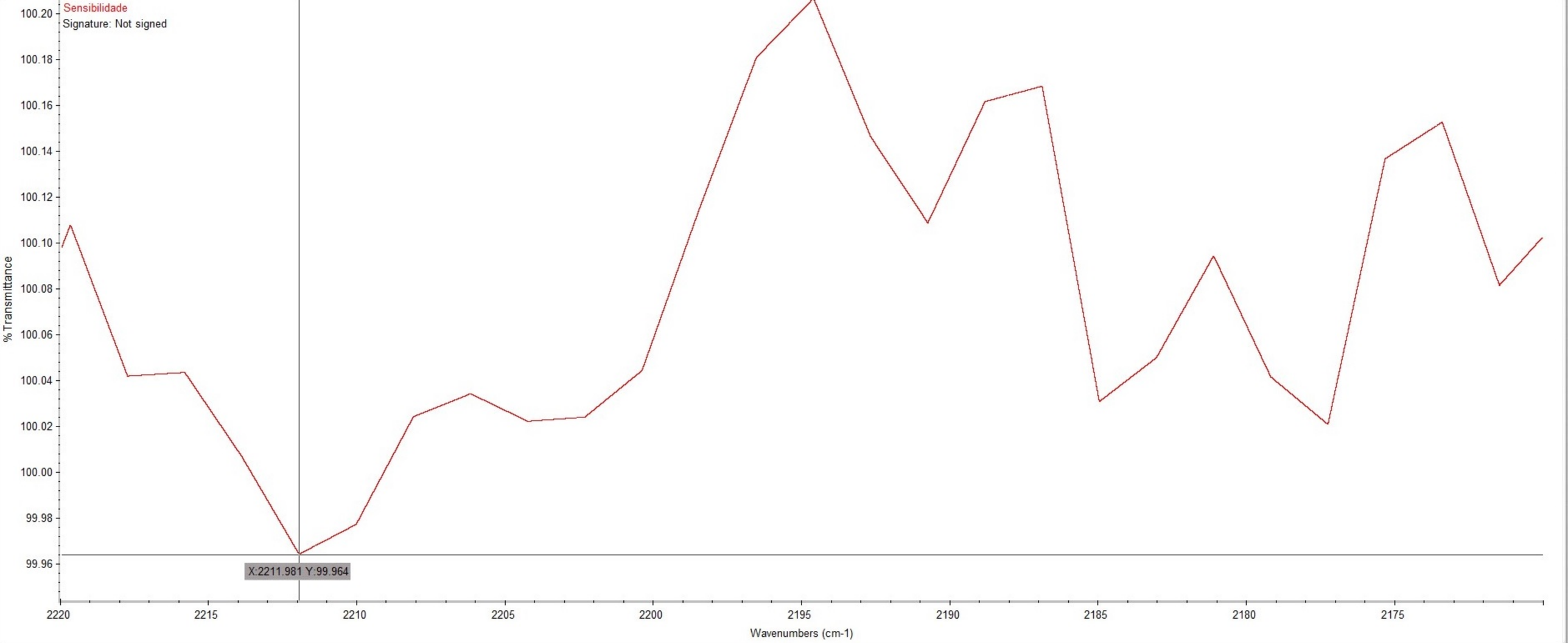

Resolucao
Signature: Not signed
X:1588.351 Y:63.181
% Transmittance
120
110
100
90
80
70
60
50
40
30
20
10
0
1600
1590
1580
1570
1560
1550
1540
1530
1520
1510
Wavenumbers (cm-1)

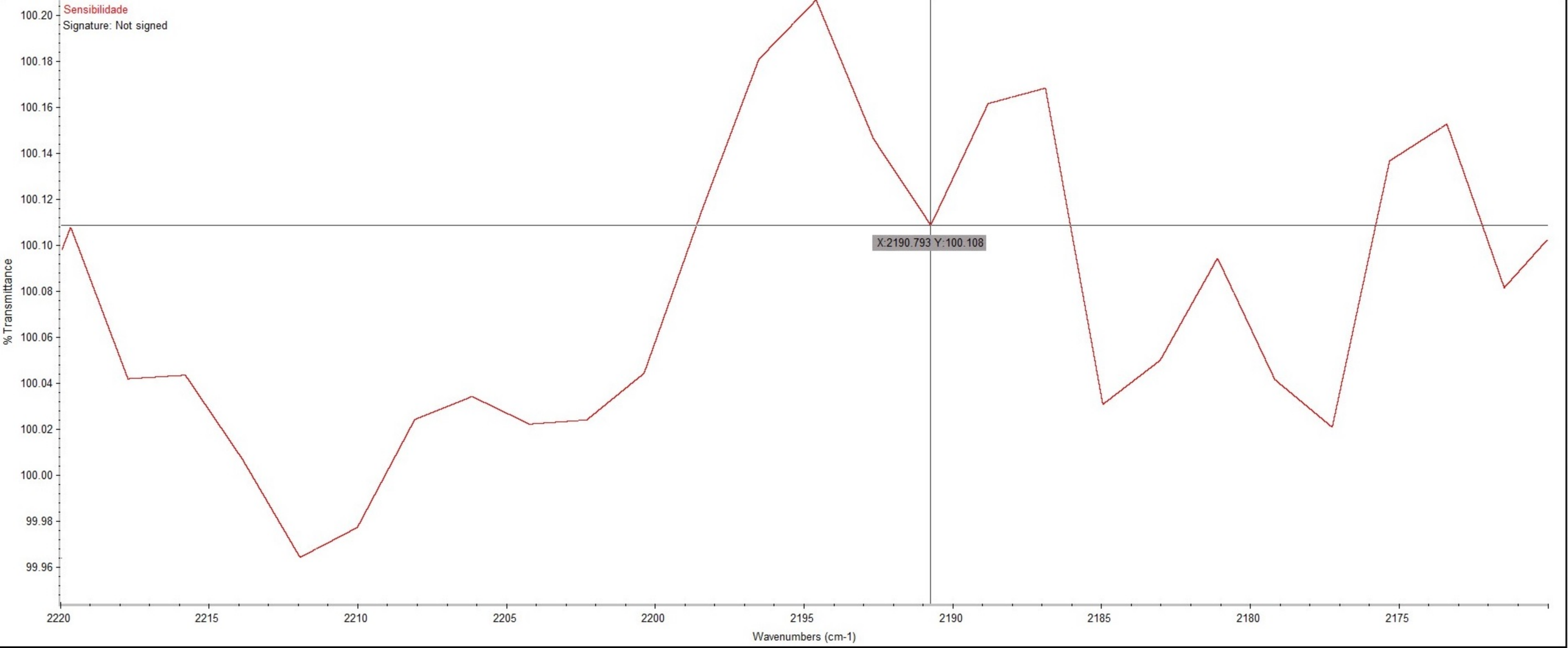

Repetibilidade Do Numero De Onda - Rep. 1
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
4000
3500
3000
2500
2000
1500
1000
500
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
3102.48
3081.73
3059.73
3025.65
3000.78
2923.33
2849.24
1943.19
1601.41
1582.80
1539.98
1493.21
1452.82
1371.91
1327.12
1181.30
1154.19
1068.72
1028.02
1003.14
964.43
942.77
906.53
840.99
752.23
695.40
667.14
613.85
600.72
555.57
536.26
528.73
518.94
419.32
406.02

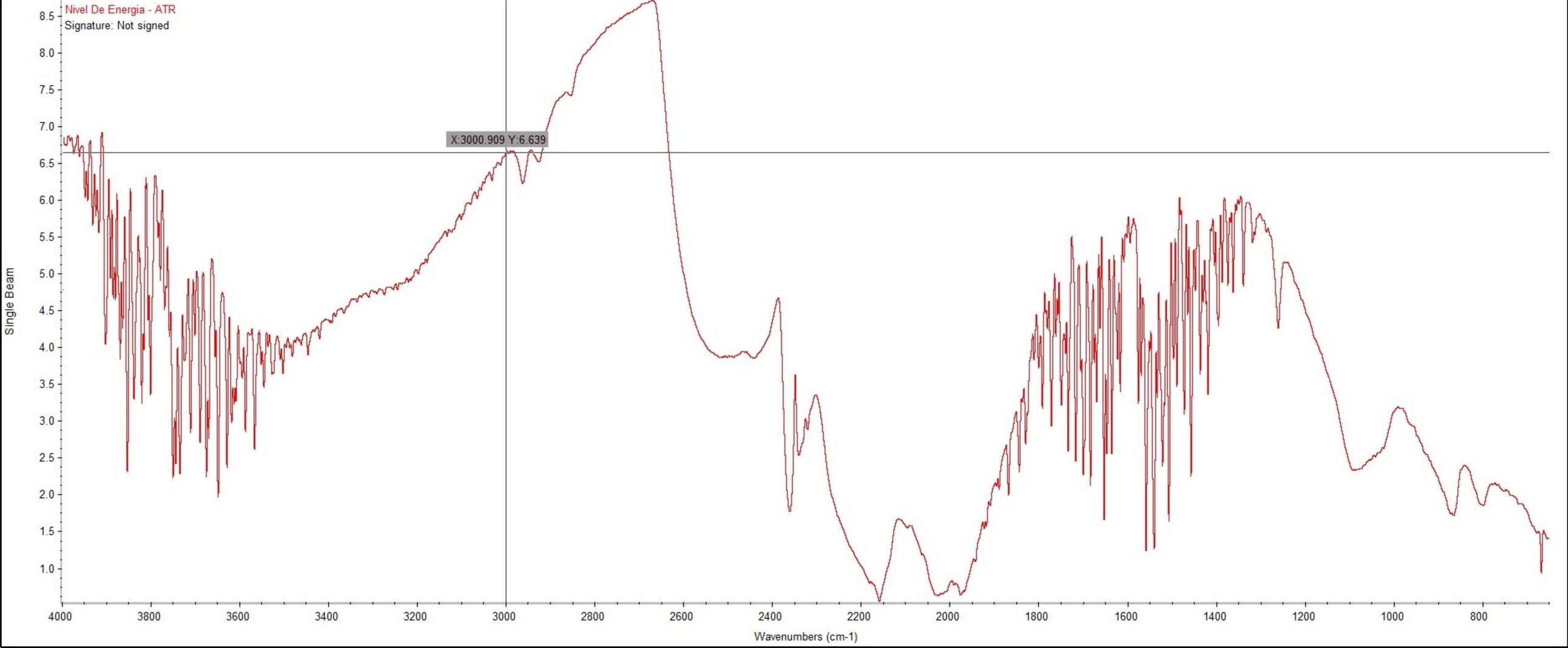

Repetibilidade Do Numero De Onda - Rep. 2
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
4000
3500
3000
2500
2000
1500
1000
500
3101.98
3081.80
3058.95
3025.39
3001.26
2925.40
2850.01
1943.07
1868.37
1601.16
1583.06
1492.78
1451.81
1371.49
1329.94
1180.89
1154.42
1068.47
1028.84
1002.99
963.53
942.73
906.11
843.44
753.69
699.39
671.25
613.85
599.27
561.84
552.74
538.26
503.50
405.84

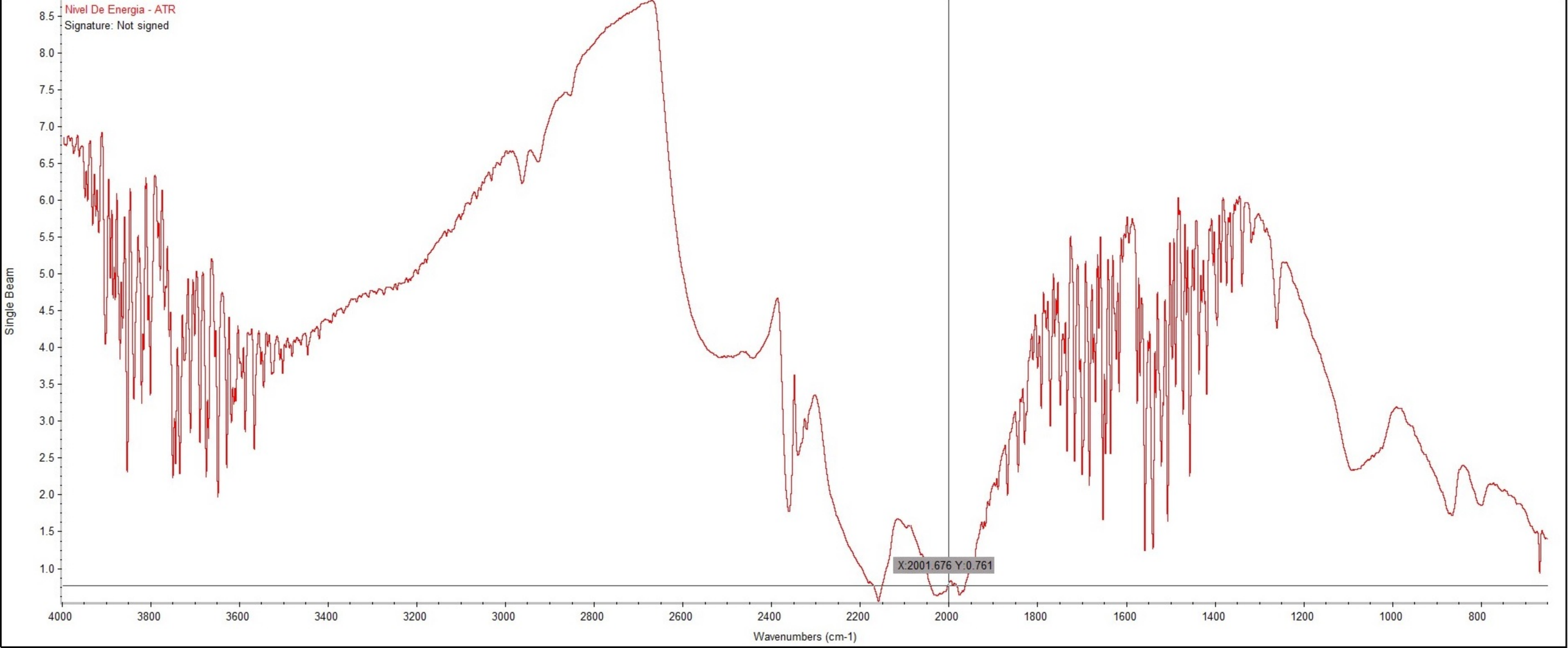

Repetibilidade Fotometrica - Rep. 1
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
4000
3500
3000
2500
2000
1500
1000
500
3102.20, 52.218
3081.65, 18.107
3059.12, 9.701
3025.63, 0.975
3000.65, 33.618
2920.93, 0.374
2849.32, 17.094
1943.61, 62.109
1869.34, 68.210
1601.08, 12.804
1582.78, 45.135
1540.10, 68.452
1493.08, 0.494
1451.08, 0.937
1373.38, 45.642
1329.91, 55.672
1181.26, 49.585
1154.41, 54.316
1069.03, 44.312
1028.85, 26.173
1003.55, 58.062
963.56, 55.919
905.99, 39.180
842.69, 66.487
755.59, 0.369
695.46, -1.202
673.02, 56.118
669.31, 57.668
611.47, 67.587
591.13, 64.511
582.48, 59.828
557.26, 32.257
542.39, 12.931
508.47, 68.299
503.35, 68.799
418.82, 59.494
407.24, 61.927

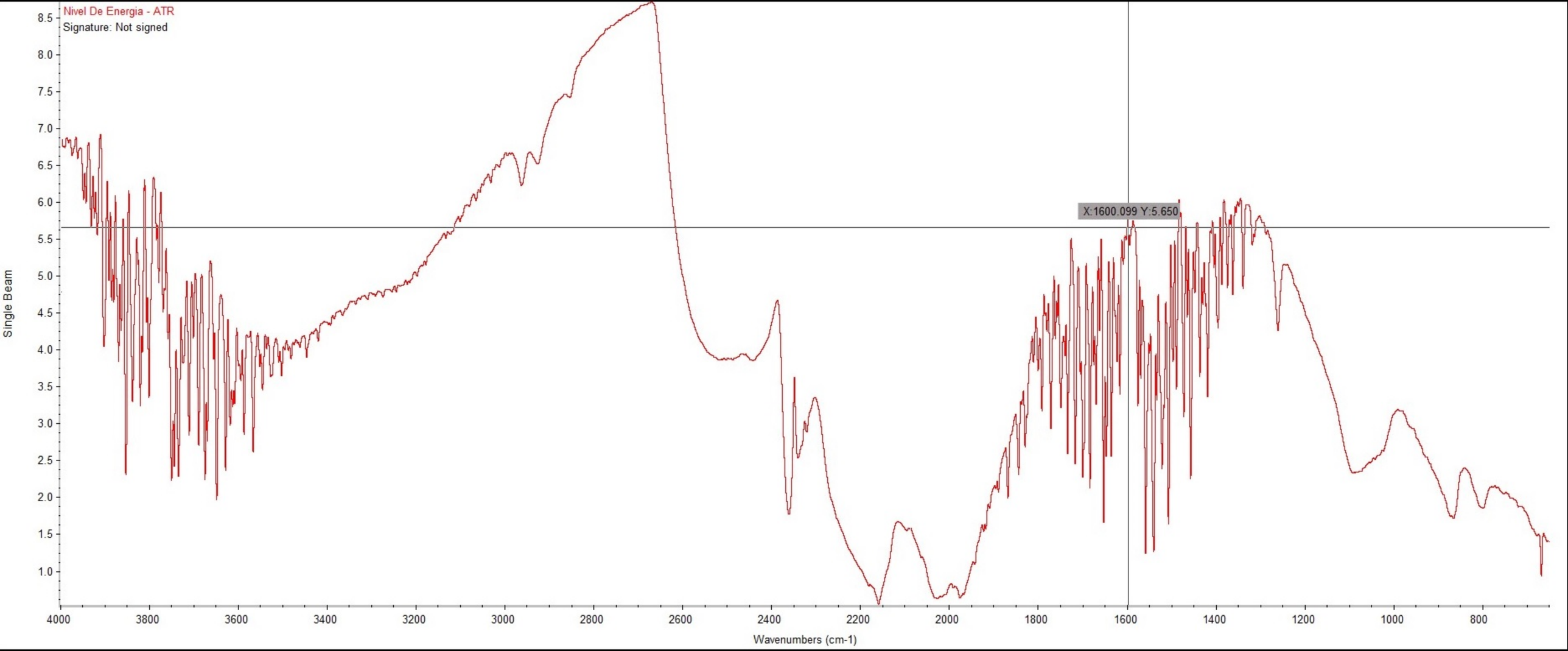

Repetibilidade Fotometrica - Rep. 2
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
4000
3500
3000
2500
2000
1500
1000
500
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
3081.40, 18.643
3059.38, 9.878
3025.41, 1.028
3000.79, 33.908
2923.63, 0.105
2848.38, 17.317
1943.97, 61.991
1868.69, 68.249
1801.88, 68.473
1601.03, 12.110
1582.89, 44.936
1491.65, 0.127
1452.99, 0.777
1374.22, 45.115
1329.97, 55.118
1181.92, 50.946
1154.30, 53.555
1069.03, 43.656
1028.26, 25.671
1003.48, 57.466
966.49, 55.661
942.80, 67.375
905.71, 37.858
840.80, 67.025
755.27, -0.159
695.71, -2.944
603.04, 64.956
590.31, 63.749
584.81, 61.877
536.58, 10.541
517.96, 55.987
507.62, 63.674
502.57, 67.741
426.62, 67.326
418.43, 39.530
406.14, 64.005

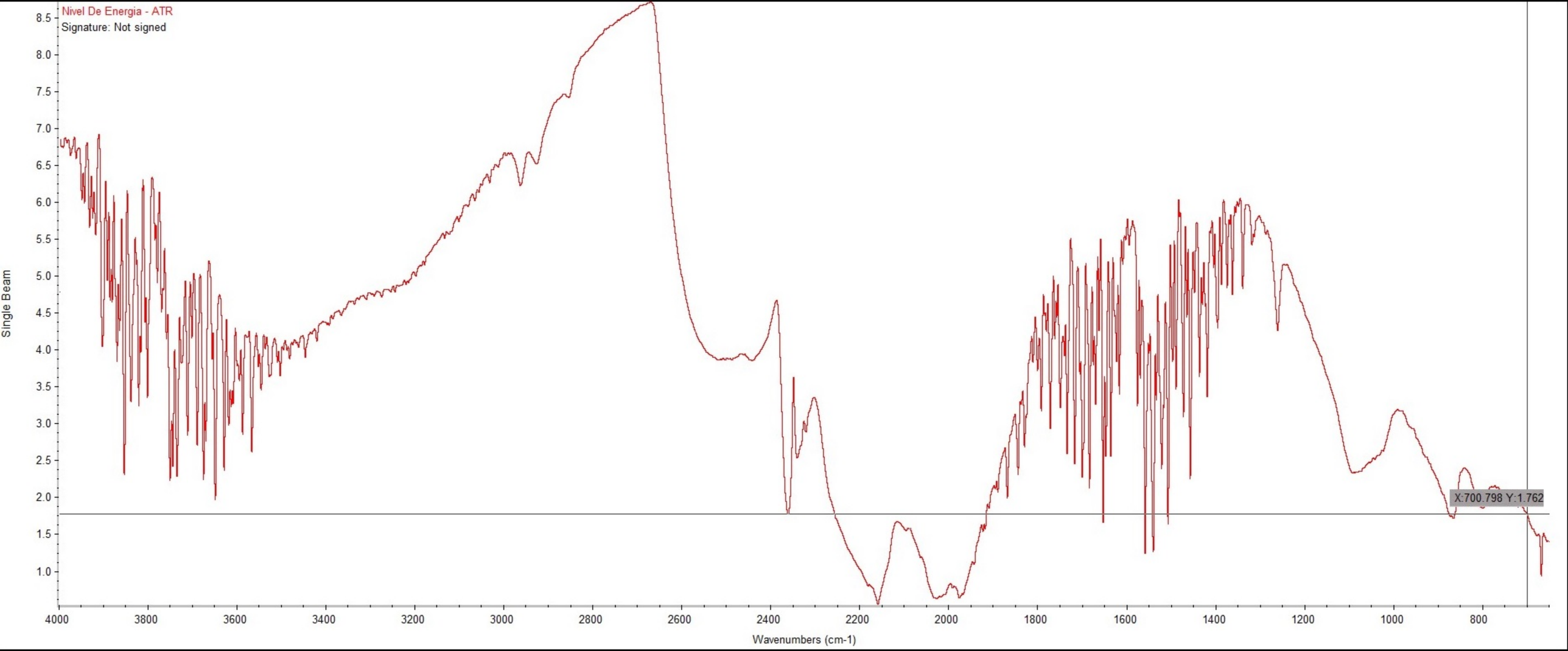

Sensibilidade
Signature: Not signed
100.20
100.18
100.16
100.14
100.12
100.10
100.08
100.06
100.04
100.02
100.00
99.98
99.96
% Transmittance
X:2211.981 Y:99.964
2220
2215
2210
2205
2200
2195
2190
2185
2180
2175
Wavenumbers (cm-1)

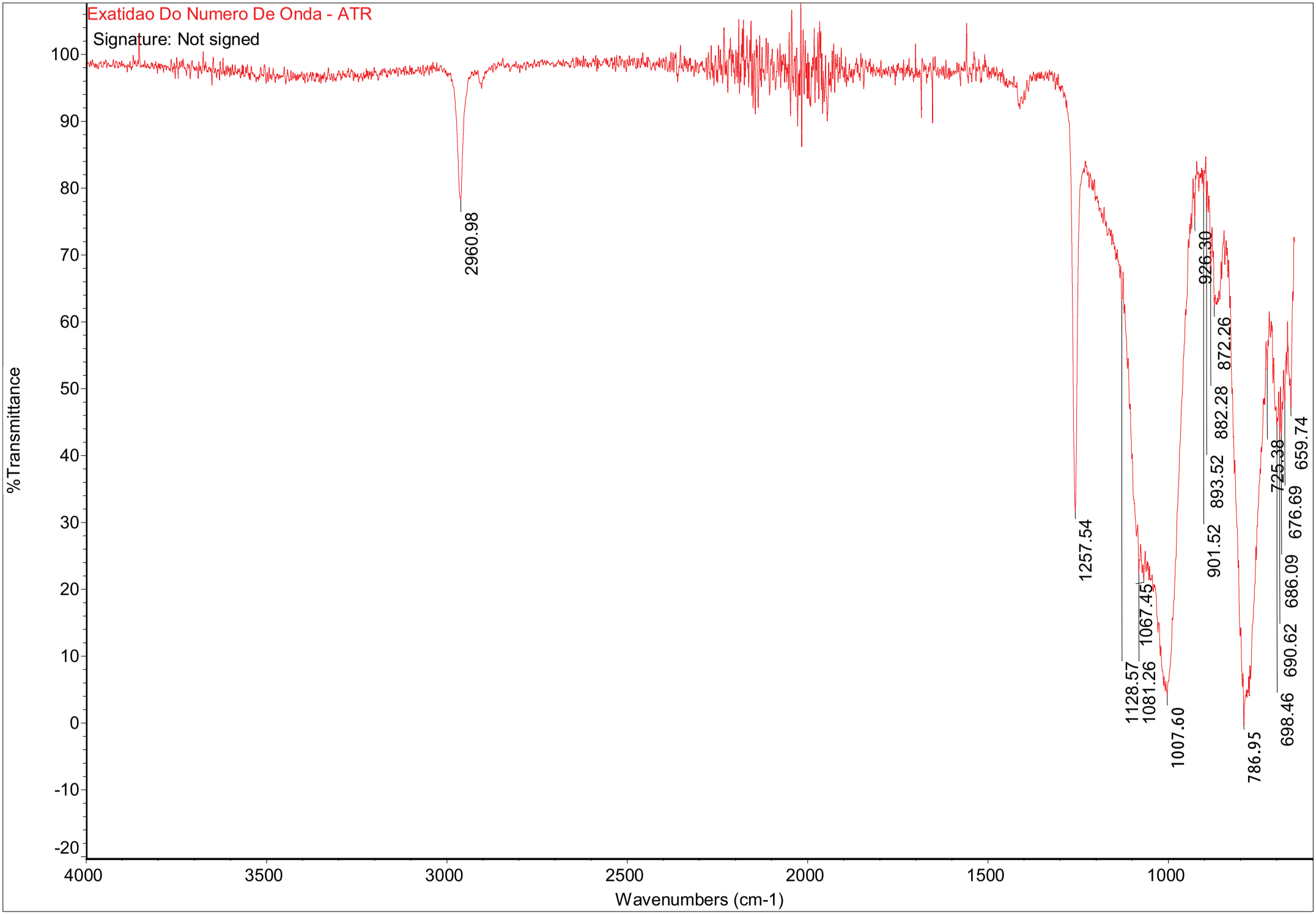

Sensibilidade
Signature: Not signed
X:2190.793 Y:100.108
% Transmittance
100.20
100.18
100.16
100.14
100.12
100.10
100.08
100.06
100.04
100.02
100.00
99.98
99.96
2220
2215
2210
2205
2200
2195
2190
2185
2180
2175
Wavenumbers (cm-1)

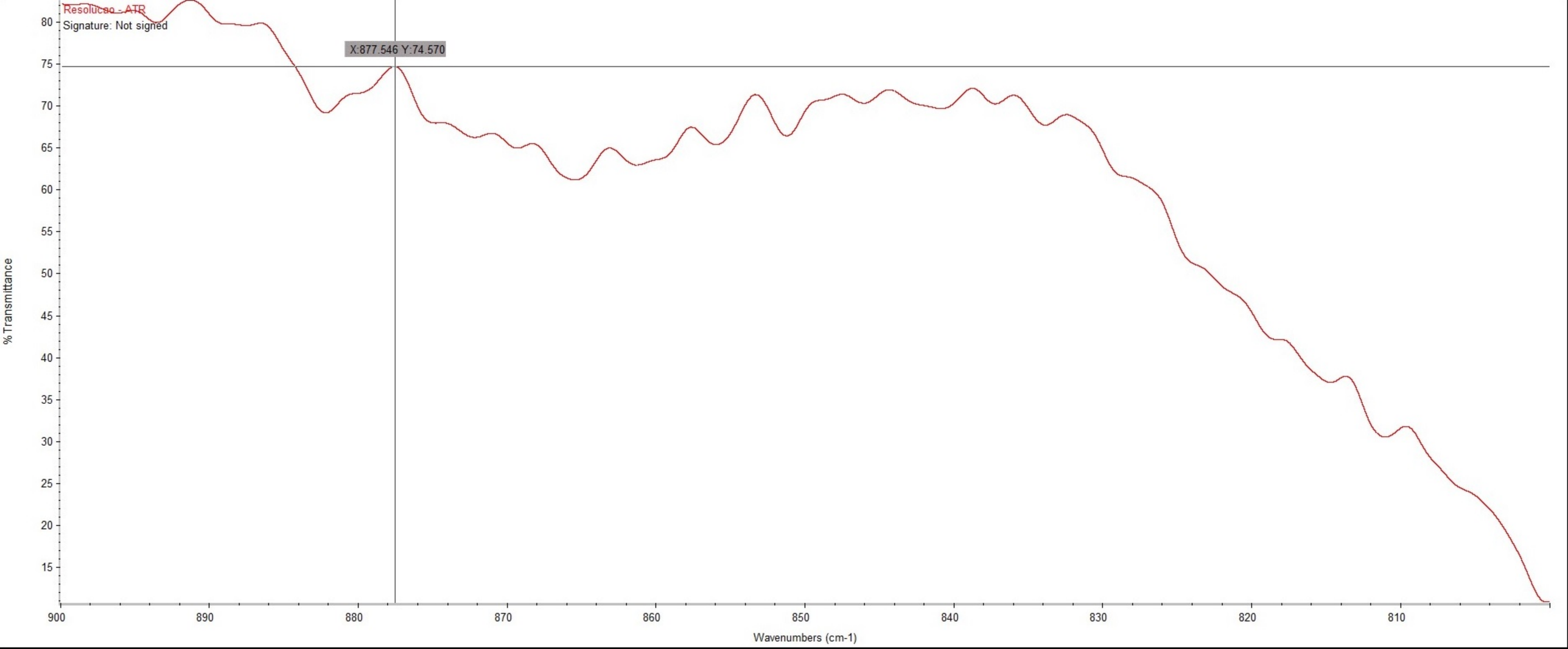

Nivel De Energia - ATR
Signature: Not signed
X:3000.909 Y:6.639
Single Beam
Wavenumbers (cm-1)
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800

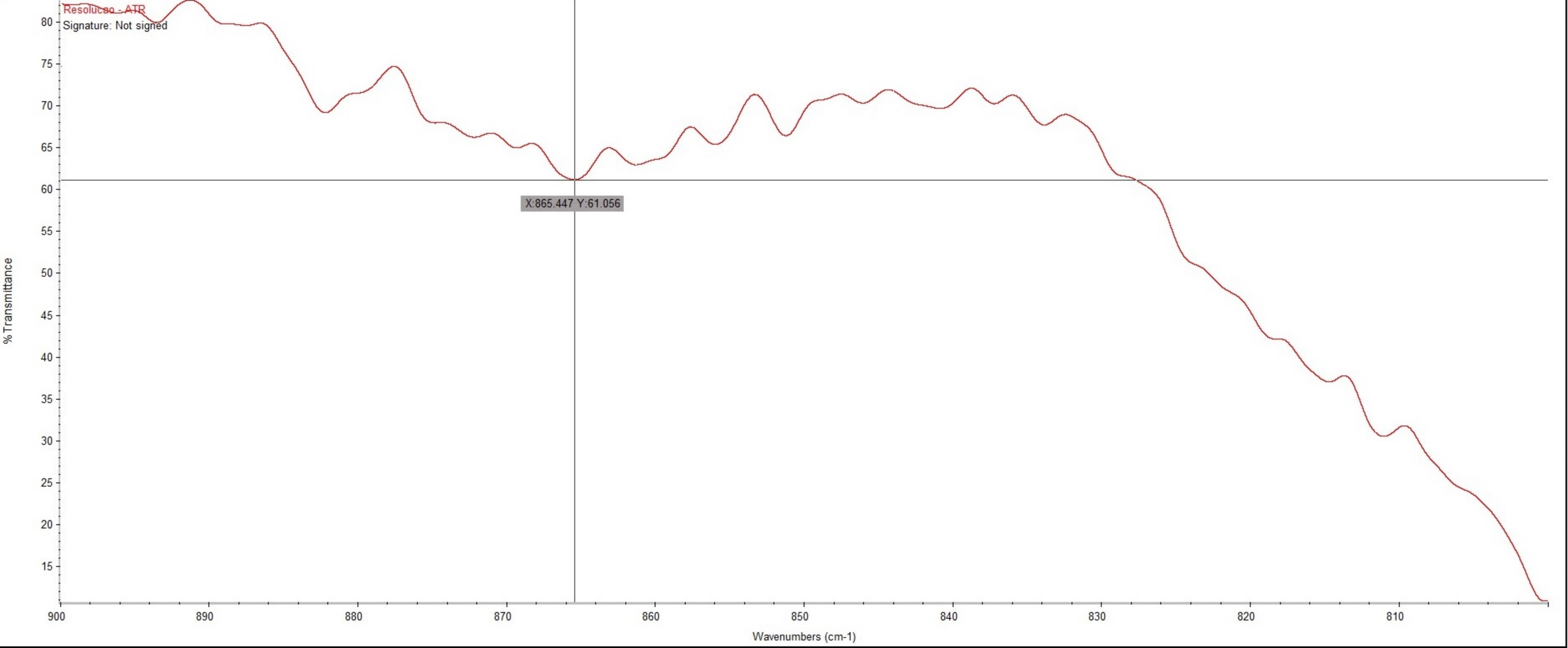

Nivel De Energia - ATR
Signature: Not signed
Single Beam
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
X:2001.676 Y:0.761
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
Wavenumbers (cm-1)

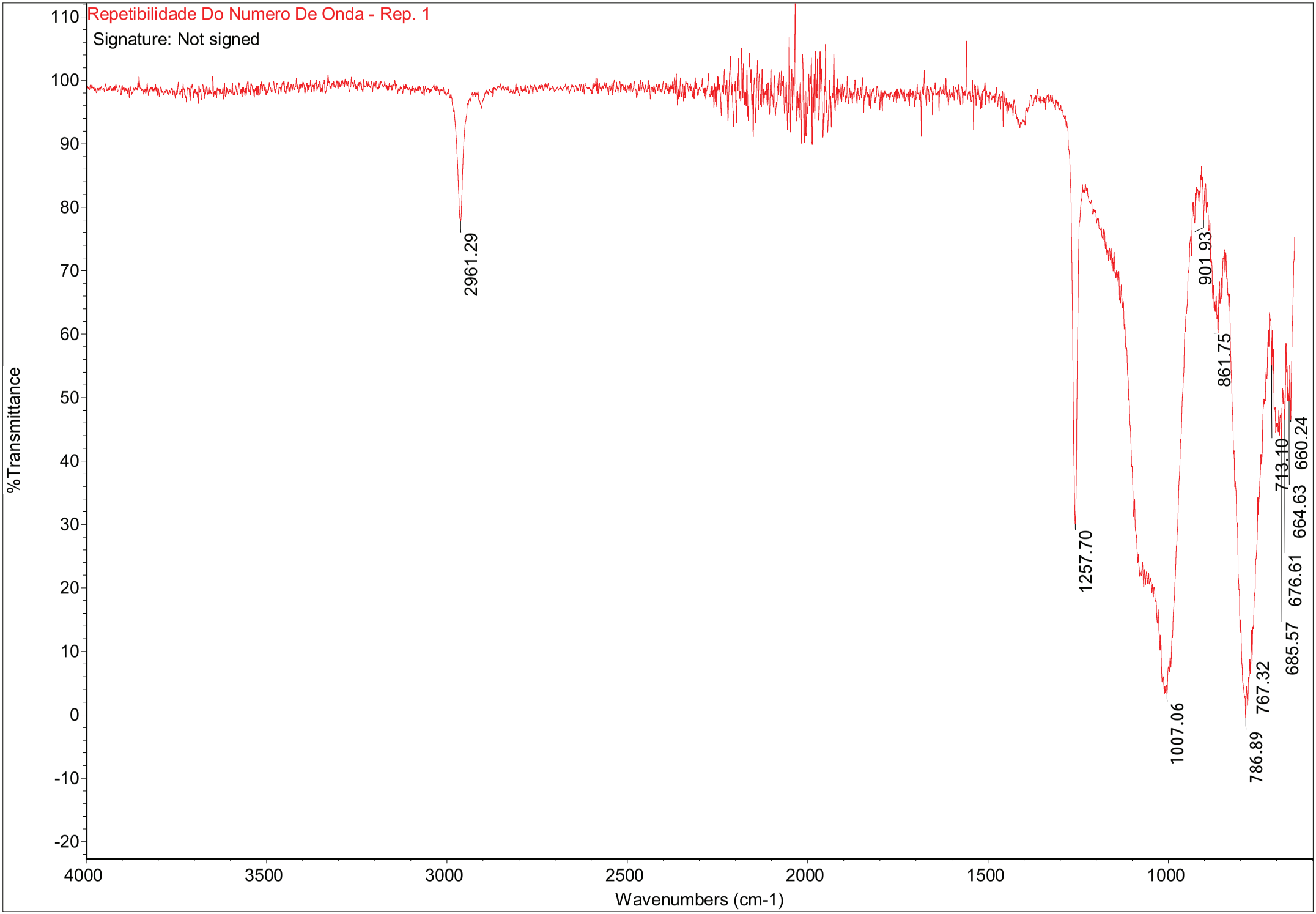

Nivel De Energia - ATR
Signature: Not signed
X:1600.099 Y:5.650
Single Beam
Wavenumbers (cm-1)
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800

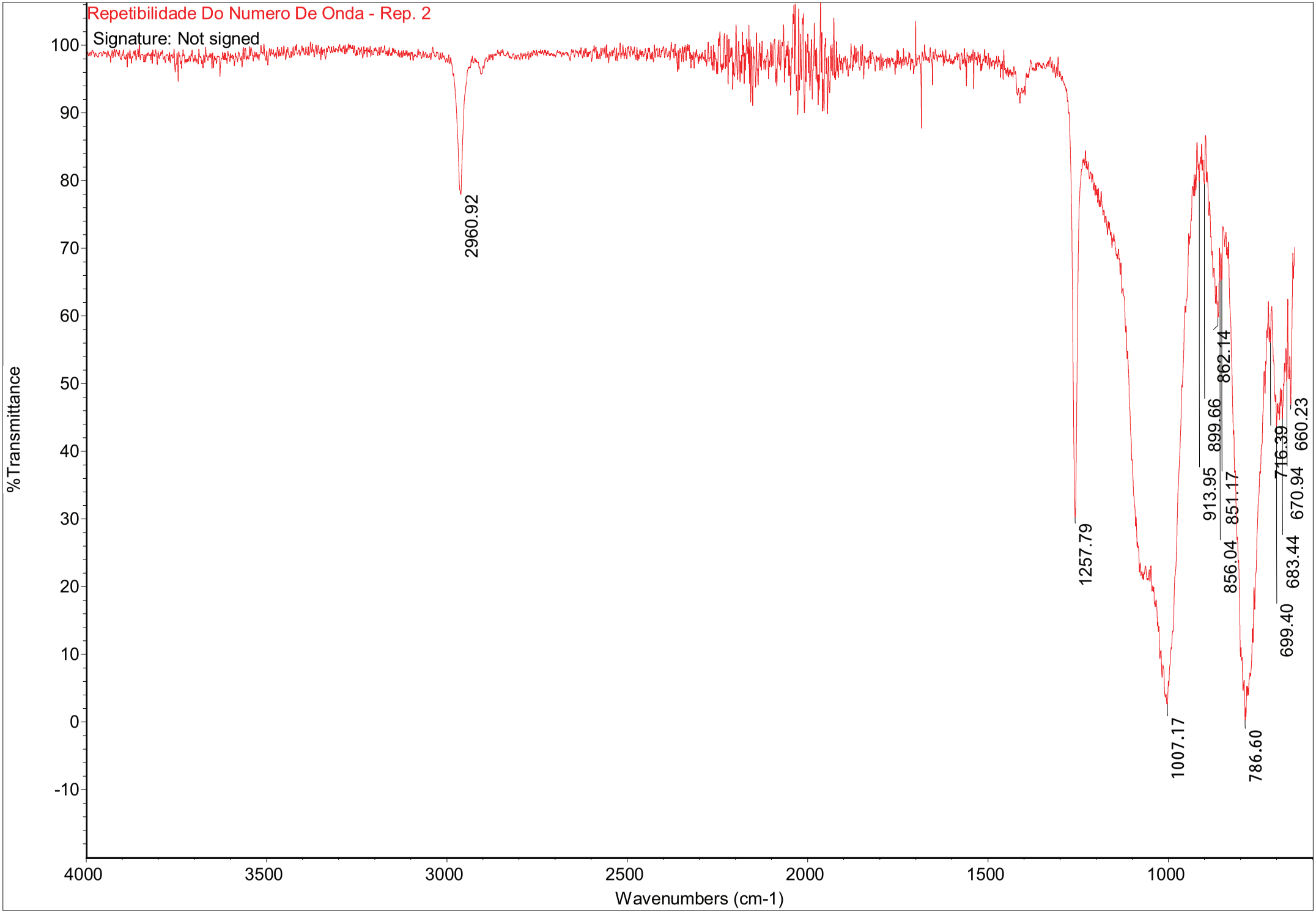

Nivel De Energia - ATR
Signature: Not signed
Single Beam
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
X:700.798 Y:1.762
4000
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
Wavenumbers (cm-1)

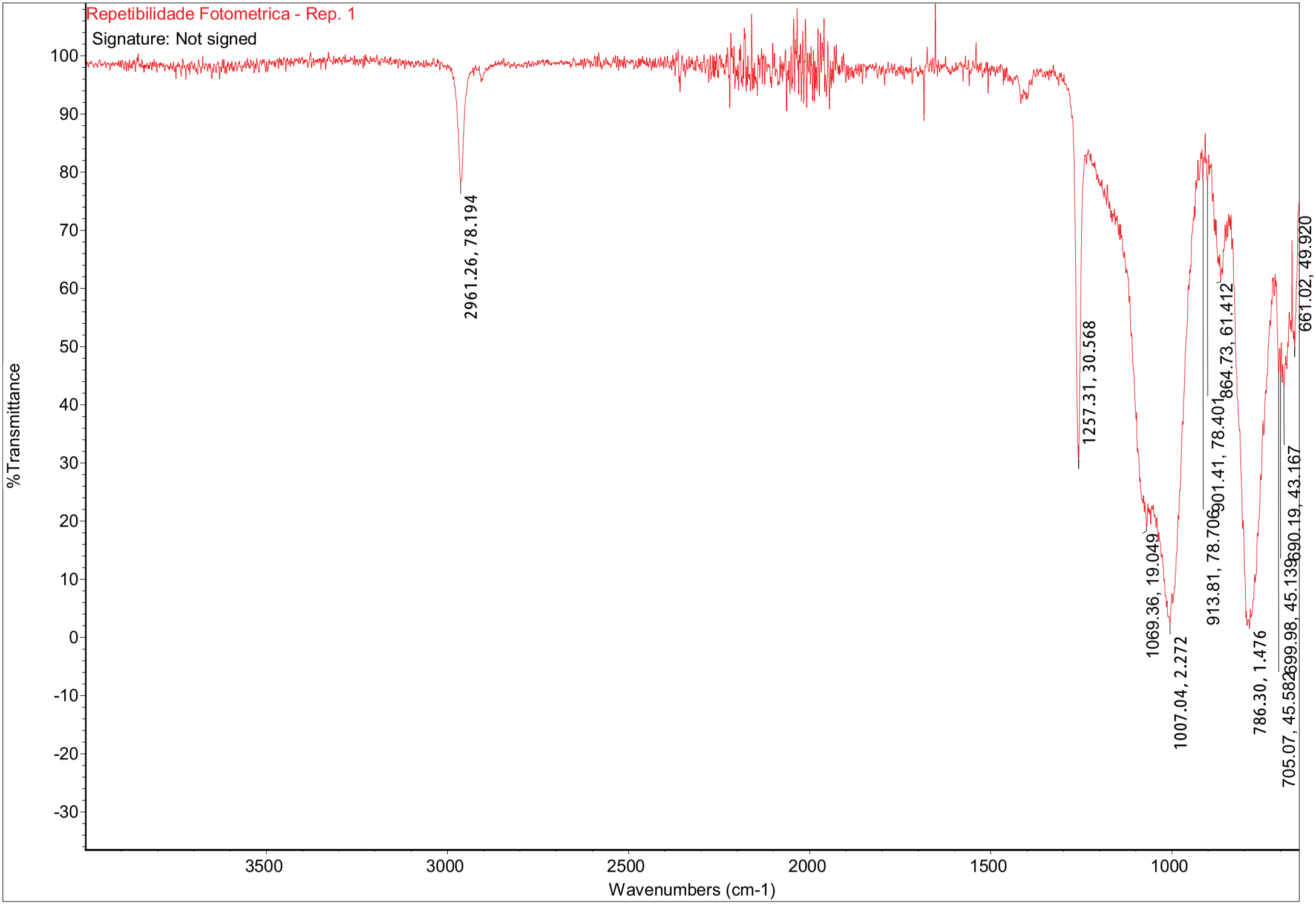

Exatidao Do Numero De Onda - ATR
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
100
90
80
70
60
50
40
30
20
10
0
-10
-20
4000
3500
3000
2500
2000
1500
1000
2960.98
1257.54
1128.57
1081.26
1067.45
1007.60
926.30
901.52
893.52
882.28
872.26
786.95
725.38
698.46
690.62
686.09
676.69
659.74

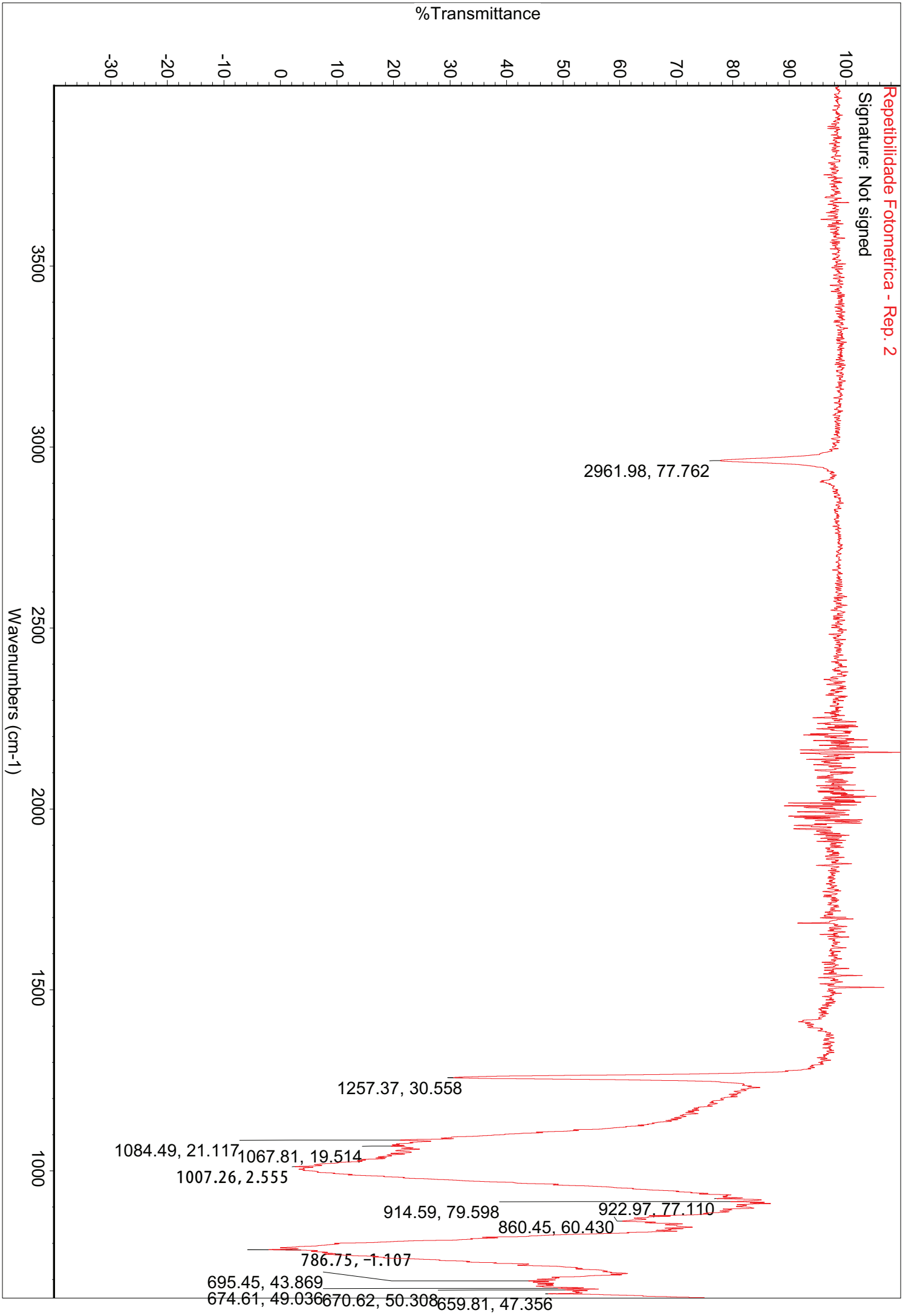

Resolucao - ATR
Signature: Not signed
X:877.546 Y:74.570
% Transmittance
Wavenumbers (cm-1)
80
75
70
65
60
55
50
45
40
35
30
25
20
15
900
890
880
870
860
850
840
830
820
810

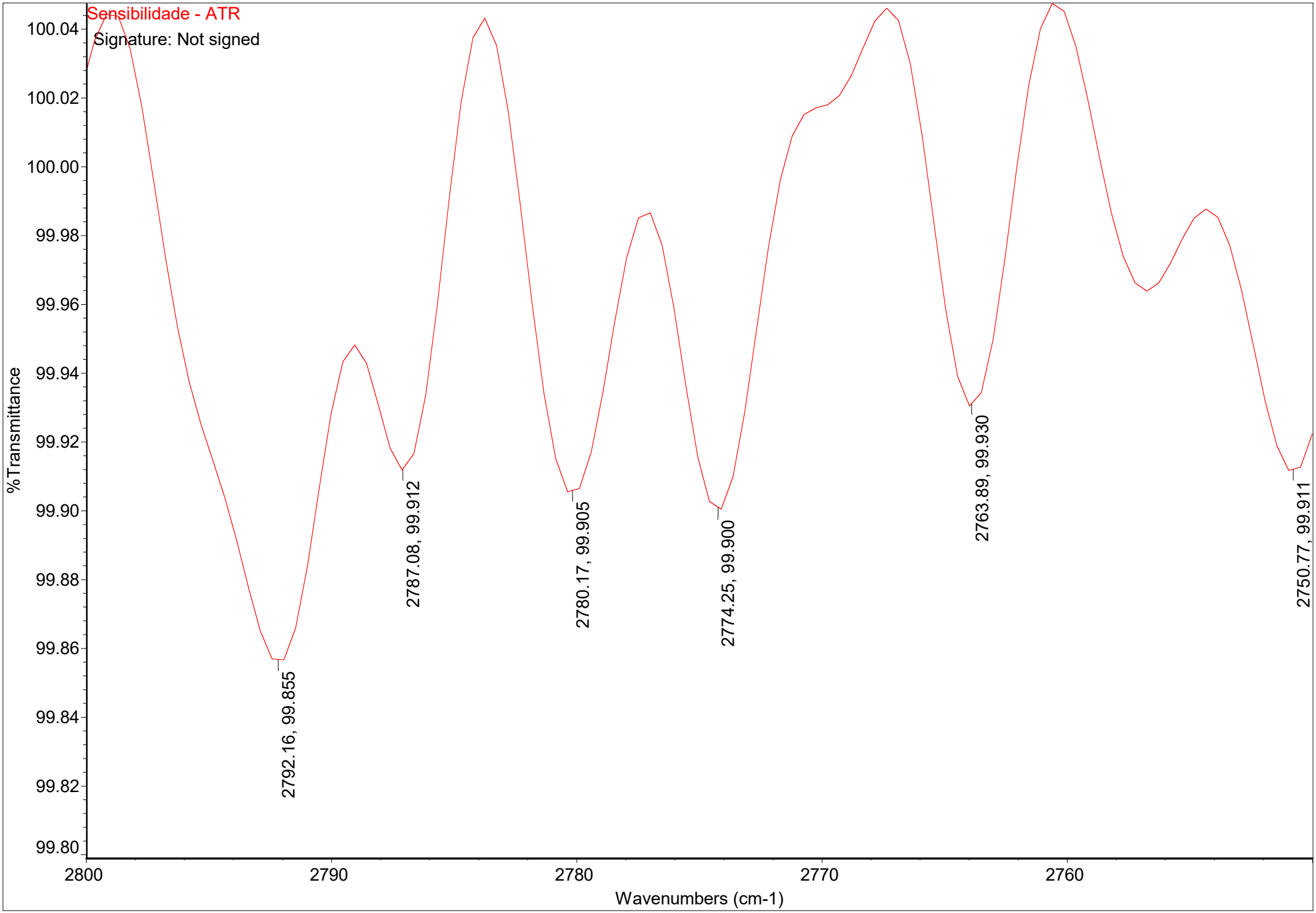

Resolucao - ATR
Signature: Not signed
X:865.447 Y:61.056
% Transmittance
Wavenumbers (cm-1)
80
75
70
65
60
55
50
45
40
35
30
25
20
15
900
890
880
870
860
850
840
830
820
810


Repetibilidade Do Numero De Onda - Rep. 1
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
4000
3500
3000
2500
2000
1500
1000
2961.29
1257.70
1007.06
901.93
861.75
786.89
767.32
713.10
685.57
676.61
664.63
660.24


Repetibilidade Do Numero De Onda - Rep. 2
Signature: Not signed
%Transmittance
100
90
80
70
60
50
40
30
20
10
0
-10
2960.92
1257.79
1007.17
913.95
899.66
862.14
856.04
851.17
786.60
716.39
699.40
683.44
670.94
660.23
4000
3500
3000
2500
2000
1500
1000
Wavenumbers (cm-1)


Repetibilidade Fotometrica - Rep. 1
Signature: Not signed
%Transmittance
Wavenumbers (cm-1)
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
3500
3000
2500
2000
1500
1000
2961.26, 78.194
1257.31, 30.568
1069.36, 19.049
1007.04, 2.272
913.81, 78.706
901.41, 78.401
864.73, 61.412
786.30, 1.476
705.07, 45.582
699.98, 45.139
690.19, 43.167
661.02, 49.920


%Transmittance
-30
-20
-10
0
10
20
30
40
50
60
70
80
90
100
Signature: Not signed
Repetibilidade Fotometrica - Rep. 2
3500
3000
2500
2000
1500
1000
Wavenumbers (cm-1)
2961.98, 77.762
1257.37, 30.558
1084.49, 21.117
1067.81, 19.514
1007.26, 2.555
914.59, 79.598
922.97, 77.110
860.45, 60.430
786.75, -1.107
695.45, 43.869
674.61, 49.036
670.62, 50.308
659.81, 47.356


Sensibilidade - ATR
Signature: Not signed
100.04
100.02
100.00
99.98
99.96
99.94
99.92
99.90
99.88
99.86
99.84
99.82
99.80
%Transmittance
2792.16, 99.855
2787.08, 99.912
2780.17, 99.905
2774.25, 99.900
2763.89, 99.930
2750.77, 99.911
2800
2790
2780
2770
2760
Wavenumbers (cm-1)