



REFERENCES

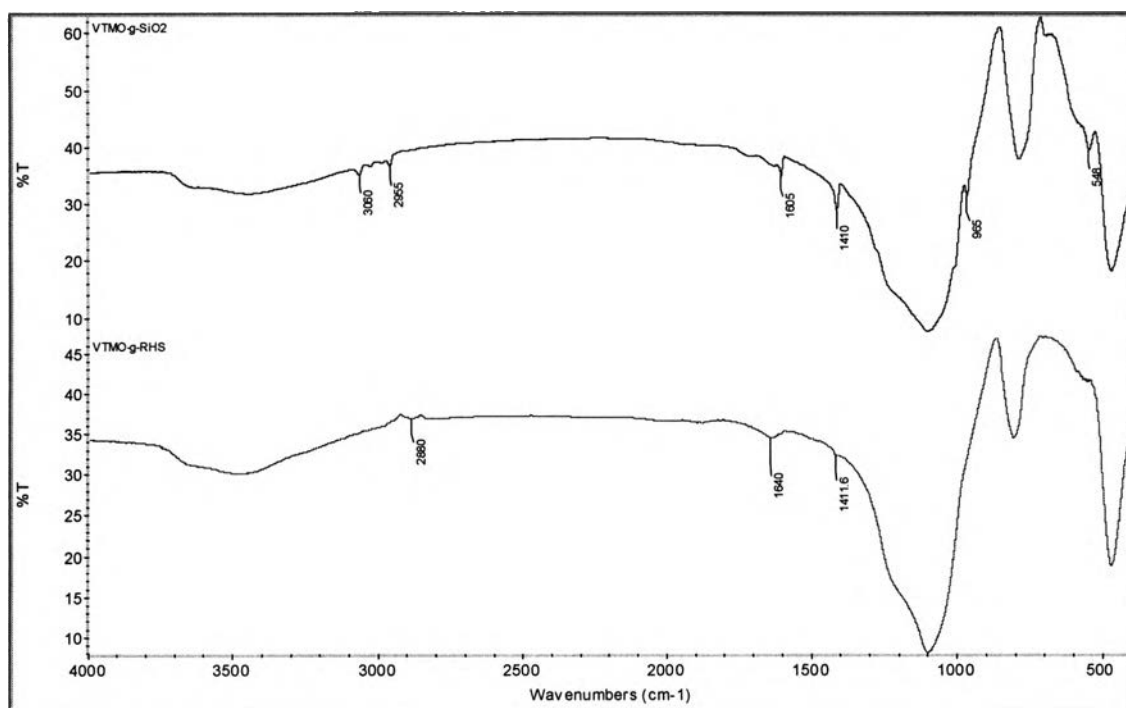
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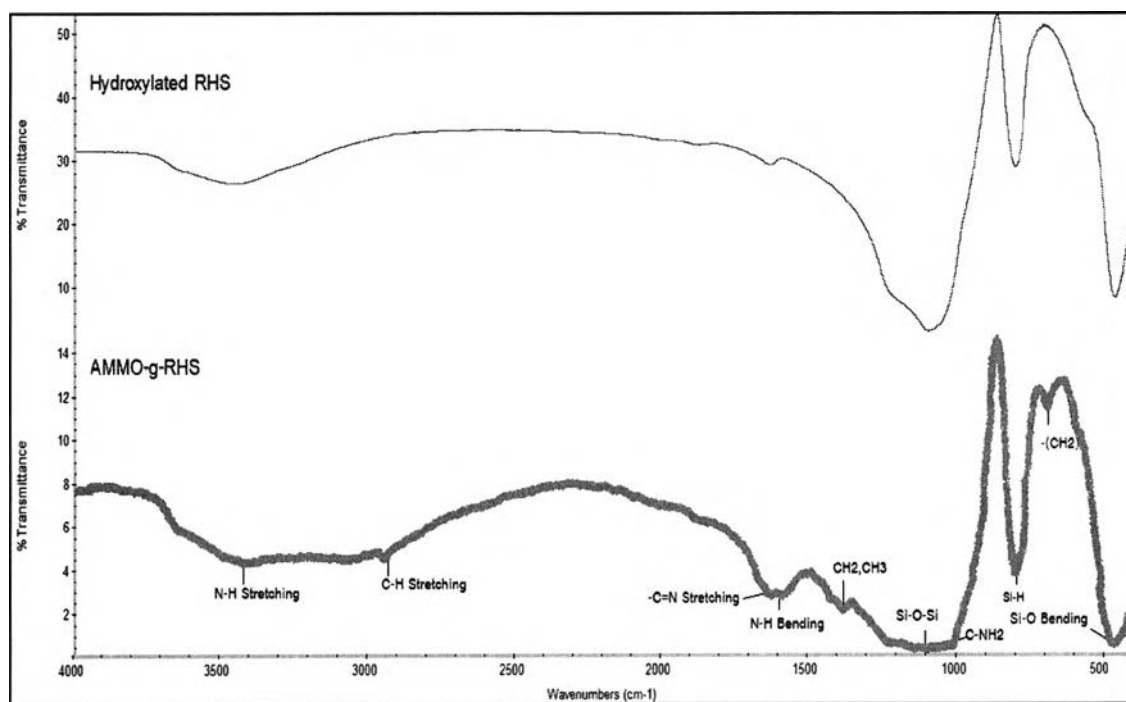
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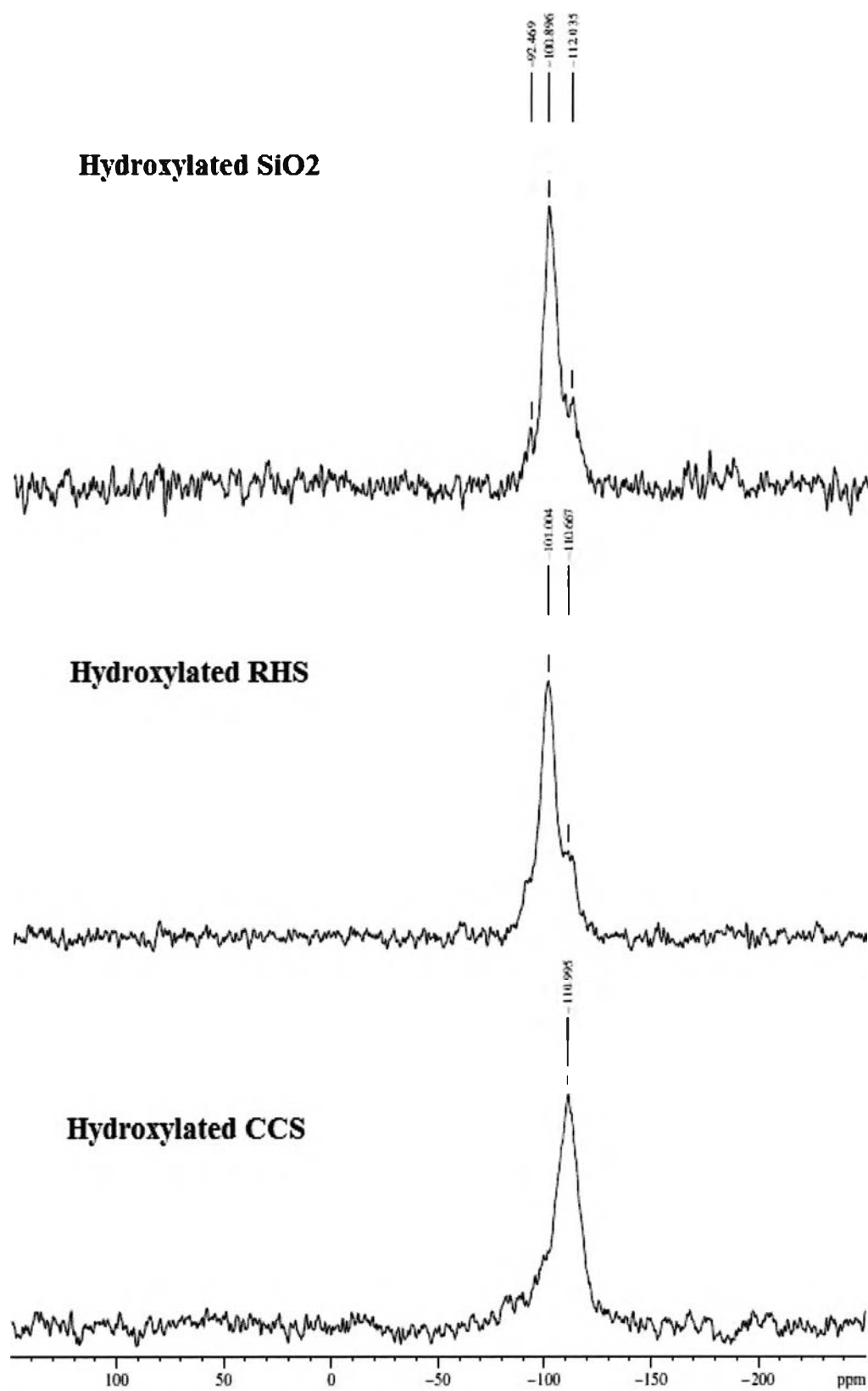
APPENDICES



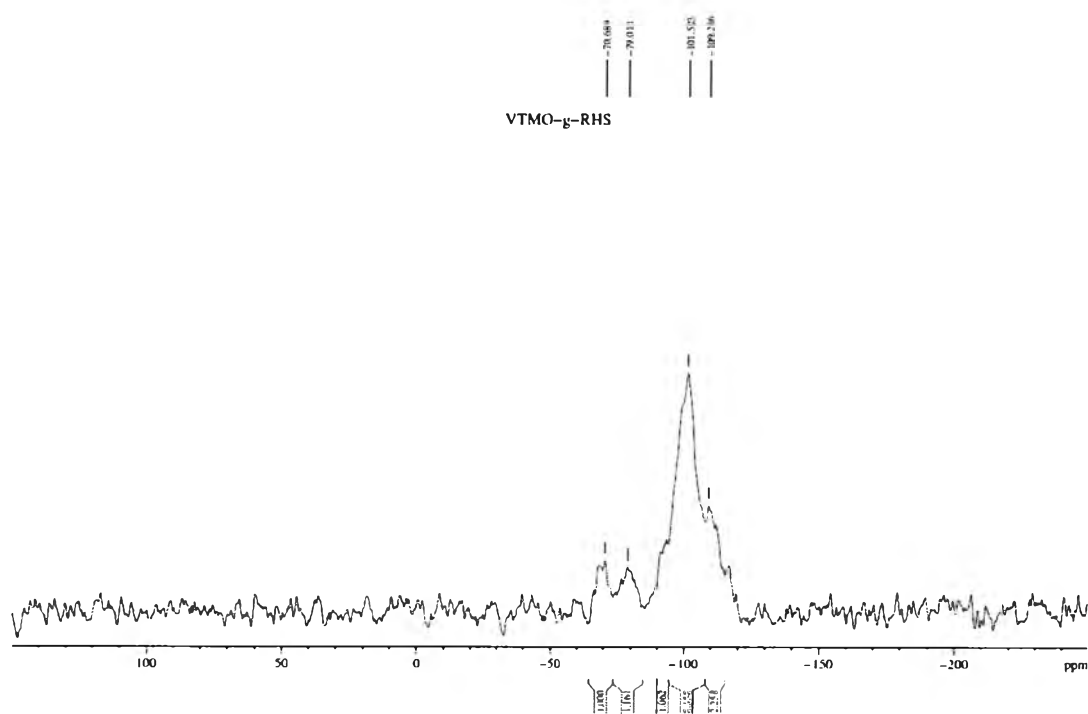
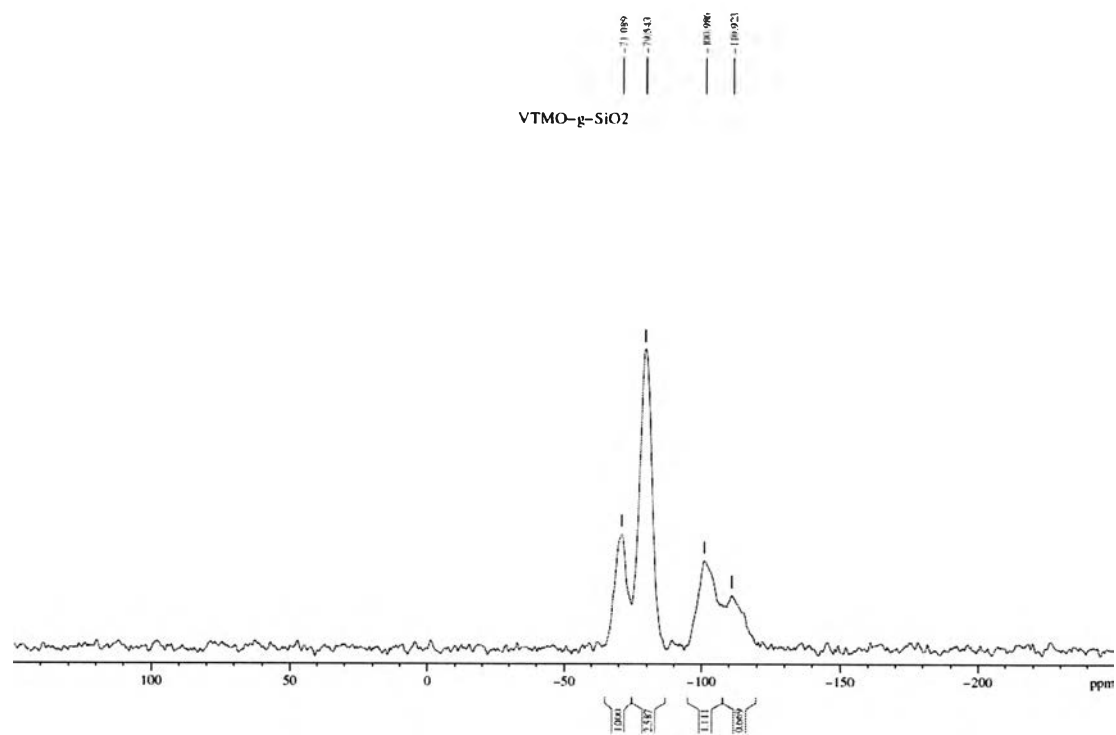
A1 FTIR spectra of VTMO-g-SiO₂ and VTMO-g-RHS



A2 FTIR spectra of hydroxylated RHS and AMMO-g-RHS

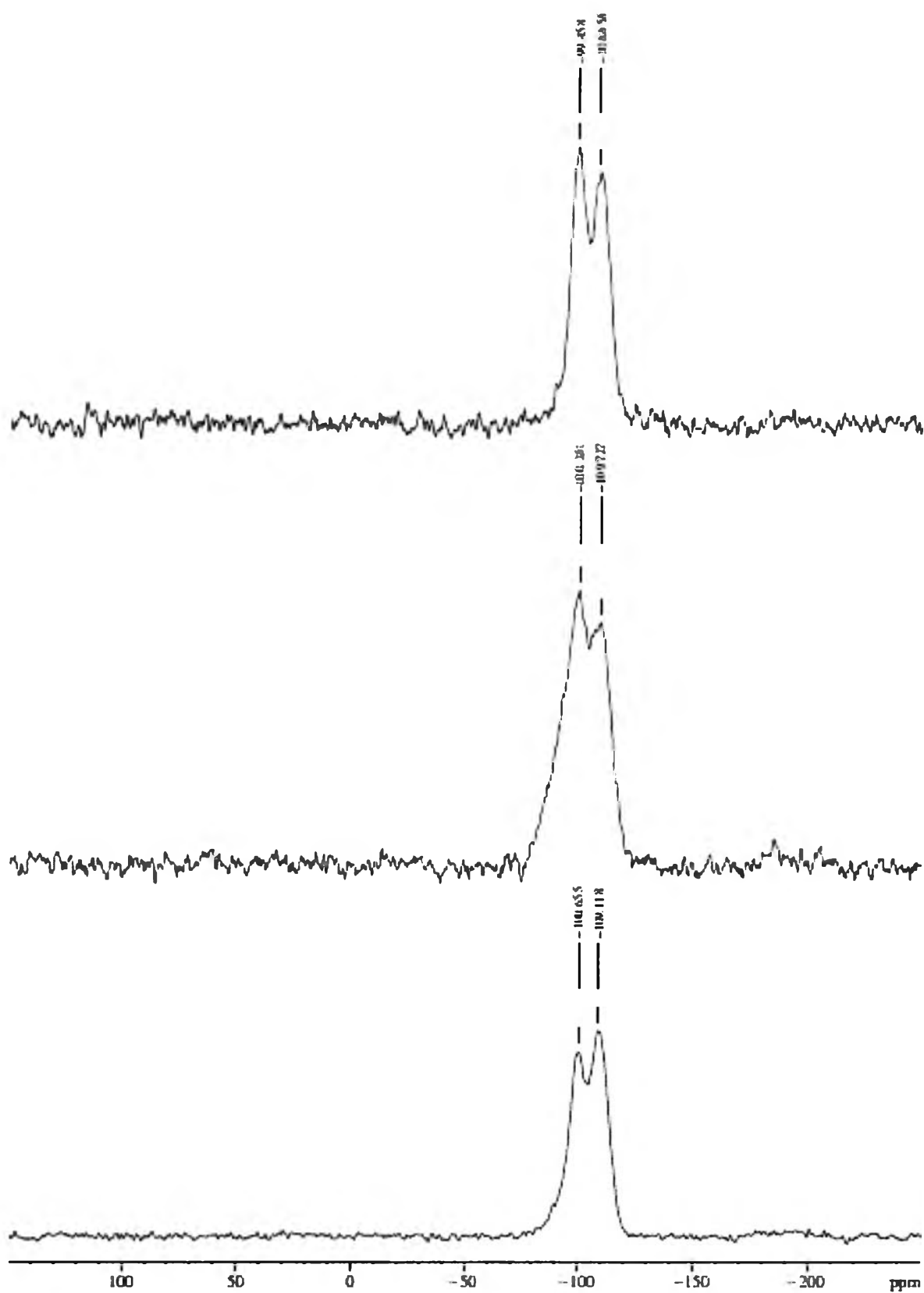


A3 ^{29}Si NMR of hydroxylated SiO₂, hydroxylated RHS, and hydroxylated CCS

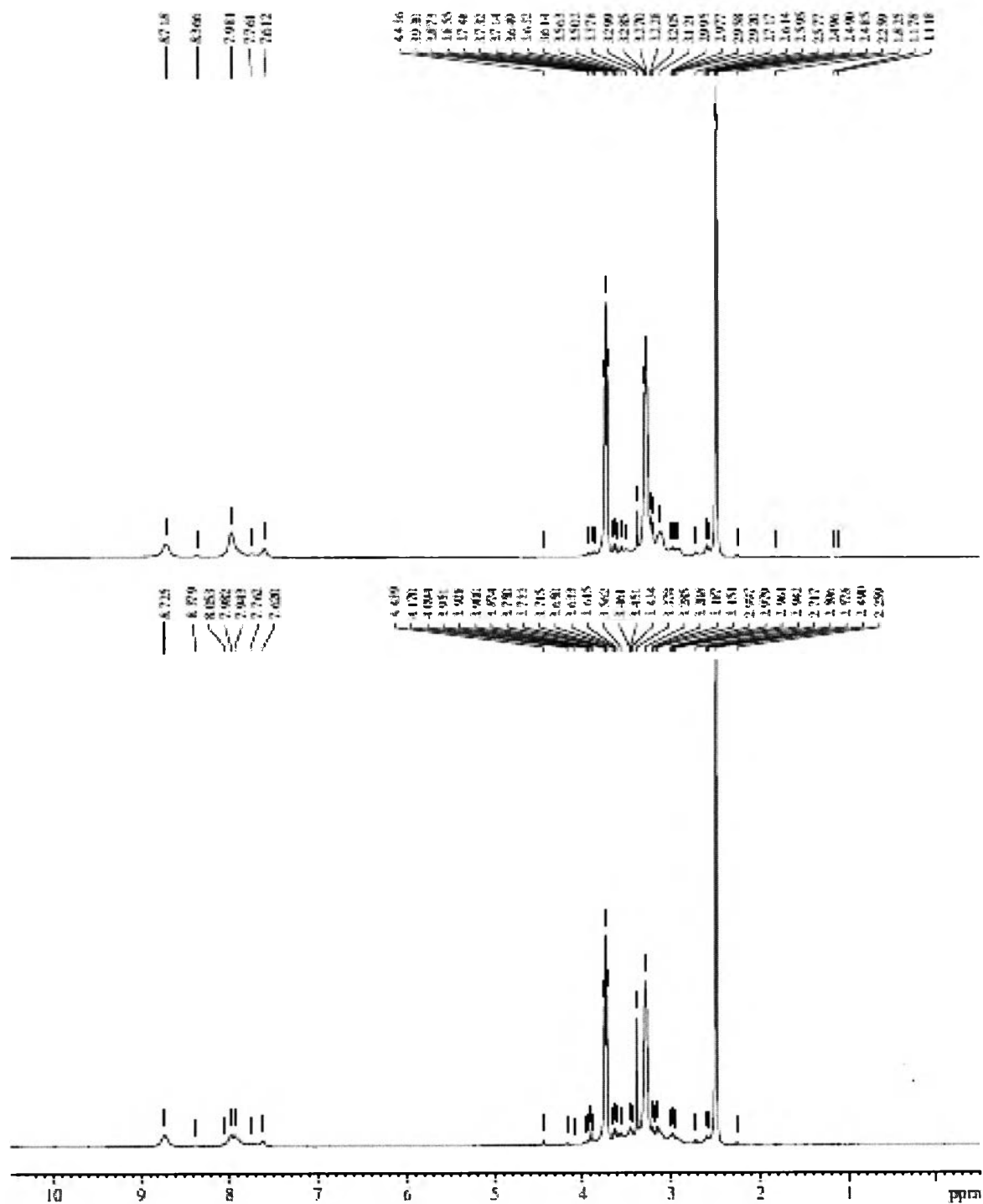


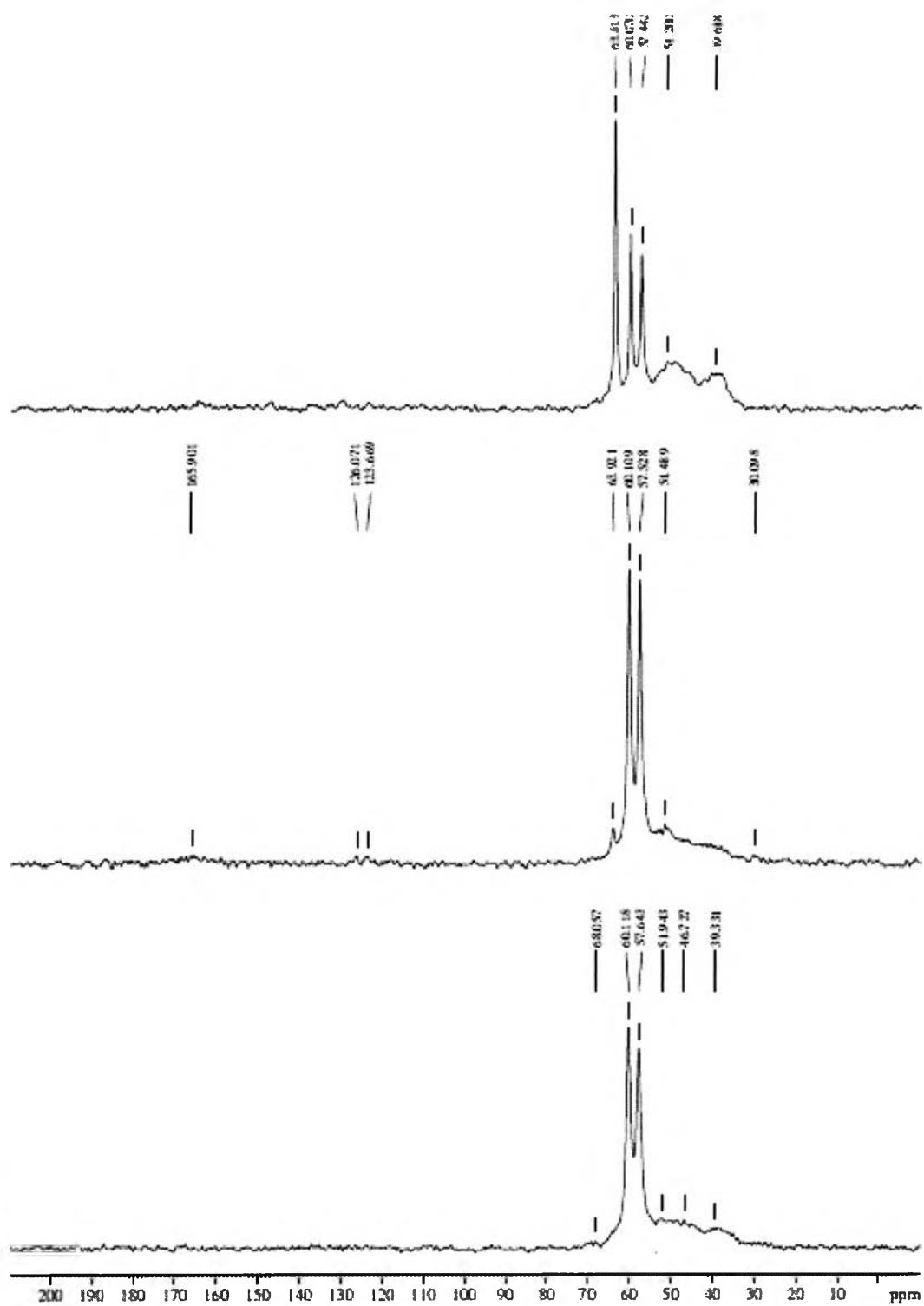
A4 ²⁹Si NMR of VTMO-g-SiO₂ and VTMO-g-RHS

I 27564186



A5 ^{29}Si NMR of SSilatrane, RHSilatrane, and CCSilatrane

A6 ^1H NMR of RHSilatrane and CCSilatrane

A7 ^{13}C NMR of SSilatrane, RHSilatrane, and CCSilatrane



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Result Analysis Report

Sample Name:
CCSilatrane_UI - Average

Sample Source & type:

Sample bulk lot ref:

SOP Name:

Measured by:
User

Result Source:
Averaged

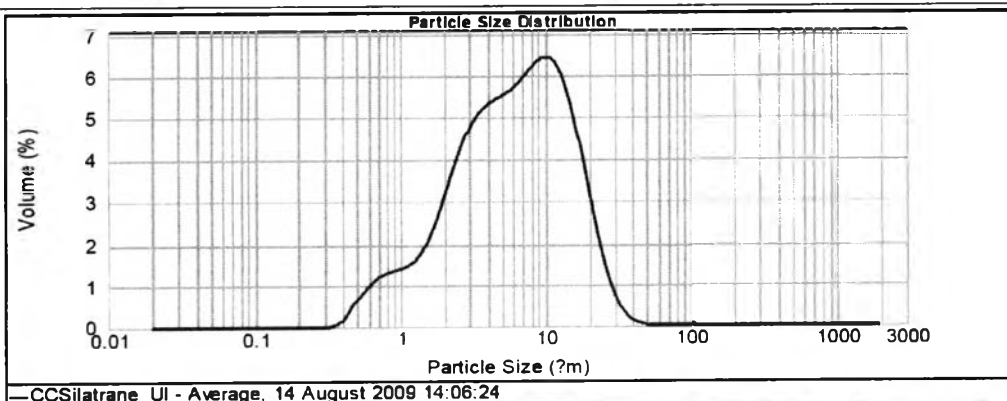
Measured:
14 August 2009 14:06:24

Analysed:
14 August 2009 14:06:25

| | | | |
|--|--|--|---------------------------------|
| Particle Name: New sample material | Accessory Name: Hydro 2000SM (A) | Analysis model: General purpose | Sensitivity: Normal |
| Particle RI: 1.400 | Absorption: 0.1 | Size range: 0.020 to 2000.000 um | Obscuration: 8.62 % |
| Dispersant Name: Water | Dispersant RI: 1.330 | Weighted Residual: 2.543 % | Result Emulation: Off |

| | | | |
|---|--|---|--------------------------------|
| Concentration: 0.0057 %Vol | Span : 2.535 | Uniformity: 0.807 | Result units: Volume |
| Specific Surface Area: 1.78 m ² /g | Surface Weighted Mean D[3,2]: 3.375 um | Vol. Weighted Mean D[4,3]: 7.920 um | |

d(0.1): 1.486 um d(0.5): 6.051 um d(0.9): 16.825 um



| Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| 0.010 | 0.00 | 0.105 | 0.00 | 1.096 | 1.38 | 11.482 | 5.59 | 120.226 | 0.00 | 1258.925 | 0.00 |
| 0.011 | 0.00 | 0.120 | 0.00 | 1.259 | 1.58 | 13.183 | 5.08 | 138.038 | 0.00 | 1445.440 | 0.00 |
| 0.013 | 0.00 | 0.138 | 0.00 | 1.445 | 1.89 | 15.136 | 4.31 | 158.489 | 0.00 | 1659.587 | 0.00 |
| 0.015 | 0.00 | 0.158 | 0.00 | 1.660 | 2.35 | 17.378 | 3.36 | 181.970 | 0.00 | 1905.461 | 0.00 |
| 0.017 | 0.00 | 0.182 | 0.00 | 1.905 | 2.90 | 19.963 | 2.41 | 206.930 | 0.00 | 2187.762 | 0.00 |
| 0.020 | 0.00 | 0.209 | 0.00 | 2.188 | 3.47 | 22.909 | 1.56 | 239.883 | 0.00 | 2511.886 | 0.00 |
| 0.023 | 0.00 | 0.240 | 0.00 | 2.512 | 3.98 | 26.303 | 0.91 | 275.423 | 0.00 | 2884.032 | 0.00 |
| 0.026 | 0.00 | 0.275 | 0.00 | 2.884 | 4.35 | 30.200 | 0.47 | 316.228 | 0.00 | 3311.311 | 0.00 |
| 0.030 | 0.00 | 0.316 | 0.01 | 3.311 | 4.35 | 34.674 | 0.21 | 363.078 | 0.00 | 3801.894 | 0.00 |
| 0.035 | 0.00 | 0.363 | 0.01 | 3.802 | 4.67 | 39.811 | 0.09 | 416.869 | 0.00 | 4365.198 | 0.00 |
| 0.040 | 0.00 | 0.417 | 0.10 | 4.365 | 4.83 | 45.709 | 0.03 | 478.630 | 0.00 | 5011.872 | 0.00 |
| 0.046 | 0.00 | 0.479 | 0.36 | 5.012 | 4.94 | 52.481 | 0.01 | 549.541 | 0.00 | 5754.389 | 0.00 |
| 0.052 | 0.00 | 0.550 | 0.63 | 5.754 | 5.05 | 60.256 | 0.01 | 630.957 | 0.00 | 6606.934 | 0.00 |
| 0.060 | 0.00 | 0.631 | 0.87 | 6.607 | 5.20 | 69.183 | 0.01 | 724.436 | 0.00 | 7585.776 | 0.00 |
| 0.069 | 0.00 | 0.724 | 1.05 | 7.586 | 5.41 | 79.433 | 0.00 | 831.764 | 0.00 | 8709.635 | 0.00 |
| 0.079 | 0.00 | 0.832 | 1.16 | 8.710 | 5.63 | 91.201 | 0.00 | 954.993 | 0.00 | 10000.000 | 0.00 |
| 0.091 | 0.00 | 0.955 | 1.23 | 10.000 | 5.79 | 104.713 | 0.00 | 1096.478 | 0.00 | | |
| 0.105 | 0.00 | 1.096 | 1.29 | 11.482 | 5.91 | 120.226 | 0.00 | 1258.925 | 0.00 | | |

Operator notes:

A8 Particle size analysis of CCSilatrane (batch 1)



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Result Analysis Report

Sample Name:
RHSilatrane_UI - Average

Sample Source & type:

Sample bulk lot ref:

SOP Name:

Measured by:
User

Result Source:
Averaged

Measured:

14 August 2009 14:33:27

Analysed:

14 August 2009 14:33:28

Particle Name:
New sample material 0 01

Particle RI:
1 400

Dispersant Name:
Water

Accessory Name:
Hydro 2000SM (A)

Absorption:
0 01

Dispersant RI:
1 330

Analysis model:
General purpose

Size range:
0 020 to 2000 000 um

Weighted Residual:
2 194 %

Sensitivity:
Normal

Obscuration:
8 89 %

Result Emulation:
Off

Concentration:
0 0121 %Vol

Specific Surface Area:
1 19 m²/g

Span :
4 035

Surface Weighted Mean D[3,2]:
5 031 um

Uniformity:
1 23

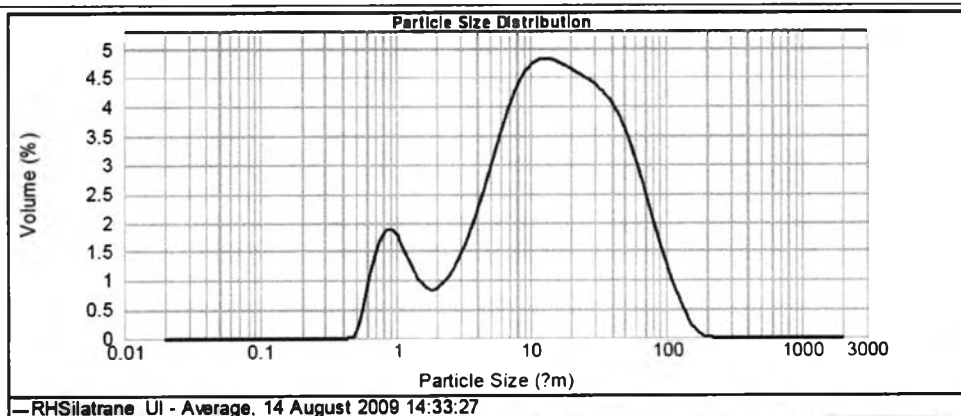
Vol. Weighted Mean D[4,3]:
23 574 um

Result units:
Volume

d(0.1): 1.604 um

d(0.5): 14.097 um

d(0.9): 58.494 um



| Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| 0.010 | 0.00 | 0.105 | 0.00 | 1.096 | 1.35 | 11.482 | 4.35 | 120.226 | 0.56 | 1258.925 | 0.00 |
| 0.011 | 0.00 | 0.120 | 0.00 | 1.259 | 1.08 | 13.183 | 4.35 | 138.038 | 0.26 | 1445.440 | 0.00 |
| 0.013 | 0.00 | 0.138 | 0.00 | 1.445 | 0.86 | 15.136 | 4.30 | 158.489 | 0.10 | 1659.587 | 0.00 |
| 0.015 | 0.00 | 0.158 | 0.00 | 1.660 | 0.76 | 17.378 | 4.24 | 181.970 | 0.02 | 1905.461 | 0.00 |
| 0.017 | 0.00 | 0.182 | 0.00 | 1.905 | 0.79 | 19.953 | 4.16 | 208.930 | 0.00 | 2187.762 | 0.00 |
| 0.020 | 0.00 | 0.209 | 0.00 | 2.188 | 0.90 | 22.909 | 4.09 | 239.883 | 0.00 | 2511.886 | 0.00 |
| 0.023 | 0.00 | 0.240 | 0.00 | 2.512 | 1.09 | 26.303 | 4.01 | 275.423 | 0.00 | 2884.032 | 0.00 |
| 0.026 | 0.00 | 0.275 | 0.00 | 2.884 | 1.34 | 30.200 | 3.91 | 316.228 | 0.00 | 3311.311 | 0.00 |
| 0.030 | 0.00 | 0.316 | 0.00 | 3.311 | 1.66 | 34.674 | 3.78 | 363.078 | 0.00 | 3801.894 | 0.00 |
| 0.035 | 0.00 | 0.363 | 0.00 | 3.802 | 2.02 | 39.811 | 3.59 | 416.869 | 0.00 | 4365.158 | 0.00 |
| 0.040 | 0.00 | 0.417 | 0.00 | 4.365 | 2.44 | 45.709 | 3.32 | 478.630 | 0.00 | 5011.872 | 0.00 |
| 0.046 | 0.00 | 0.479 | 0.14 | 5.012 | 2.87 | 52.481 | 2.98 | 549.541 | 0.00 | 5754.389 | 0.00 |
| 0.052 | 0.00 | 0.550 | 0.67 | 5.754 | 3.30 | 60.256 | 2.56 | 630.957 | 0.00 | 6606.934 | 0.00 |
| 0.060 | 0.00 | 0.631 | 1.21 | 6.607 | 3.68 | 69.183 | 2.12 | 724.436 | 0.00 | 7586.776 | 0.00 |
| 0.069 | 0.00 | 0.724 | 1.58 | 7.586 | 3.98 | 79.433 | 1.66 | 831.764 | 0.00 | 8709.636 | 0.00 |
| 0.079 | 0.00 | 0.832 | 1.70 | 8.710 | 4.18 | 91.201 | 1.25 | 954.993 | 0.00 | 10000.000 | 0.00 |
| 0.091 | 0.00 | 0.955 | 1.60 | 10.000 | 4.30 | 104.713 | 0.87 | 1096.478 | 0.00 | | |
| 0.105 | 0.00 | 1.096 | 1.60 | 11.482 | 4.30 | 120.226 | 0.87 | 1258.925 | 0.00 | | |

Operator notes:



MASTERSIZER



Result Analysis Report

Sample Name:
RHSilatrane_UI_1 - Average
Sample Source & type:

Sample bulk lot ref:

SOP Name:

Measured by:
User
Result Source:
Averaged

Measured:
14 August 2009 14:38:45
Analysed:
14 August 2009 14:38:46

Particle Name:
New sample material 0.01
Particle RI:
1.400
Dispersant Name:
Water

Accessory Name:
Hydro 2000SM (A)
Absorption:
0.01
Dispersant RI:
1.330

Analysis model:
General purpose
Size range:
0.020 to 2000.000 um
Weighted Residual:
2.392 %

Sensitivity:
Normal
Obscuration:
7.96 %
Result Emulation:
Off

Concentration:
0.0096 %Vol

Span :
3.288

Uniformity:
1

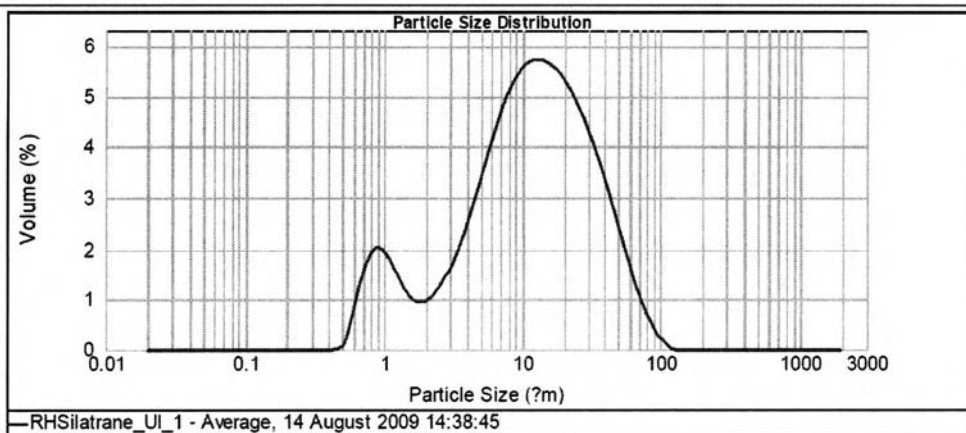
Result units:
Volume

Specific Surface Area:
1.31 m²/g

Surface Weighted Mean D[3,2]:
4.592 um

Vol. Weighted Mean D[4,3]:
16.893 um

d(0.1): 1.442 um d(0.5): 11.554 um d(0.9): 39.435 um



| Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| 0.010 | 0.00 | 0.105 | 0.00 | 1.096 | 1.47 | 11.482 | 5.17 | 120.226 | 0.00 | 1258.925 | 0.00 |
| 0.011 | 0.00 | 0.120 | 0.00 | 1.259 | 1.18 | 13.183 | 5.16 | 138.038 | 0.00 | 1445.440 | 0.00 |
| 0.013 | 0.00 | 0.138 | 0.00 | 1.445 | 0.96 | 15.136 | 5.08 | 158.489 | 0.00 | 1659.567 | 0.00 |
| 0.015 | 0.00 | 0.158 | 0.00 | 1.660 | 0.86 | 17.378 | 4.91 | 181.570 | 0.00 | 1905.461 | 0.00 |
| 0.017 | 0.00 | 0.182 | 0.00 | 1.905 | 0.89 | 19.953 | 4.69 | 208.930 | 0.00 | 2167.762 | 0.00 |
| 0.020 | 0.00 | 0.209 | 0.00 | 2.188 | 1.04 | 22.909 | 4.41 | 239.883 | 0.00 | 2511.886 | 0.00 |
| 0.023 | 0.00 | 0.240 | 0.00 | 2.512 | 1.26 | 26.303 | 4.07 | 275.423 | 0.00 | 2884.032 | 0.00 |
| 0.026 | 0.00 | 0.275 | 0.00 | 2.884 | 1.56 | 30.200 | 3.69 | 316.228 | 0.00 | 3311.311 | 0.00 |
| 0.030 | 0.00 | 0.315 | 0.00 | 3.311 | 1.92 | 34.674 | 3.26 | 363.078 | 0.00 | 3801.894 | 0.00 |
| 0.035 | 0.00 | 0.363 | 0.00 | 3.802 | 2.35 | 39.811 | 2.78 | 416.869 | 0.00 | 4365.158 | 0.00 |
| 0.040 | 0.00 | 0.417 | 0.00 | 4.365 | 2.82 | 45.709 | 2.28 | 478.630 | 0.00 | 5011.872 | 0.00 |
| 0.046 | 0.00 | 0.479 | 0.13 | 5.012 | 3.32 | 52.481 | 1.77 | 549.541 | 0.00 | 5754.399 | 0.00 |
| 0.052 | 0.00 | 0.550 | 0.70 | 5.754 | 3.83 | 60.256 | 1.28 | 630.957 | 0.00 | 6605.934 | 0.00 |
| 0.060 | 0.00 | 0.631 | 1.29 | 6.607 | 4.28 | 69.183 | 0.85 | 724.436 | 0.00 | 7585.776 | 0.00 |
| 0.069 | 0.00 | 0.724 | 1.69 | 7.586 | 4.65 | 79.433 | 0.52 | 831.764 | 0.00 | 8709.636 | 0.00 |
| 0.079 | 0.00 | 0.832 | 1.83 | 8.710 | 4.92 | 91.201 | 0.23 | 954.983 | 0.00 | 10000.000 | 0.00 |
| 0.091 | 0.00 | 0.956 | 1.73 | 10.000 | 5.10 | 104.713 | 0.07 | 1096.478 | 0.00 | | |
| 0.105 | 0.00 | 1.096 | | 11.482 | | 120.226 | | 1258.925 | | | |

Operator notes:



MASTERSIZER



Result Analysis Report

Sample Name:
SSilatrane_UJ_x - Average

Sample Source & type:

Sample bulk lot ref:

SOP Name:

Measured by:
User

Result Source:
Averaged

Measured:
14 August 2009 14:57:13

Analysed:
14 August 2009 14:57:14

Particle Name:
New sample material 0.01

Particle RI:
1.400

Dispersant Name:
Water

Accessory Name:
Hydro 2000SM (A)

Absorption:
0.01

Dispersant RI:
1.330

Analysis model:
General purpose

Size range:
0.020 to 2000.000 um

Weighted Residual:
4.825 %

Sensitivity:
Normal

Obscuration:
0.24 %

Result Emulation:
Off

Concentration:
0.0004 %Vol

Span:
2.181

Uniformity:
0.688

Result units:
Volume

Specific Surface Area:
0.409 m²/g

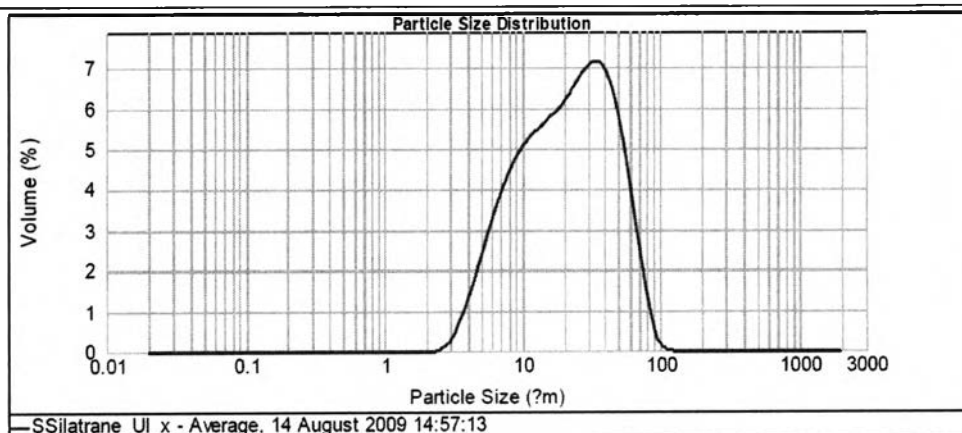
Surface Weighted Mean D[3,2]:
14.657 um

Vol. Weighted Mean D[4,3]:
26.237 um

d(0.1): 6.662 um

d(0.5): 21.407 um

d(0.9): 53.362 um



SSilatrane_UJ_x - Average, 14 August 2009 14:57:13

| Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| 0.010 | 0.00 | 0.105 | 0.00 | 1.095 | 0.00 | 11.482 | 4.88 | 120.226 | 0.00 | 1258.925 | 0.00 |
| 0.011 | 0.00 | 0.120 | 0.00 | 1.259 | 0.00 | 13.183 | 5.05 | 138.038 | 0.00 | 1445.440 | 0.00 |
| 0.013 | 0.00 | 0.138 | 0.00 | 1.445 | 0.00 | 15.136 | 5.23 | 158.489 | 0.00 | 1659.587 | 0.00 |
| 0.015 | 0.00 | 0.158 | 0.00 | 1.660 | 0.00 | 17.378 | 5.44 | 181.970 | 0.00 | 1905.461 | 0.00 |
| 0.017 | 0.00 | 0.182 | 0.00 | 1.905 | 0.00 | 19.953 | 5.71 | 208.930 | 0.00 | 2187.762 | 0.00 |
| 0.020 | 0.00 | 0.209 | 0.00 | 2.188 | 0.00 | 22.909 | 6.00 | 238.883 | 0.00 | 2511.896 | 0.00 |
| 0.023 | 0.00 | 0.240 | 0.00 | 2.512 | 0.11 | 26.303 | 6.28 | 275.423 | 0.00 | 2884.032 | 0.00 |
| 0.026 | 0.00 | 0.275 | 0.00 | 2.884 | 0.34 | 30.200 | 6.45 | 316.228 | 0.00 | 3311.311 | 0.00 |
| 0.030 | 0.00 | 0.316 | 0.00 | 3.311 | 0.77 | 34.674 | 6.41 | 363.076 | 0.00 | 3801.894 | 0.00 |
| 0.035 | 0.00 | 0.363 | 0.00 | 3.802 | 1.25 | 39.811 | 6.07 | 416.869 | 0.00 | 4365.158 | 0.00 |
| 0.040 | 0.00 | 0.417 | 0.00 | 4.365 | 1.84 | 45.709 | 5.38 | 478.630 | 0.00 | 5011.872 | 0.00 |
| 0.046 | 0.00 | 0.479 | 0.00 | 5.012 | 2.45 | 52.481 | 4.37 | 549.541 | 0.00 | 5754.399 | 0.00 |
| 0.052 | 0.00 | 0.550 | 0.00 | 5.754 | 3.06 | 60.256 | 3.16 | 630.957 | 0.00 | 6606.934 | 0.00 |
| 0.060 | 0.00 | 0.631 | 0.00 | 6.607 | 3.60 | 69.183 | 1.94 | 724.436 | 0.00 | 7585.776 | 0.00 |
| 0.069 | 0.00 | 0.724 | 0.00 | 7.586 | 4.05 | 79.433 | 0.90 | 831.764 | 0.00 | 8709.636 | 0.00 |
| 0.079 | 0.00 | 0.832 | 0.00 | 8.710 | 4.40 | 91.201 | 0.19 | 954.993 | 0.00 | 10000.000 | 0.00 |
| 0.091 | 0.00 | 0.955 | 0.00 | 10.000 | 4.68 | 104.713 | 0.02 | 1096.478 | 0.00 | | |
| 0.105 | 0.00 | 1.096 | 0.00 | 11.482 | | 120.226 | | 1258.925 | 0.00 | | |

Operator notes:



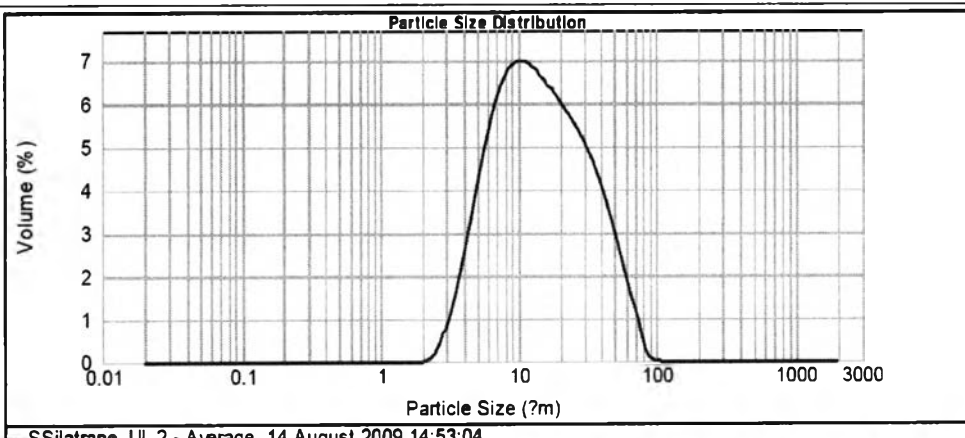
Result Analysis Report

Sample Name: SSilatrane_UI_2 - Average **SOP Name:** **Measured:** 14 August 2009 14:53:04
Sample Source & type: **Measured by:** User **Analysed:** 14 August 2009 14:53:05
Sample bulk lot ref: **Result Source:** Averaged

Particle Name: New sample material 0.01 **Accessory Name:** Hydro 2000SM (A) **Analysis model:** General purpose **Sensitivity:** Normal
Particle RI: 1.400 **Absorption:** 0.01 **Size range:** 0.020 to 2000.000 um **Obscuration:** 6.15 %
Dispersant Name: Water **Dispersant RI:** 1.330 **Weighted Residual:** 2.159 % **Result Emulation:** Off

Concentration: 0.0083 %Vol **Span :** 2.624 **Uniformity:** 0.801 **Result units:** Volume
Specific Surface Area: 0.558 m²/g **Surface Weighted Mean D[3,2]:** 10.756 um **Vol. Weighted Mean D[4,3]:** 18.982 um

d(0.1): 5.232 um d(0.5): 13.679 um d(0.9): 41.121 um

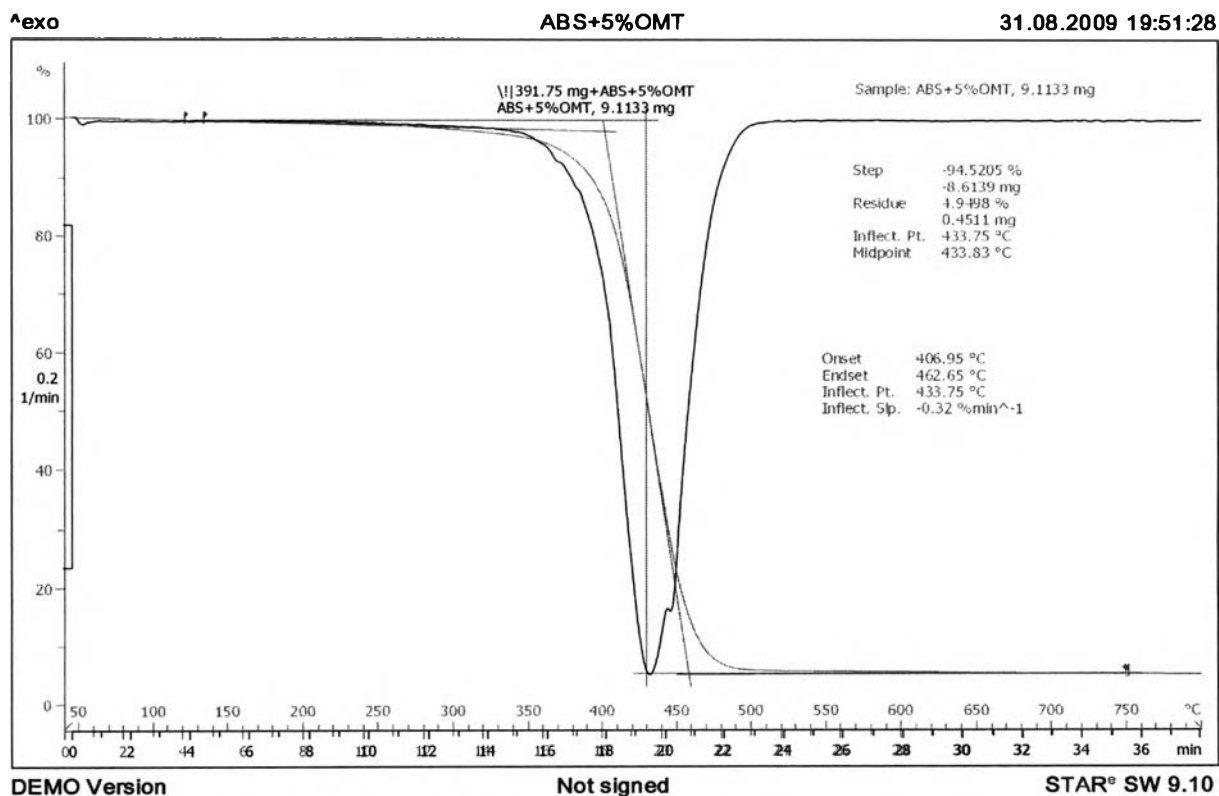


--SSilatrane_UI_2 - Average. 14 August 2009 14:53:04

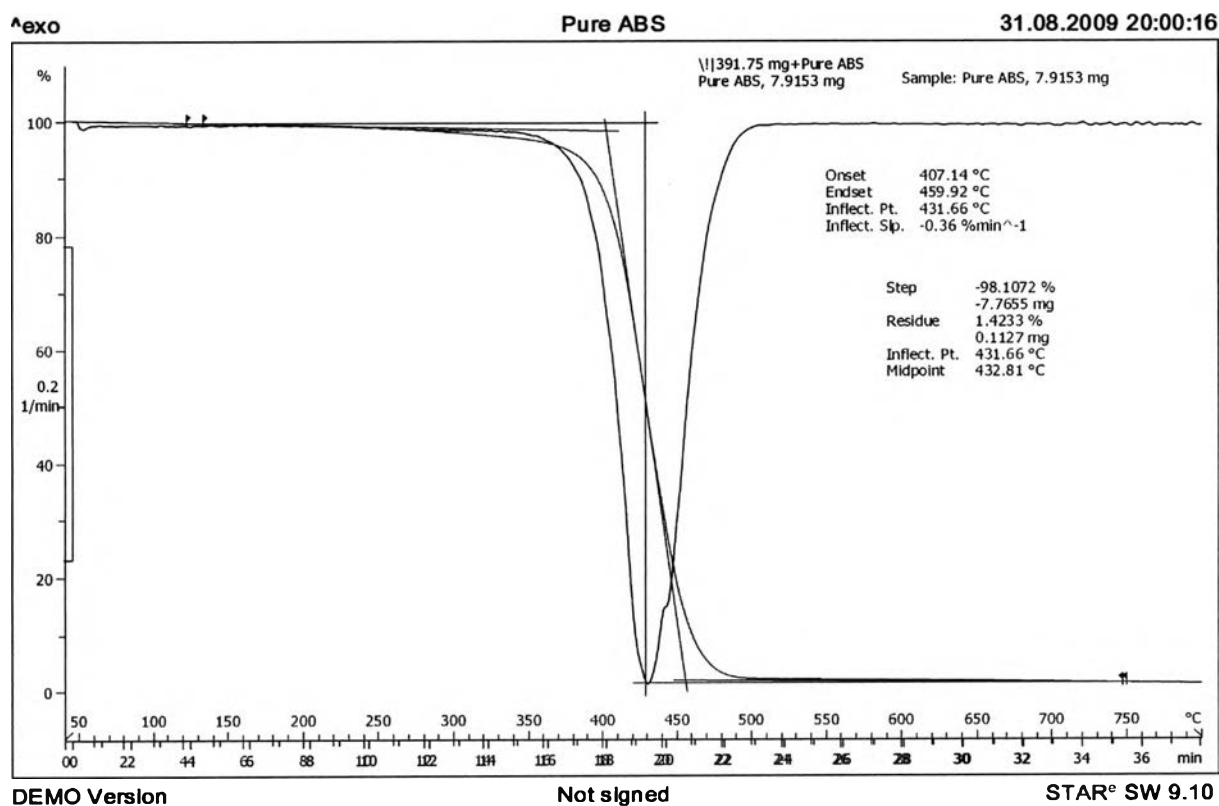
| Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % | Size (µm) | Volume in % |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| 0.010 | 0.00 | 0.105 | 0.00 | 1.096 | 0.00 | 11.482 | 6.21 | 120.226 | 0.00 | 1258.925 | 0.00 |
| 0.011 | 0.00 | 0.120 | 0.00 | 1.259 | 0.00 | 13.183 | 6.03 | 138.038 | 0.00 | 1445.440 | 0.00 |
| 0.013 | 0.00 | 0.138 | 0.00 | 1.445 | 0.00 | 15.136 | 5.81 | 158.469 | 0.00 | 1659.587 | 0.00 |
| 0.015 | 0.00 | 0.158 | 0.00 | 1.660 | 0.00 | 17.378 | 5.56 | 181.970 | 0.00 | 1905.461 | 0.00 |
| 0.017 | 0.00 | 0.182 | 0.00 | 1.906 | 0.00 | 19.963 | 5.30 | 208.930 | 0.00 | 2187.762 | 0.00 |
| 0.020 | 0.00 | 0.209 | 0.00 | 2.188 | 0.11 | 22.909 | 5.03 | 239.883 | 0.00 | 2511.886 | 0.00 |
| 0.023 | 0.00 | 0.240 | 0.00 | 2.512 | 0.40 | 26.303 | 4.73 | 275.423 | 0.00 | 2884.032 | 0.00 |
| 0.026 | 0.00 | 0.275 | 0.00 | 2.884 | 0.93 | 30.200 | 4.38 | 316.228 | 0.00 | 3311.311 | 0.00 |
| 0.030 | 0.00 | 0.316 | 0.00 | 3.311 | 1.60 | 34.674 | 3.94 | 363.078 | 0.00 | 3801.894 | 0.00 |
| 0.035 | 0.00 | 0.363 | 0.00 | 3.802 | 2.42 | 39.811 | 3.41 | 416.869 | 0.00 | 4365.158 | 0.00 |
| 0.040 | 0.00 | 0.417 | 0.00 | 4.365 | 3.32 | 45.709 | 2.80 | 478.630 | 0.00 | 5011.872 | 0.00 |
| 0.046 | 0.00 | 0.479 | 0.00 | 5.012 | 4.20 | 52.481 | 2.13 | 545.541 | 0.00 | 5754.399 | 0.00 |
| 0.052 | 0.00 | 0.550 | 0.00 | 5.754 | 4.99 | 60.256 | 1.45 | 630.957 | 0.00 | 6606.994 | 0.00 |
| 0.060 | 0.00 | 0.631 | 0.00 | 6.607 | 5.61 | 69.183 | 0.86 | 724.436 | 0.00 | 7585.776 | 0.00 |
| 0.069 | 0.00 | 0.724 | 0.00 | 7.586 | 6.03 | 79.433 | 0.19 | 831.764 | 0.00 | 8709.636 | 0.00 |
| 0.079 | 0.00 | 0.832 | 0.00 | 8.710 | 6.25 | 91.201 | 0.02 | 954.993 | 0.00 | 10000.000 | 0.00 |
| 0.091 | 0.00 | 0.955 | 0.00 | 10.000 | 6.29 | 104.713 | 0.00 | 1096.478 | 0.00 | | |
| 0.106 | 0.00 | 1.096 | 0.00 | 11.482 | | 120.226 | | 1258.925 | 0.00 | | |

Operator notes:

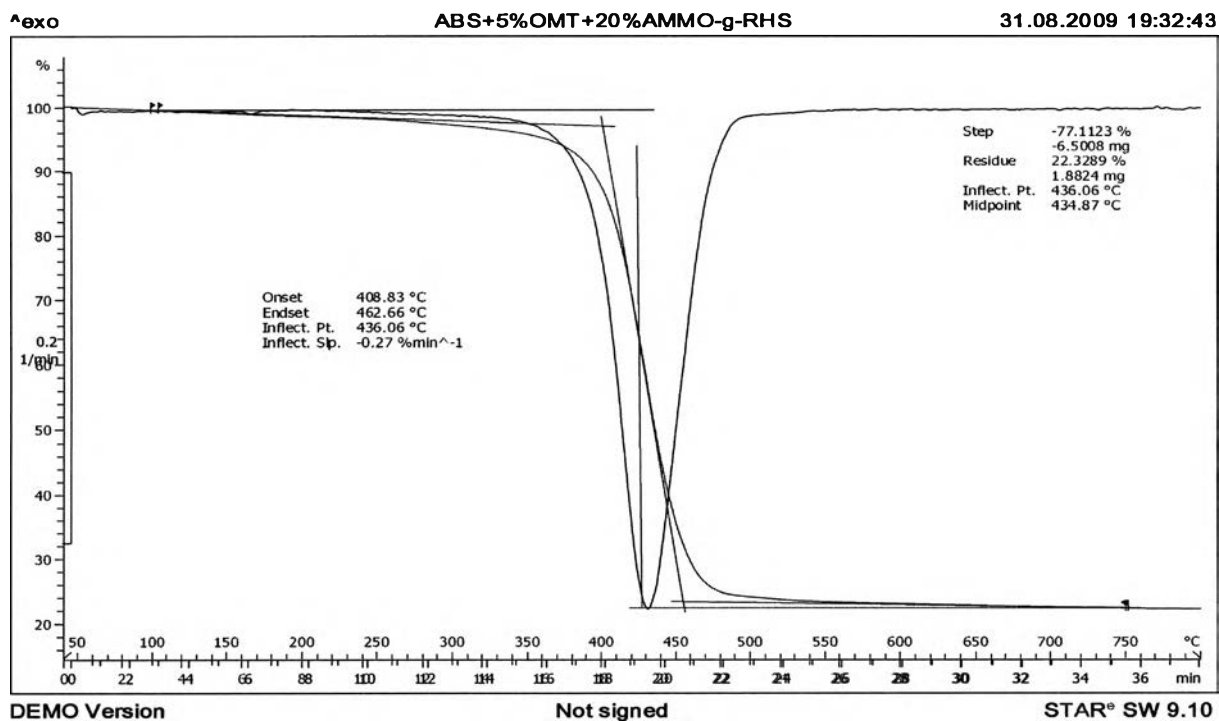
A13 Particle size analysis of SSilatrane (batch 2)



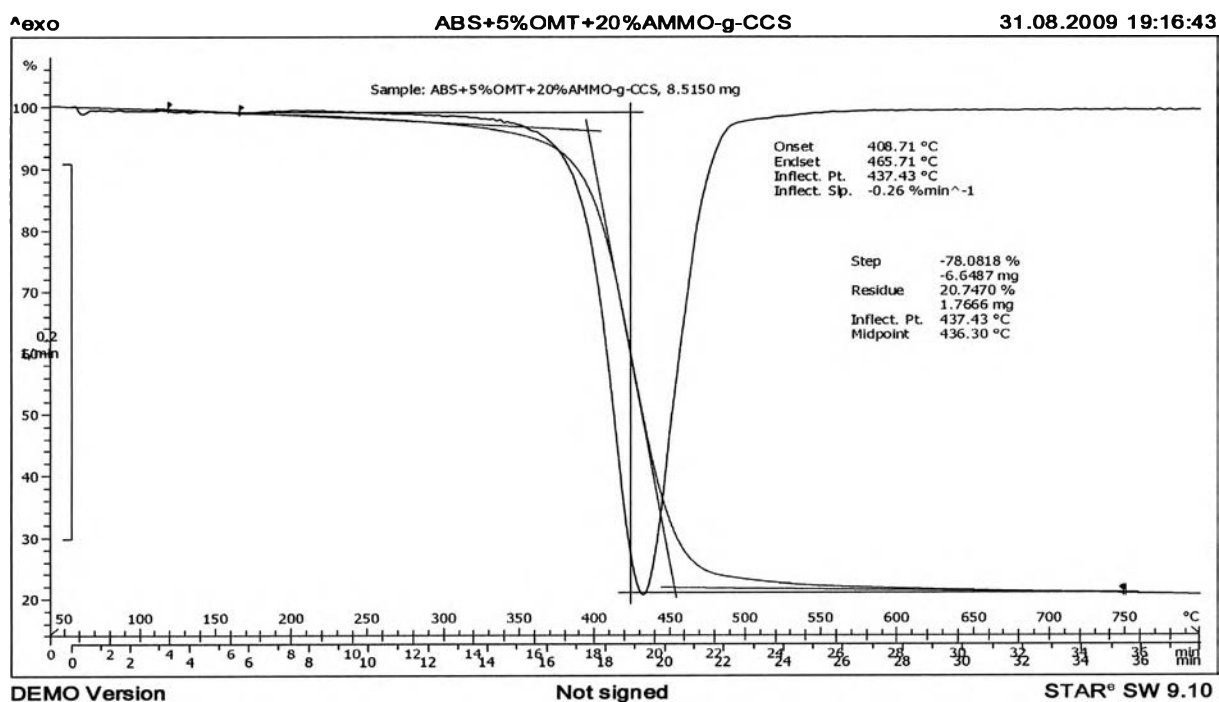
A14 TGA curve of ABS/5%OMT nanocomposites



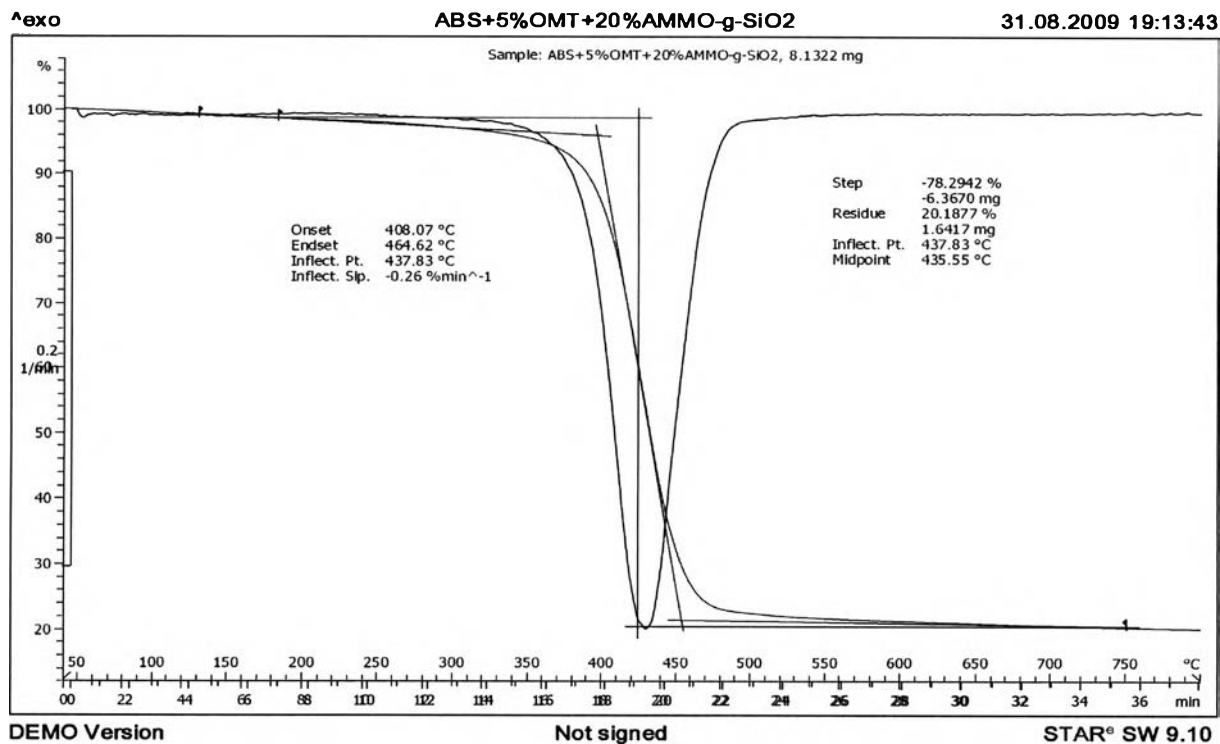
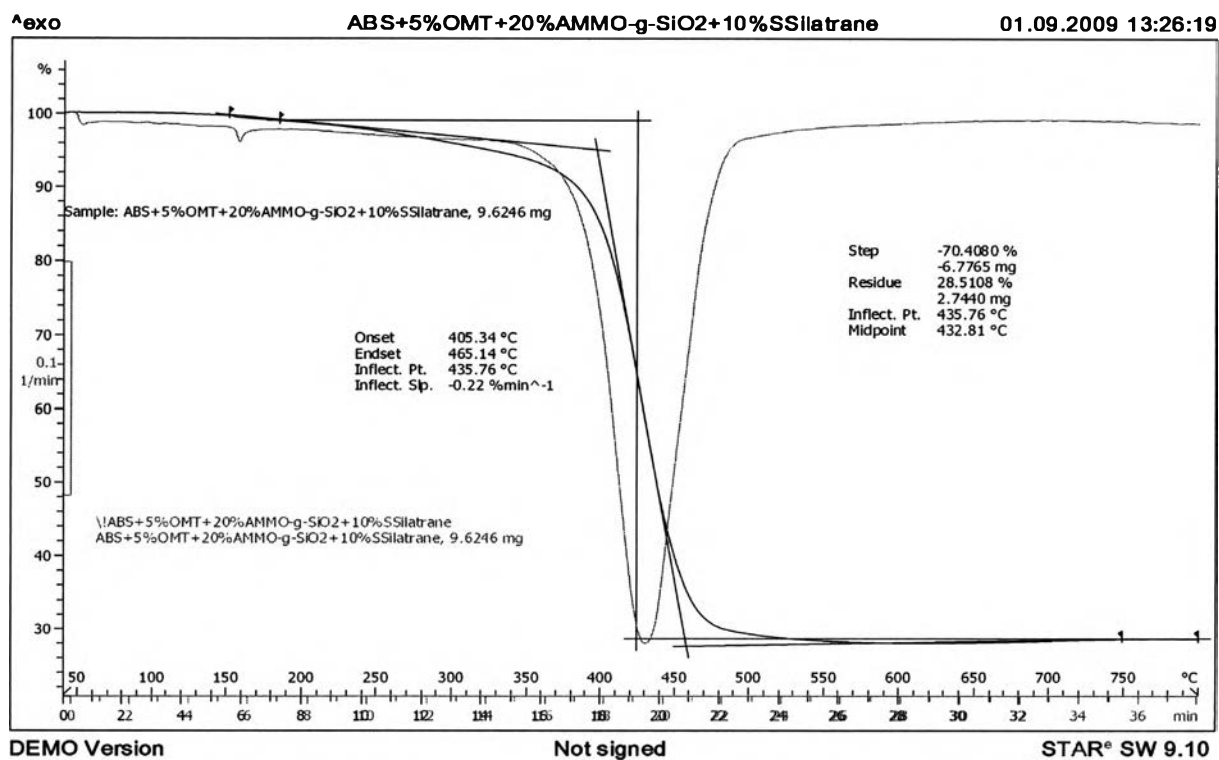
A15 TGA curve of neat ABS

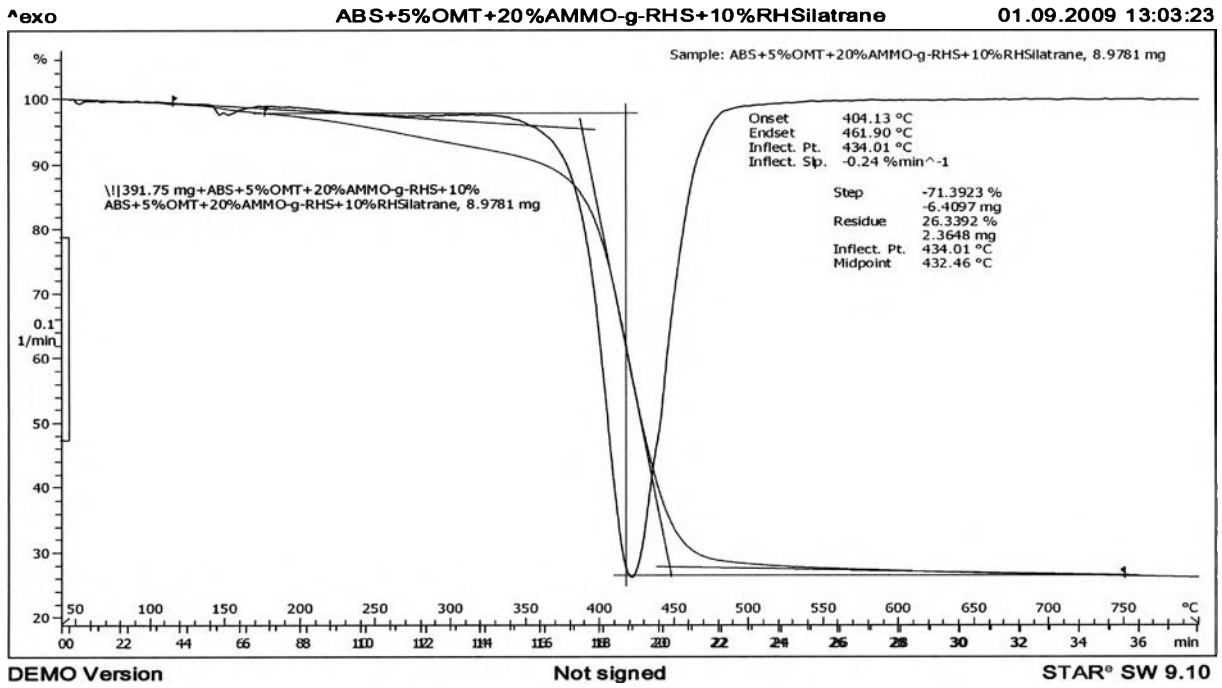


A16 TGA curve of ABS/5%OMT/20%AMMO-g-RHS nanocomposites

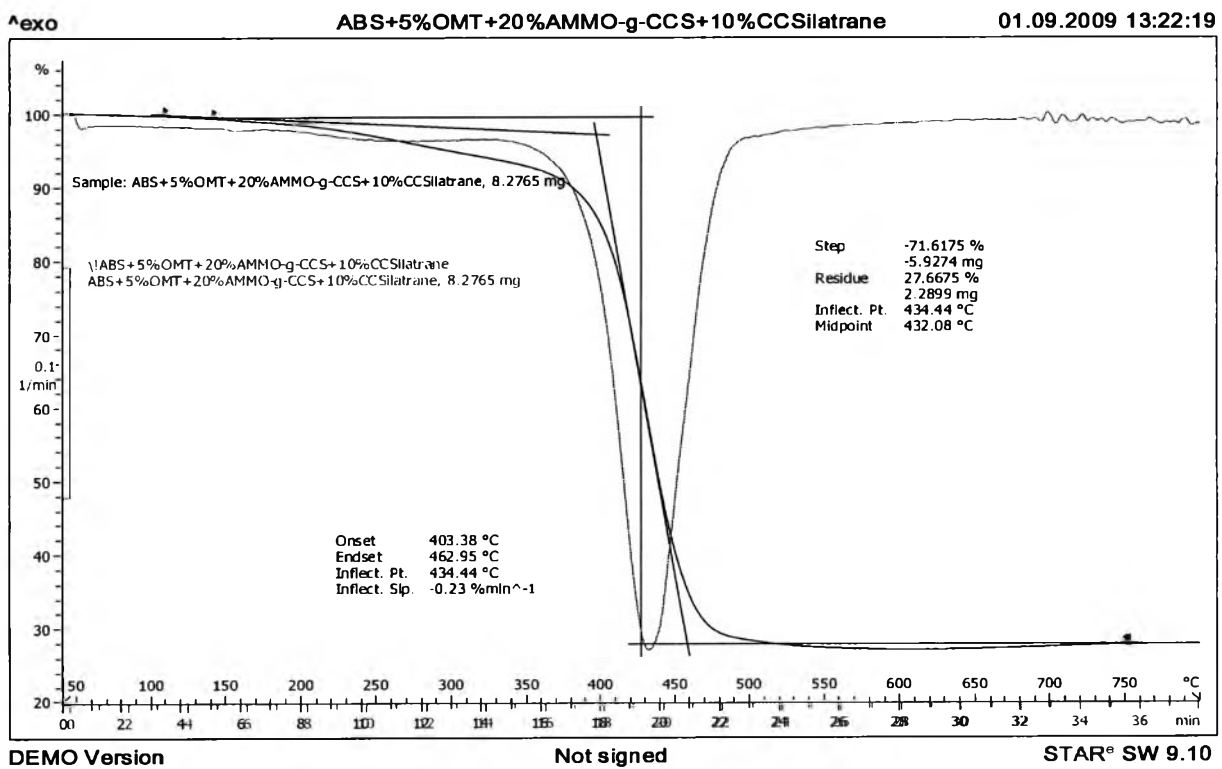


A17 TGA curve of ABS/5%OMT/20%AMMO-g-CCS nanocomposites

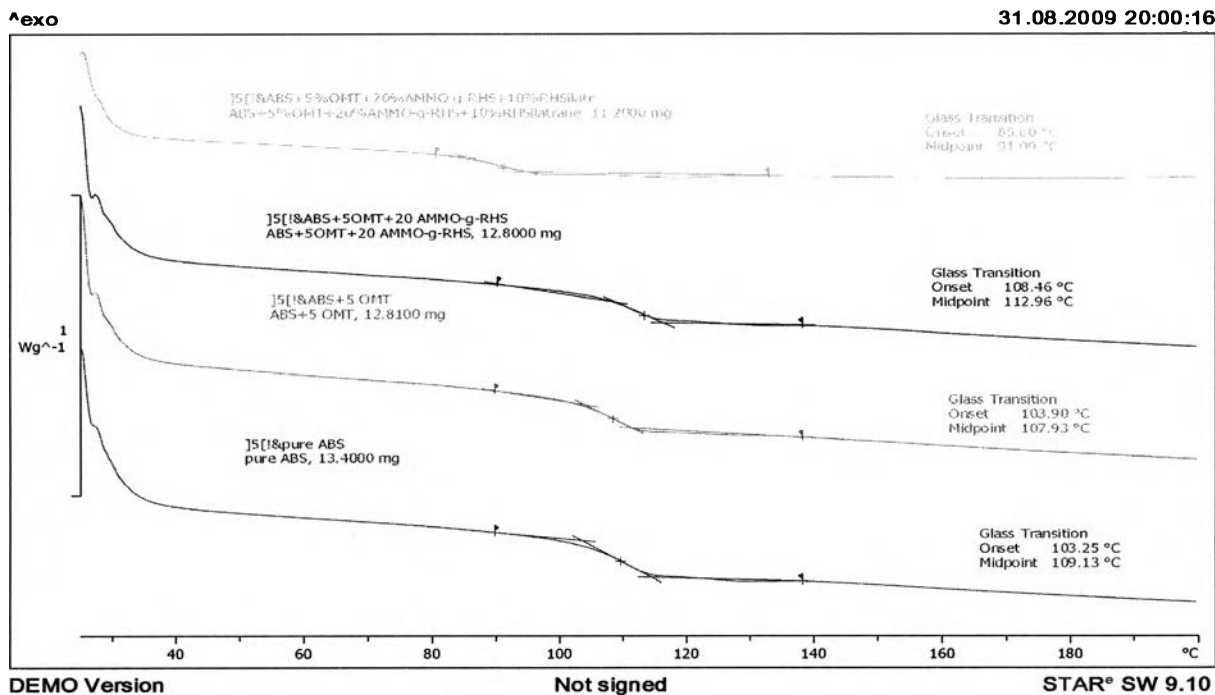
A18 TGA curve of ABS/5%OMT/20%AMMO-g-SiO₂ nanocompositesA19 TGA curve of ABS/5%OMT/20%AMMO-g-SiO₂/10%SSilatrane nanocomposites



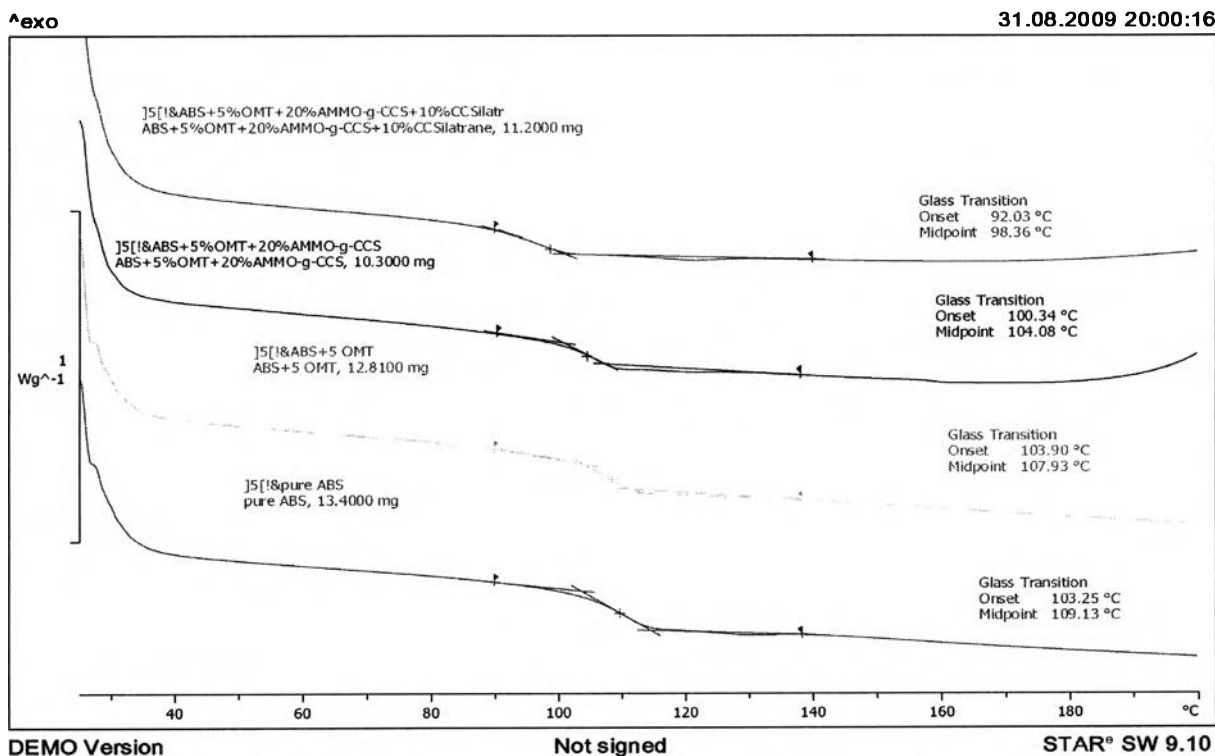
A20 TGA curve of ABS/5%OMT/20%AMMO-g-RHS/10%RHSilatrane nanocomposites



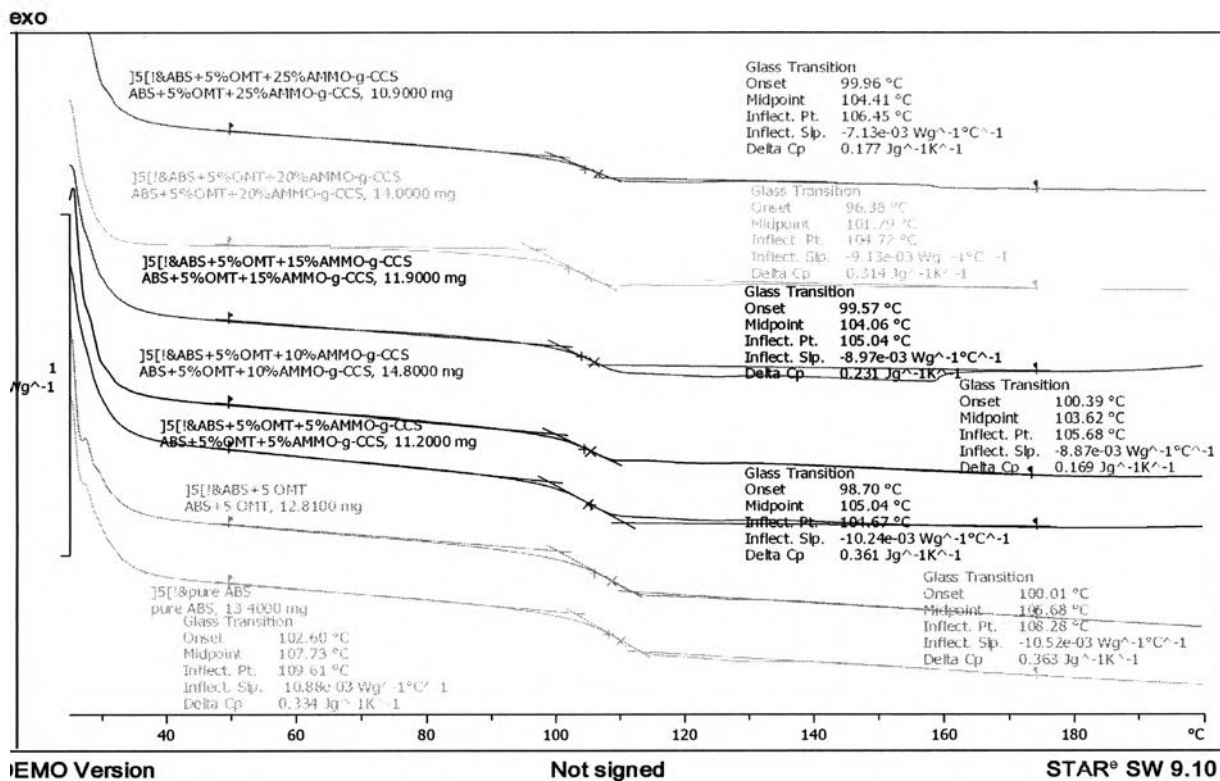
A21 TGA curve of ABS/5%OMT/20%AMMO-g-CCS/10%CCSilatrane nanocomposites



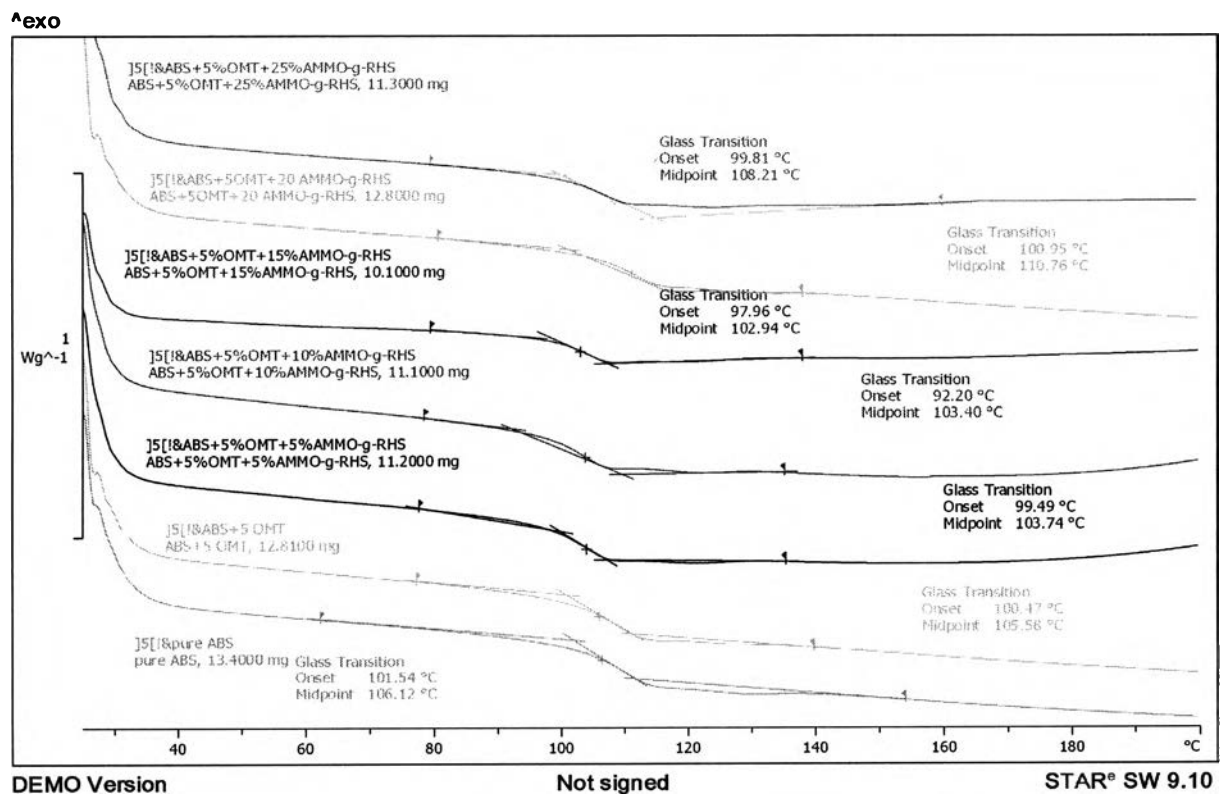
A22 Effect of ABS/5%OMT/20%AMMO-g-RHS/10%RHSilatrane nanocomposites on thermal stability



A23 Effect of ABS/5%OMT/20%AMMO-g-CCS/10%CCSilatrane nanocomposites on thermal stability



A24 Effect of AMMO-g-CCS loading on thermal stability of ABS nanocomposites



A25 Effect of AMMO-g-RHS loading on thermal stability of ABS nanocomposites

Biography

Miss Sirilak Boonkrai was born on March 10, 1977 in Rachaburi province. She received a Bachelor's Degree of Science in Chemistry from Chulalongkorn University in 1999. After that, she started as a graduate student of Master Degree in the Program of Petrochemistry and Polymer Science, Faculty of Science, Chulalongkorn University and graduated in April 2001. She continued a further study in the Degree of Doctor of Materials Science, Program in Materials Science, Department of Materials Science, Faculty of Science, Chulalongkorn University, and completed in October 2009.

