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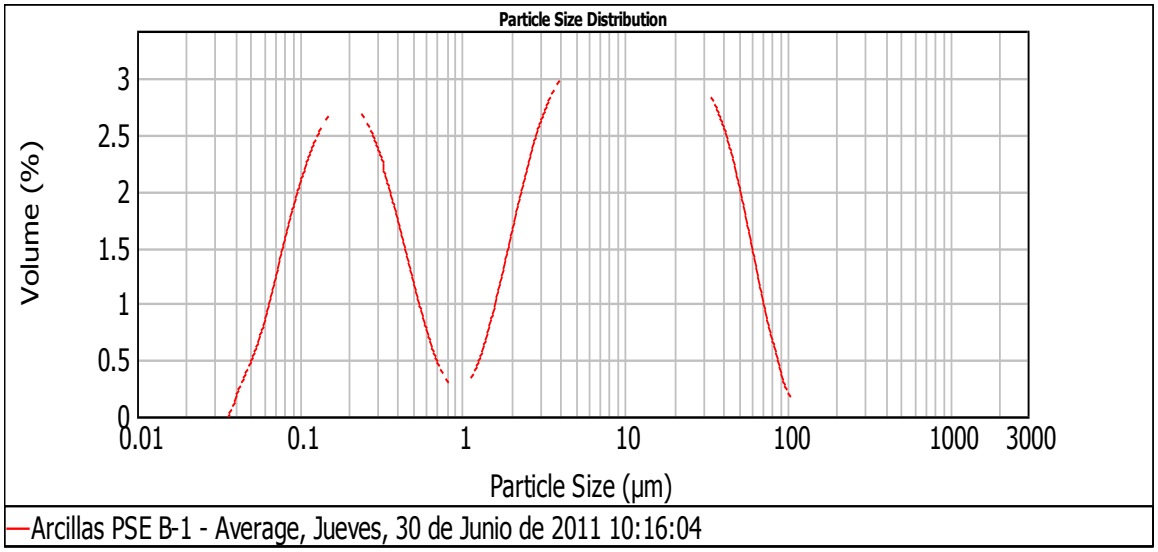
APÉNDICES

APÉNDICE A

DISTRIBUCIÓN DE TAMAÑO DE PARTÍCULA DE LAS MUESTRAS DE ARCILLAS DE LA PSE

MUESTRA B1



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.03
0.040	0.25
0.046	0.42
0.052	0.64
0.060	0.90
0.069	1.23
0.079	1.55
0.091	1.83
0.105	

Size (µm)	Volume In %
0.105	2.08
0.120	2.27
0.138	2.41
0.158	2.49
0.182	2.51
0.209	2.46
0.240	2.34
0.275	2.16
0.316	1.93
0.363	1.65
0.417	1.35
0.479	1.04
0.550	0.75
0.631	0.50
0.724	0.31
0.832	0.22
0.955	0.23
1.096	

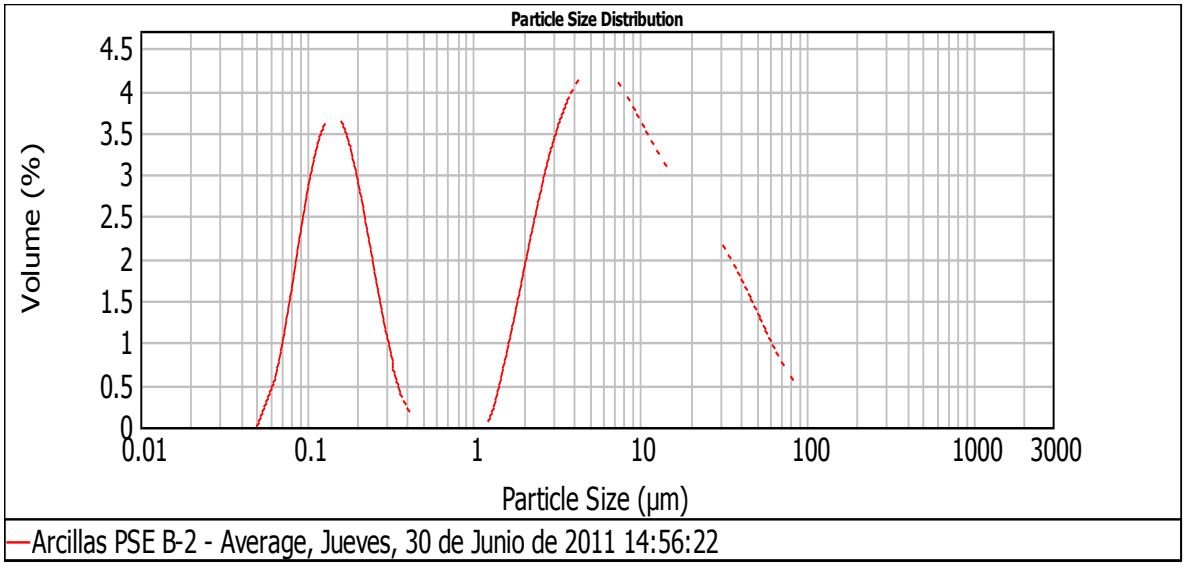
Size (µm)	Volume In %
1.096	0.35
1.259	0.56
1.445	0.84
1.660	1.16
1.905	1.51
2.188	1.85
2.512	2.15
2.884	2.40
3.311	2.60
3.802	2.72
4.365	2.79
5.012	2.81
5.754	2.79
6.607	2.73
7.586	2.65
8.710	2.58
10.000	2.51
11.482	

Size (µm)	Volume In %
11.482	2.47
13.183	2.46
15.136	2.48
17.378	2.53
19.953	2.59
22.909	2.64
26.303	2.65
30.200	2.60
34.674	2.46
39.811	2.24
45.709	1.93
52.481	1.57
60.256	1.19
69.183	0.82
79.433	0.51
91.201	0.22
104.713	0.10
120.226	

Size (µm)	Volume In %
120.226	0.00
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B2



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.00
0.046	0.00
0.052	0.26
0.060	0.55
0.069	1.10
0.079	1.77
0.091	2.43
0.105	2.96

Size (µm)	Volume In %
0.105	2.96
0.120	3.28
0.138	3.34
0.158	3.14
0.182	2.73
0.209	2.17
0.240	1.57
0.275	1.01
0.316	0.56
0.363	0.25
0.417	0.08
0.479	0.01
0.550	0.00
0.631	0.00
0.724	0.00
0.832	0.00
0.955	0.00
1.096	0.02

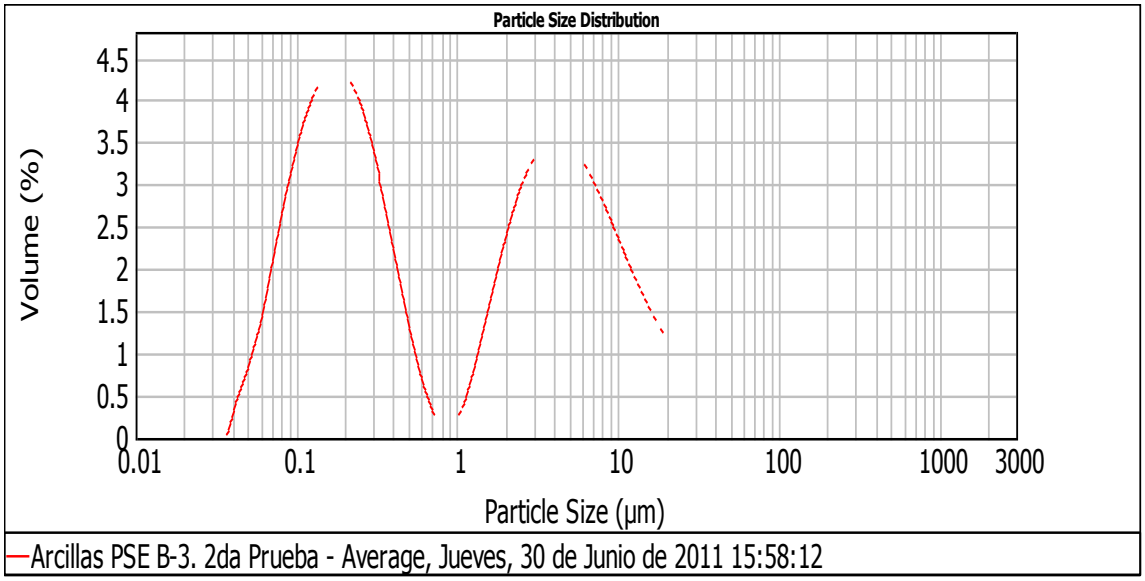
Size (µm)	Volume In %
1.096	0.02
1.259	0.26
1.445	0.72
1.660	1.22
1.905	1.75
2.188	2.27
2.512	2.74
2.884	3.14
3.311	3.46
3.802	3.68
4.365	3.82
5.012	3.86
5.754	3.83
6.607	3.72
7.586	3.56
8.710	3.37
10.000	3.17
11.482	2.97

Size (µm)	Volume In %
11.482	2.97
13.183	2.79
15.136	2.63
17.378	2.49
19.953	2.36
22.909	2.22
26.303	2.08
30.200	1.91
34.674	1.73
39.811	1.51
45.709	1.29
52.481	1.05
60.256	0.83
69.183	0.63
79.433	0.47
91.201	0.34
104.713	0.26
120.226	0.19

Size (µm)	Volume In %
120.226	0.19
138.038	0.14
158.489	0.11
181.970	0.08
208.930	0.04
239.883	0.03
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	0.00

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B3



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.05
0.040	0.42
0.046	0.71
0.052	1.08
0.060	1.52
0.069	2.07
0.079	2.59
0.091	3.05
0.105	

Size (µm)	Volume In %
0.105	3.42
0.120	3.70
0.138	3.88
0.158	3.95
0.182	3.90
0.209	3.74
0.240	3.47
0.275	3.11
0.316	2.66
0.363	2.16
0.417	1.64
0.479	1.15
0.550	0.70
0.631	0.36
0.724	0.16
0.832	0.12
0.955	0.24
1.096	

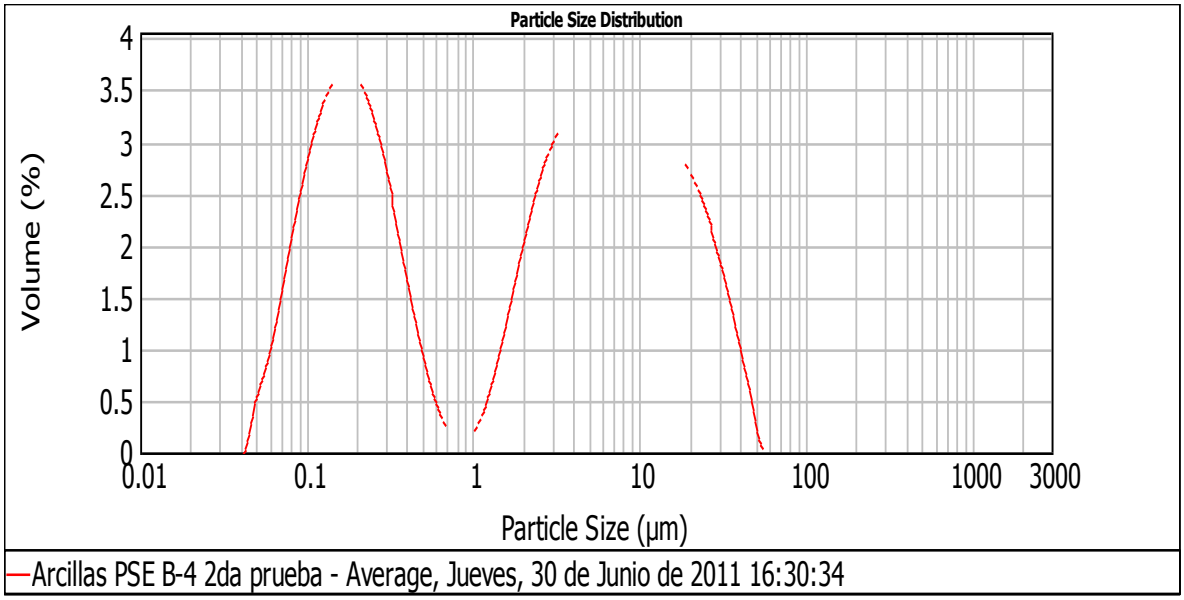
Size (µm)	Volume In %
1.096	0.52
1.259	0.90
1.445	1.34
1.660	1.79
1.905	2.20
2.188	2.56
2.512	2.84
2.884	3.03
3.311	3.14
3.802	3.18
4.365	3.15
5.012	3.06
5.754	2.91
6.607	2.72
7.586	2.49
8.710	2.24
10.000	1.99
11.482	

Size (µm)	Volume In %
11.482	1.75
13.183	1.52
15.136	1.31
17.378	1.13
19.953	0.96
22.909	0.82
26.303	0.68
30.200	0.56
34.674	0.44
39.811	0.34
45.709	0.24
52.481	0.17
60.256	0.11
69.183	0.04
79.433	0.02
91.201	0.01
104.713	0.00
120.226	

Size (µm)	Volume In %
120.226	0.00
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B4



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.02
0.046	0.44
0.052	0.73
0.060	1.09
0.069	1.57
0.079	2.05
0.091	2.48
0.105	

Size (µm)	Volume In %
0.105	2.83
0.120	3.10
0.138	3.27
0.158	3.33
0.182	3.28
0.209	3.11
0.240	2.85
0.275	2.50
0.316	2.08
0.363	1.64
0.417	1.19
0.479	0.80
0.550	0.47
0.631	0.24
0.724	0.13
0.832	0.11
0.955	0.19
1.096	

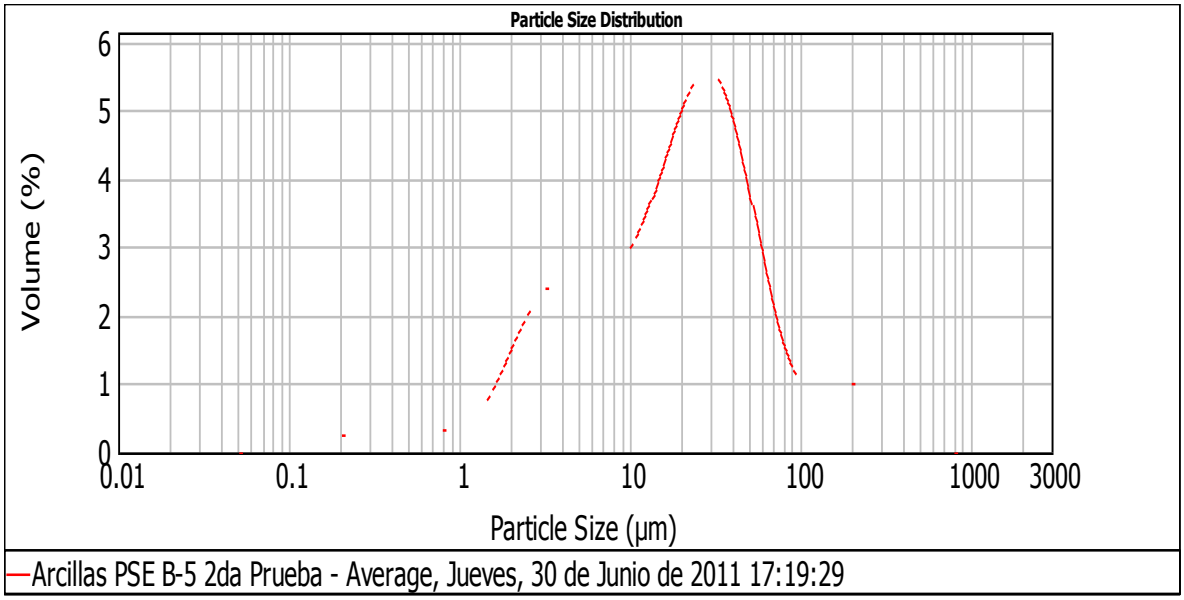
Size (µm)	Volume In %
1.096	0.38
1.259	0.68
1.445	1.06
1.660	1.46
1.905	1.86
2.188	2.22
2.512	2.52
2.884	2.74
3.311	2.89
3.802	2.98
4.365	3.02
5.012	3.04
5.754	3.03
6.607	3.00
7.586	2.96
8.710	2.92
10.000	2.87
11.482	

Size (µm)	Volume In %
11.482	2.81
13.183	2.74
15.136	2.64
17.378	2.51
19.953	2.34
22.909	2.12
26.303	1.86
30.200	1.54
34.674	1.17
39.811	0.77
45.709	0.37
52.481	0.00
60.256	0.00
69.183	0.00
79.433	0.00
91.201	0.00
104.713	0.00
120.226	

Size (µm)	Volume In %
120.226	0.00
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B5



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.00
0.046	0.00
0.052	0.00
0.060	0.00
0.069	0.00
0.079	0.00
0.091	0.00
0.105	0.00

Size (µm)	Volume In %
0.105	0.05
0.120	0.09
0.138	0.12
0.158	0.16
0.182	0.20
0.209	0.24
0.240	0.28
0.275	0.31
0.316	0.33
0.363	0.34
0.417	0.34
0.479	0.33
0.550	0.31
0.631	0.29
0.724	0.27
0.832	0.28
0.955	0.32
1.096	0.42

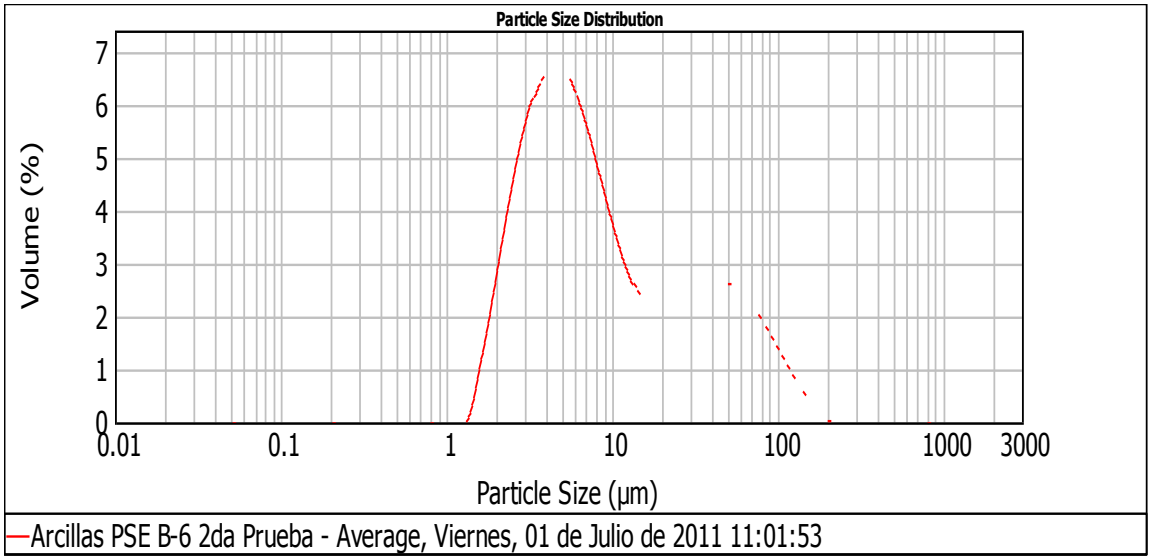
Size (µm)	Volume In %
1.096	0.42
1.259	0.58
1.445	0.80
1.660	1.08
1.905	1.38
2.188	1.67
2.512	1.91
2.884	2.09
3.311	2.21
3.802	2.26
4.365	2.28
5.012	2.28
5.754	2.29
6.607	2.33
7.586	2.41
8.710	2.56
10.000	2.79
11.482	3.10

Size (µm)	Volume In %
11.482	3.10
13.183	3.47
15.136	3.89
17.378	4.30
19.953	4.67
22.909	4.93
26.303	5.04
30.200	4.96
34.674	4.68
39.811	4.21
45.709	3.61
52.481	2.94
60.256	2.27
69.183	1.69
79.433	1.24
91.201	0.95
104.713	0.81
120.226	0.79

Size (µm)	Volume In %
120.226	0.79
138.038	0.82
158.489	0.88
181.970	0.91
208.930	0.90
239.883	0.84
275.423	0.74
316.228	0.60
363.078	0.47
416.869	0.33
478.630	0.22
549.541	0.11
630.957	0.04
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	0.00

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B6



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.00
0.046	0.00
0.052	0.00
0.060	0.00
0.069	0.00
0.079	0.00
0.091	0.00
0.105	

Size (µm)	Volume In %
0.105	0.00
0.120	0.00
0.138	0.00
0.158	0.00
0.182	0.00
0.209	0.00
0.240	0.00
0.275	0.00
0.316	0.00
0.363	0.00
0.417	0.00
0.479	0.00
0.550	0.00
0.631	0.00
0.724	0.00
0.832	0.00
0.955	0.00
1.096	

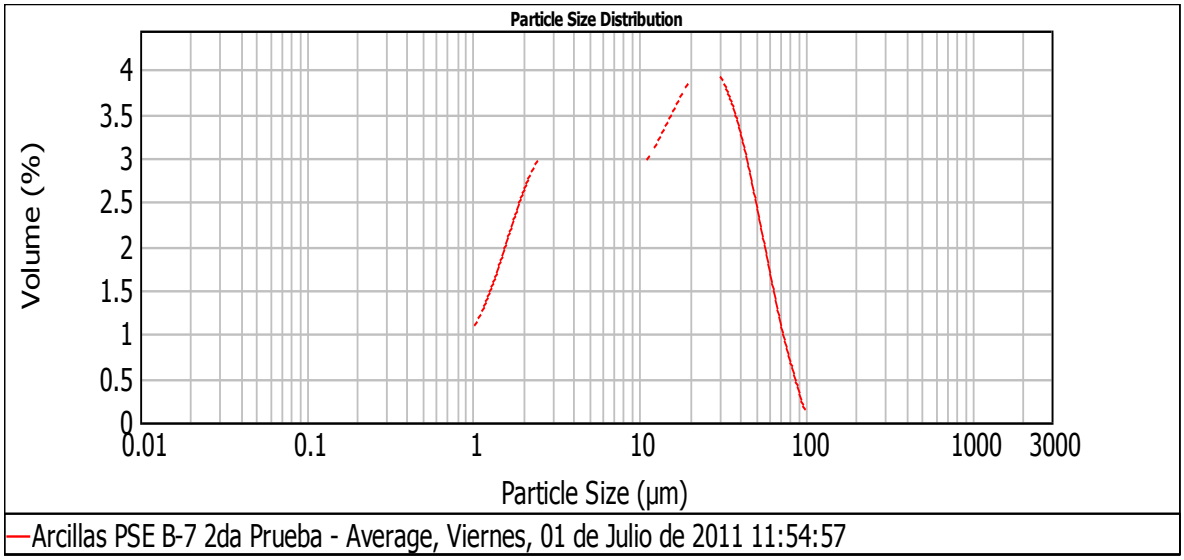
Size (µm)	Volume In %
1.096	0.00
1.259	0.05
1.445	0.78
1.660	1.63
1.905	2.60
2.188	3.58
2.512	4.48
2.884	5.21
3.311	5.74
3.802	6.02
4.365	6.08
5.012	5.92
5.754	5.56
6.607	5.04
7.586	4.41
8.710	3.77
10.000	3.15
11.482	

Size (µm)	Volume In %
11.482	2.63
13.183	2.24
15.136	1.99
17.378	1.88
19.953	1.89
22.909	1.99
26.303	2.13
30.200	2.27
34.674	2.38
39.811	2.43
45.709	2.40
52.481	2.29
60.256	2.12
69.183	1.89
79.433	1.62
91.201	1.32
104.713	1.02
120.226	

Size (µm)	Volume In %
120.226	0.72
138.038	0.46
158.489	0.23
181.970	0.08
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA B7



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.02
0.030	0.04
0.035	0.08
0.040	0.12
0.046	0.18
0.052	0.25
0.060	0.34
0.069	0.47
0.079	0.59
0.091	0.72
0.105	0.83

Size (µm)	Volume In %
0.105	0.83
0.120	0.93
0.138	1.02
0.158	1.08
0.182	1.13
0.209	1.16
0.240	1.16
0.275	1.13
0.316	1.09
0.363	1.03
0.417	0.95
0.479	0.88
0.550	0.81
0.631	0.78
0.724	0.79
0.832	0.85
0.955	0.99
1.096	1.20

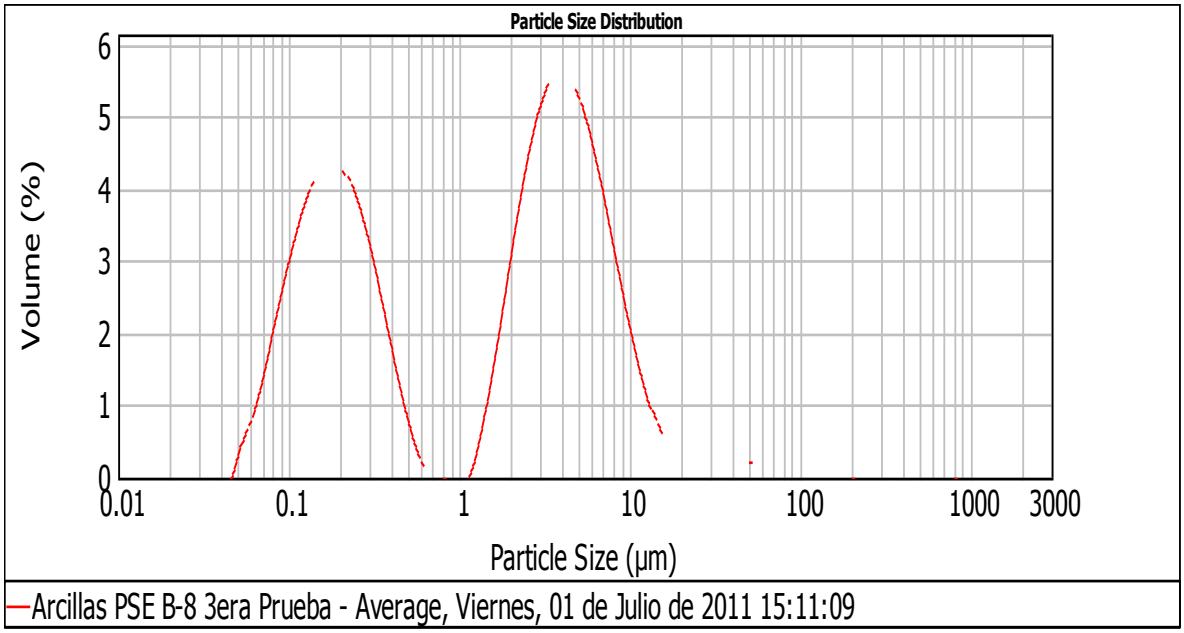
Size (µm)	Volume In %
1.096	1.20
1.259	1.47
1.445	1.78
1.660	2.10
1.905	2.40
2.188	2.64
2.512	2.79
2.884	2.85
3.311	2.83
3.802	2.76
4.365	2.66
5.012	2.57
5.754	2.50
6.607	2.46
7.586	2.48
8.710	2.54
10.000	2.67
11.482	2.83

Size (µm)	Volume In %
11.482	2.83
13.183	3.03
15.136	3.24
17.378	3.43
19.953	3.57
22.909	3.64
26.303	3.61
30.200	3.47
34.674	3.20
39.811	2.82
45.709	2.36
52.481	1.85
60.256	1.34
69.183	0.86
79.433	0.49
91.201	0.14
104.713	0.02
120.226	0.00

Size (µm)	Volume In %
120.226	0.00
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	0.00

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	0.00

MUESTRA B8



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.00
0.046	0.13
0.052	0.60
0.060	0.94
0.069	1.49
0.079	2.06
0.091	2.62
0.105	

Size (µm)	Volume In %
0.105	3.11
0.120	3.52
0.138	3.80
0.158	3.94
0.182	3.92
0.209	3.73
0.240	3.39
0.275	2.93
0.316	2.36
0.363	1.75
0.417	1.15
0.479	0.64
0.550	0.25
0.631	0.02
0.724	0.00
0.832	0.00
0.955	0.00
1.096	

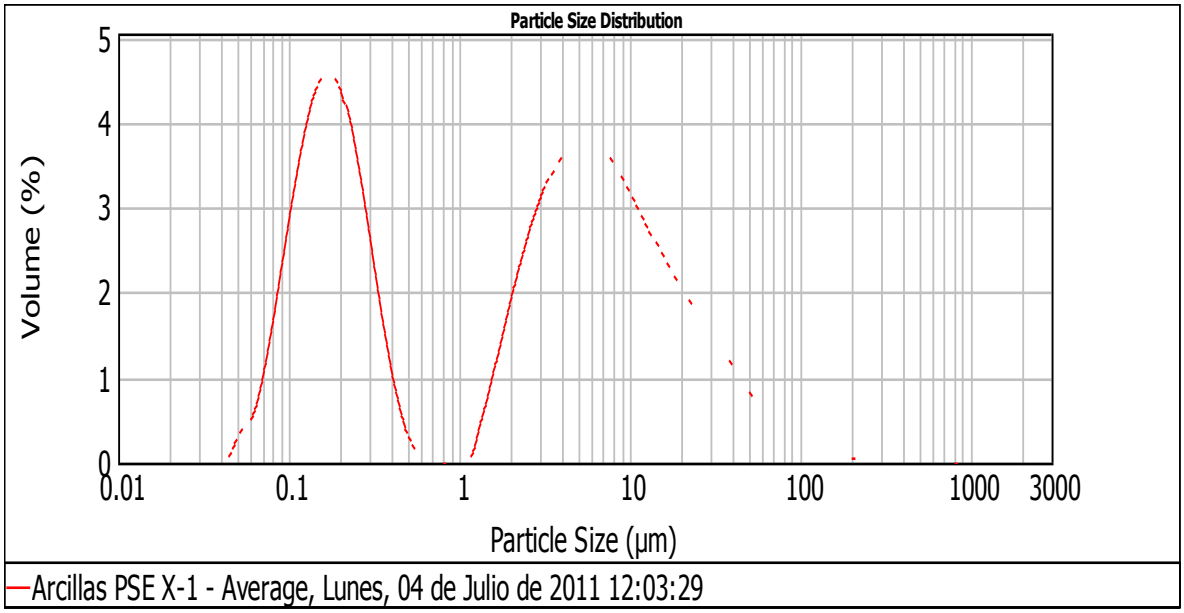
Size (µm)	Volume In %
1.096	0.08
1.259	0.59
1.445	1.24
1.660	2.01
1.905	2.82
2.188	3.59
2.512	4.24
2.884	4.72
3.311	4.98
3.802	5.03
4.365	4.89
5.012	4.57
5.754	4.09
6.607	3.51
7.586	2.86
8.710	2.22
10.000	1.62
11.482	

Size (µm)	Volume In %
11.482	1.12
13.183	0.72
15.136	0.45
17.378	0.27
19.953	0.19
22.909	0.16
26.303	0.17
30.200	0.19
34.674	0.21
39.811	0.21
45.709	0.20
52.481	0.19
60.256	0.16
69.183	0.14
79.433	0.09
91.201	0.06
104.713	0.03
120.226	

Size (µm)	Volume In %
120.226	0.02
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA X1



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.01
0.046	0.23
0.052	0.39
0.060	0.64
0.069	1.15
0.079	1.78
0.091	2.45
0.105	3.10

Size (µm)	Volume In %
0.105	3.10
0.120	3.64
0.138	4.00
0.158	4.14
0.182	4.02
0.209	3.67
0.240	3.11
0.275	2.43
0.316	1.72
0.363	1.09
0.417	0.58
0.479	0.24
0.550	0.06
0.631	0.00
0.724	0.00
0.832	0.00
0.955	0.00
1.096	0.07

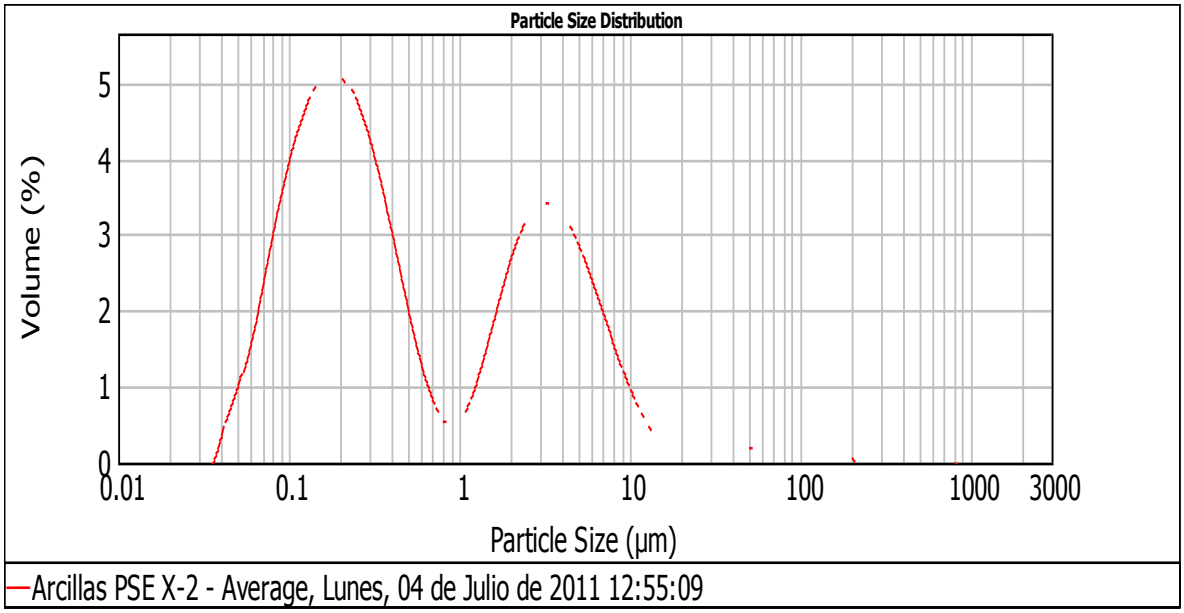
Size (µm)	Volume In %
1.096	0.07
1.259	0.46
1.445	0.88
1.660	1.33
1.905	1.77
2.188	2.18
2.512	2.55
2.884	2.86
3.311	3.10
3.802	3.28
4.365	3.39
5.012	3.43
5.754	3.40
6.607	3.31
7.586	3.16
8.710	2.98
10.000	2.77
11.482	2.55

Size (µm)	Volume In %
11.482	2.55
13.183	2.34
15.136	2.13
17.378	1.94
19.953	1.76
22.909	1.60
26.303	1.44
30.200	1.28
34.674	1.12
39.811	0.96
45.709	0.80
52.481	0.64
60.256	0.50
69.183	0.38
79.433	0.28
91.201	0.20
104.713	0.15
120.226	0.11

Size (µm)	Volume In %
120.226	0.11
138.038	0.09
158.489	0.07
181.970	0.05
208.930	0.05
239.883	0.05
275.423	0.05
316.228	0.05
363.078	0.05
416.869	0.01
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	0.00

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA X2



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.06
0.040	0.48
0.046	0.81
0.052	1.22
0.060	1.72
0.069	2.36
0.079	2.96
0.091	3.49
0.105	

Size (µm)	Volume In %
0.105	3.93
0.120	4.27
0.138	4.51
0.158	4.62
0.182	4.62
0.209	4.48
0.240	4.22
0.275	3.86
0.316	3.40
0.363	2.87
0.417	2.31
0.479	1.75
0.550	1.24
0.631	0.84
0.724	0.56
0.832	0.46
0.955	0.54
1.096	

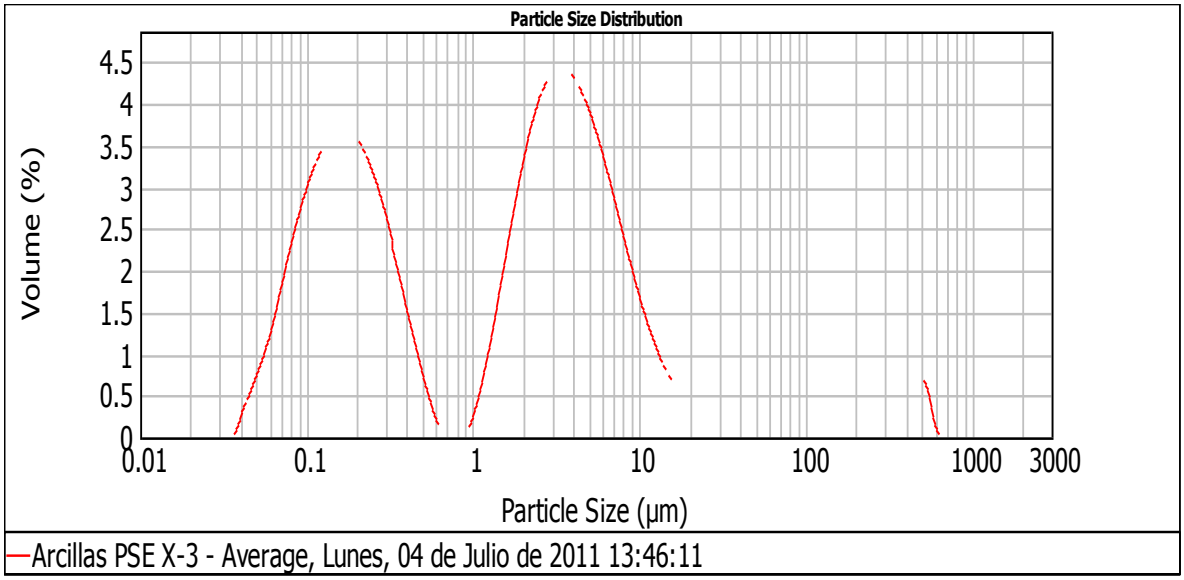
Size (µm)	Volume In %
1.096	0.78
1.259	1.15
1.445	1.59
1.660	2.04
1.905	2.45
2.188	2.78
2.512	2.99
2.884	3.09
3.311	3.06
3.802	2.92
4.365	2.71
5.012	2.43
5.754	2.10
6.607	1.75
7.586	1.39
8.710	1.05
10.000	0.76
11.482	

Size (µm)	Volume In %
11.482	0.52
13.183	0.34
15.136	0.22
17.378	0.16
19.953	0.14
22.909	0.14
26.303	0.16
30.200	0.17
34.674	0.19
39.811	0.19
45.709	0.18
52.481	0.16
60.256	0.14
69.183	0.12
79.433	0.11
91.201	0.10
104.713	0.09
120.226	

Size (µm)	Volume In %
120.226	0.08
138.038	0.08
158.489	0.07
181.970	0.04
208.930	0.02
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA X3



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.05
0.040	0.37
0.046	0.63
0.052	0.95
0.060	1.34
0.069	1.83
0.079	2.28
0.091	2.67
0.105	

Size (µm)	Volume In %
0.105	2.97
0.120	3.19
0.138	3.31
0.158	3.33
0.182	3.24
0.209	3.05
0.240	2.77
0.275	2.41
0.316	1.98
0.363	1.51
0.417	1.04
0.479	0.61
0.550	0.25
0.631	0.02
0.724	0.00
0.832	0.03
0.955	0.27
1.096	

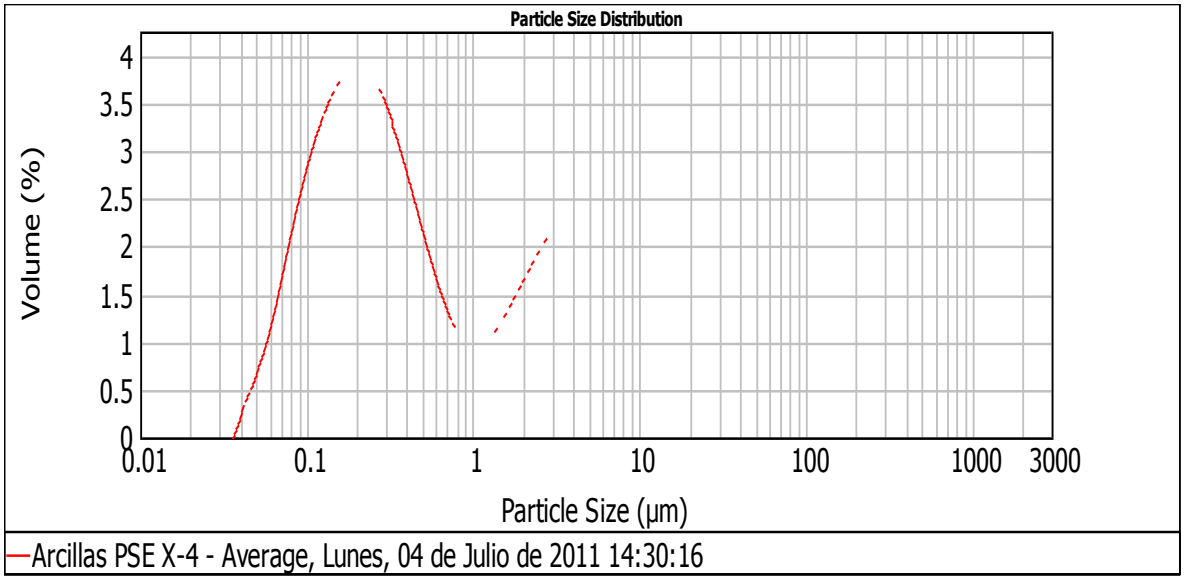
Size (µm)	Volume In %
1.096	0.71
1.259	1.27
1.445	1.89
1.660	2.51
1.905	3.06
2.188	3.51
2.512	3.82
2.884	3.97
3.311	3.98
3.802	3.87
4.365	3.65
5.012	3.35
5.754	2.97
6.607	2.55
7.586	2.11
8.710	1.69
10.000	1.31
11.482	

Size (µm)	Volume In %
11.482	0.99
13.183	0.74
15.136	0.55
17.378	0.44
19.953	0.38
22.909	0.36
26.303	0.36
30.200	0.39
34.674	0.42
39.811	0.44
45.709	0.47
52.481	0.48
60.256	0.47
69.183	0.46
79.433	0.42
91.201	0.36
104.713	0.29
120.226	

Size (µm)	Volume In %
120.226	0.23
138.038	0.20
158.489	0.20
181.970	0.26
208.930	0.37
239.883	0.52
275.423	0.67
316.228	0.80
363.078	0.84
416.869	0.76
478.630	0.61
549.541	0.16
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA X4



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.04
0.040	0.34
0.046	0.57
0.052	0.86
0.060	1.22
0.069	1.67
0.079	2.11
0.091	2.50
0.105	

Size (µm)	Volume In %
0.105	2.83
0.120	3.11
0.138	3.31
0.158	3.44
0.182	3.49
0.209	3.46
0.240	3.34
0.275	3.15
0.316	2.90
0.363	2.59
0.417	2.25
0.479	1.90
0.550	1.56
0.631	1.27
0.724	1.04
0.832	0.90
0.955	0.85
1.096	

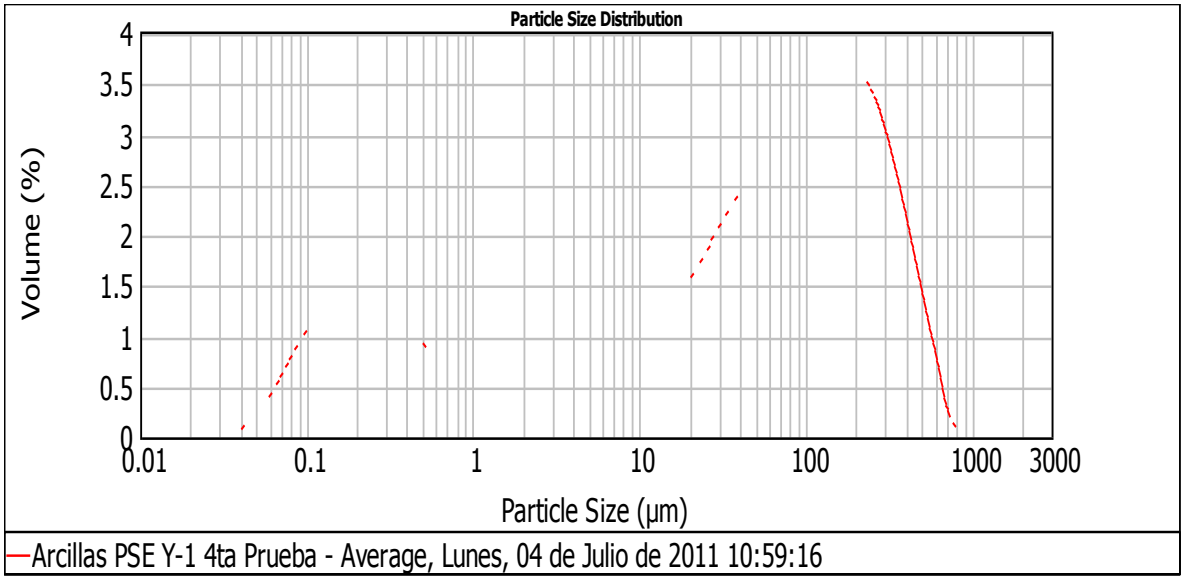
Size (µm)	Volume In %
1.096	0.89
1.259	1.00
1.445	1.15
1.660	1.33
1.905	1.51
2.188	1.69
2.512	1.86
2.884	2.00
3.311	2.10
3.802	2.18
4.365	2.22
5.012	2.23
5.754	2.21
6.607	2.16
7.586	2.09
8.710	2.01
10.000	1.91
11.482	

Size (µm)	Volume In %
11.482	1.82
13.183	1.73
15.136	1.64
17.378	1.56
19.953	1.47
22.909	1.38
26.303	1.28
30.200	1.17
34.674	1.05
39.811	0.92
45.709	0.78
52.481	0.66
60.256	0.54
69.183	0.44
79.433	0.36
91.201	0.29
104.713	0.23
120.226	

Size (µm)	Volume In %
120.226	0.18
138.038	0.14
158.489	0.12
181.970	0.12
208.930	0.12
239.883	0.14
275.423	0.16
316.228	0.16
363.078	0.15
416.869	0.10
478.630	0.03
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA Y1



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.01
0.040	0.13
0.046	0.21
0.052	0.33
0.060	0.46
0.069	0.63
0.079	0.80
0.091	0.95
0.105	

Size (µm)	Volume In %
0.105	1.08
0.120	1.19
0.138	1.28
0.158	1.34
0.182	1.37
0.209	1.37
0.240	1.33
0.275	1.27
0.316	1.18
0.363	1.07
0.417	0.95
0.479	0.82
0.550	0.70
0.631	0.59
0.724	0.51
0.832	0.47
0.955	0.47
1.096	

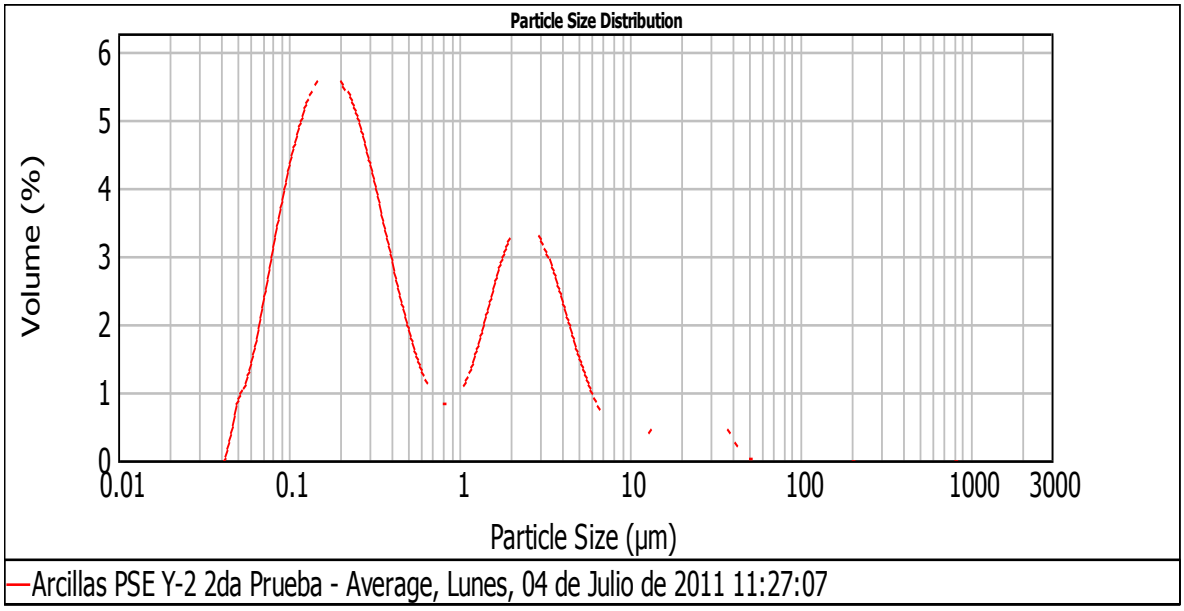
Size (µm)	Volume In %
1.096	0.51
1.259	0.57
1.445	0.65
1.660	0.73
1.905	0.80
2.188	0.85
2.512	0.88
2.884	0.89
3.311	0.88
3.802	0.87
4.365	0.86
5.012	0.85
5.754	0.85
6.607	0.86
7.586	0.88
8.710	0.92
10.000	0.97
11.482	

Size (µm)	Volume In %
11.482	1.04
13.183	1.13
15.136	1.24
17.378	1.36
19.953	1.50
22.909	1.65
26.303	1.81
30.200	1.97
34.674	2.11
39.811	2.25
45.709	2.38
52.481	2.50
60.256	2.60
69.183	2.71
79.433	2.82
91.201	2.93
104.713	3.05
120.226	

Size (µm)	Volume In %
120.226	3.16
138.038	3.25
158.489	3.30
181.970	3.29
208.930	3.22
239.883	3.05
275.423	2.79
316.228	2.45
363.078	2.06
416.869	1.64
478.630	1.20
549.541	0.80
630.957	0.35
724.436	0.10
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

MUESTRA Y2



Size (µm)	Volume In %
0.010	0.00
0.011	0.00
0.013	0.00
0.015	0.00
0.017	0.00
0.020	0.00
0.023	0.00
0.026	0.00
0.030	0.00
0.035	0.00
0.040	0.02
0.046	0.65
0.052	1.09
0.060	1.63
0.069	2.37
0.079	3.10
0.091	3.77
0.105	4.33

Size (µm)	Volume In %
0.105	4.33
0.120	4.76
0.138	5.03
0.158	5.14
0.182	5.07
0.209	4.84
0.240	4.45
0.275	3.95
0.316	3.38
0.363	2.79
0.417	2.20
0.479	1.68
0.550	1.25
0.631	0.94
0.724	0.78
0.832	0.77
0.955	0.93
1.096	1.25

Size (µm)	Volume In %
1.096	1.25
1.259	1.69
1.445	2.19
1.660	2.66
1.905	3.00
2.188	3.17
2.512	3.12
2.884	2.87
3.311	2.49
3.802	2.04
4.365	1.58
5.012	1.16
5.754	0.81
6.607	0.55
7.586	0.38
8.710	0.29
10.000	0.28
11.482	0.33

Size (µm)	Volume In %
11.482	0.33
13.183	0.43
15.136	0.54
17.378	0.66
19.953	0.75
22.909	0.79
26.303	0.75
30.200	0.62
34.674	0.42
39.811	0.19
45.709	0.05
52.481	0.00
60.256	0.00
69.183	0.00
79.433	0.00
91.201	0.00
104.713	0.00
120.226	0.00

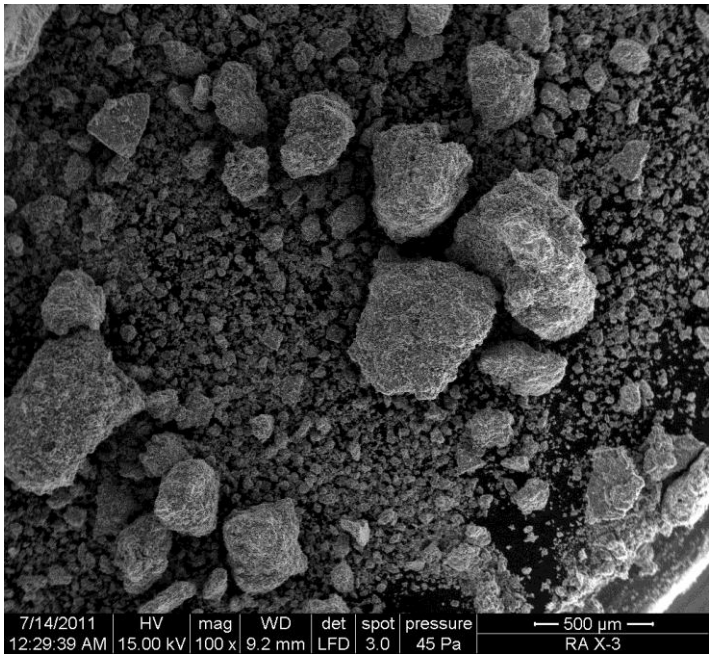
Size (µm)	Volume In %
120.226	0.00
138.038	0.00
158.489	0.00
181.970	0.00
208.930	0.00
239.883	0.00
275.423	0.00
316.228	0.00
363.078	0.00
416.869	0.00
478.630	0.00
549.541	0.00
630.957	0.00
724.436	0.00
831.764	0.00
954.993	0.00
1096.478	0.00
1258.925	0.00

Size (µm)	Volume In %
1258.925	0.00
1445.440	0.00
1659.587	0.00
1905.461	0.00
2187.762	0.00
2511.886	0.00
2884.032	0.00
3311.311	0.00
3801.894	0.00
4365.158	0.00
5011.872	0.00
5754.399	0.00
6606.934	0.00
7585.776	0.00
8709.636	0.00
10000.000	

APÉNDICE B

MICROGRAFÍAS DE LAS MUESTRAS DE ARCILLAS DE LA PSE

MUESTRA B1



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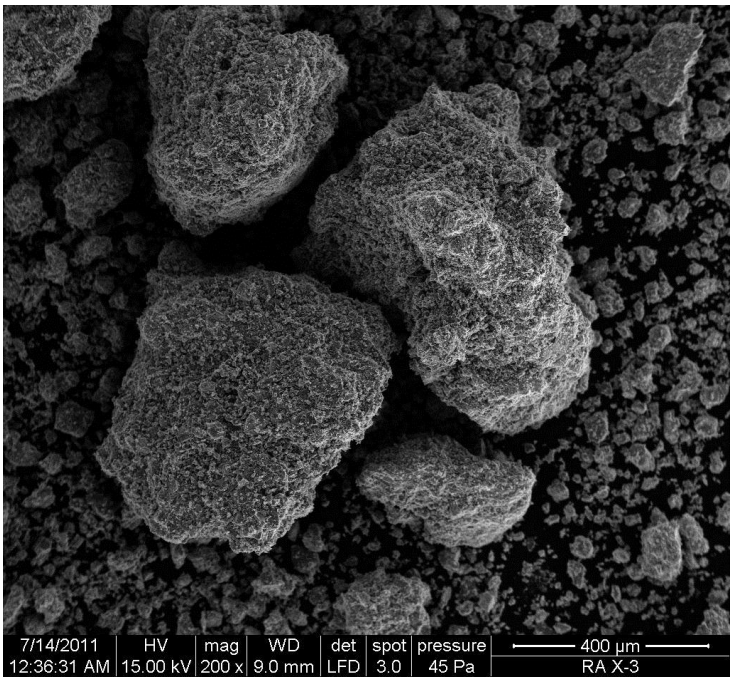

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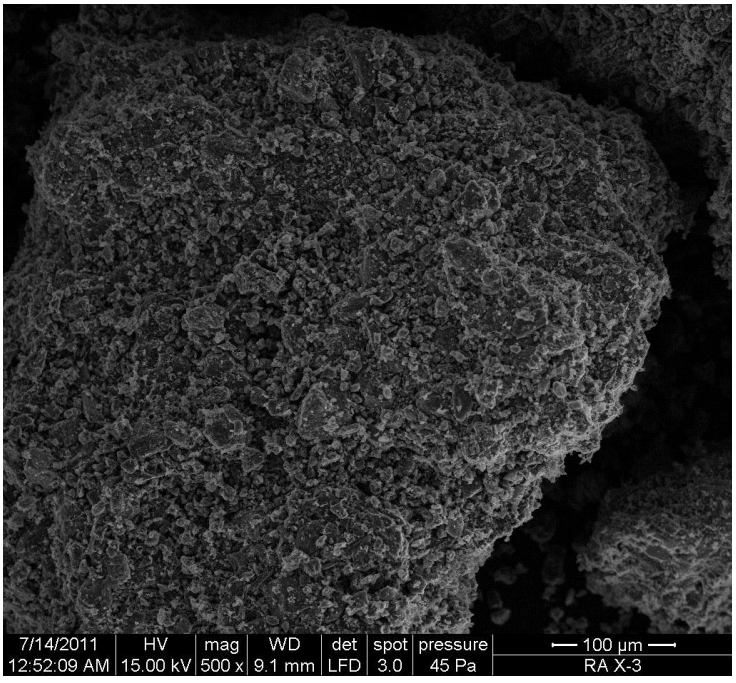

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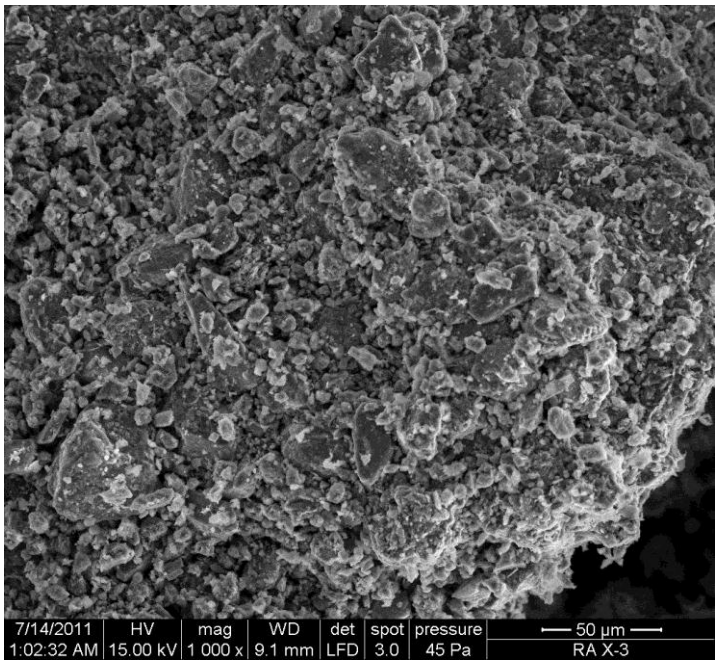

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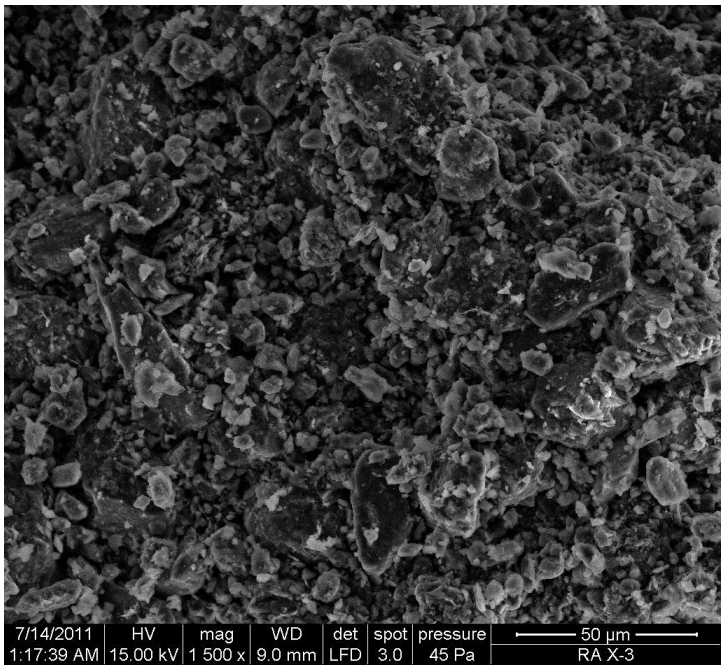

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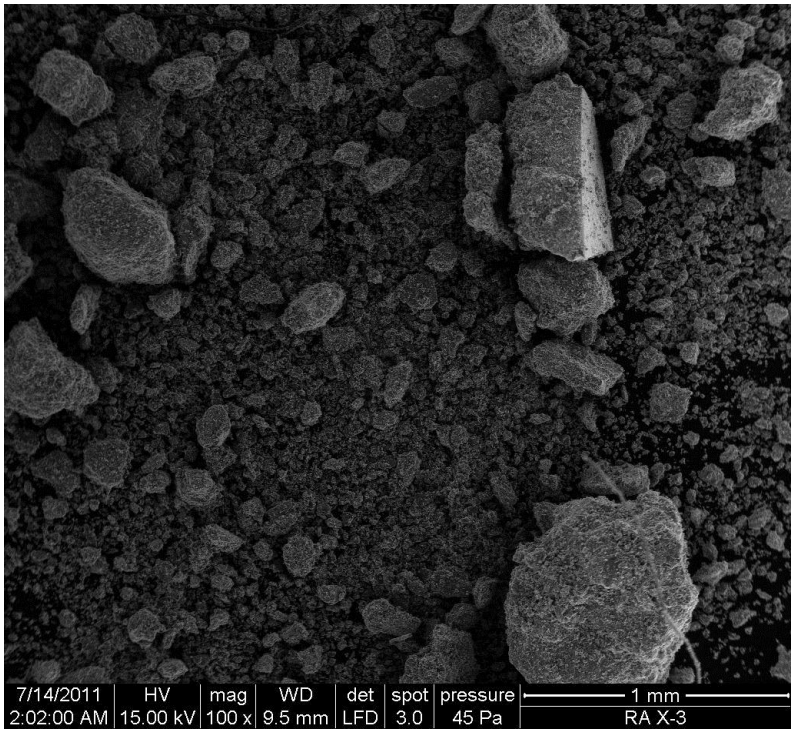

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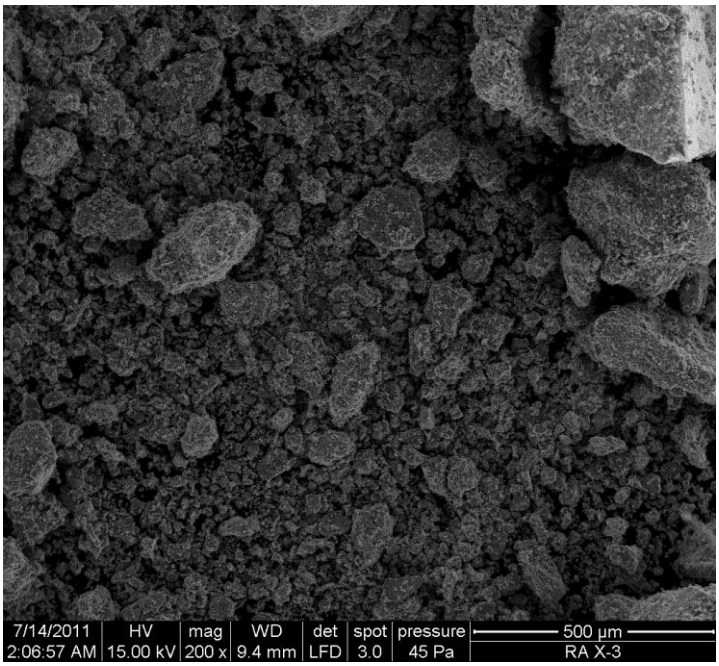

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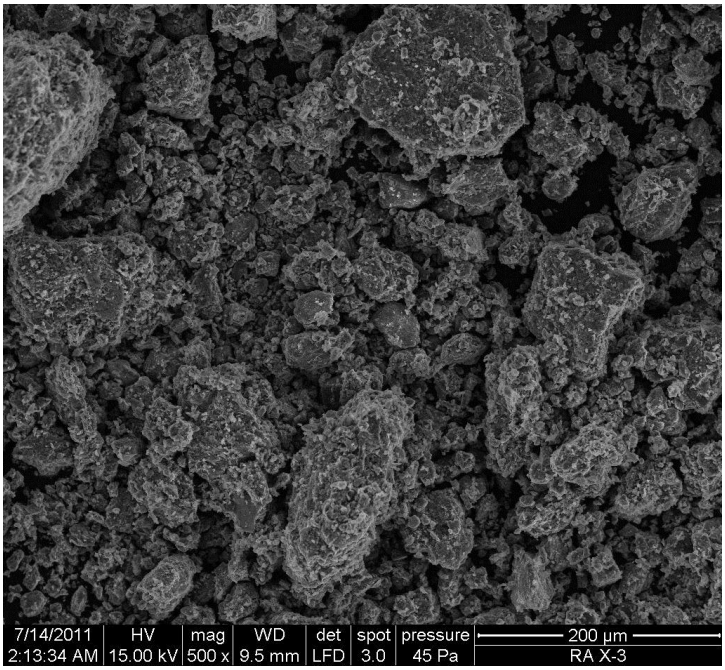

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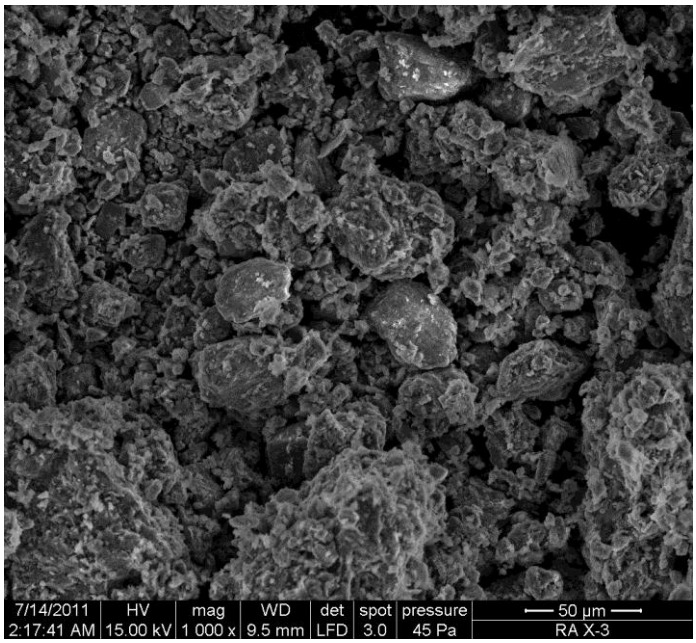

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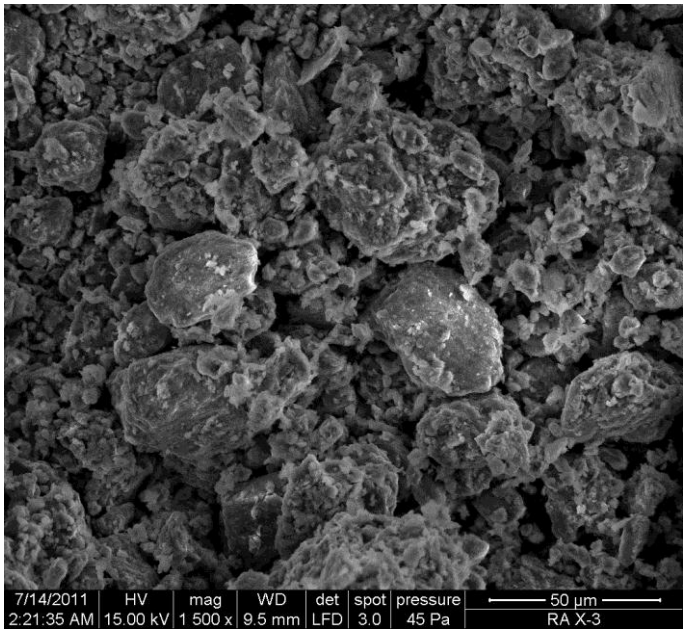

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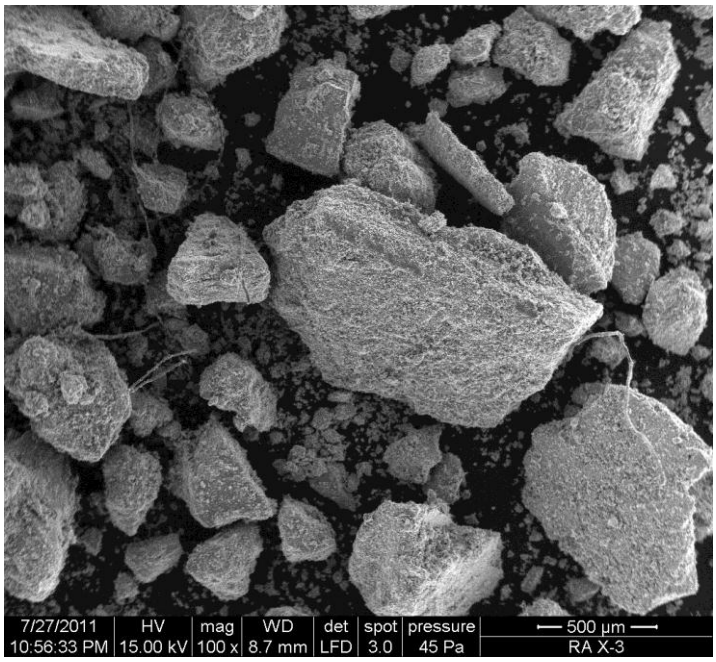

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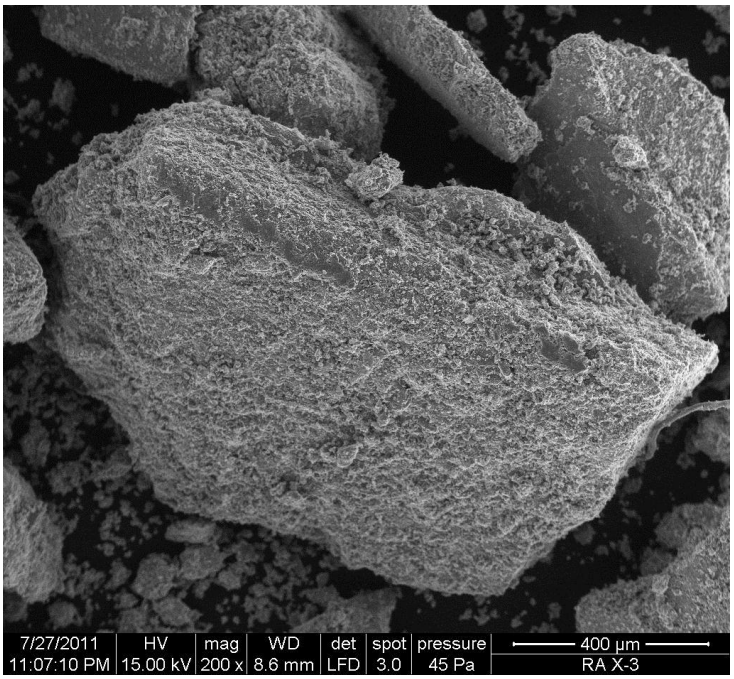

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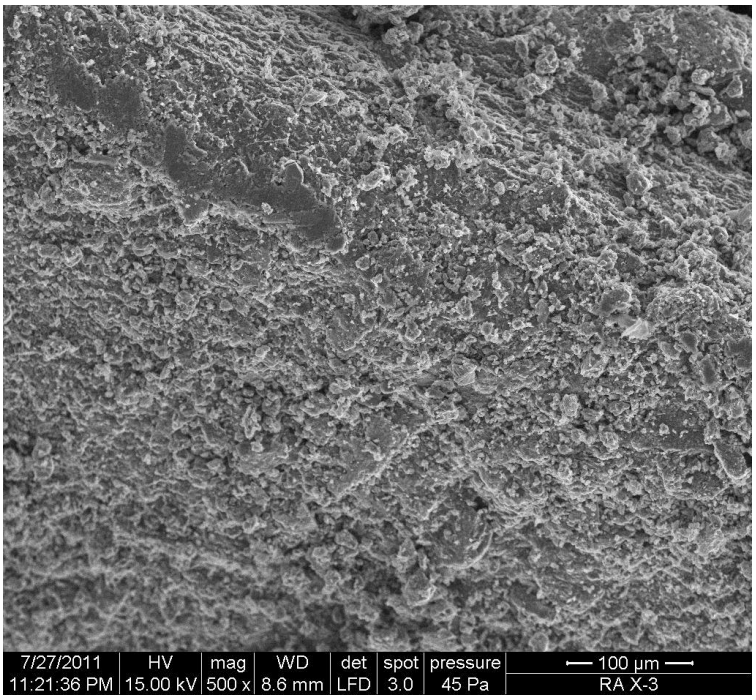

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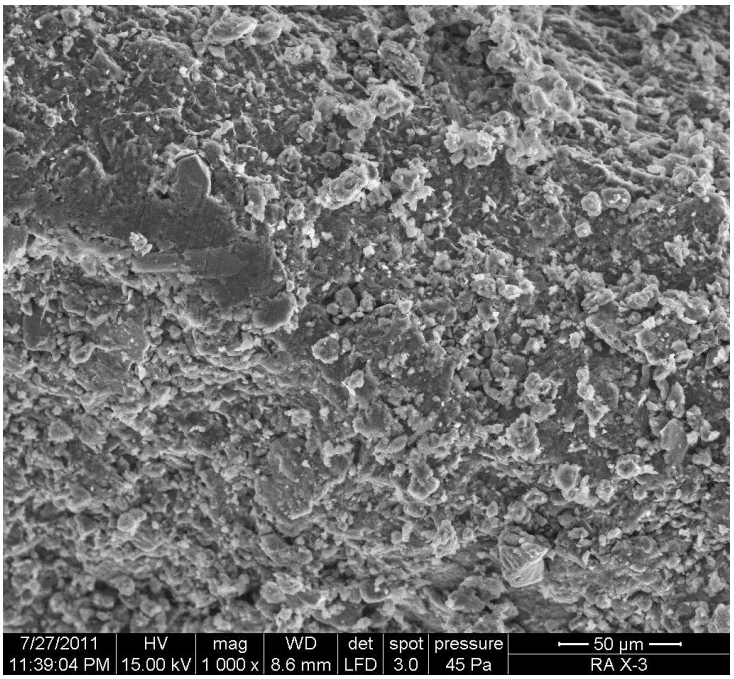

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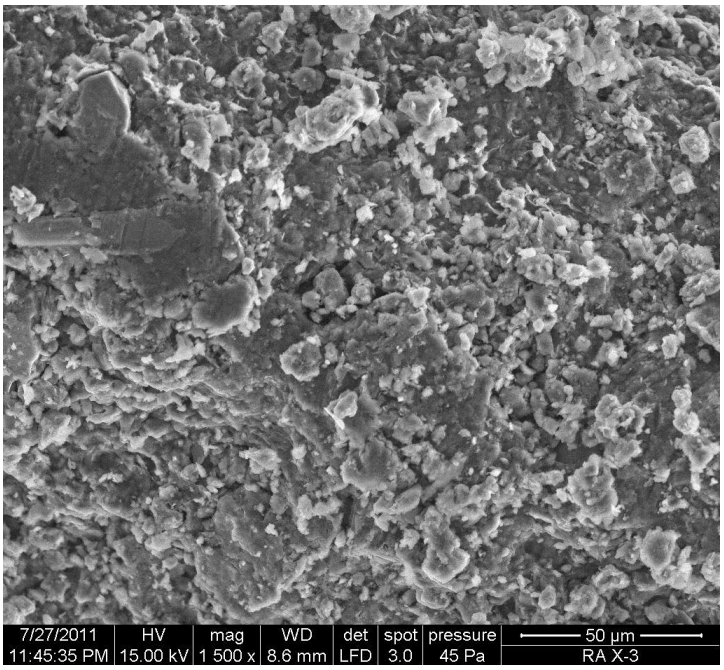

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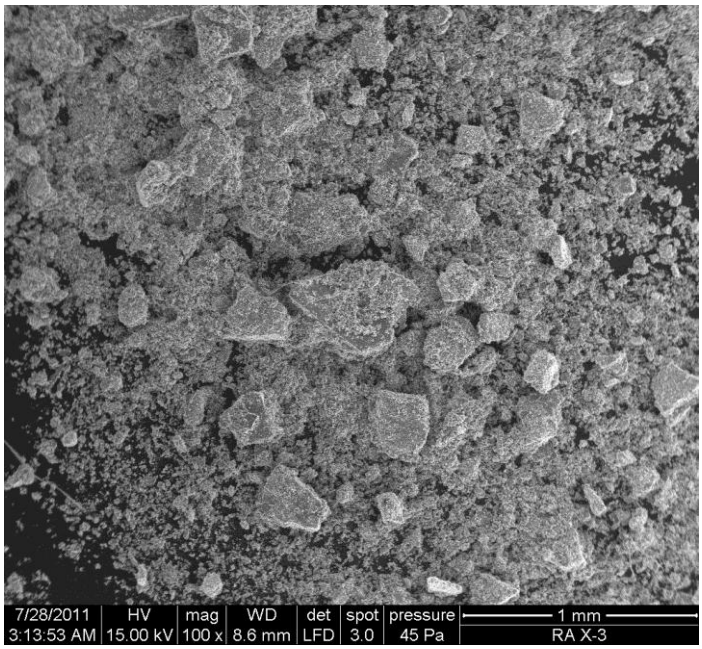

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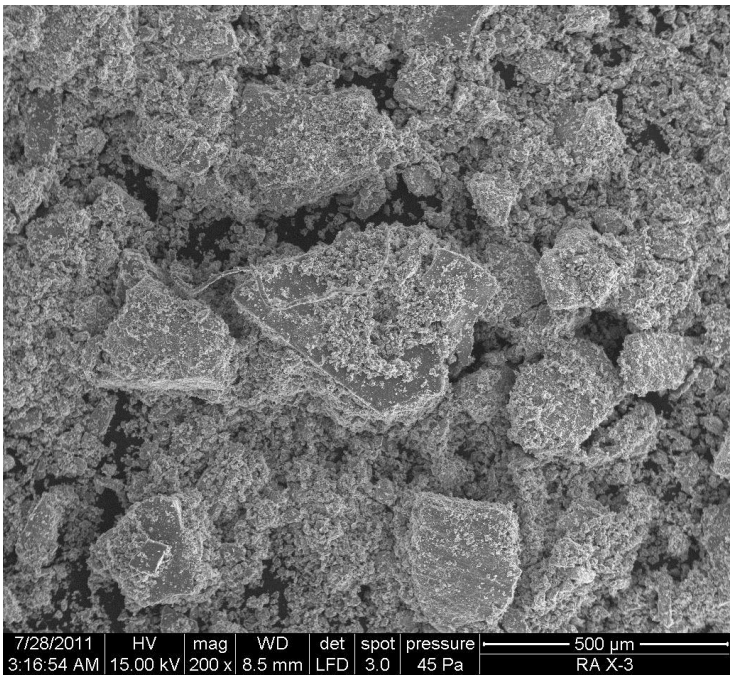

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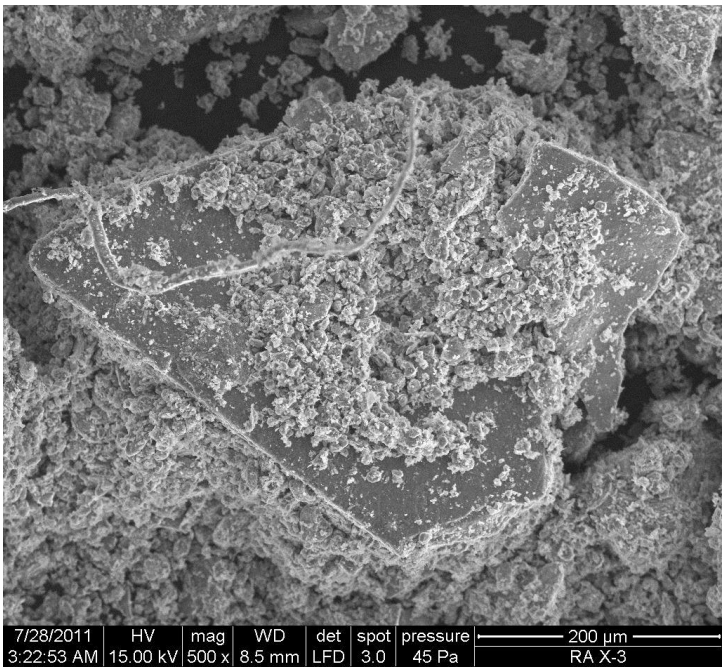

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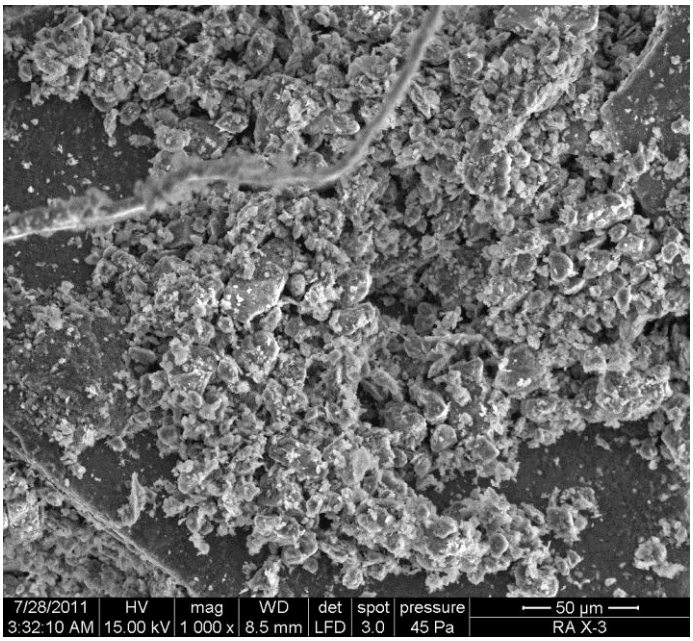

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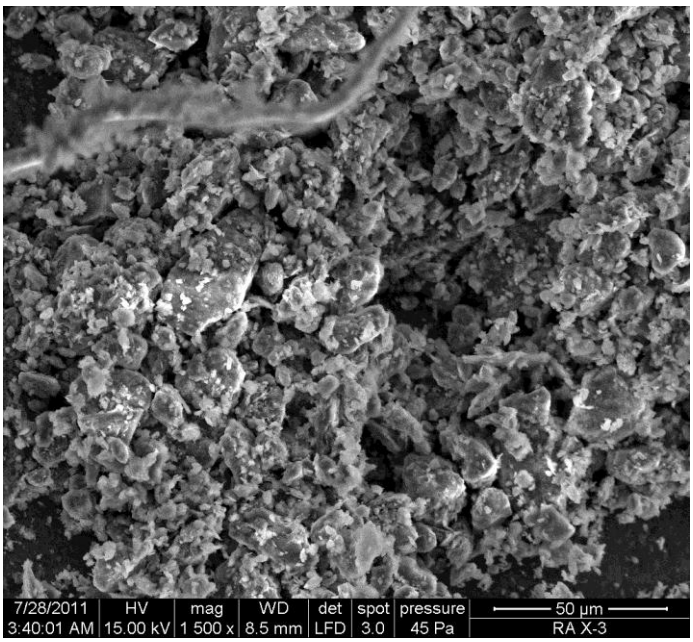

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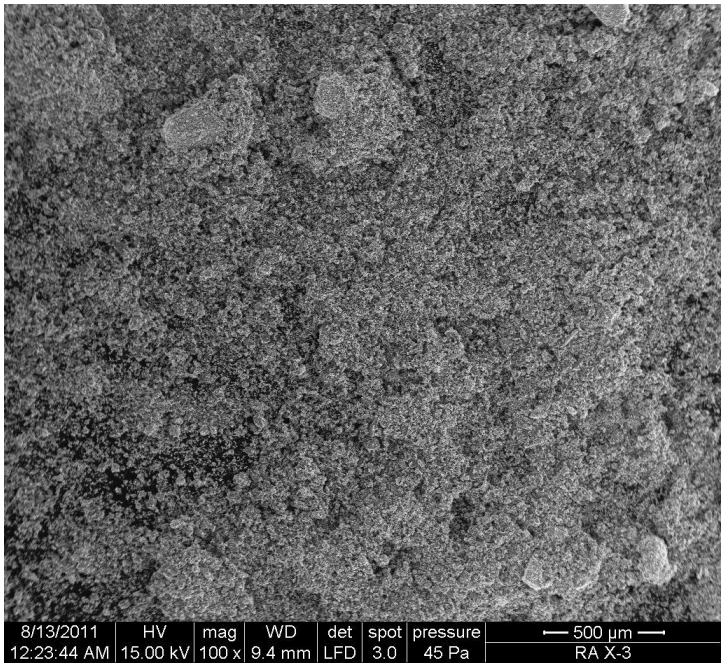

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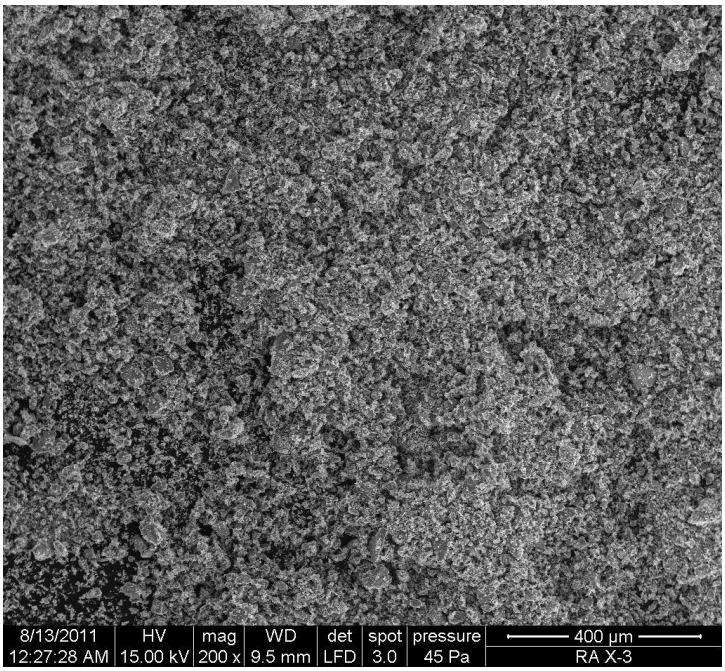

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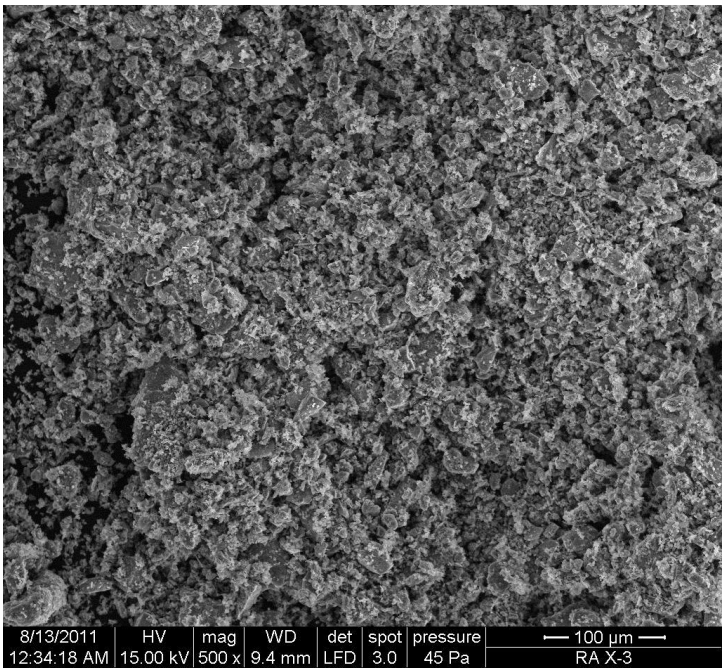

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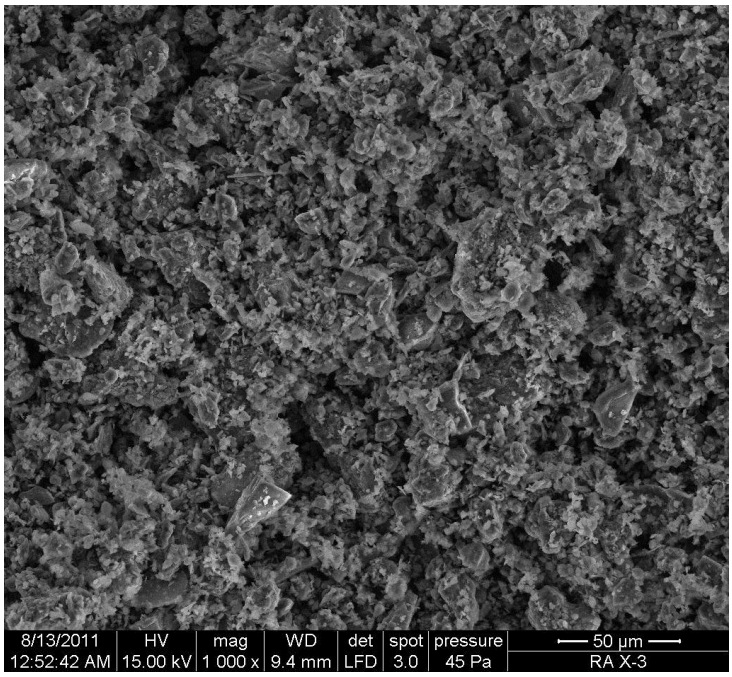

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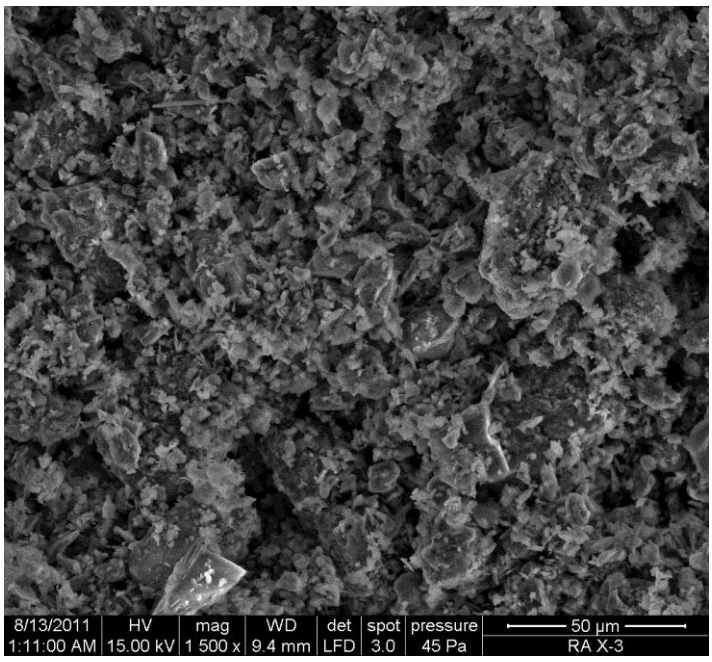

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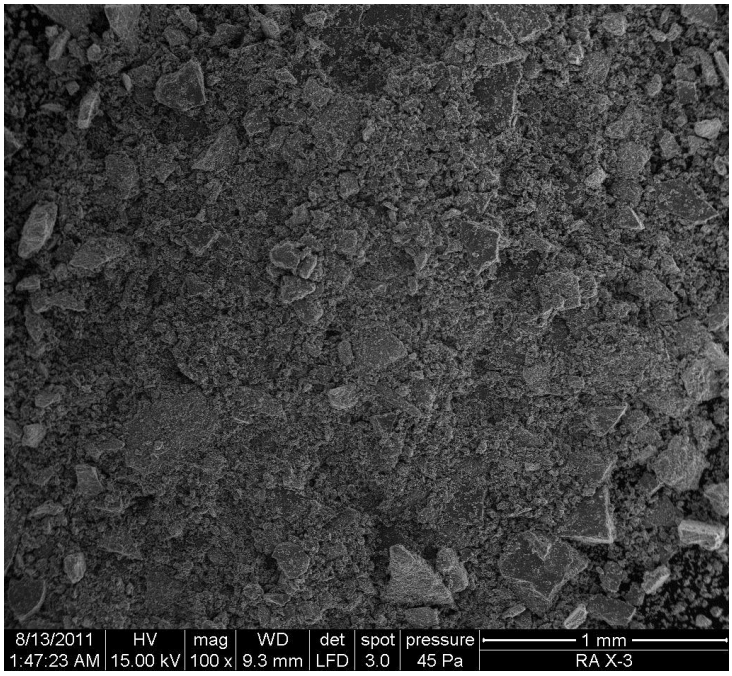

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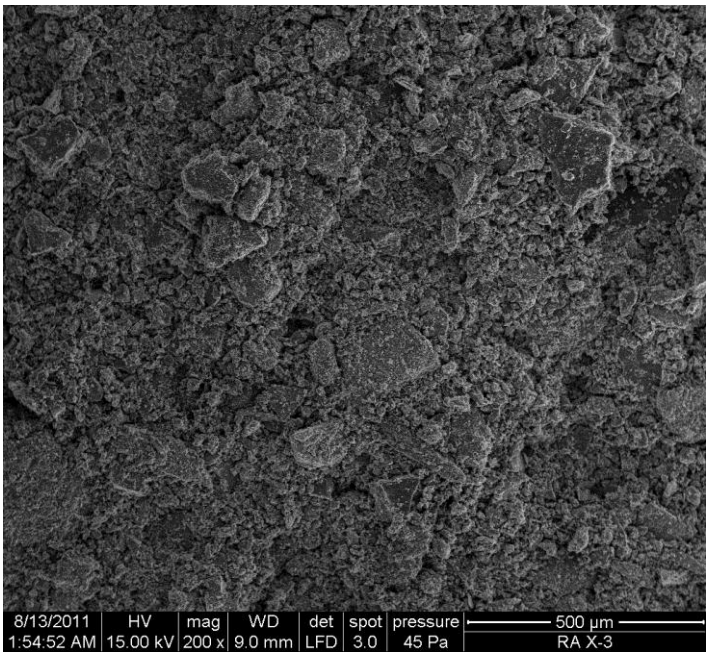

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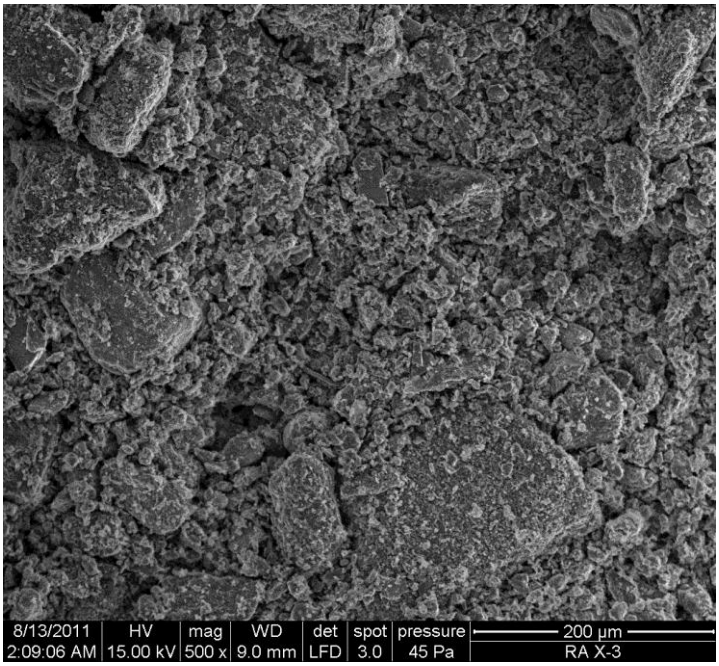

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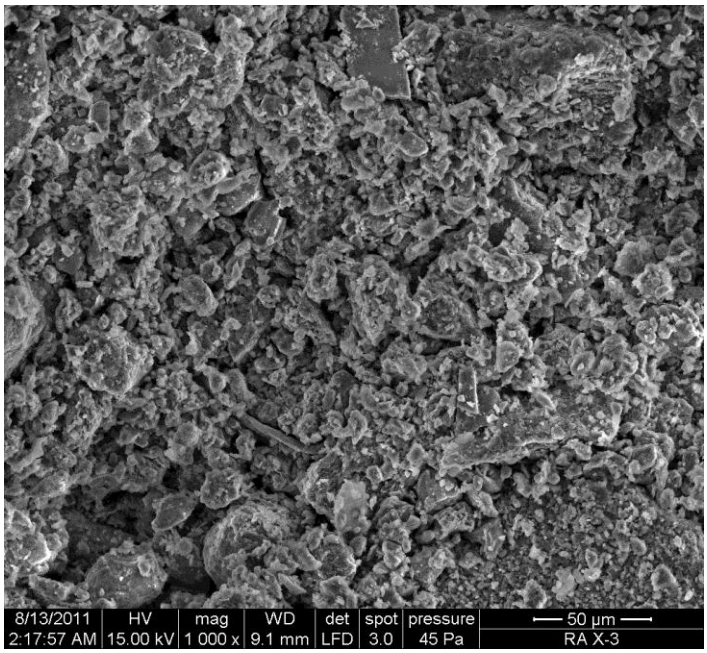

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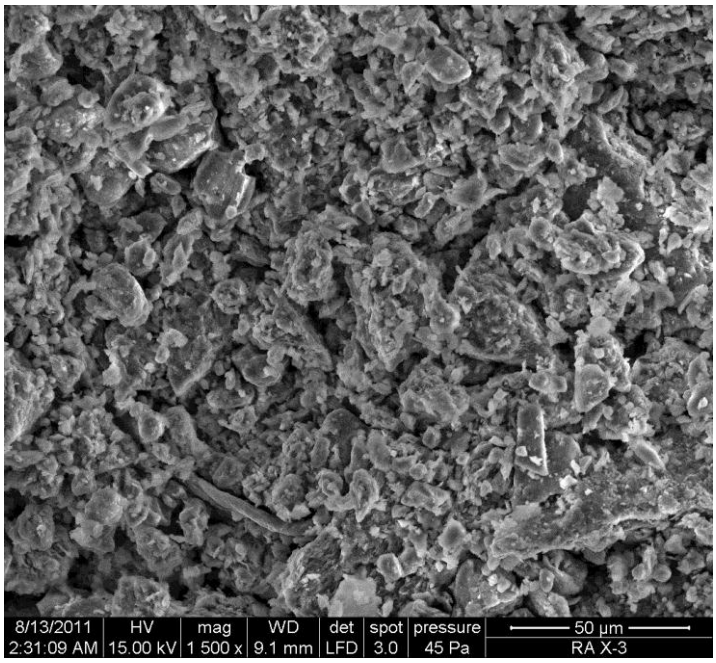

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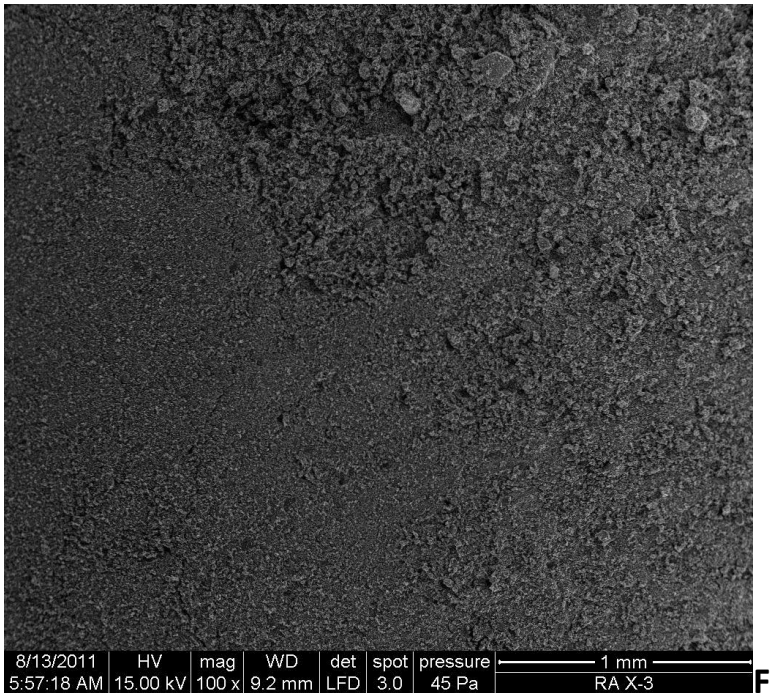

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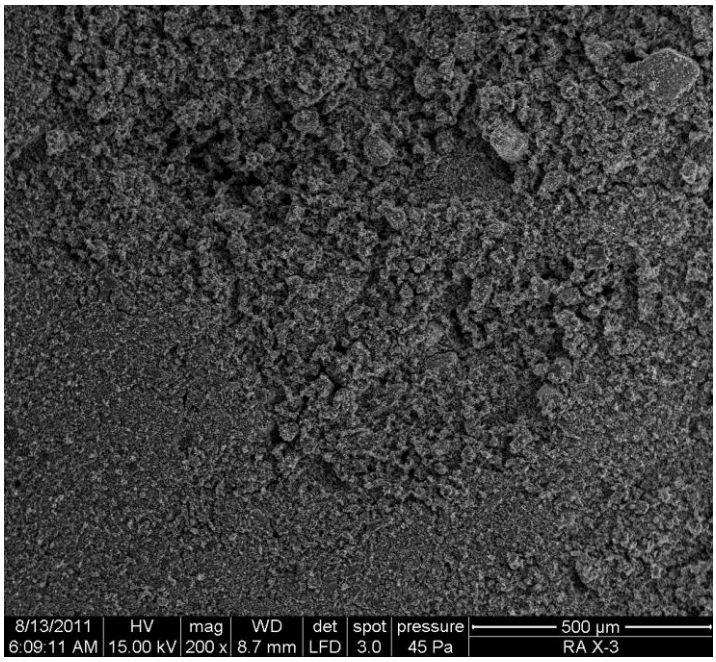

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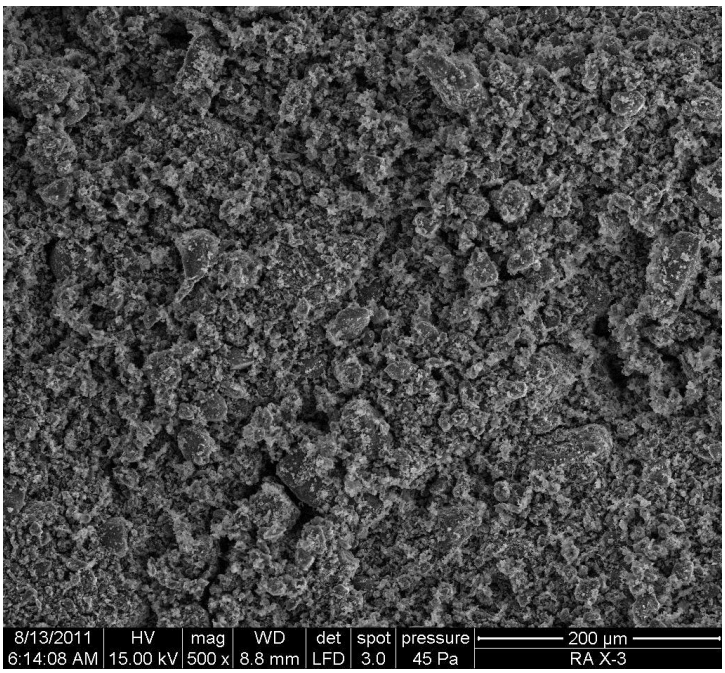

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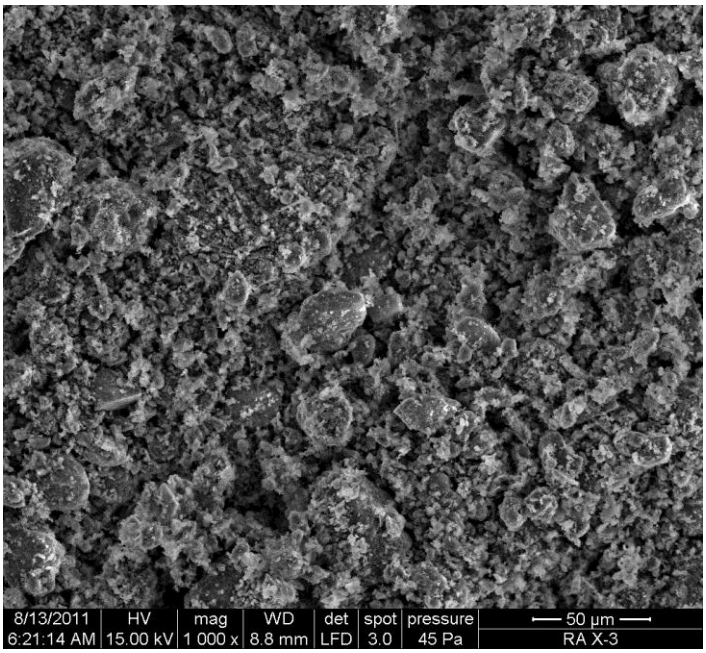

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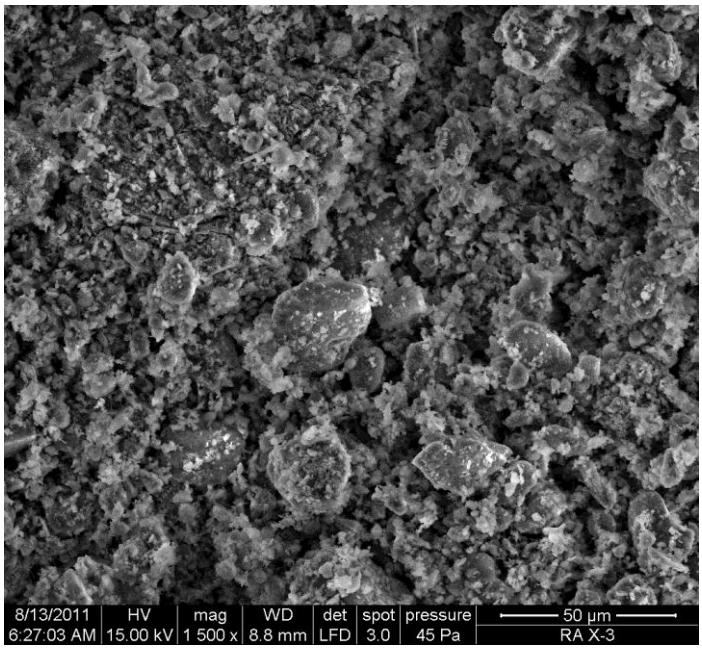

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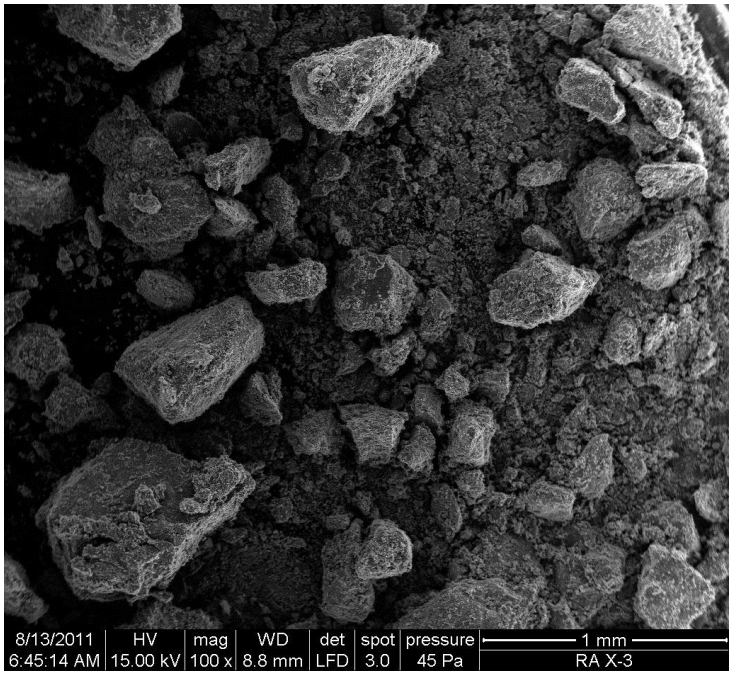

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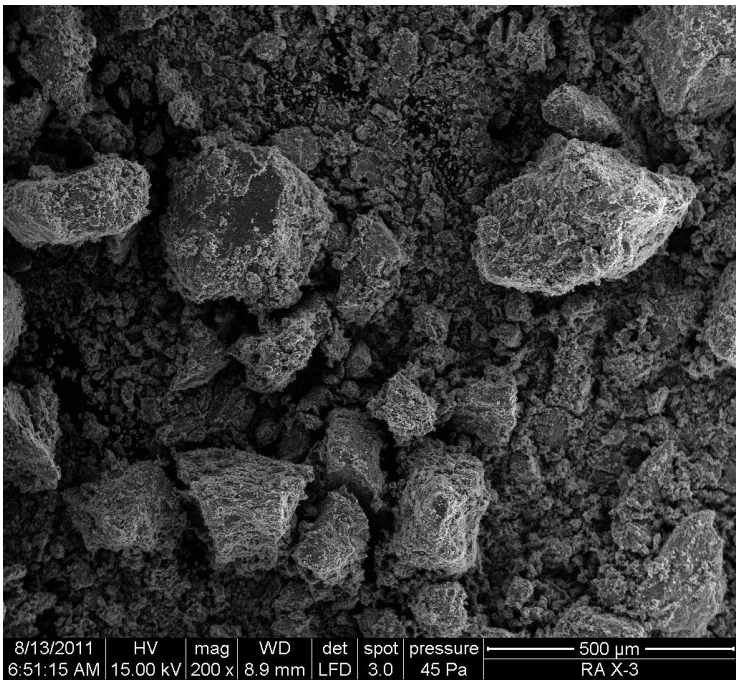

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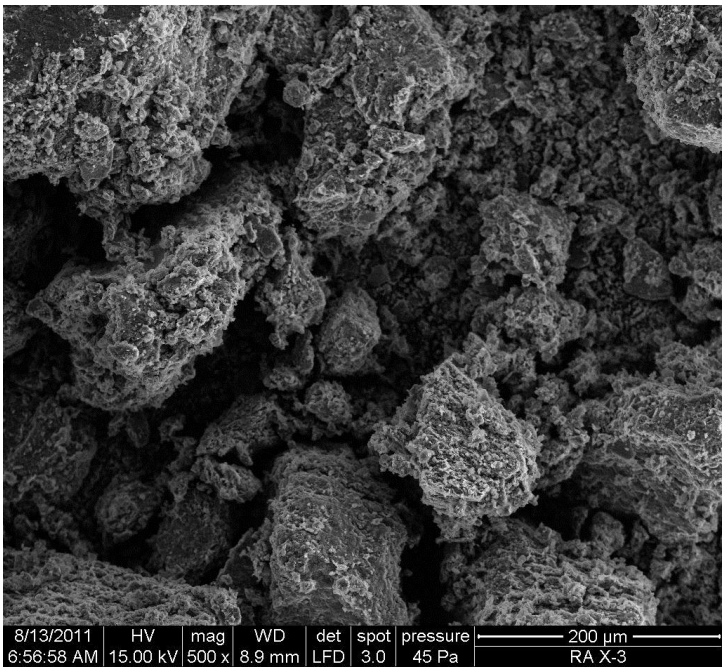

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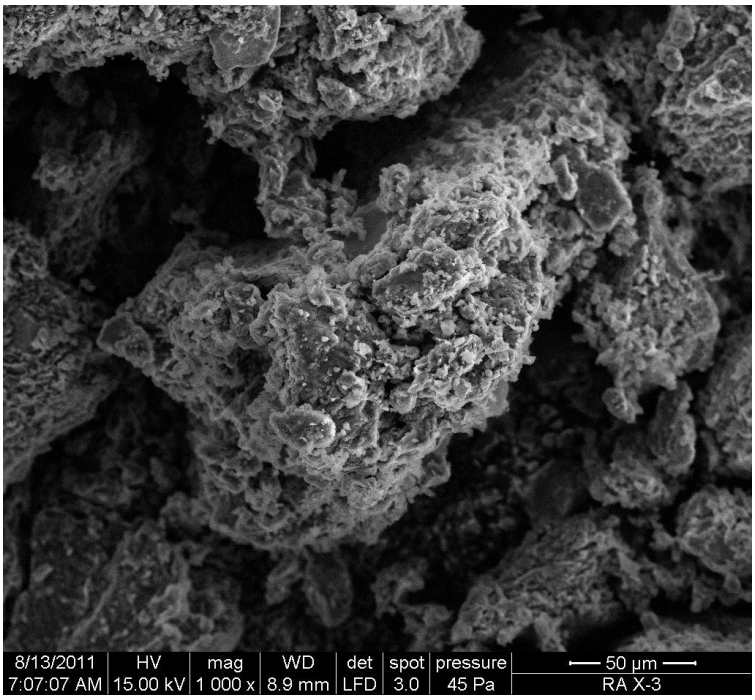

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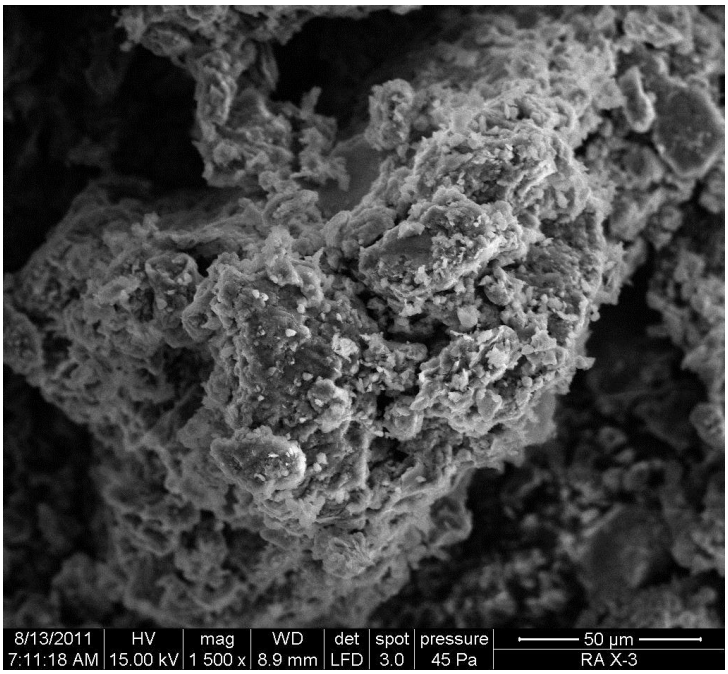

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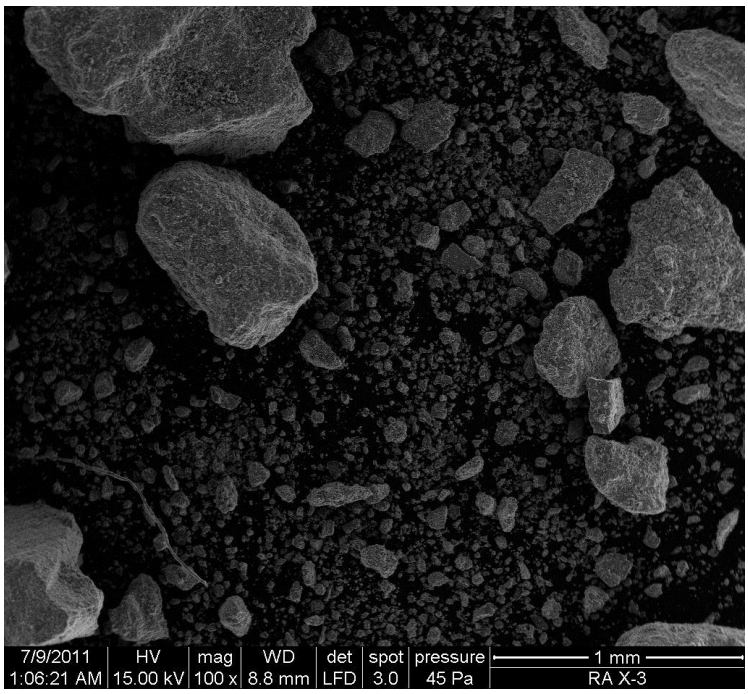

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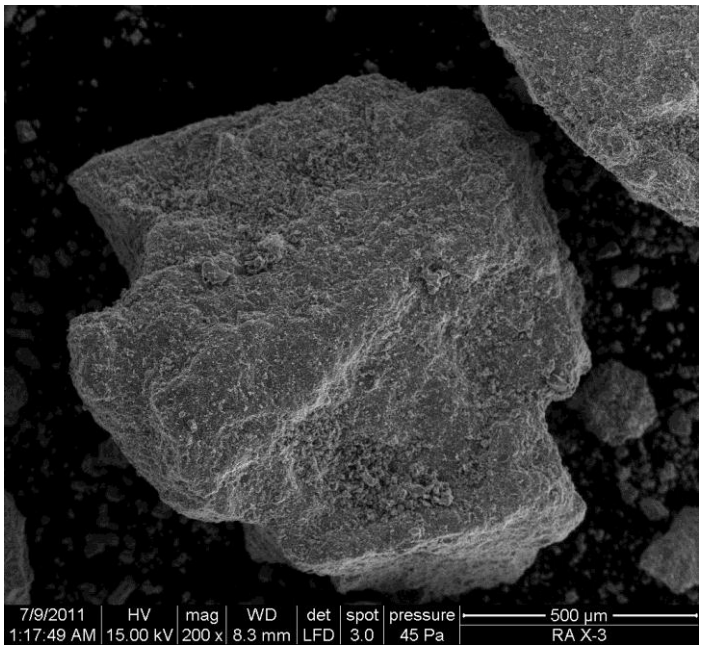

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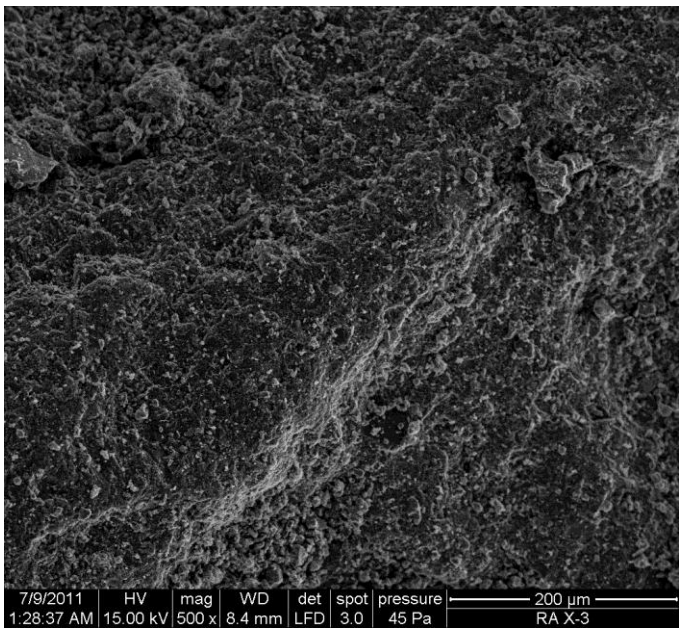

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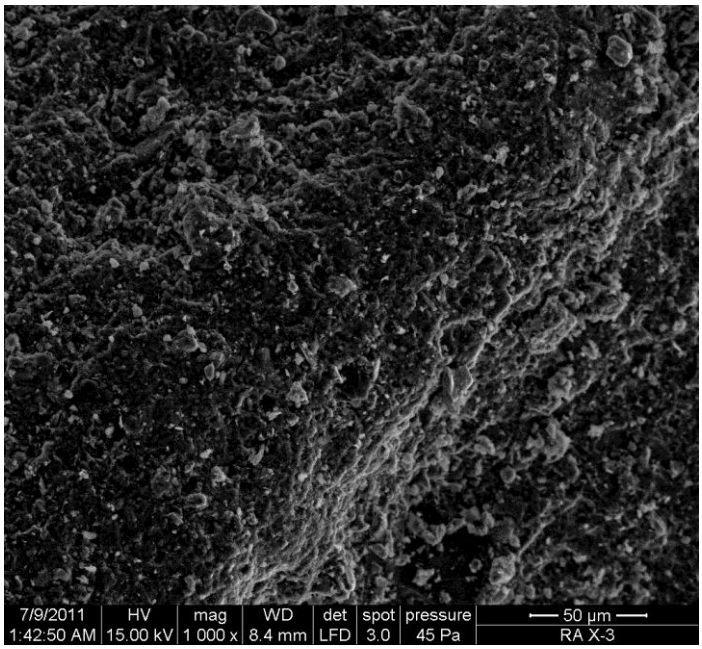

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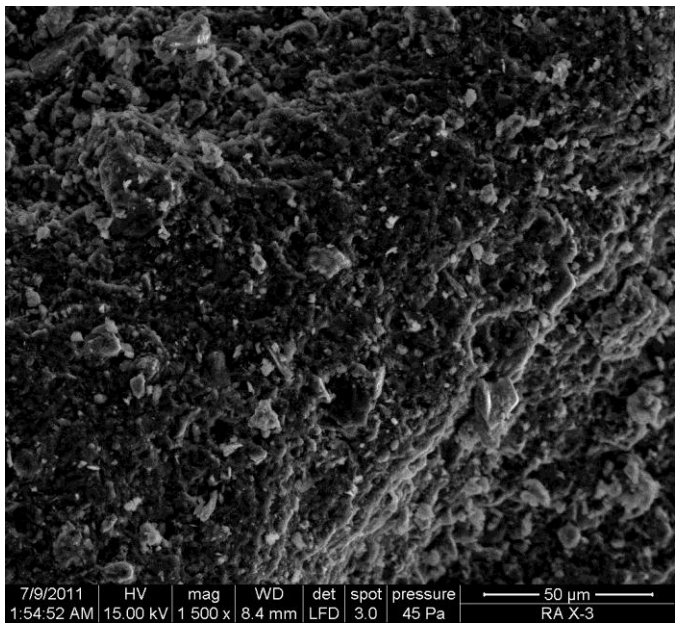

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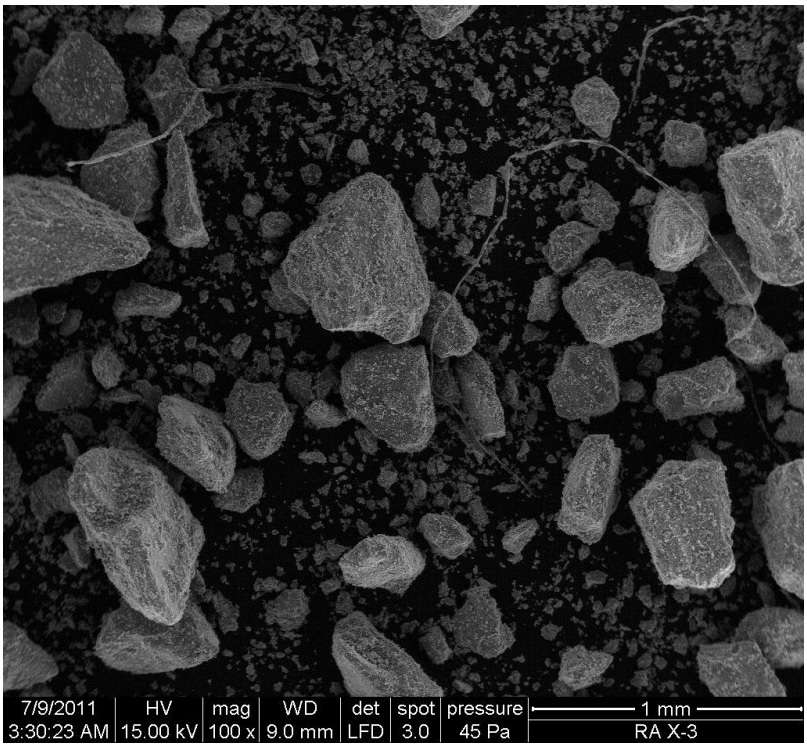

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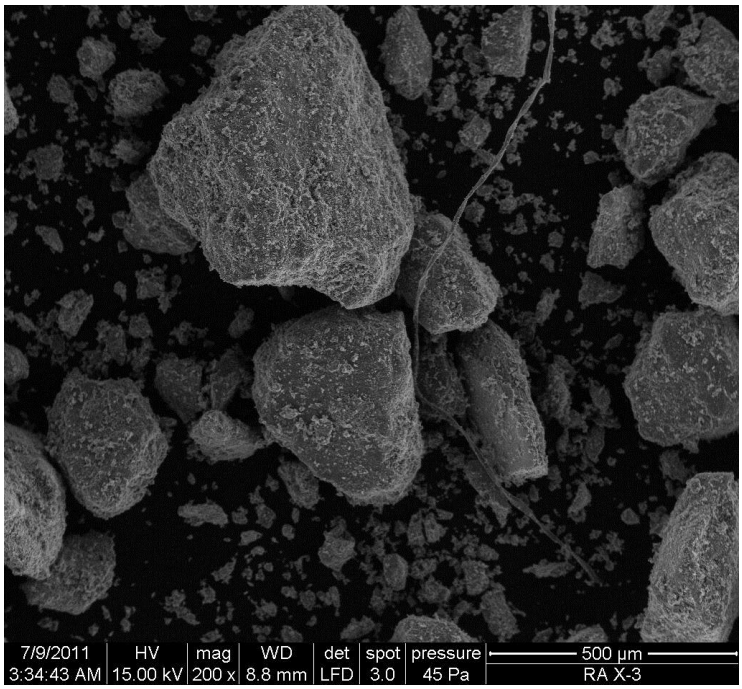

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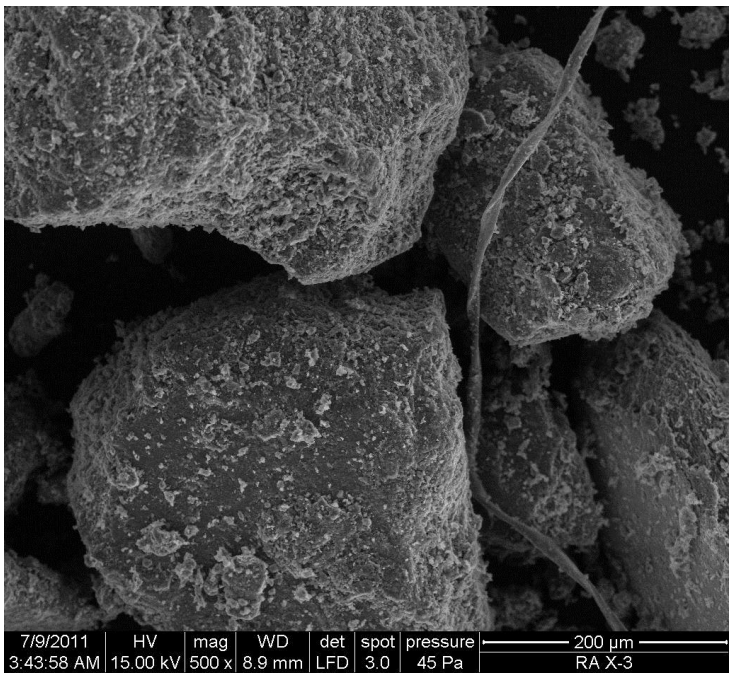

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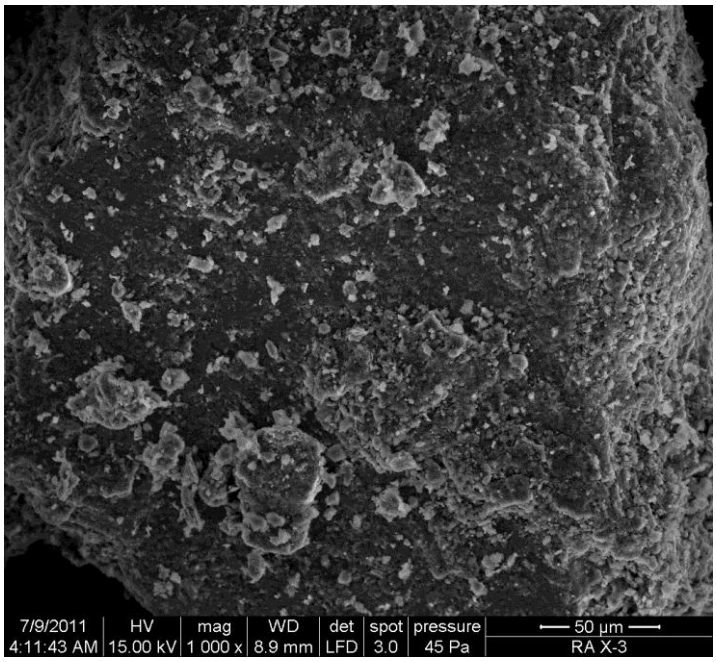

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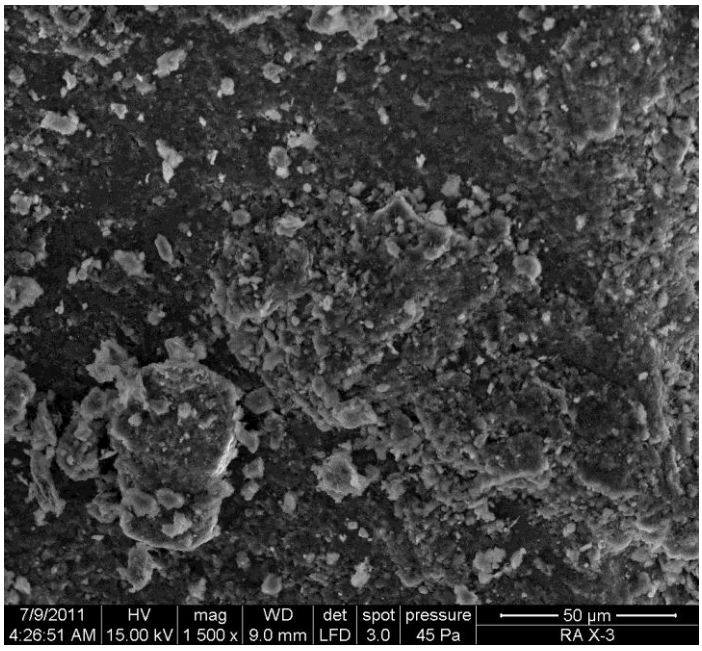

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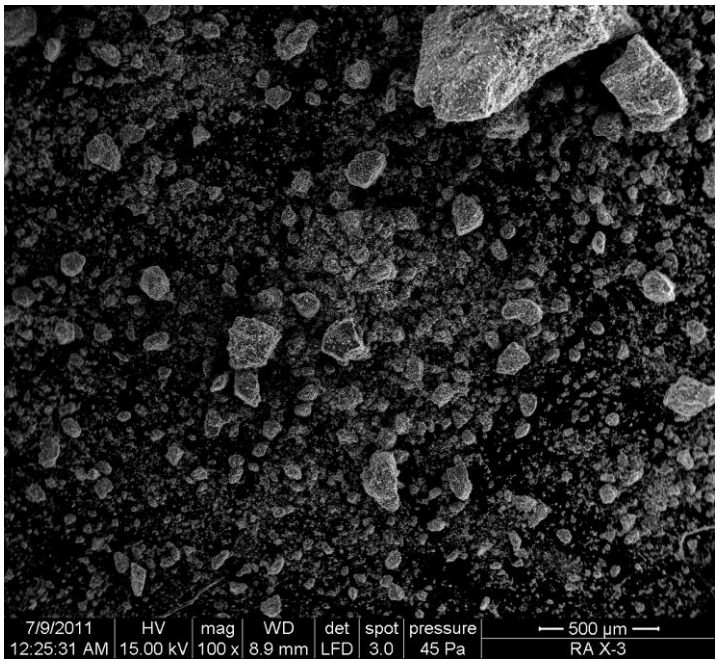

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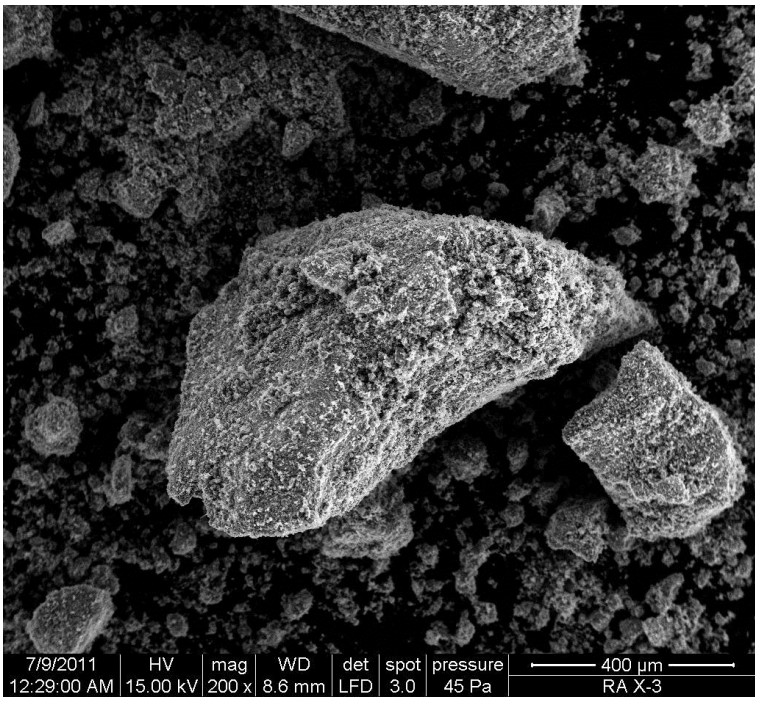

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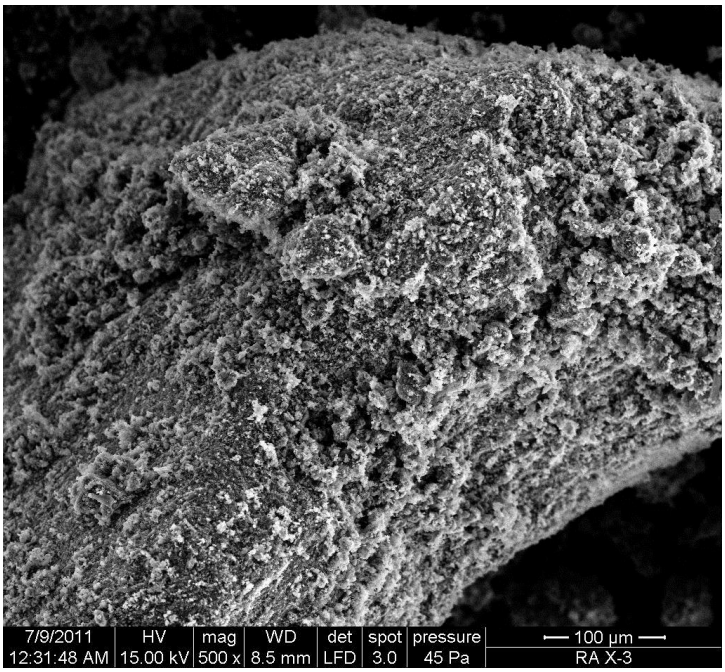

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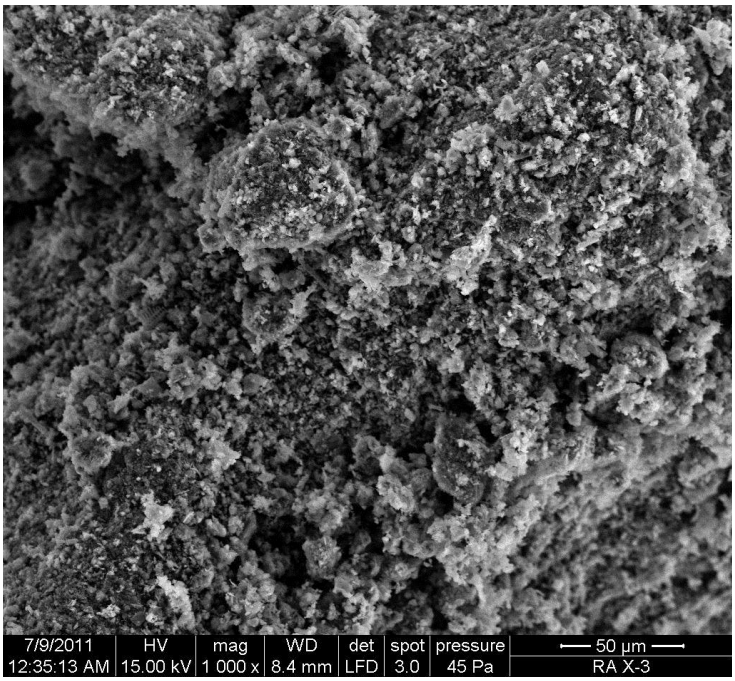

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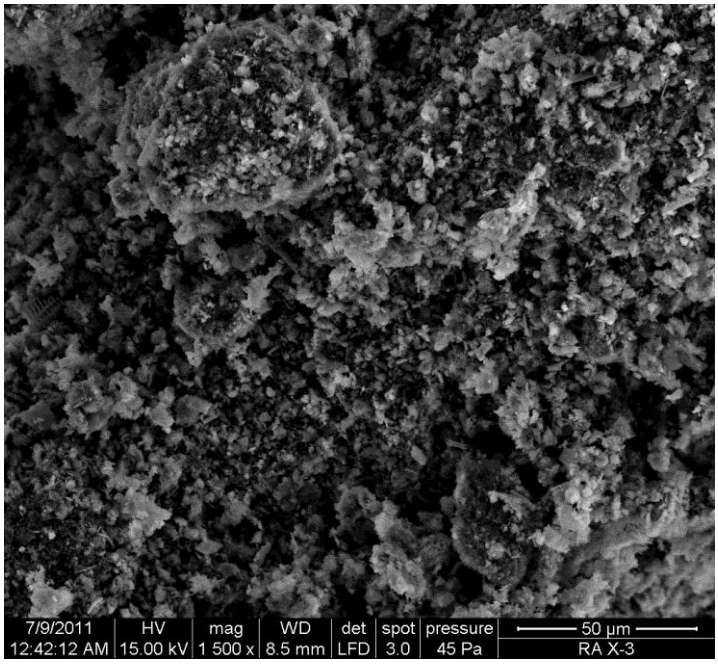

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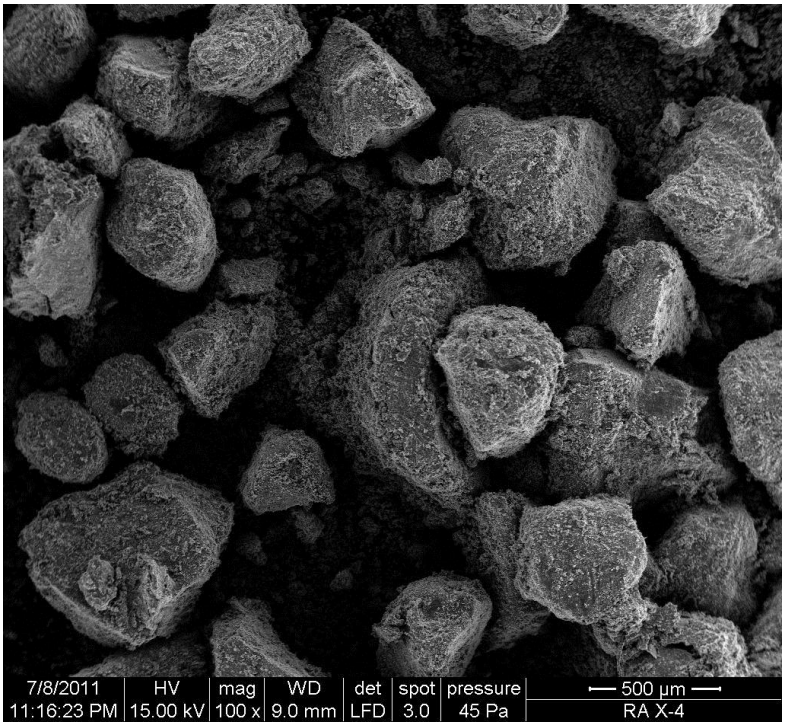
MUESTRA X4



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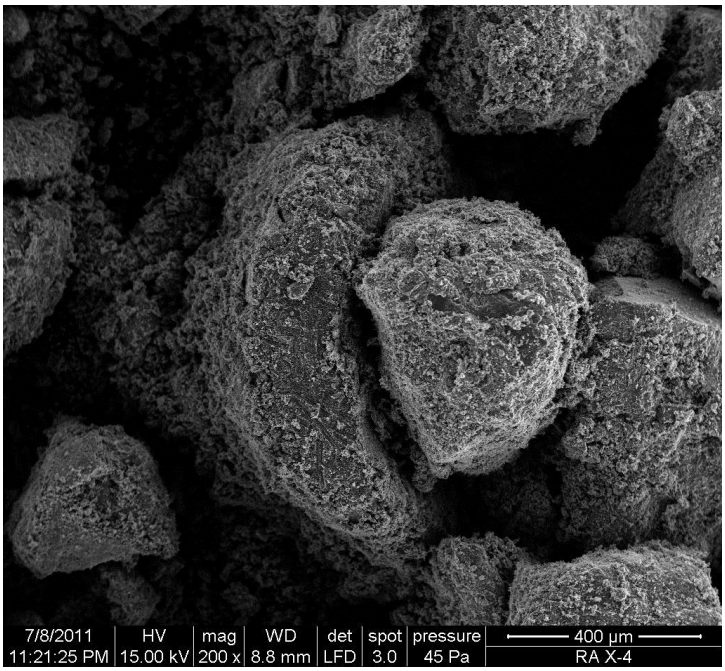

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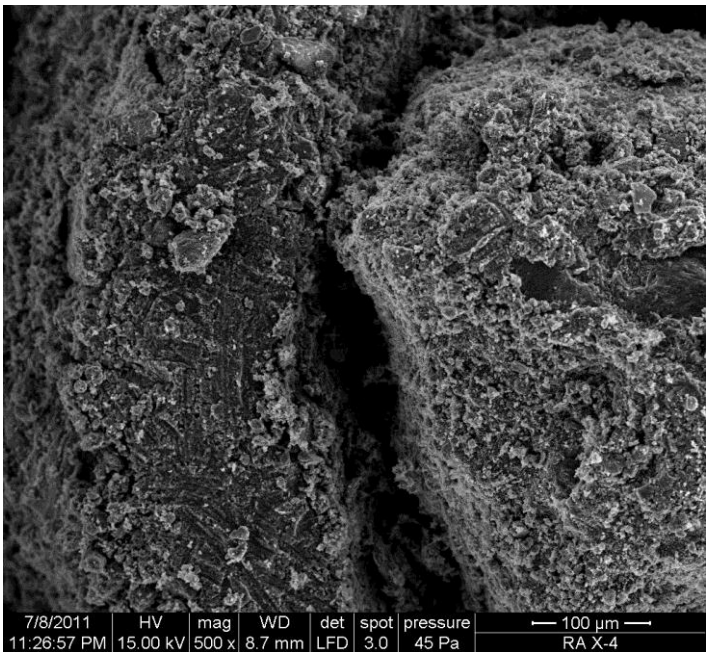

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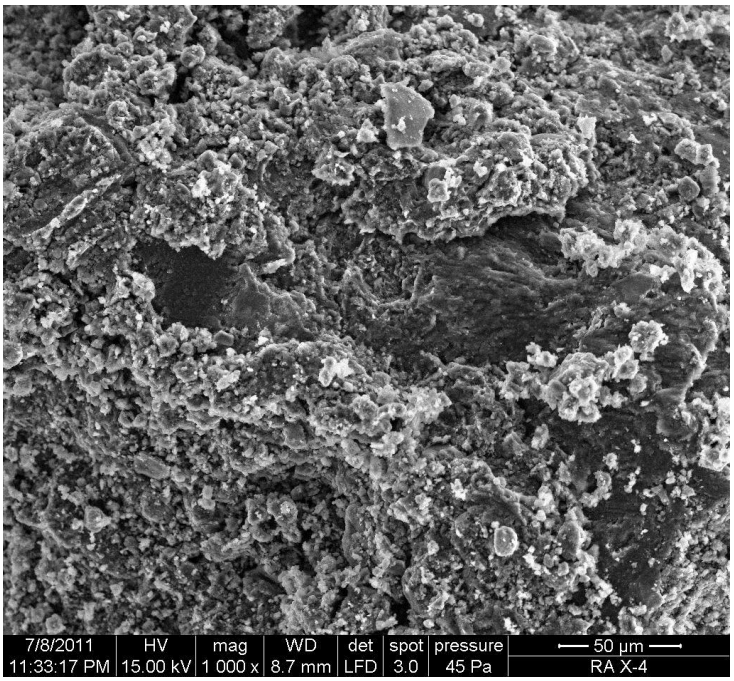

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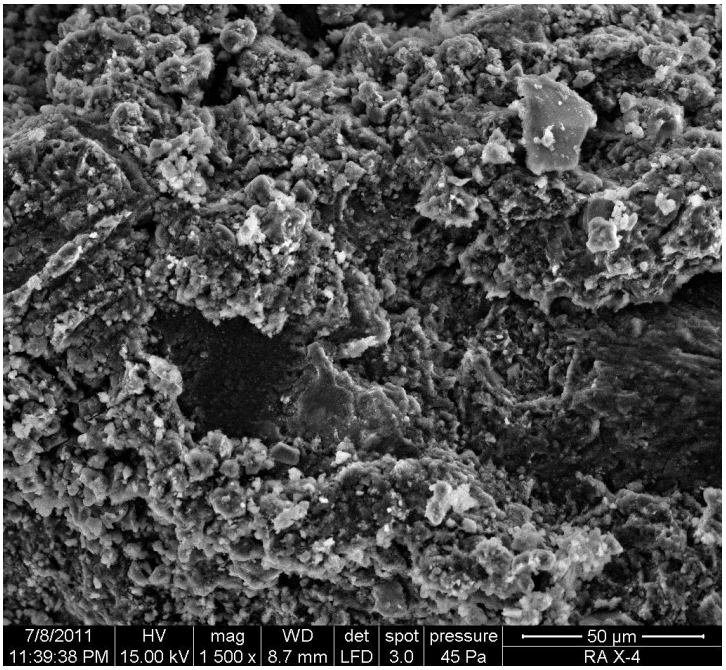

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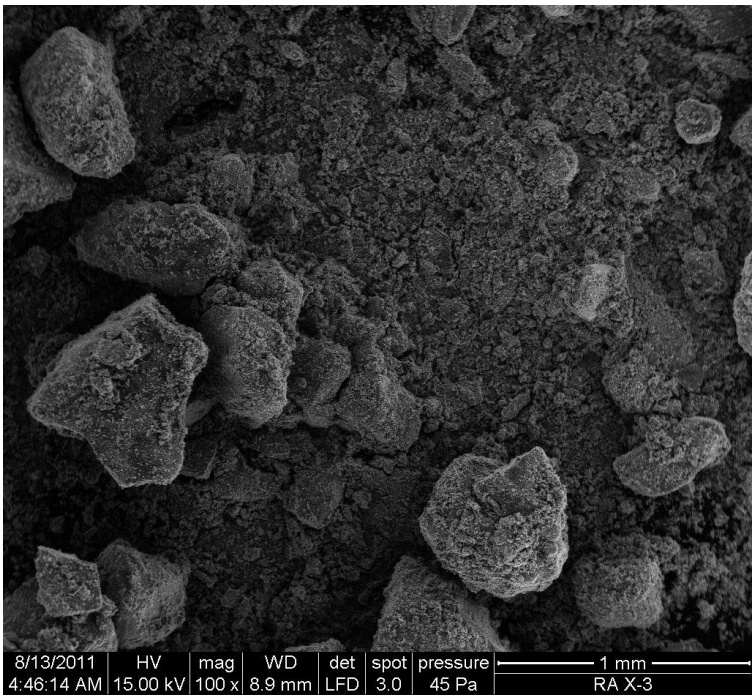
MUESTRA Y1



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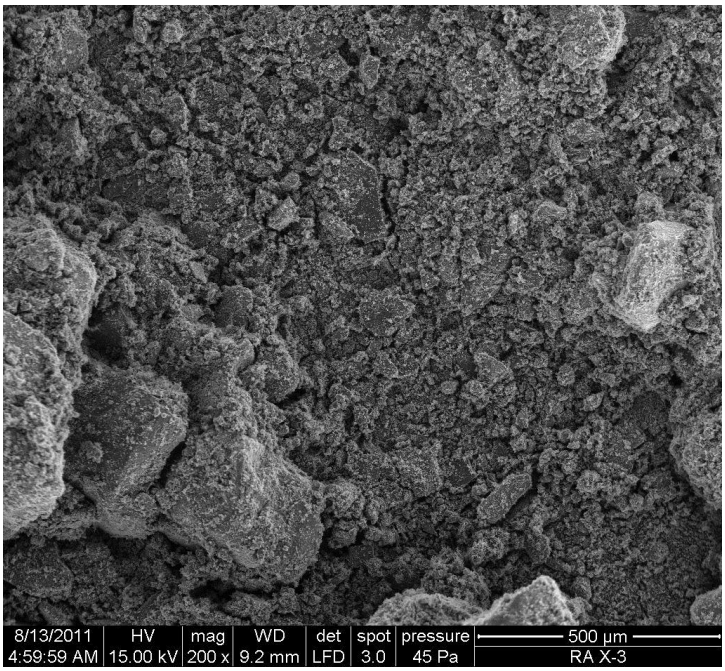

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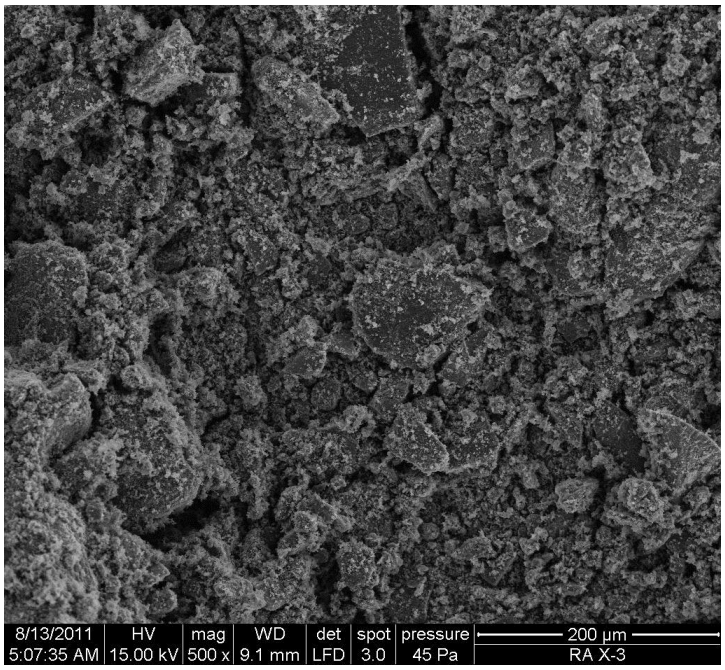

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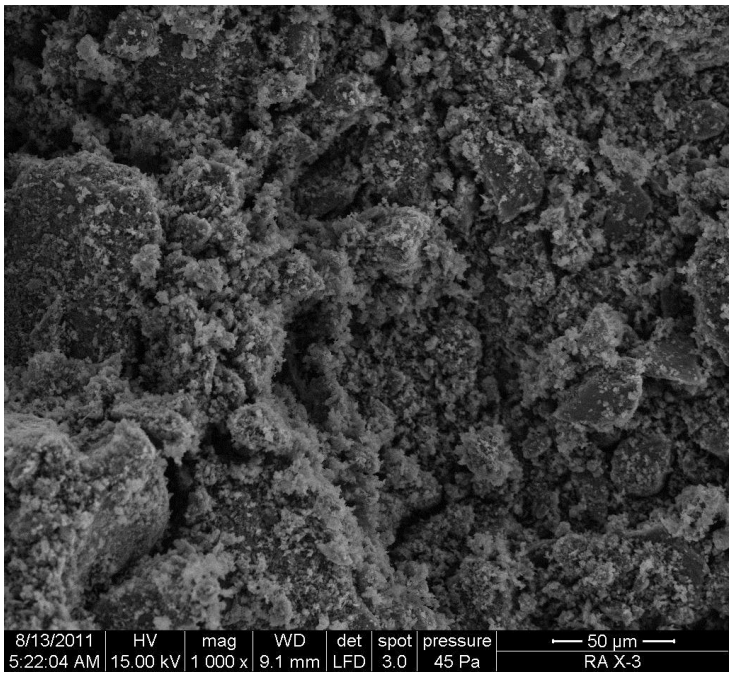

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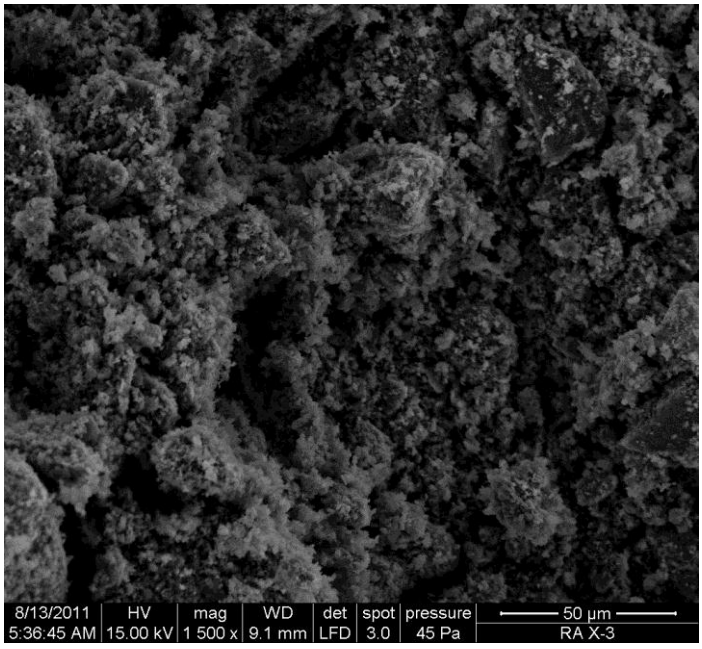

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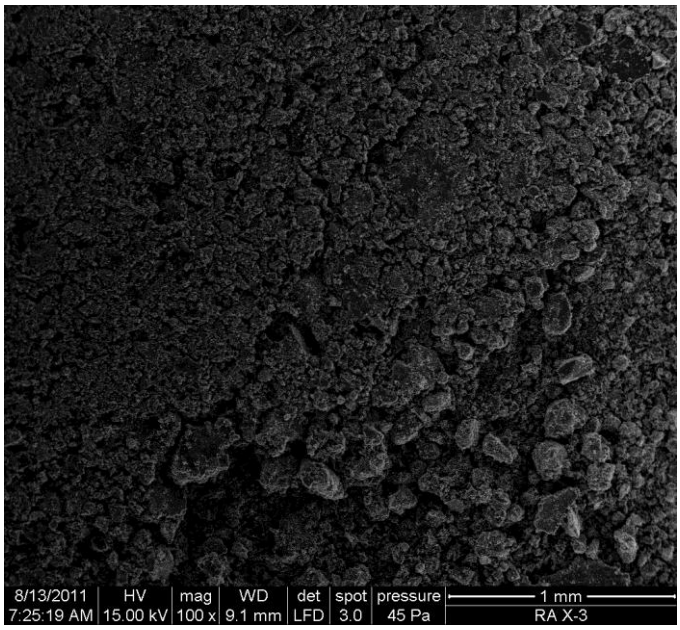
MUESTRA Y2



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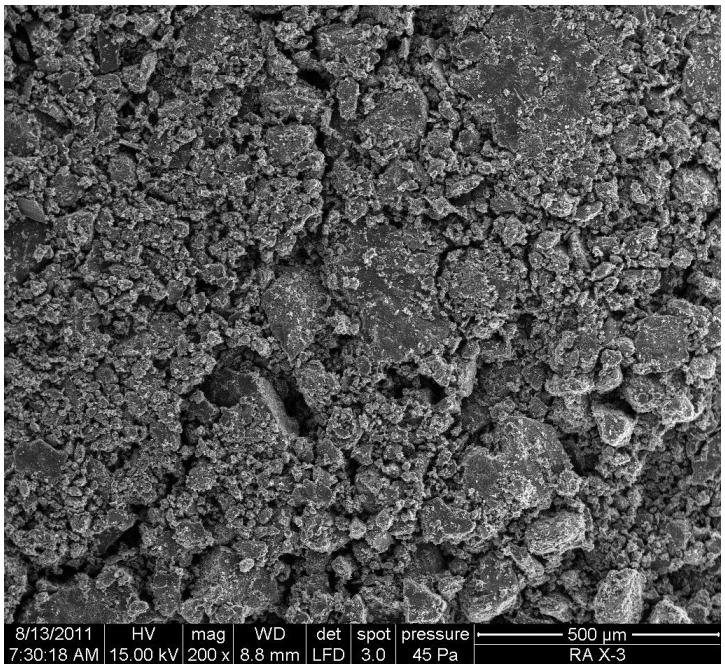

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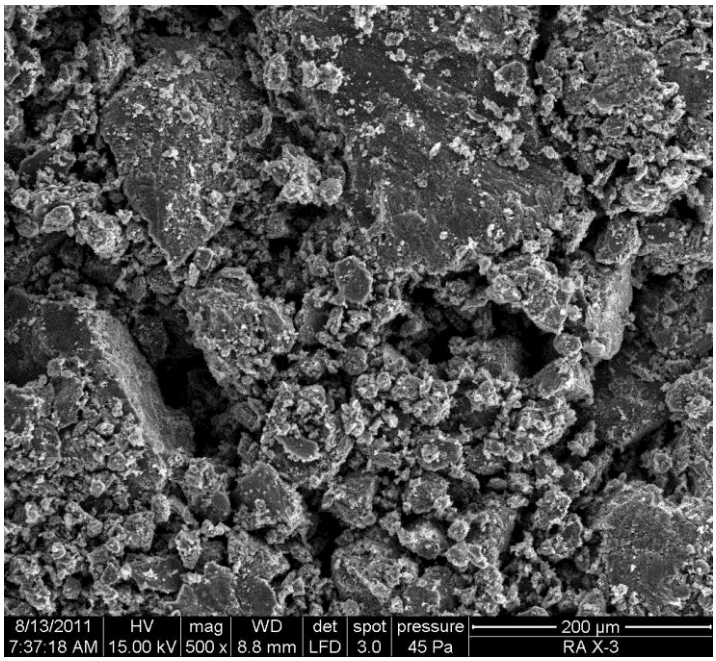

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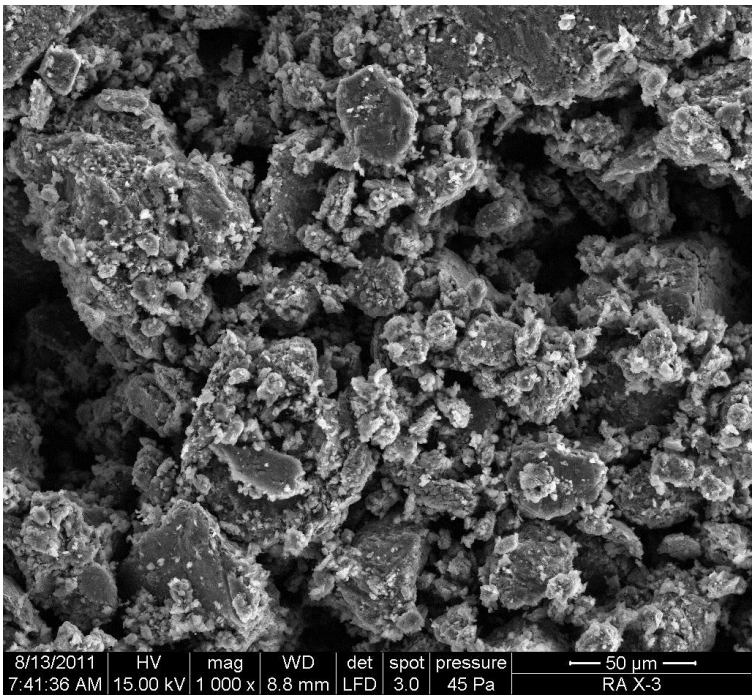

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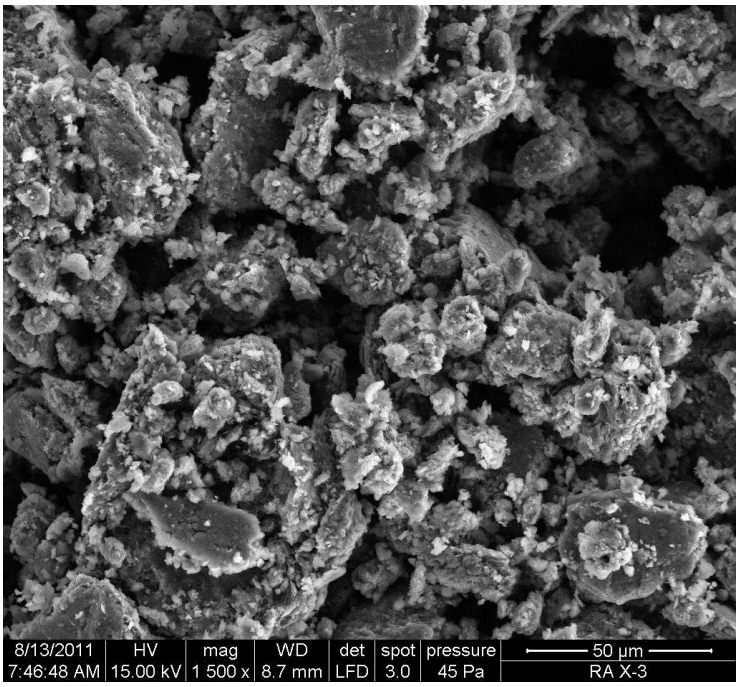
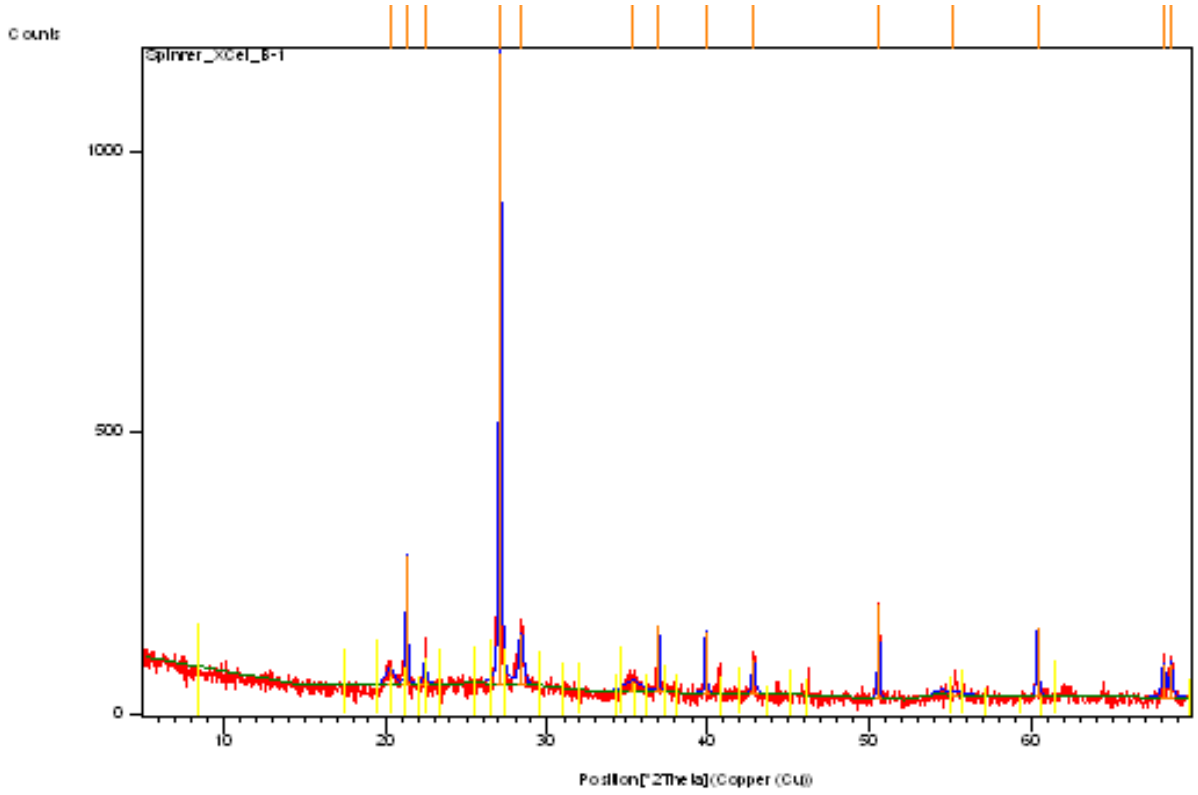


MAGNIFICACIÓN 1500X

APÉNDICE C

DIFRACTOGRAMAS DE FRACCIÓN ARCILLA

MUESTRA B1



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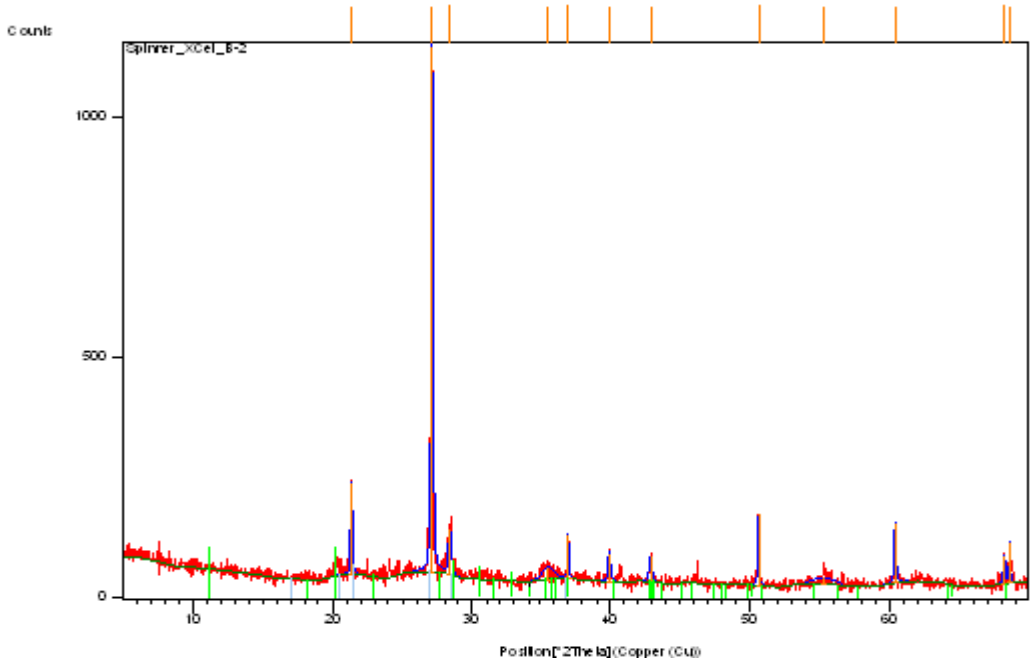

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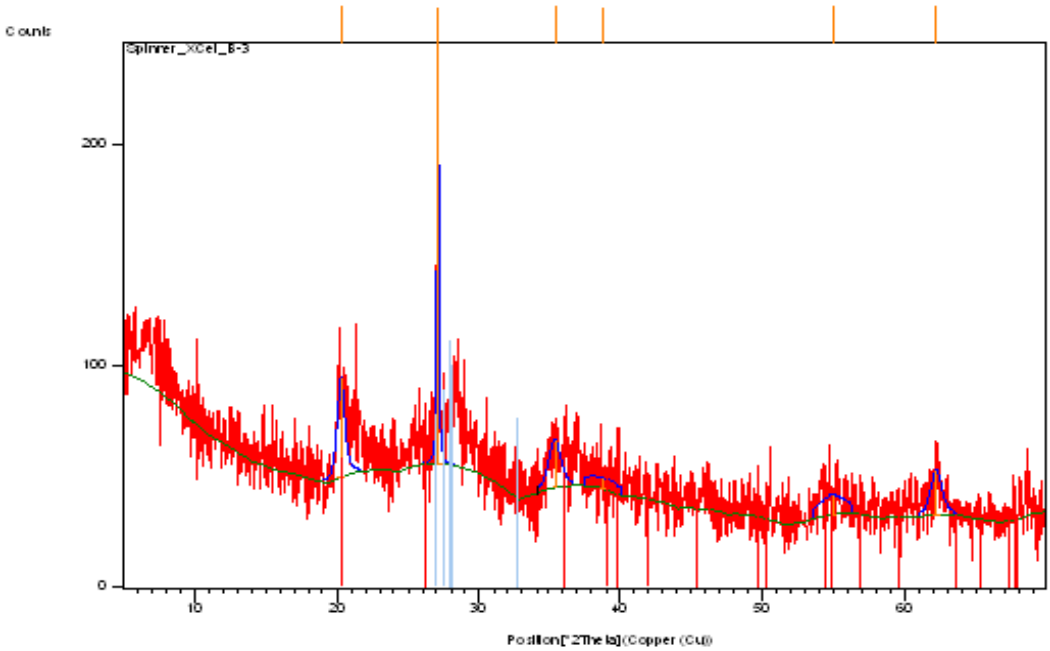

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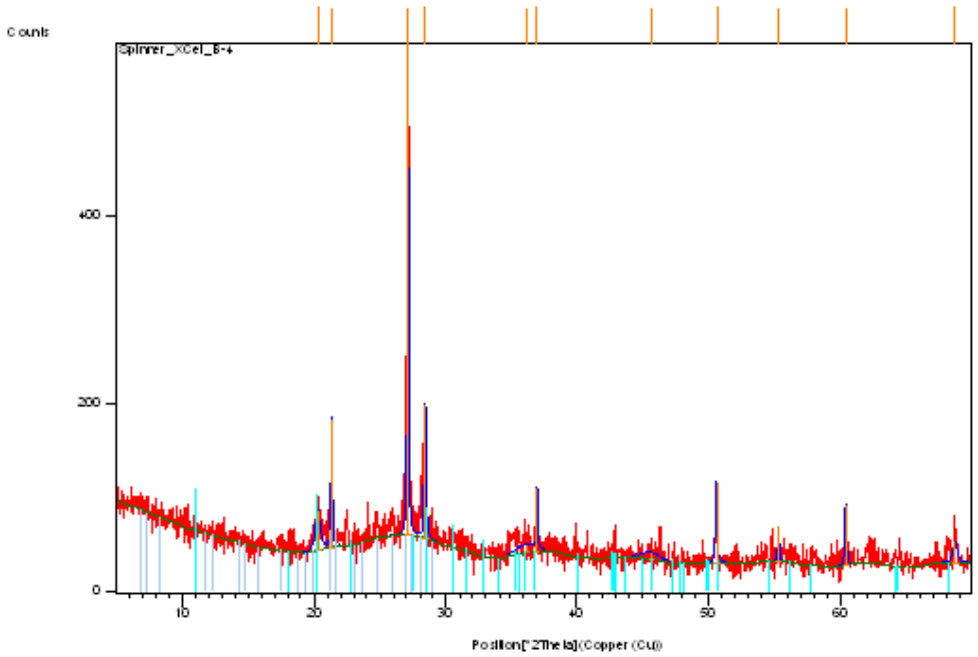

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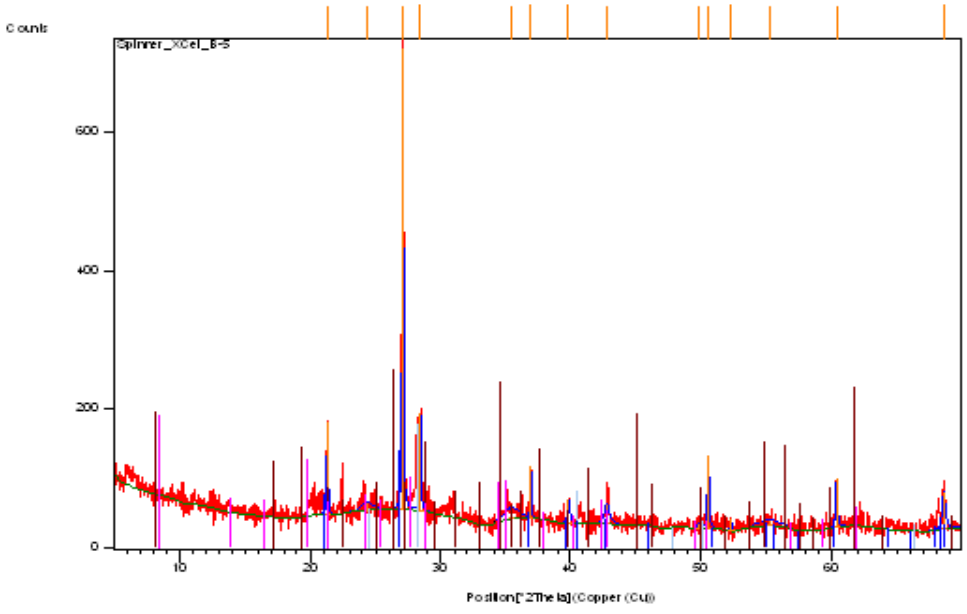

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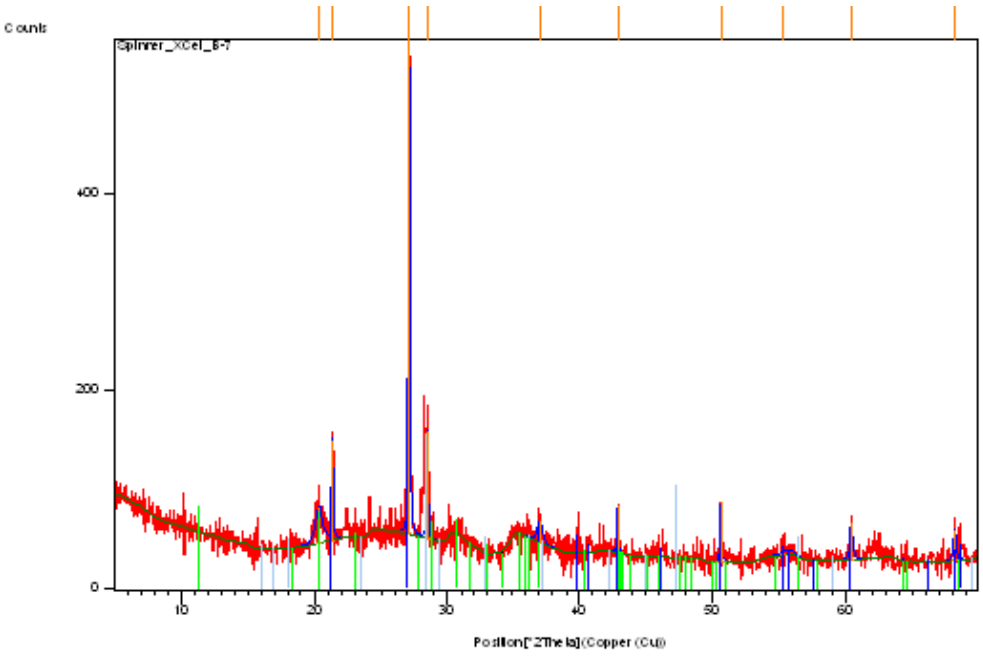

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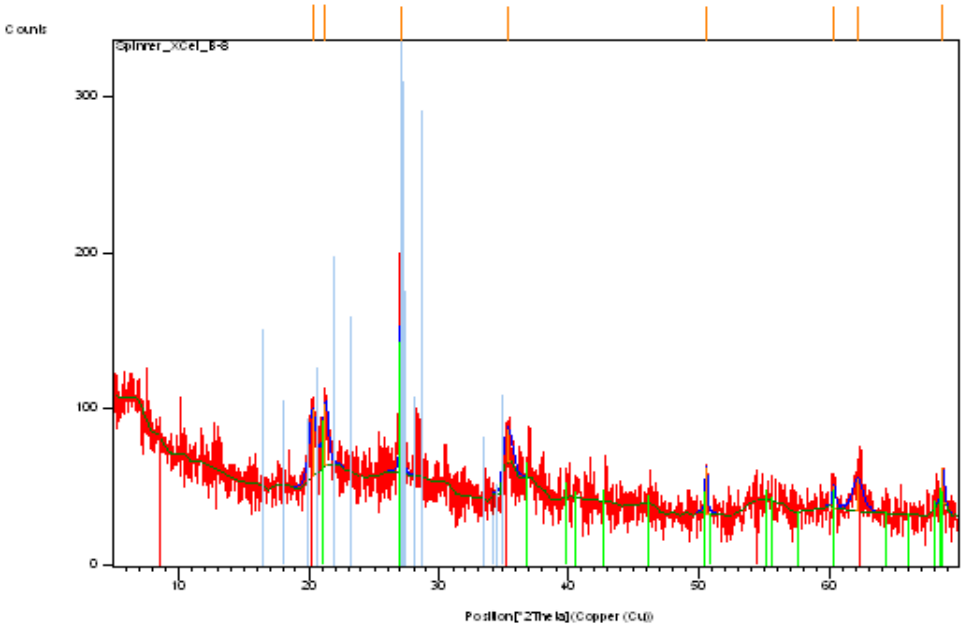

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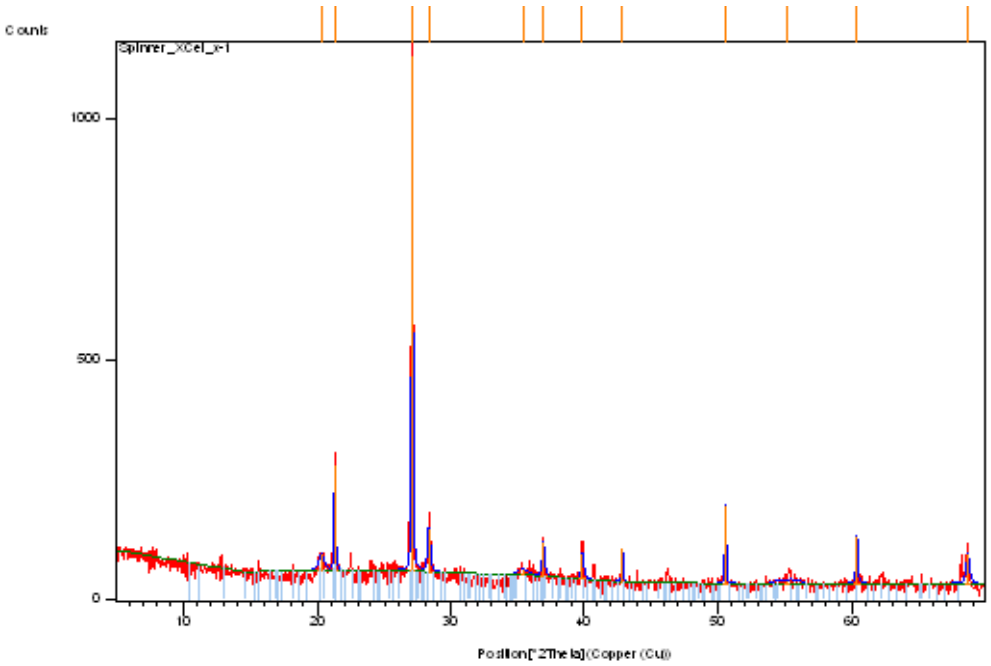

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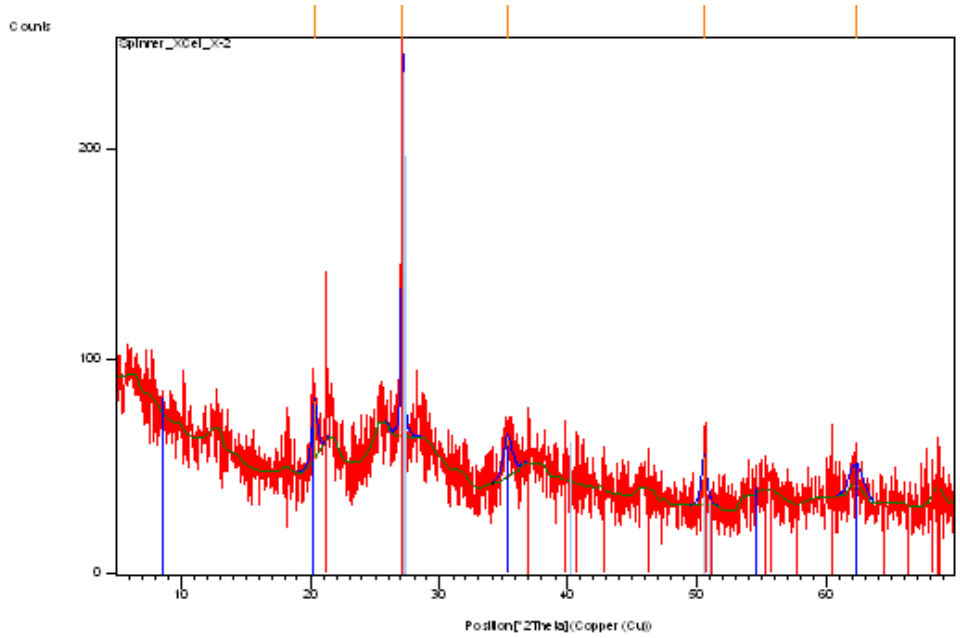

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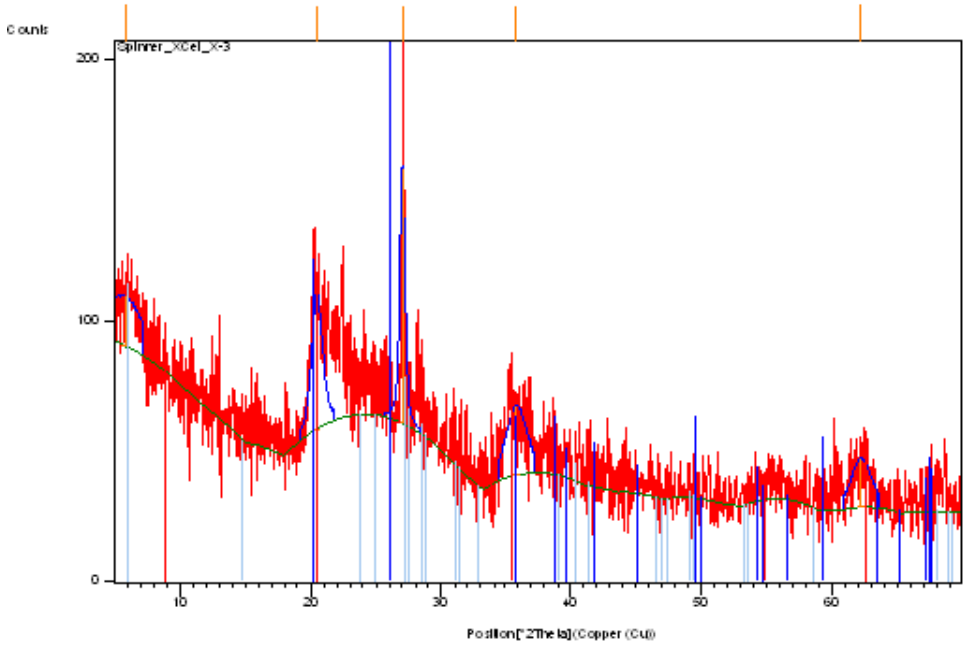

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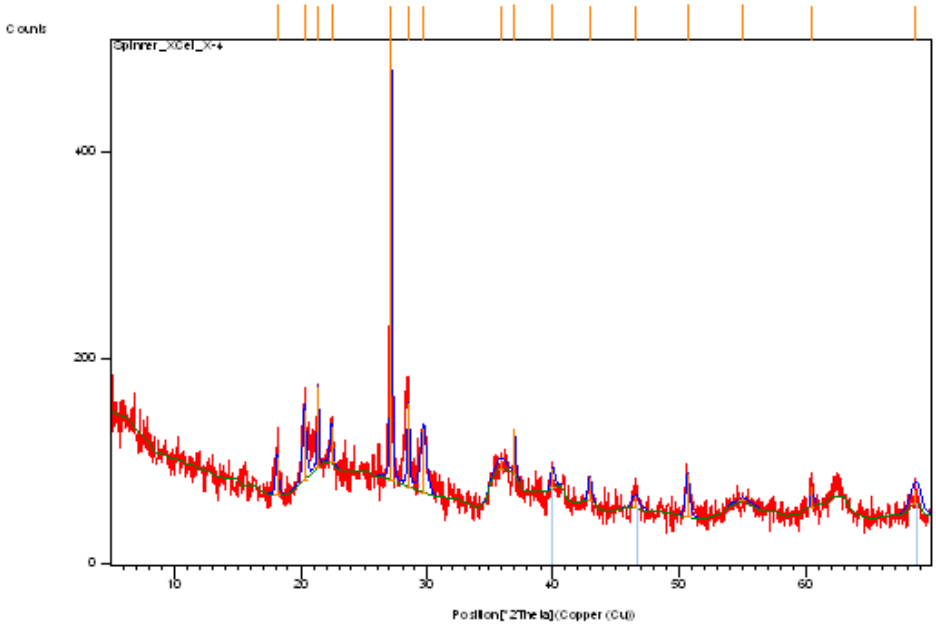
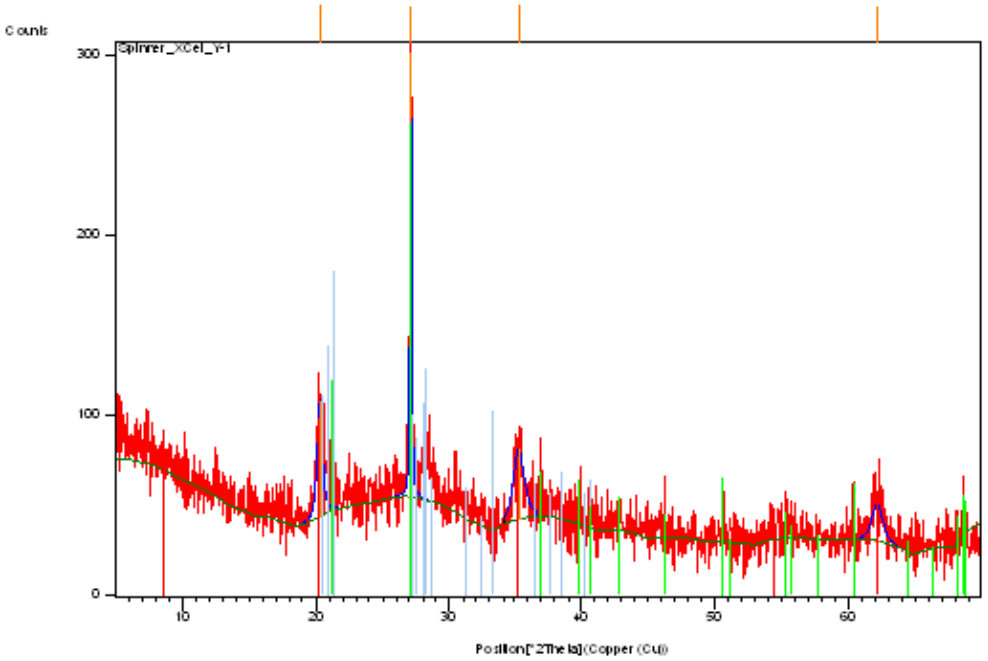


MUESTRA Y1



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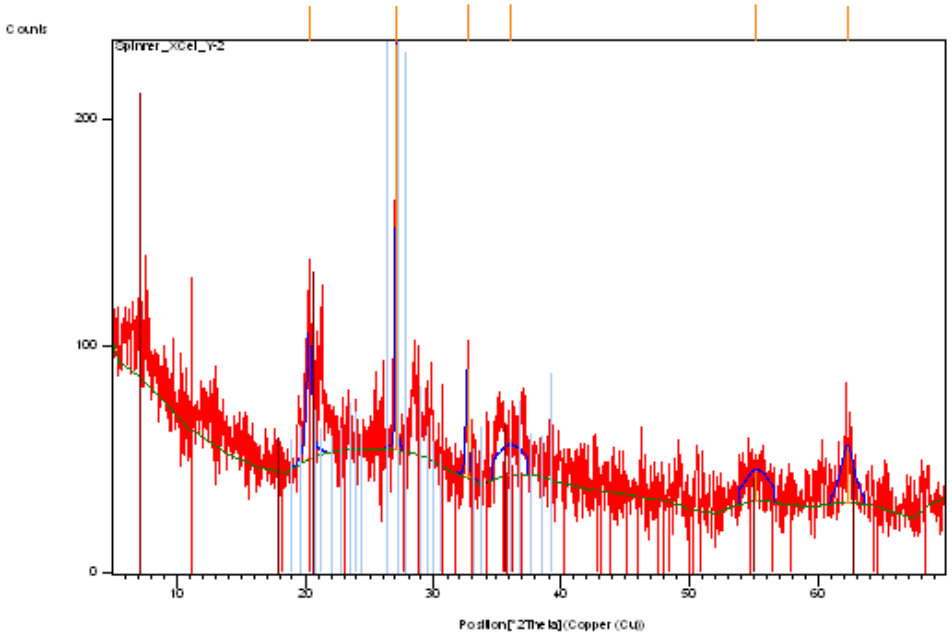

APÉNDICE D

ANÁLISIS TÉRMICO DE LAS MUESTRAS DE ARCILLA

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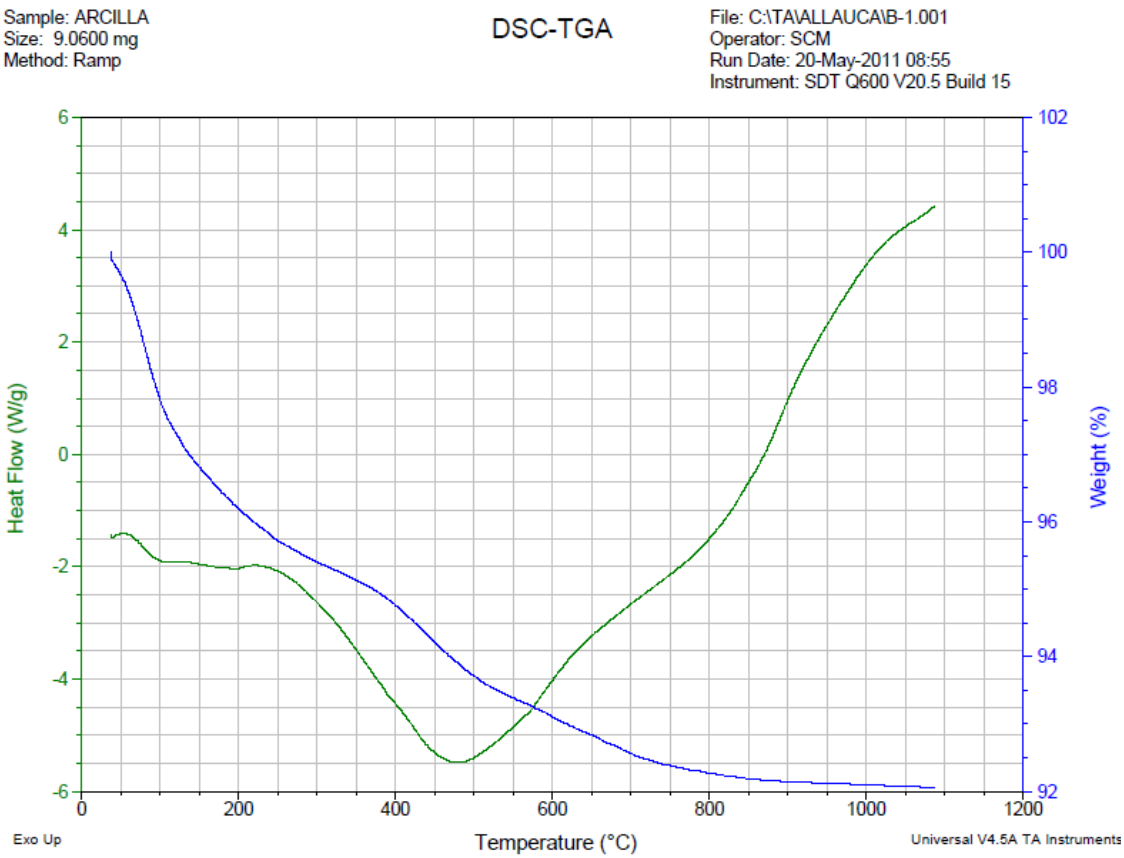

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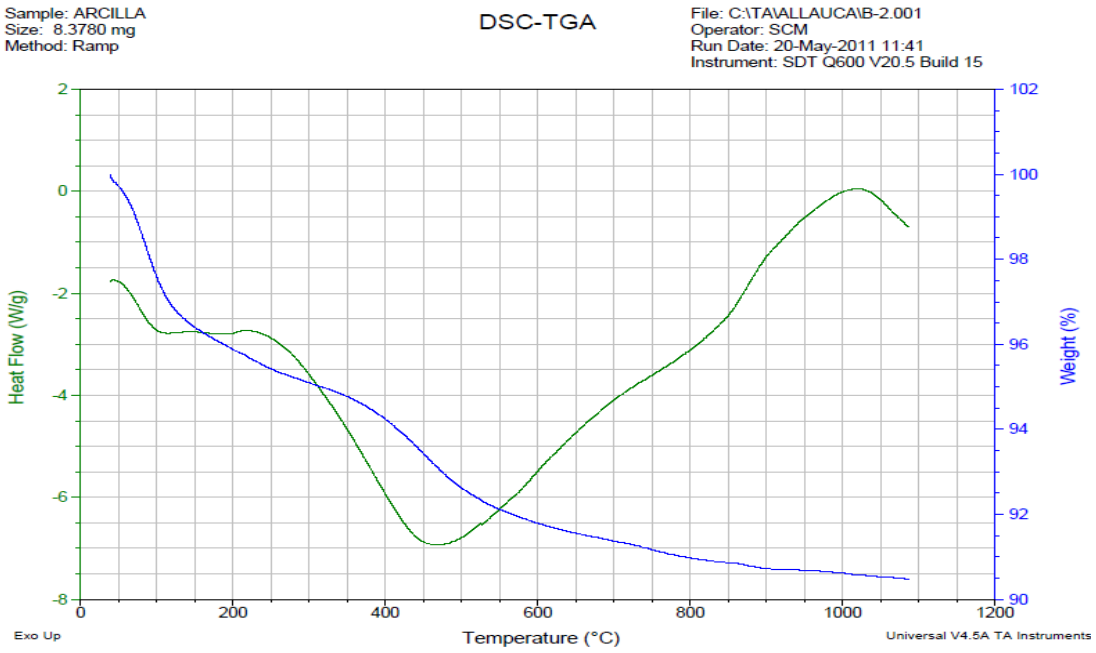

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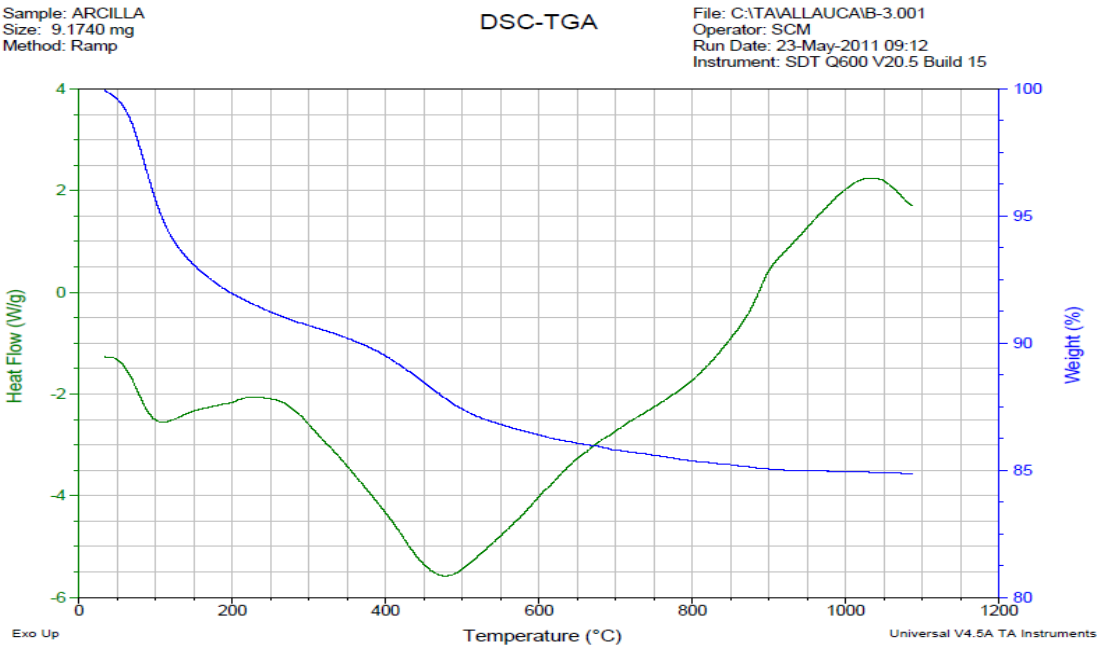

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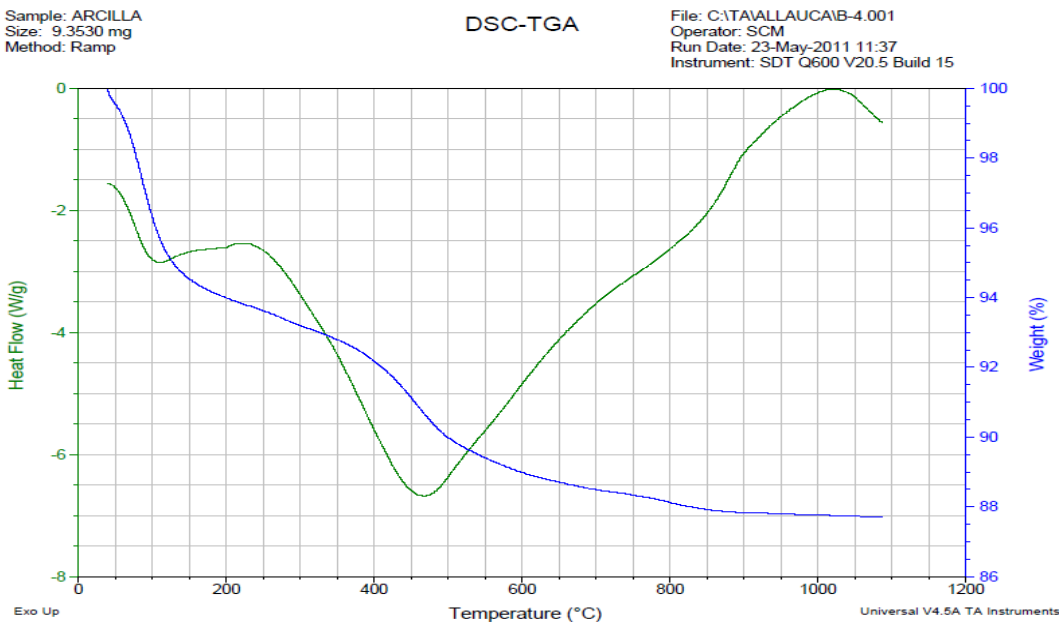

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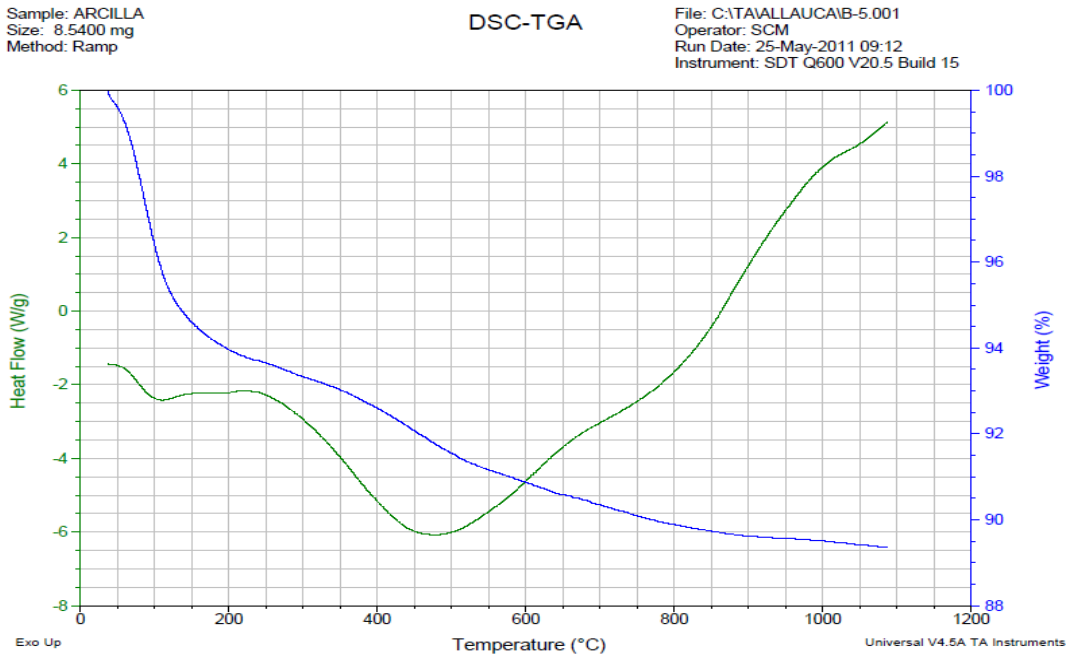

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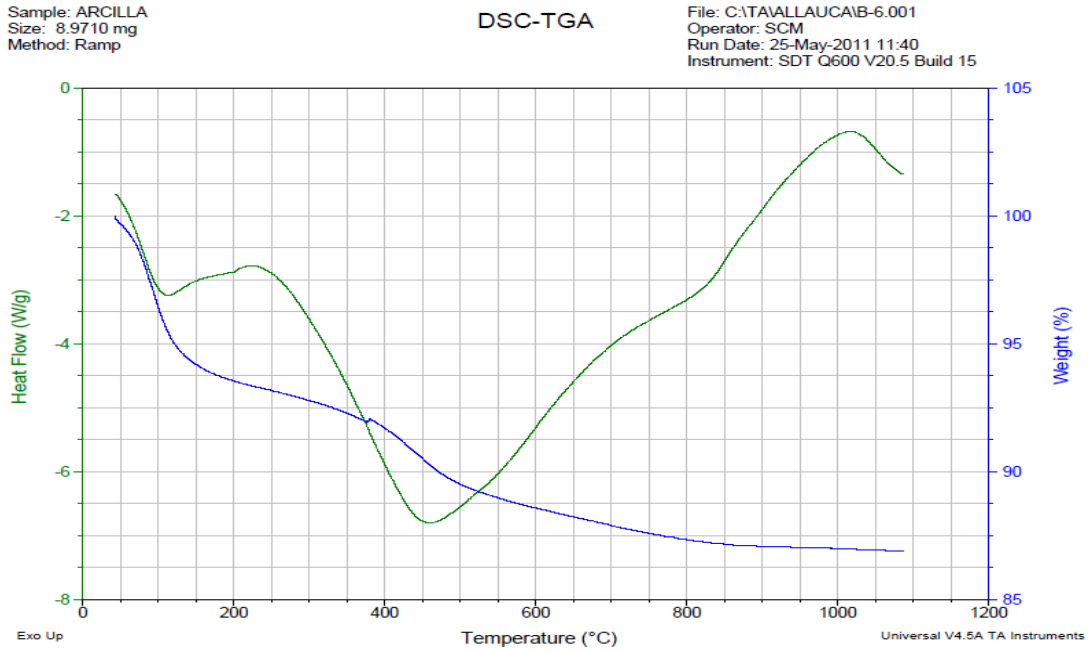

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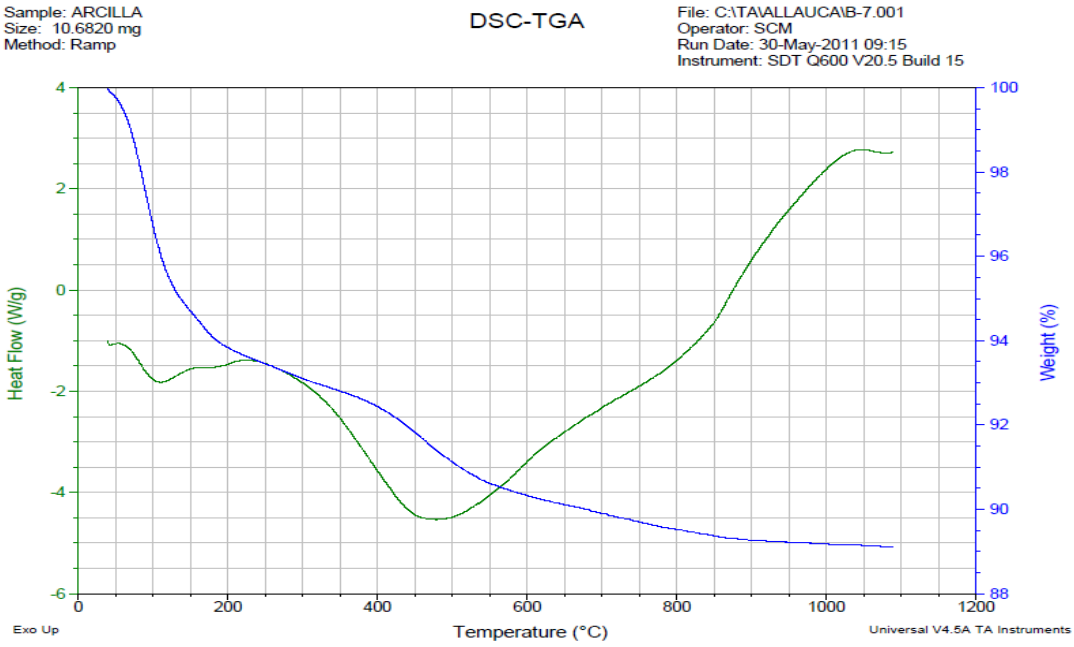

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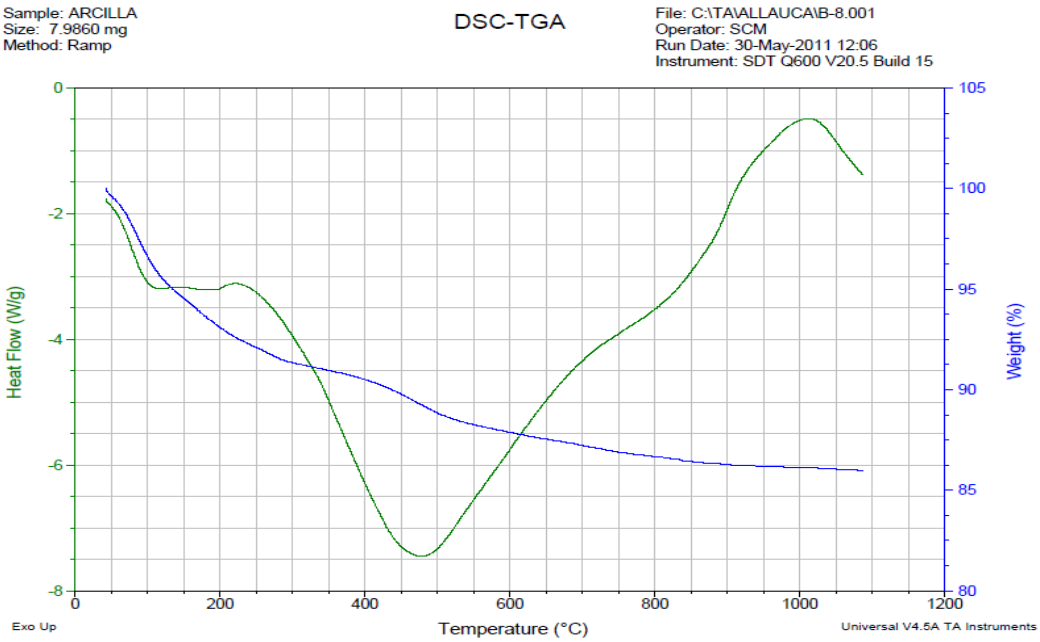

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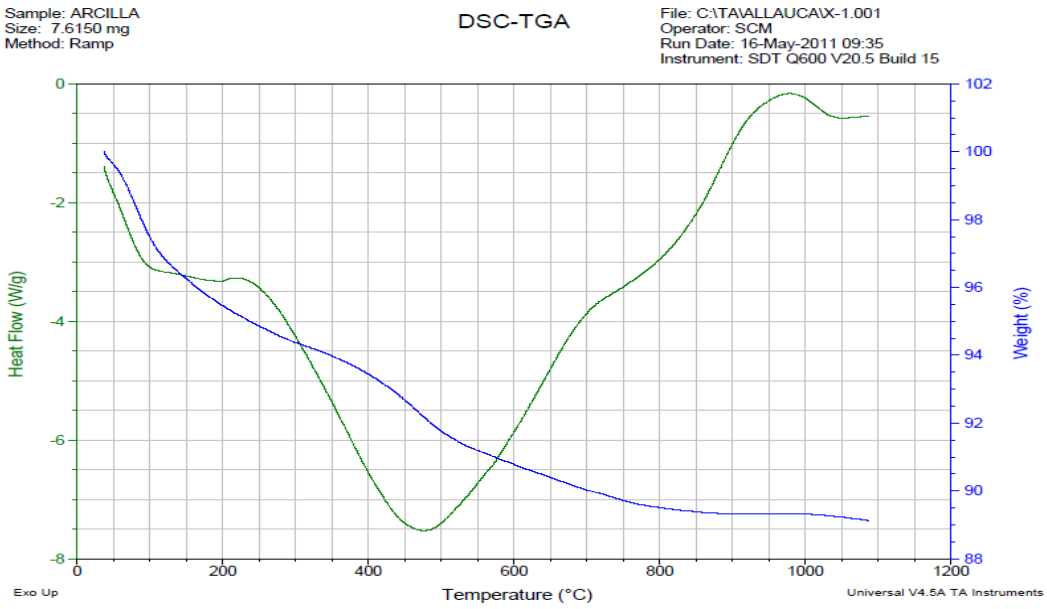
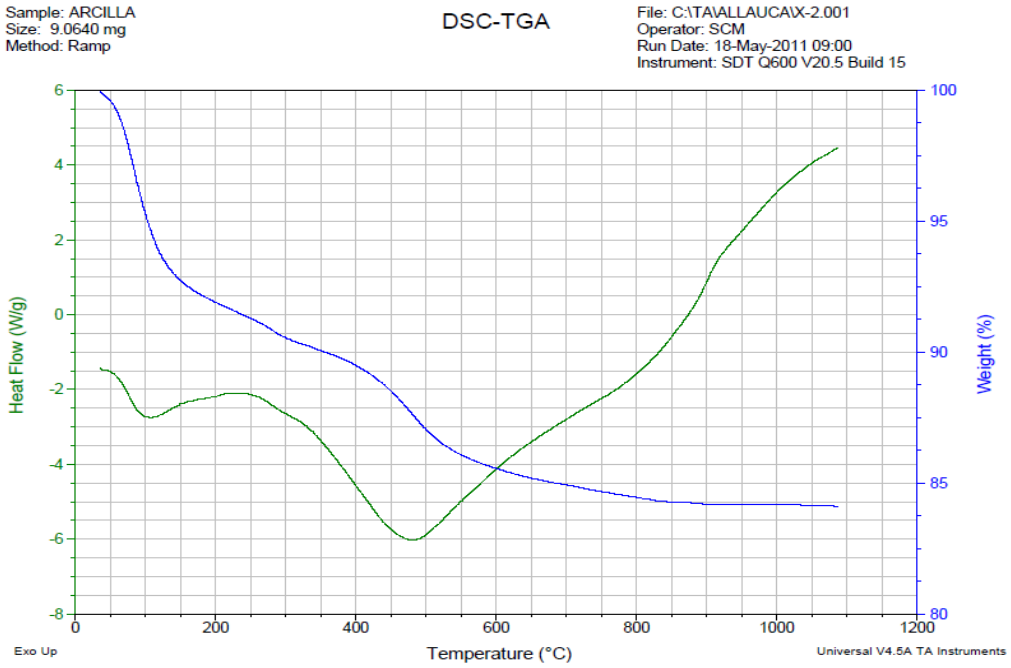


MUESTRA X2



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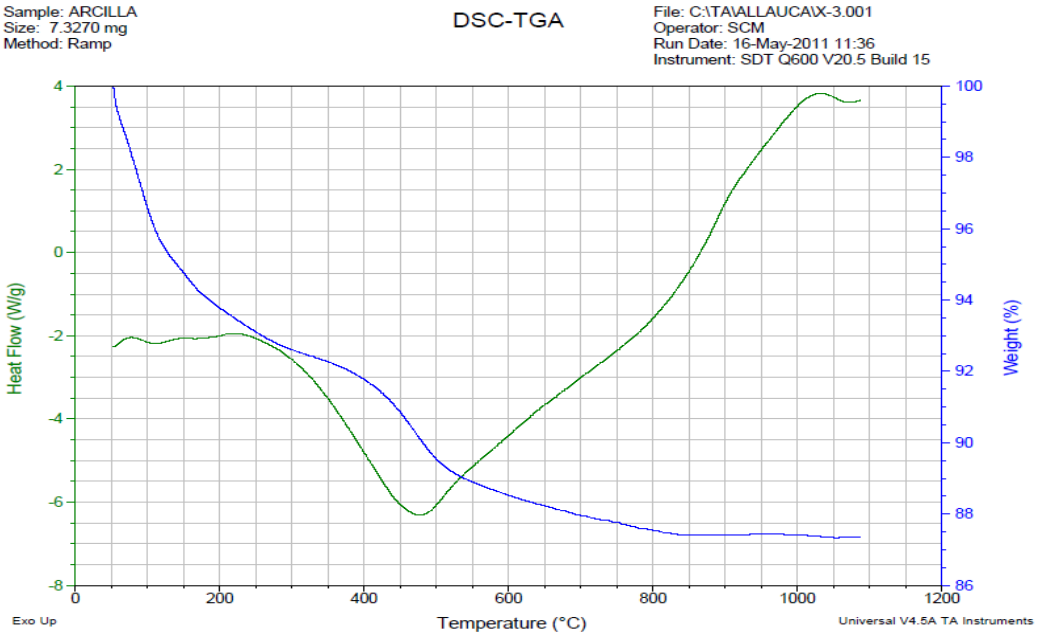

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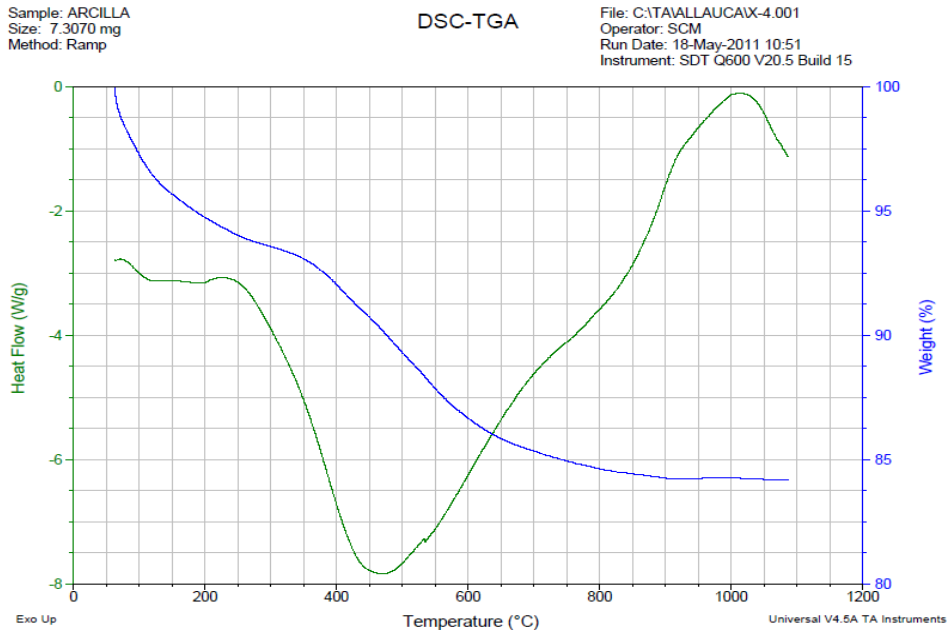

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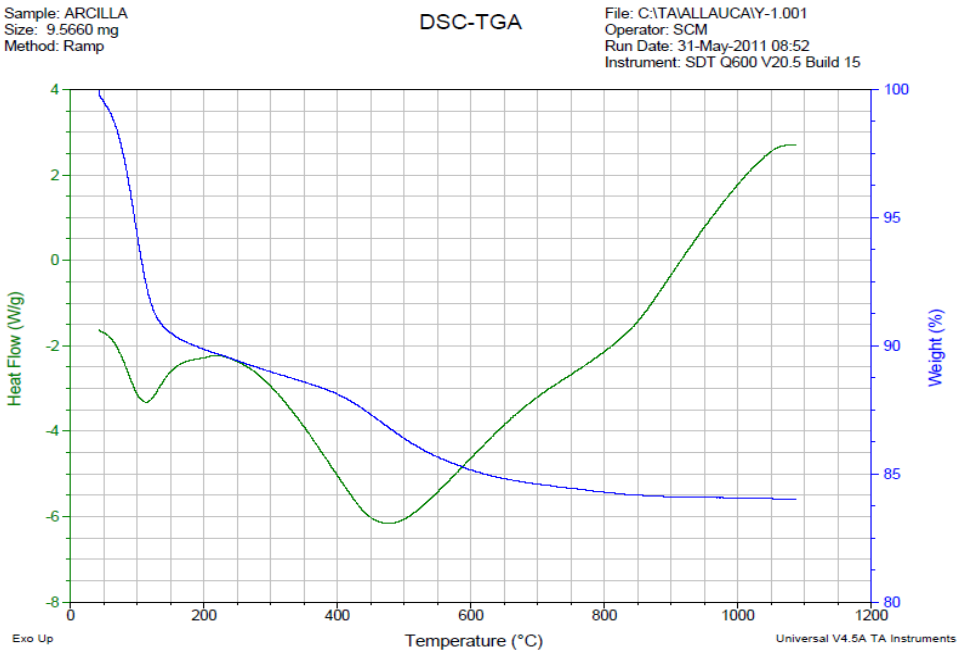
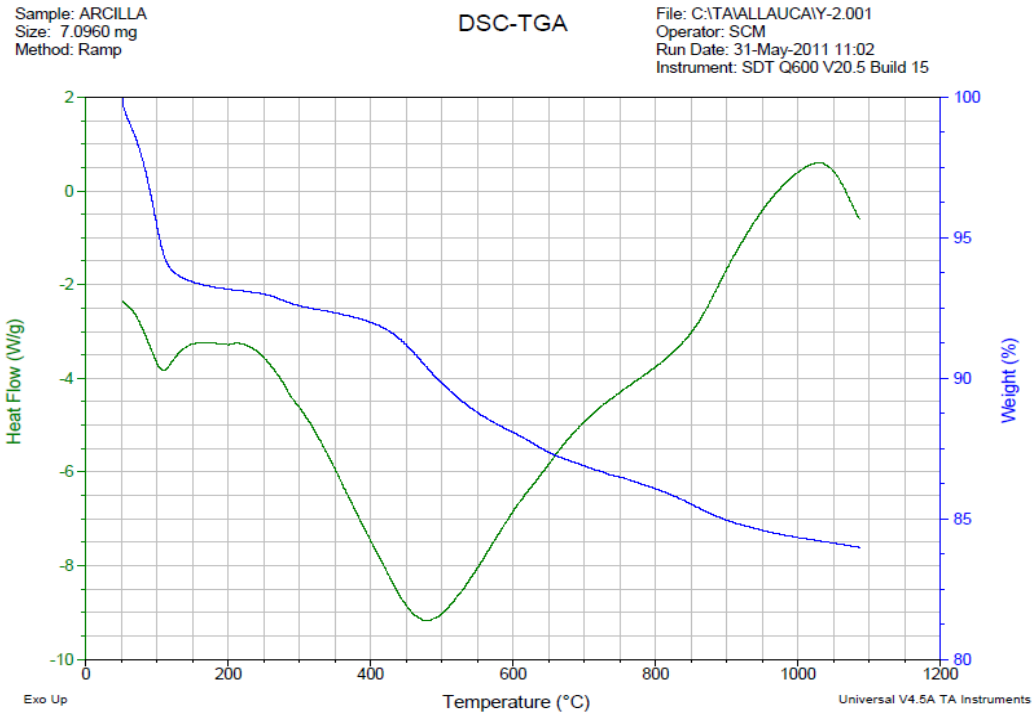


MUESTRA Y2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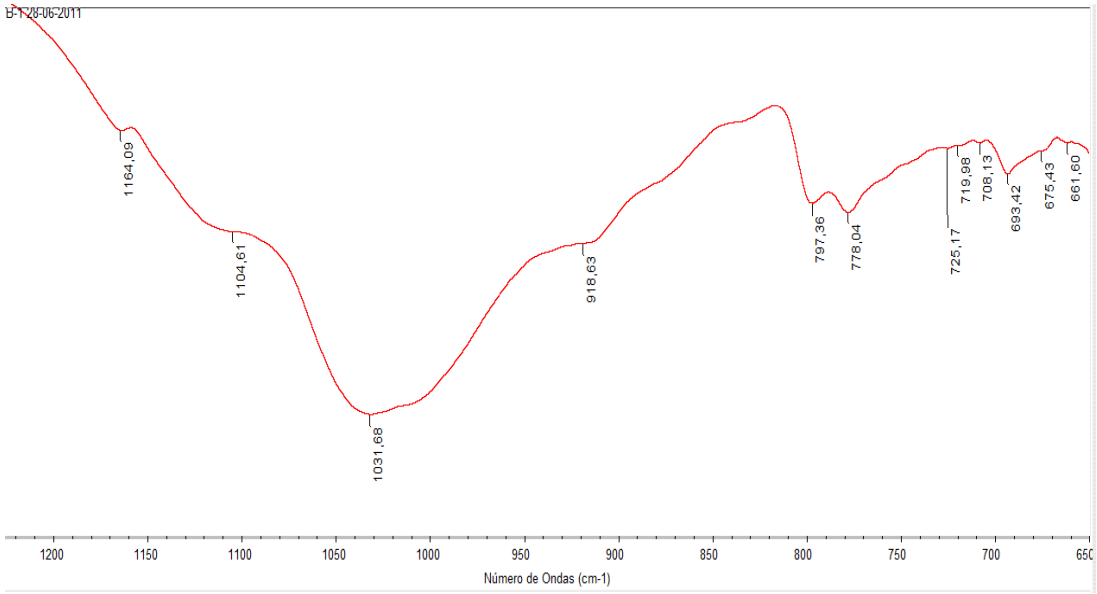
Size: 7.0960 mg
Method: Ramp
DSC-TGA
File: C:\TA\ALLAUCA\Y-2.001
Operator: SCM
Run Date: 31-May-2011 11:02
Instrument: SDT Q600 V20.5 Build 15
Heat Flow (W/g)
Weight (%)
Temperature (°C)
Exo Up
Universal V4.5A TA Instruments

APÉNDICE E

ESPECTROS DE INFRARROJO DE LAS MUESTRAS DE ARCILLA

MUESTRA B1



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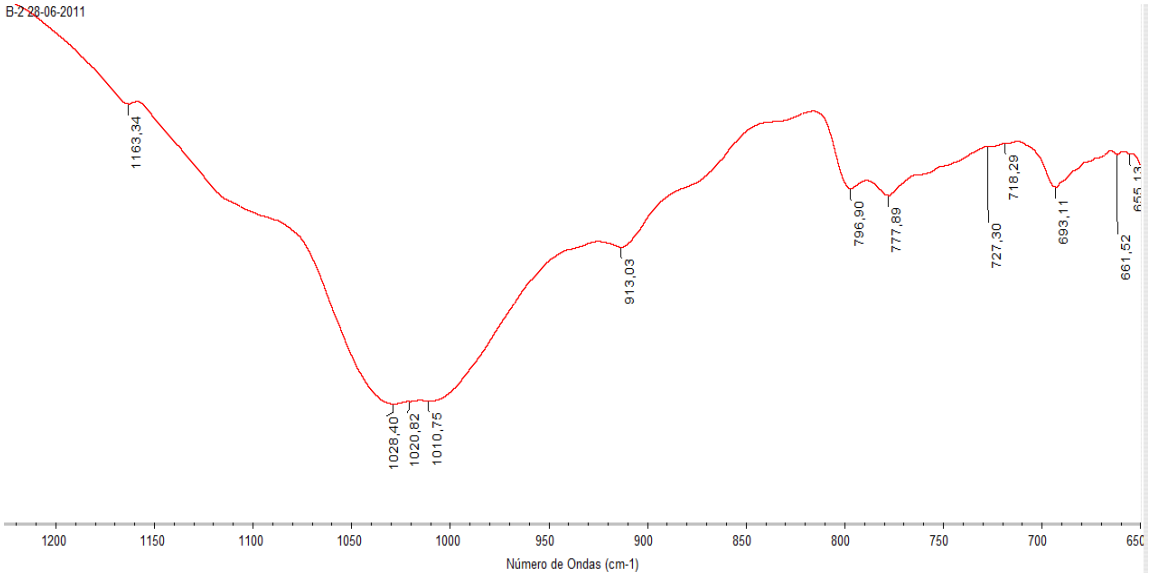
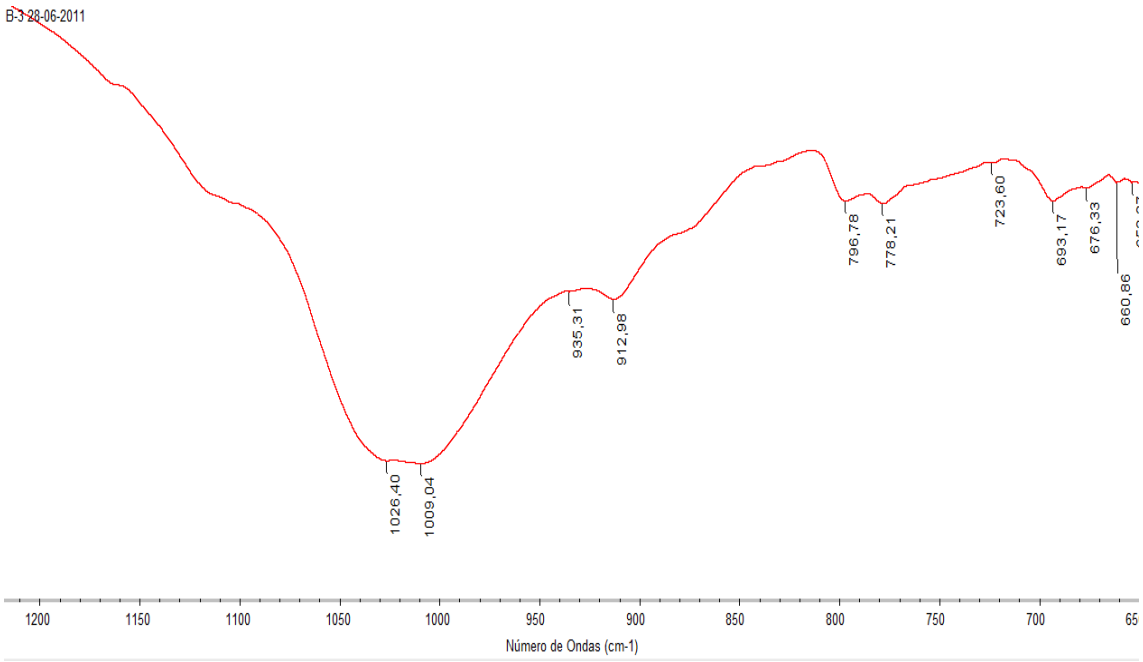


MUESTRA B3



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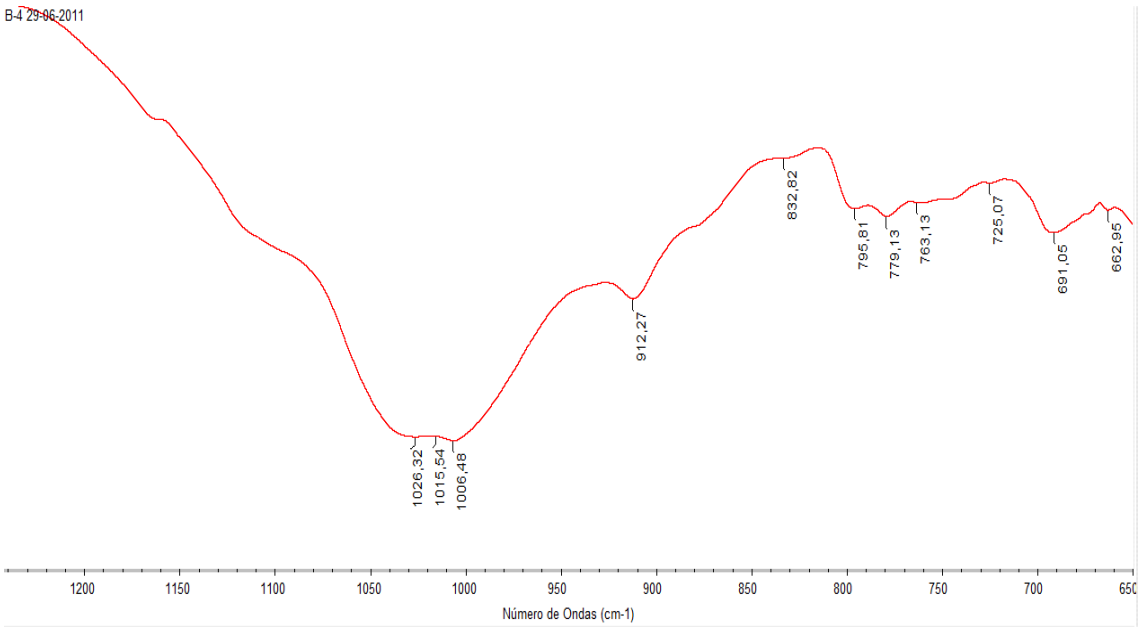

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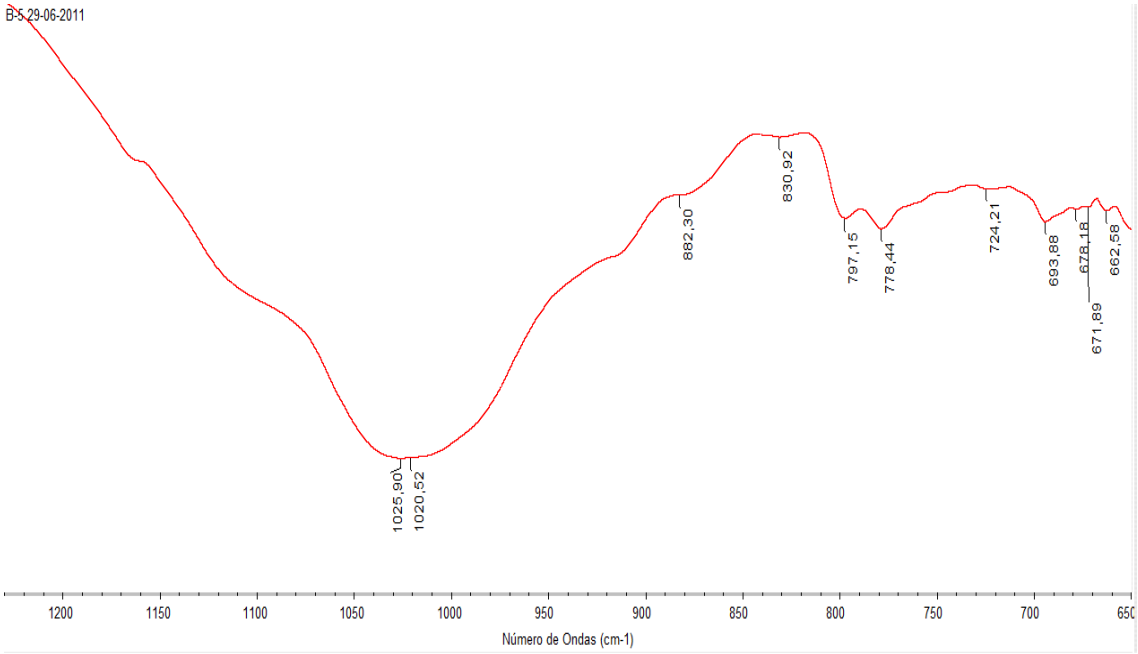

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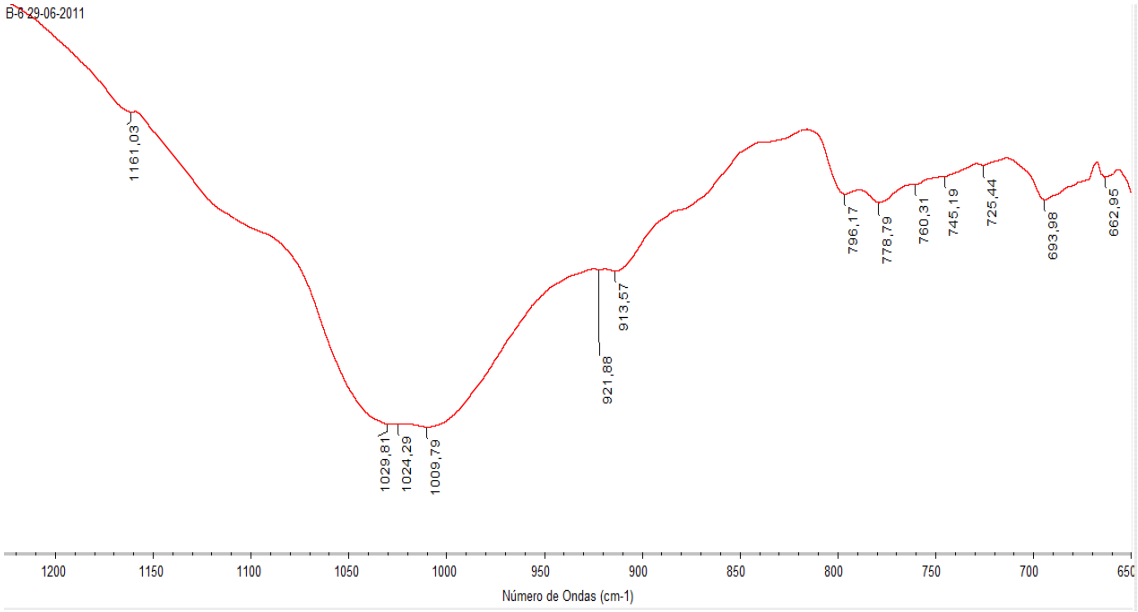
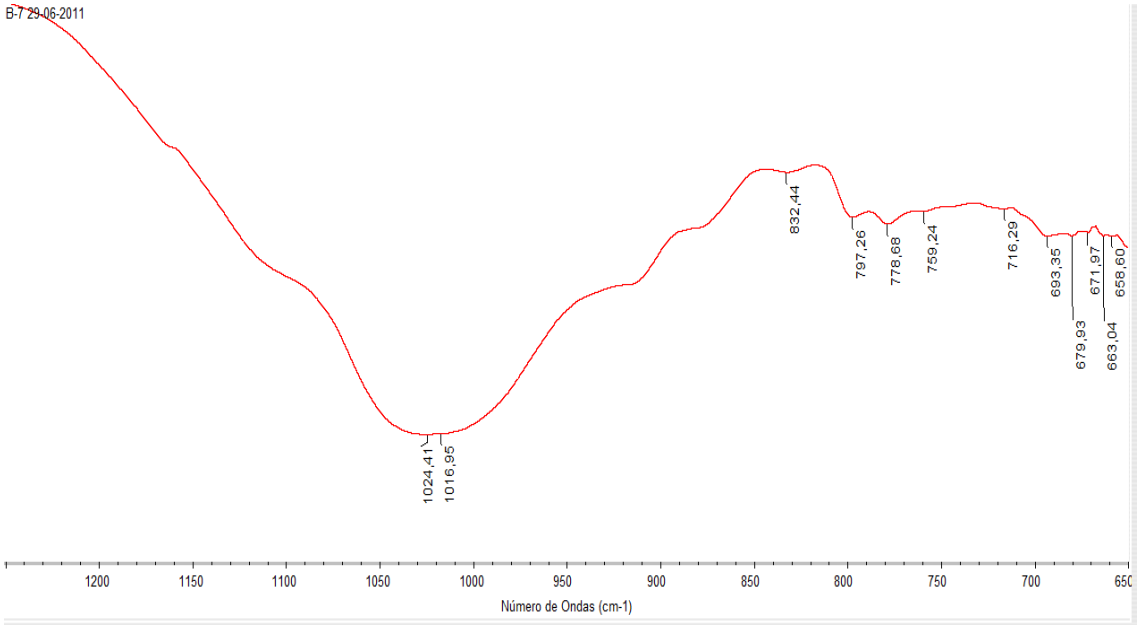
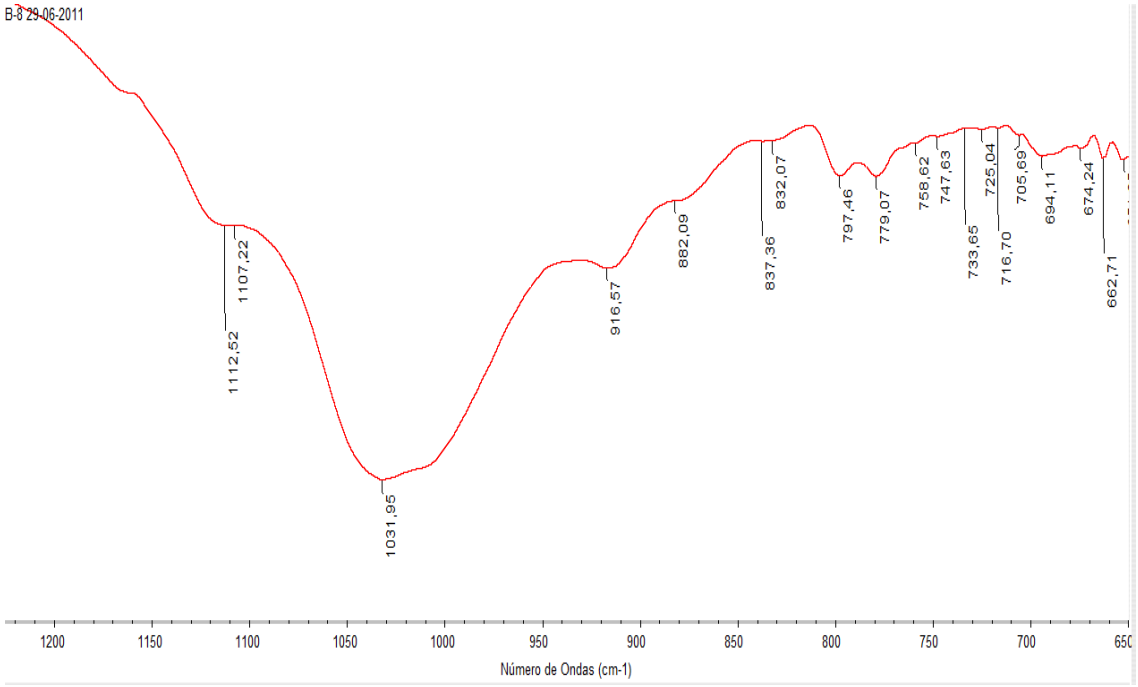


MUESTRA B7



MUESTRA B8



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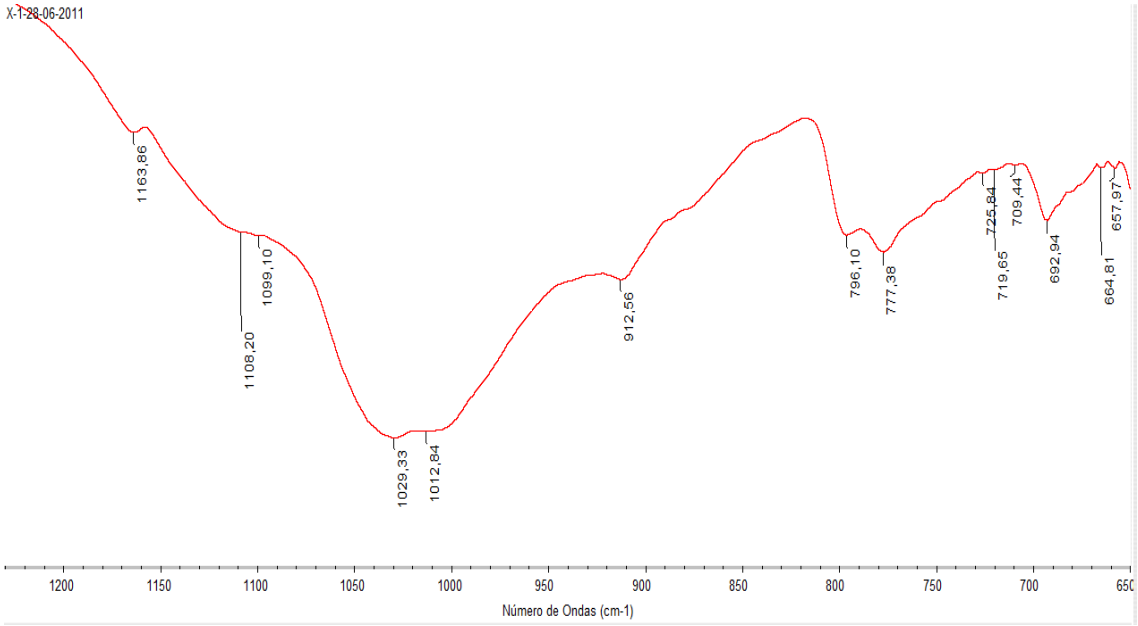
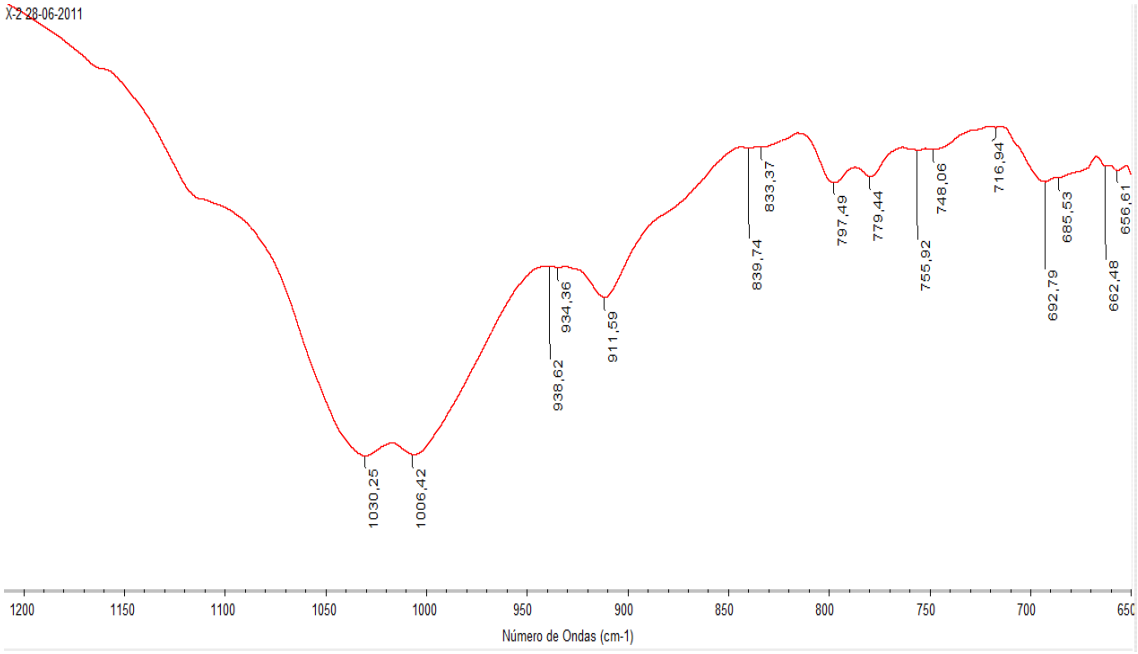


MUESTRA X2



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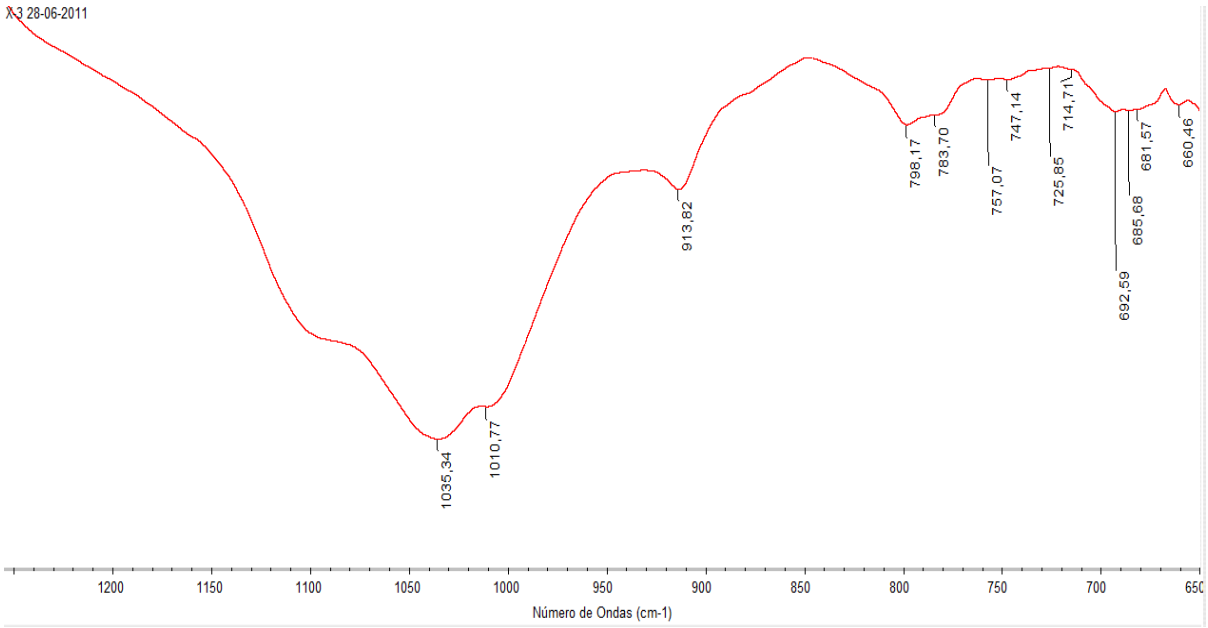

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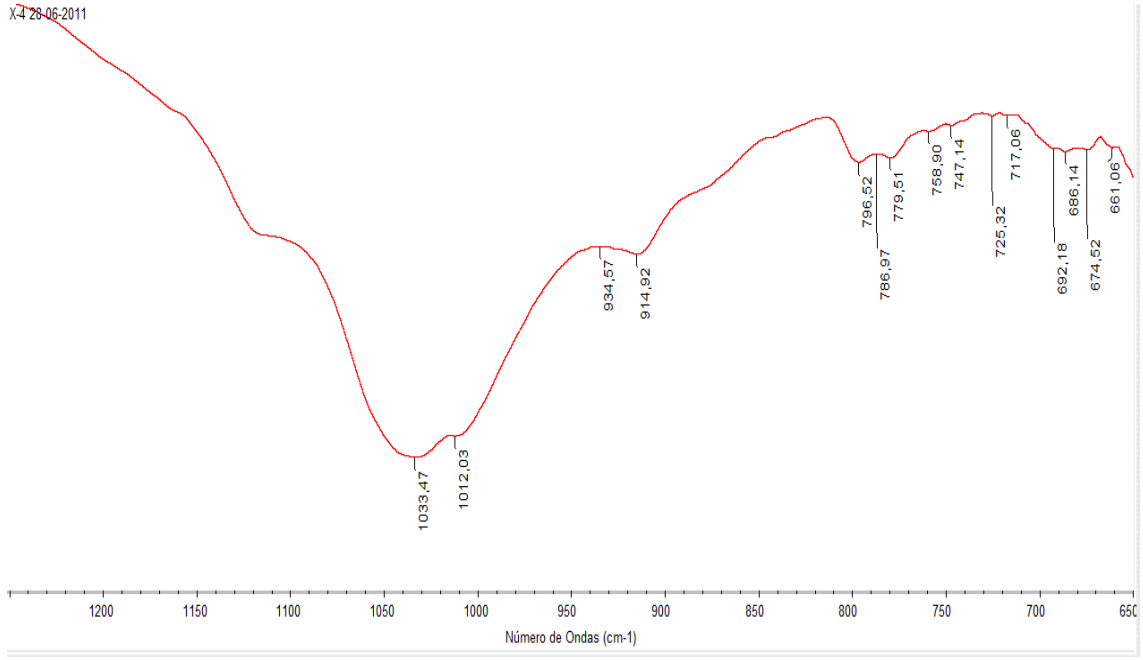
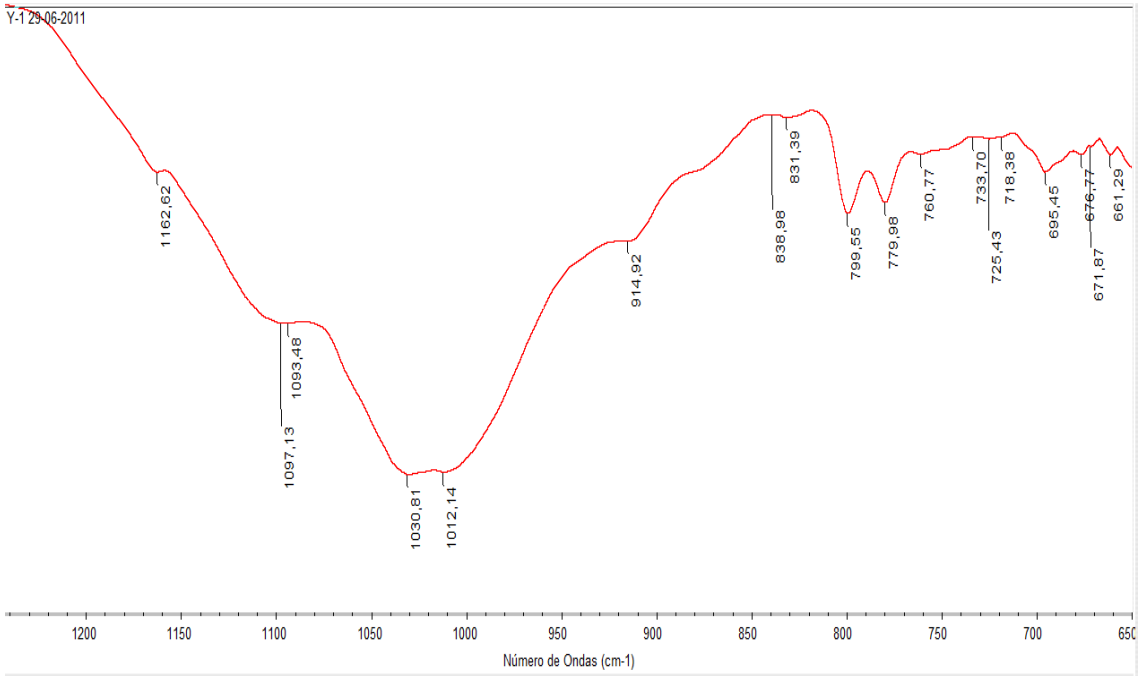
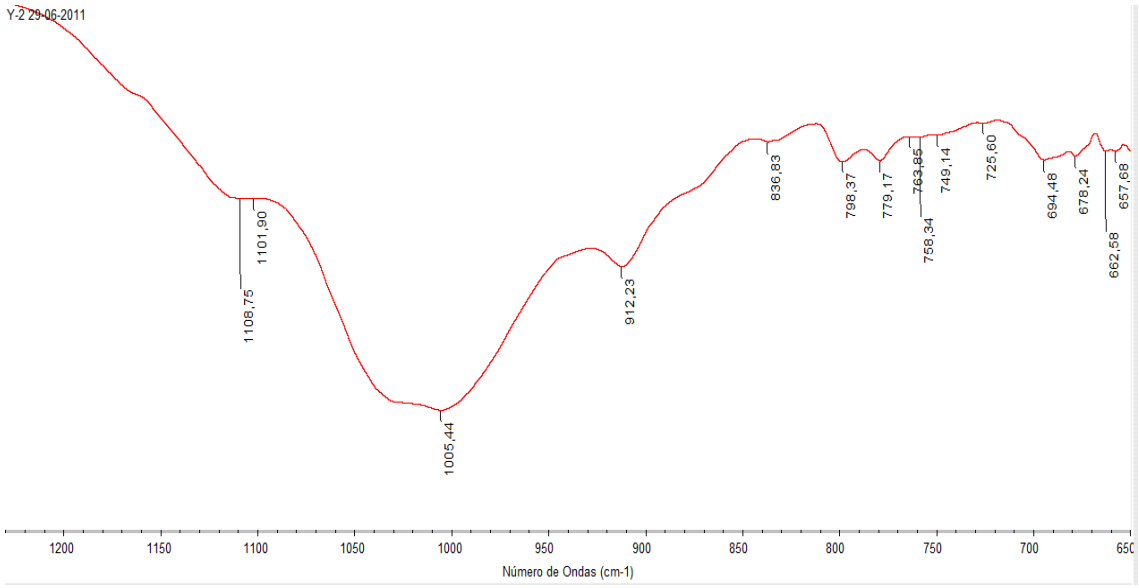


MUESTRA Y1



MUESTRA Y2