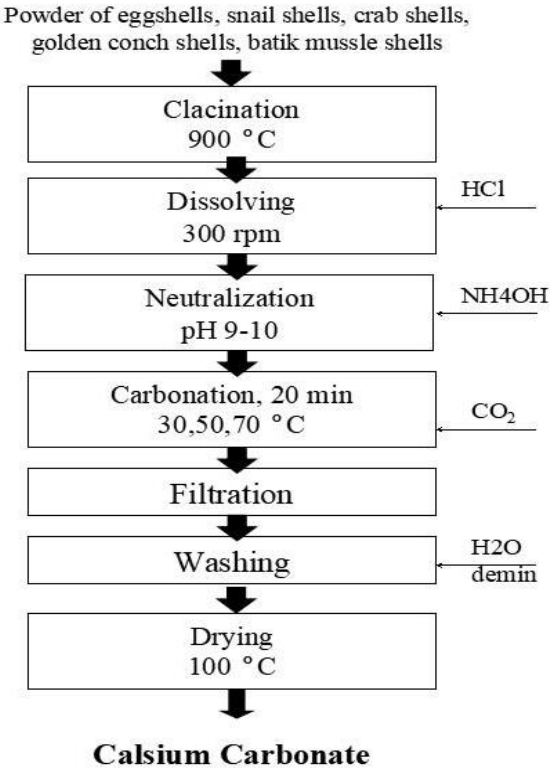
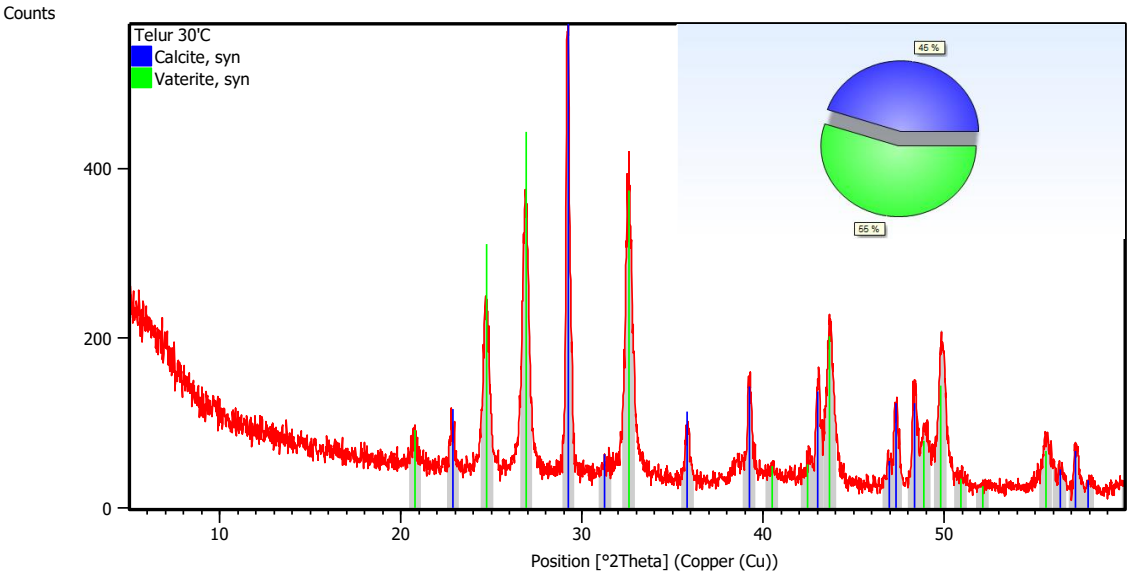
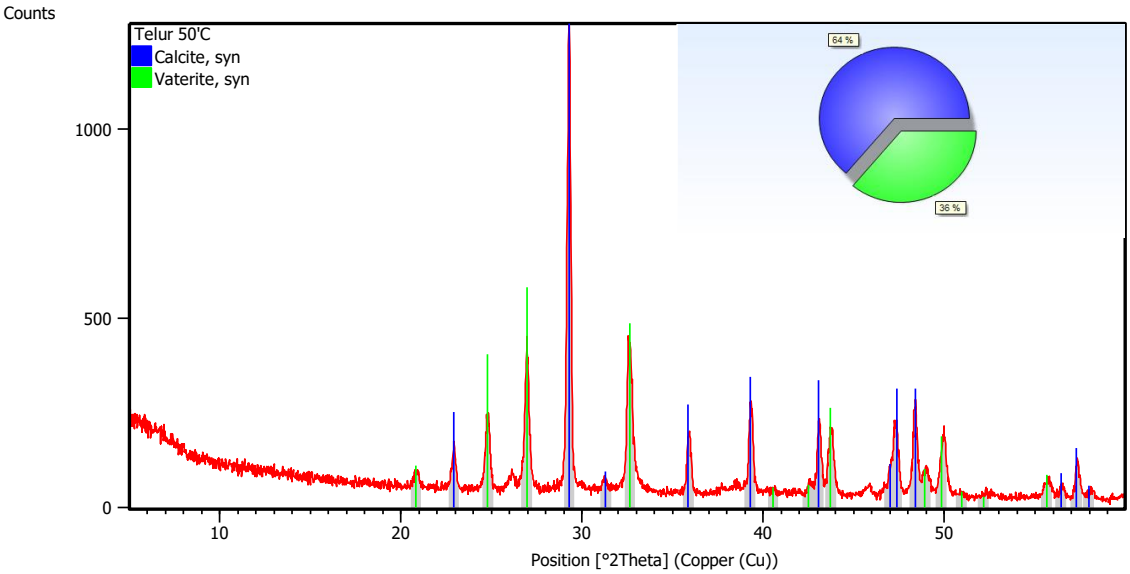
Raw Material for synthesis of precipitated CaCO3

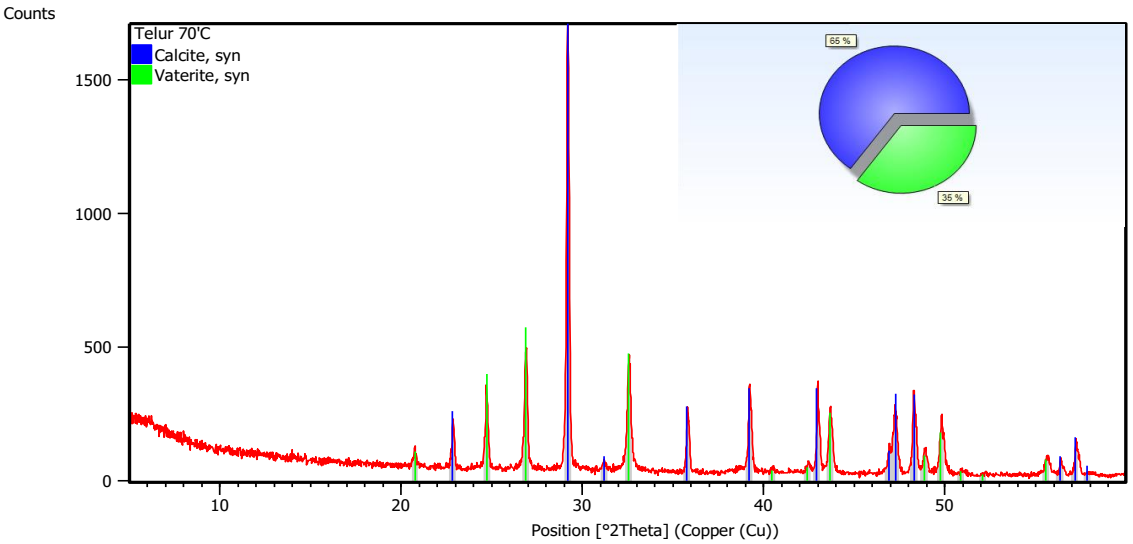


XRD Analysis

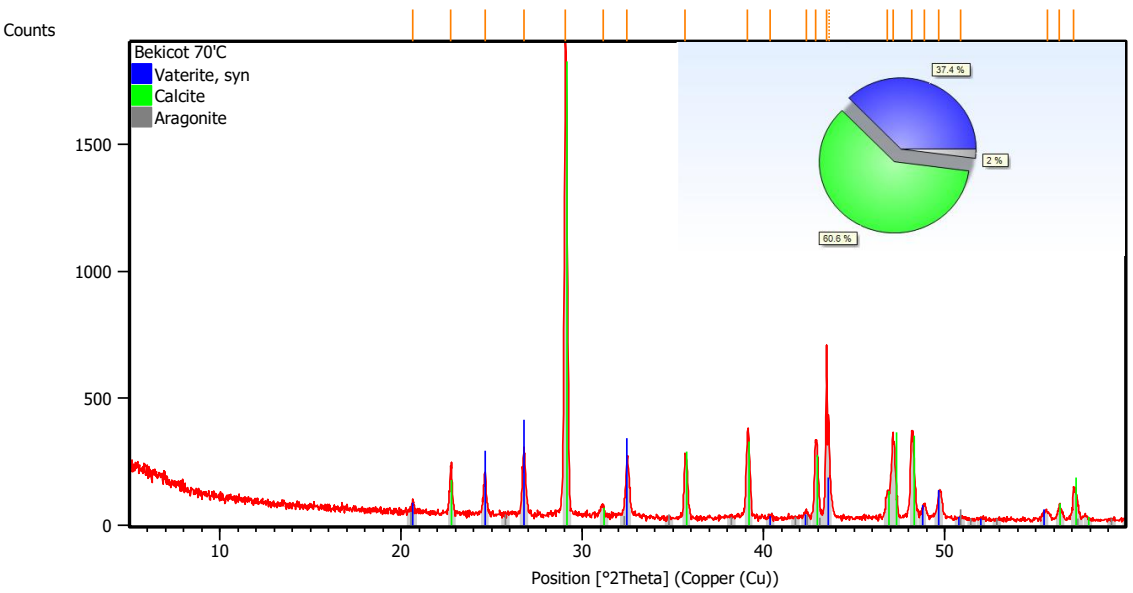
1) CaCO3 precipitated from Egshell

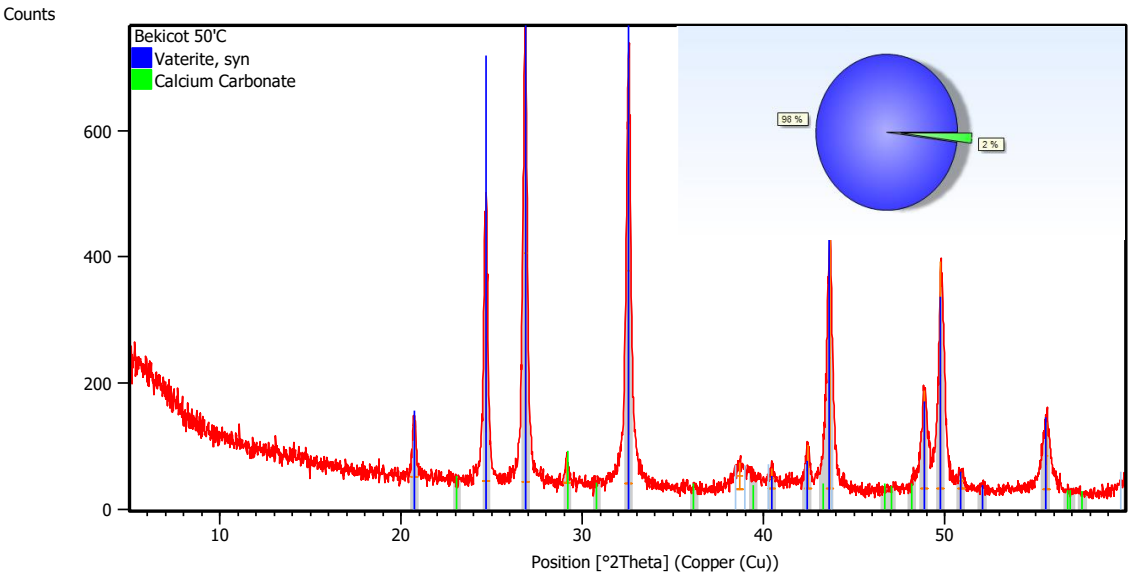




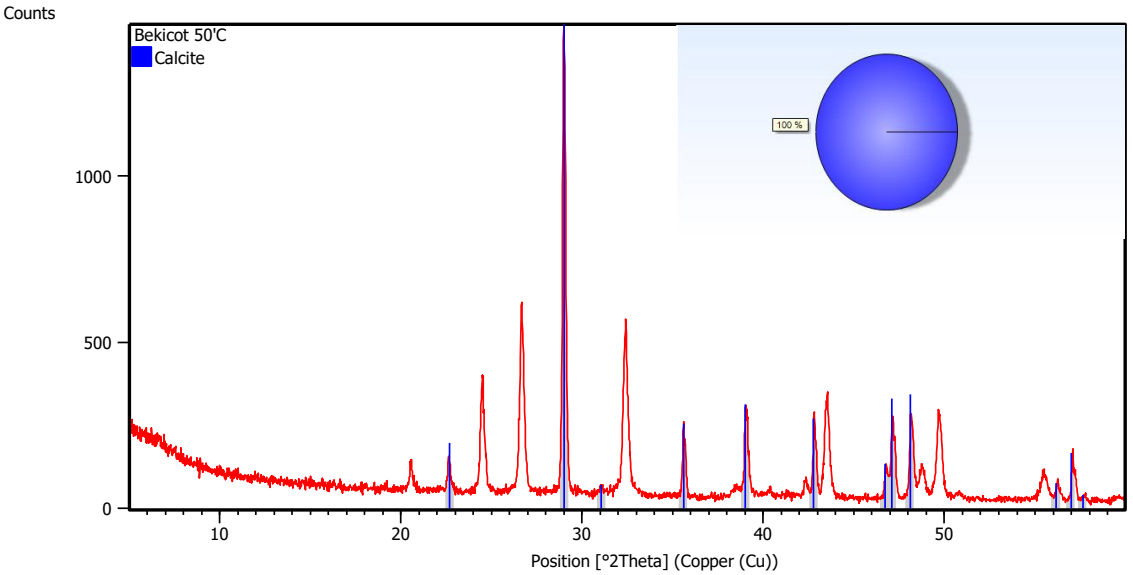


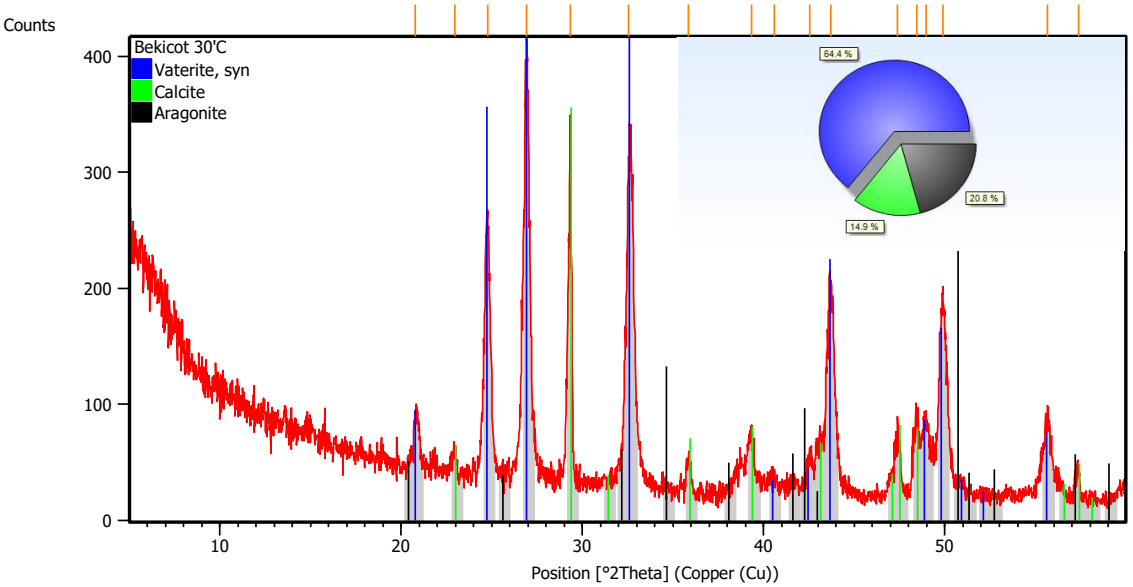
2) CaCO3 precipitated from Snail shells



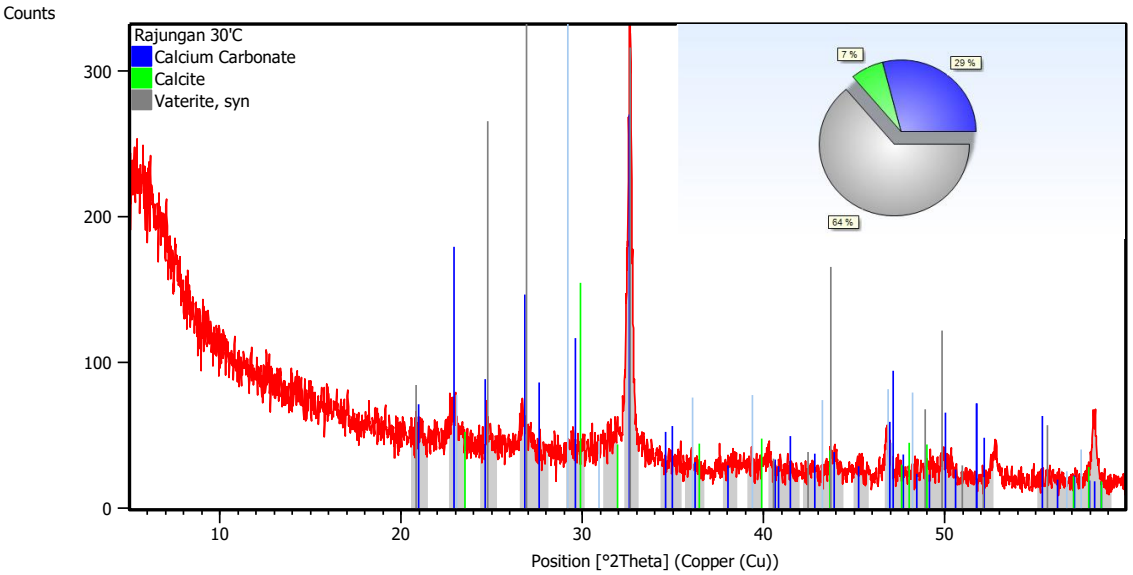


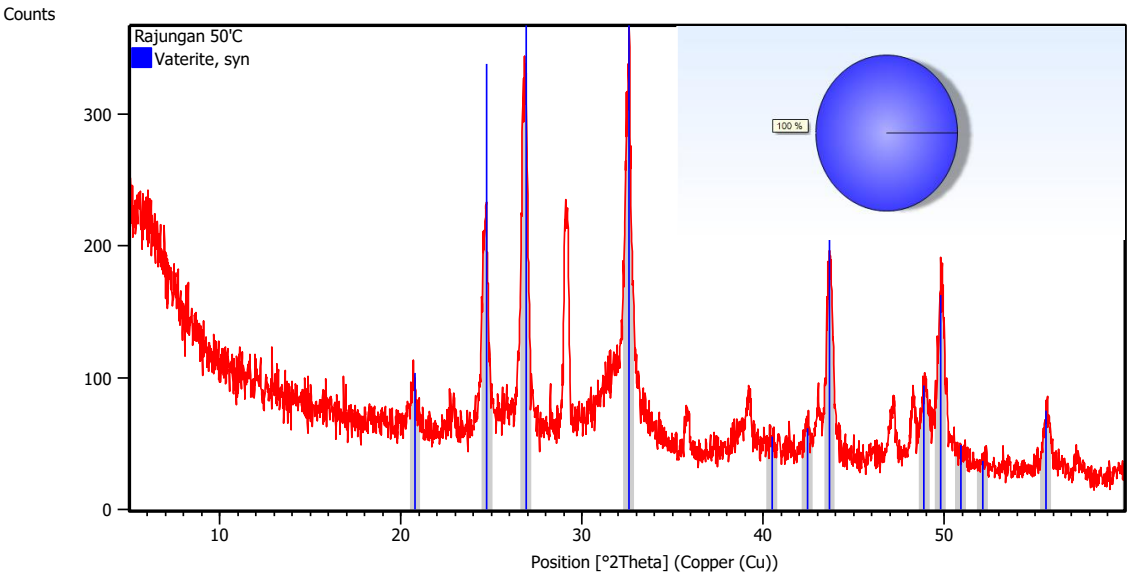
Repetion samples



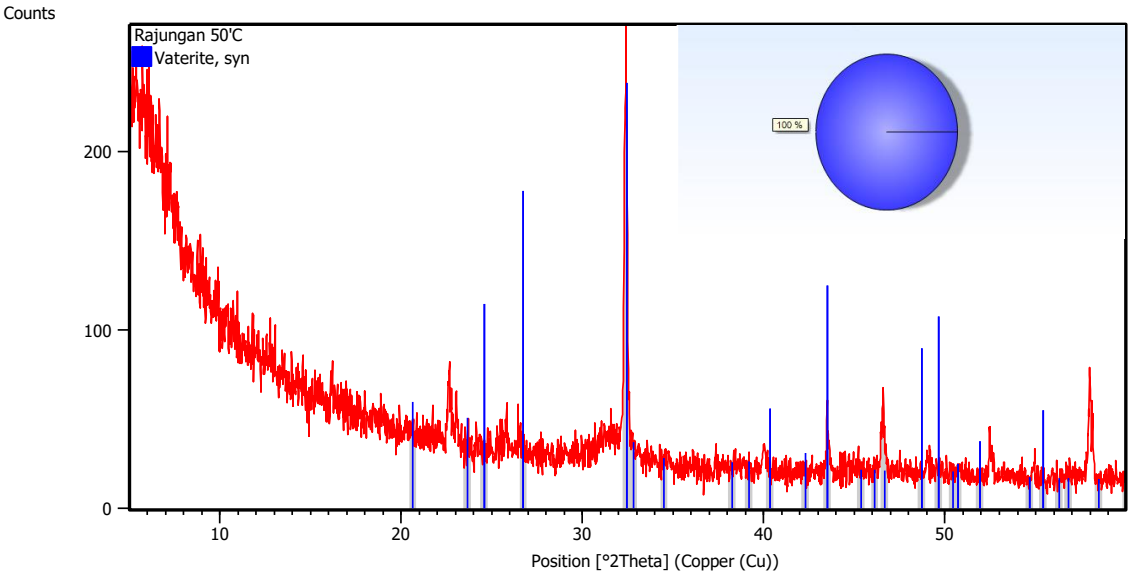


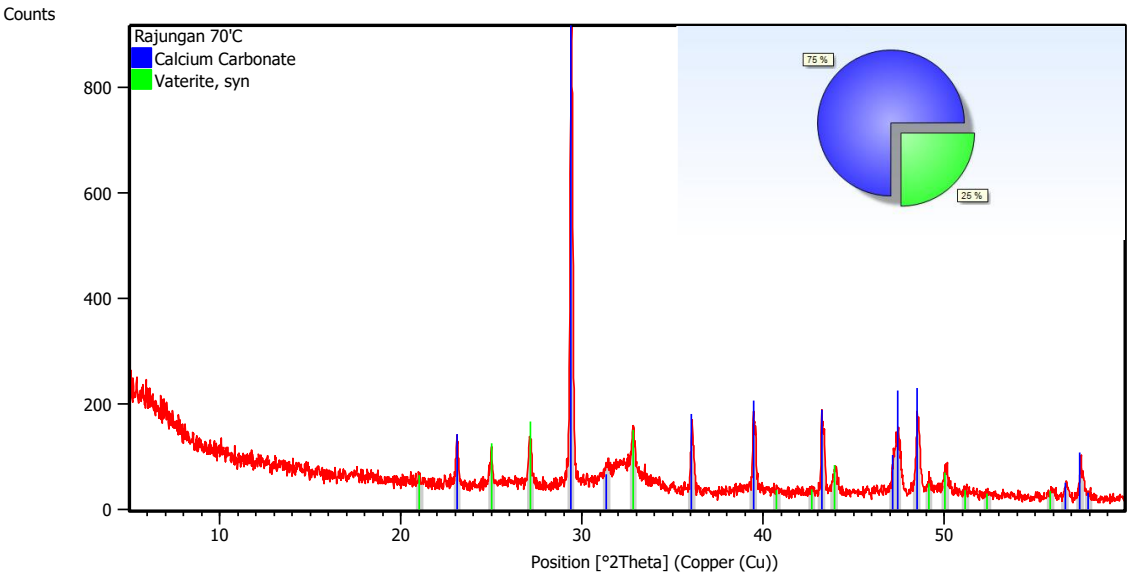
3) CaCO3 precipitated from Crab shells



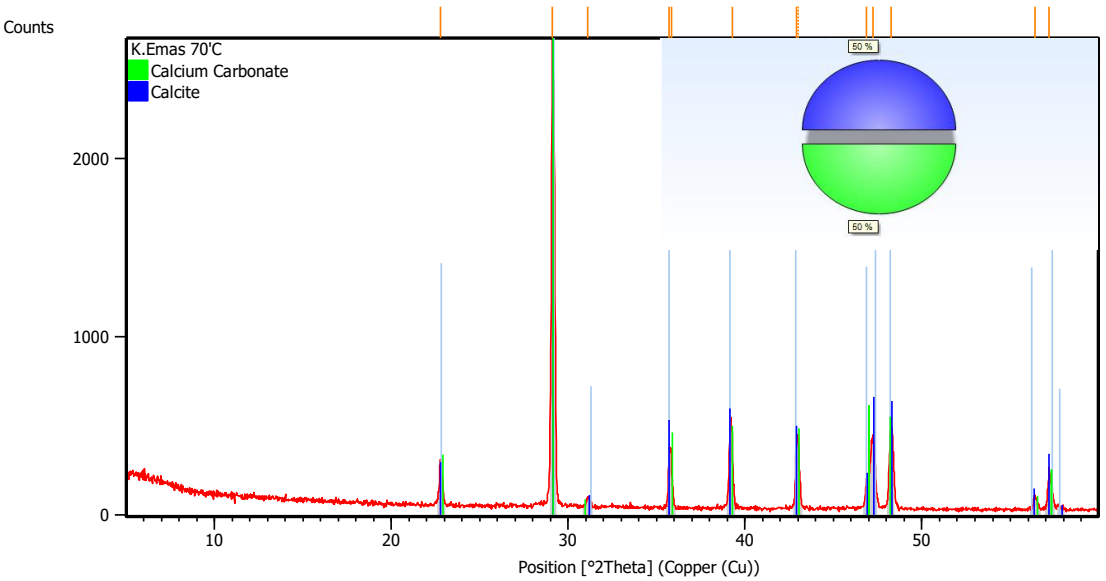


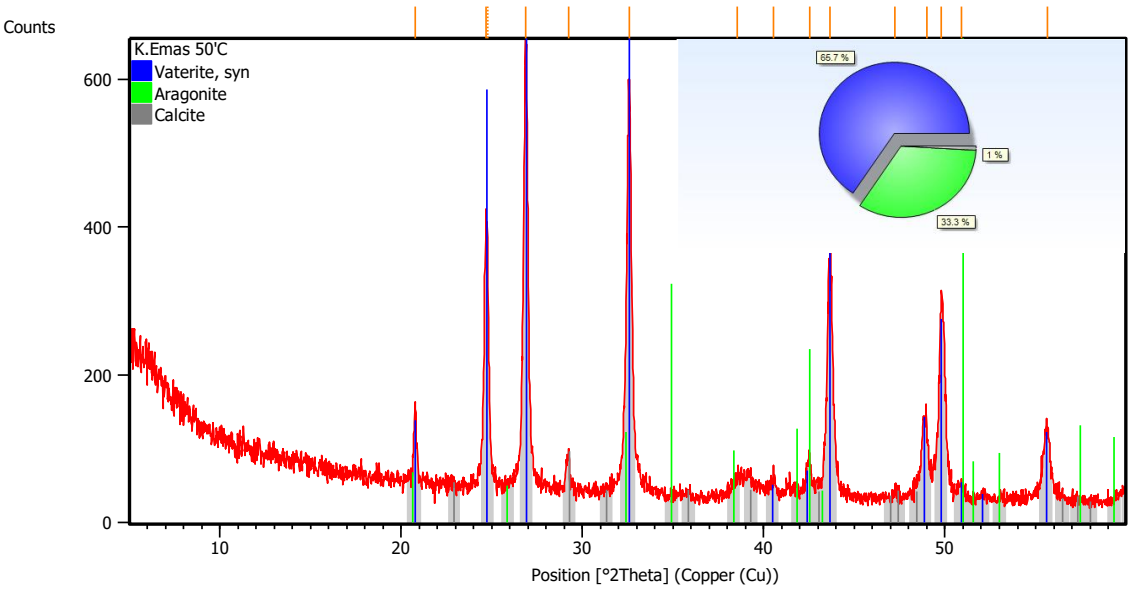
Repetion samples

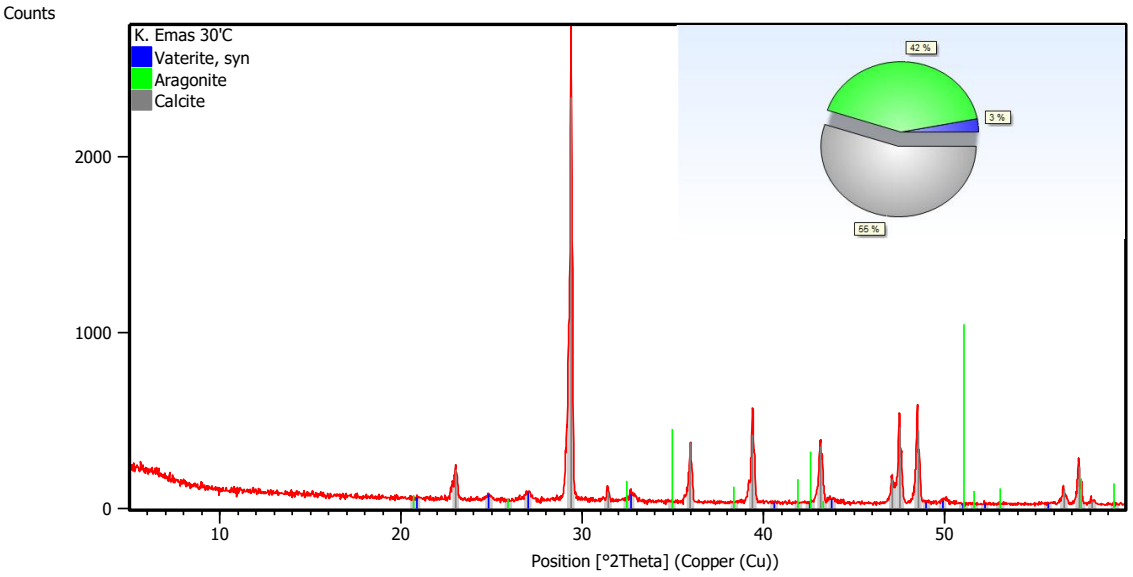




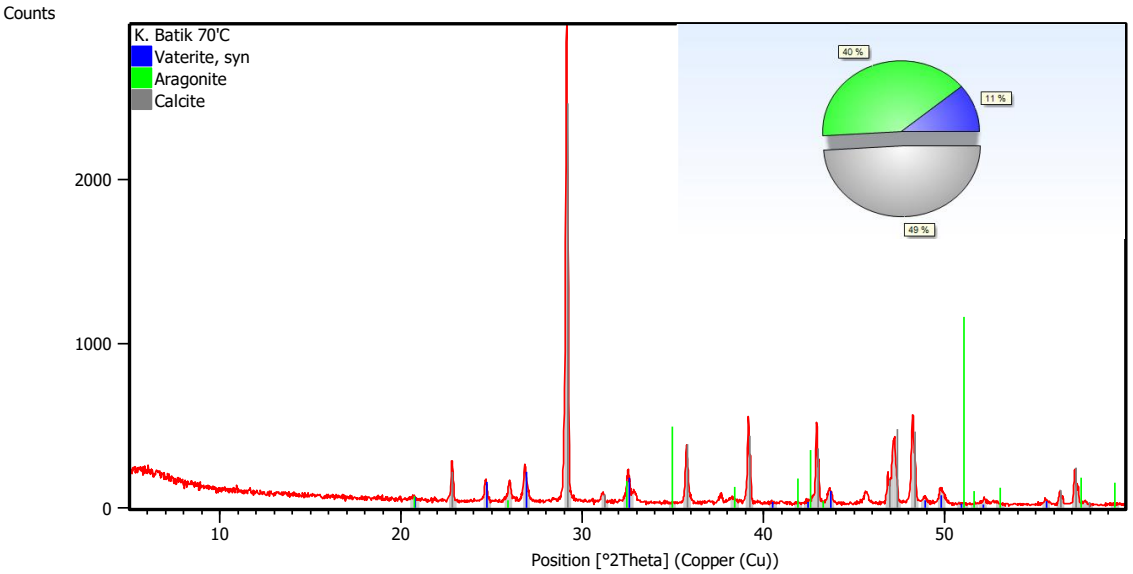
4) CaCO3 precipitated from Golden conch shells

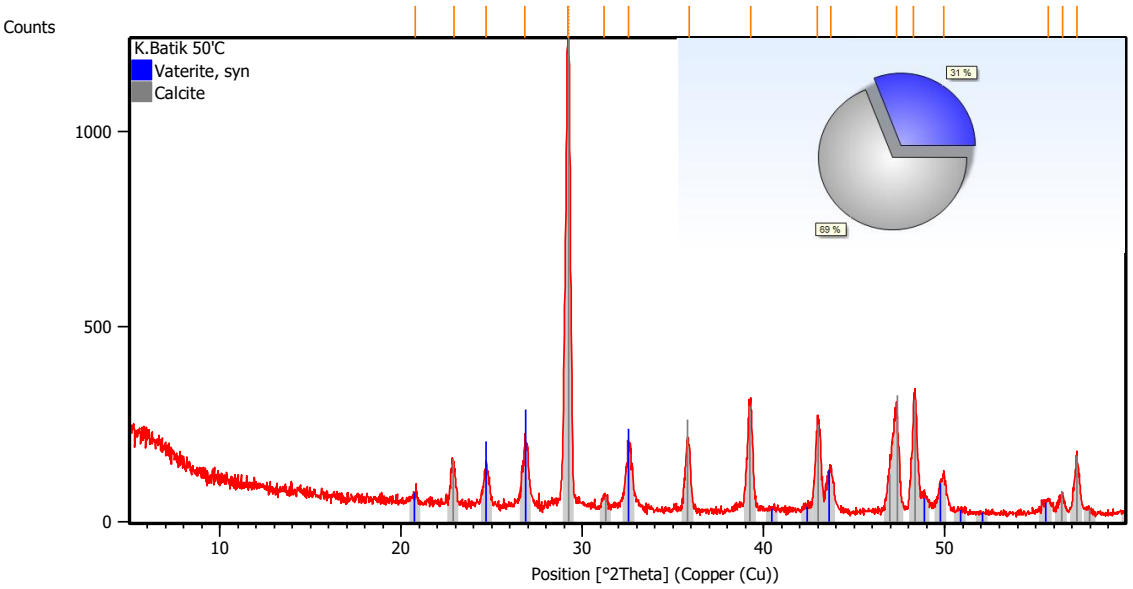


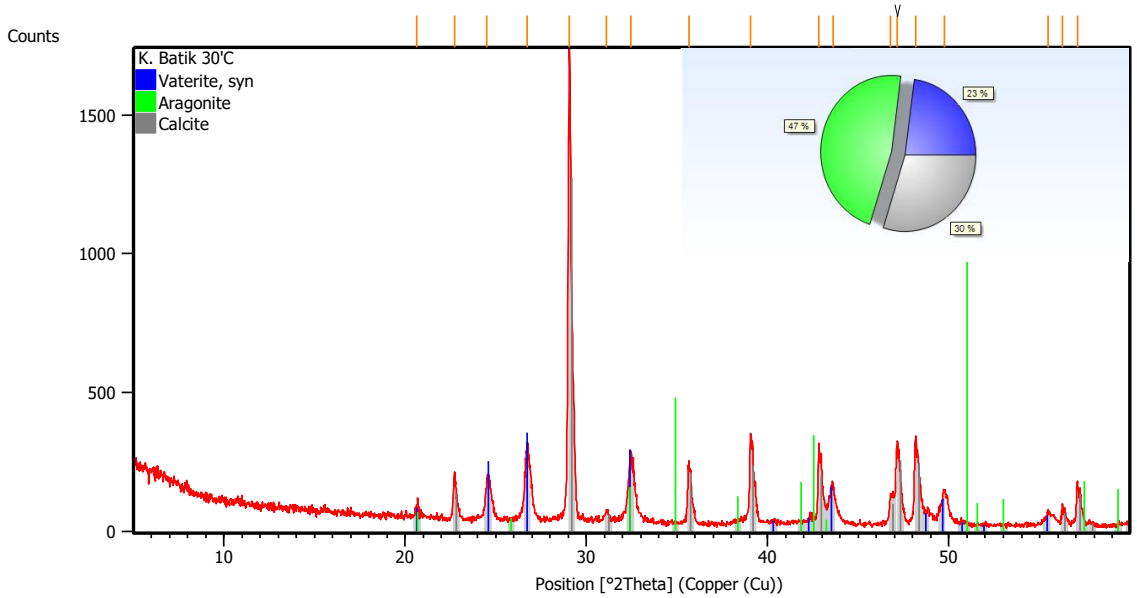

Counts
K.Emas 50'C
Vaterite, syn
Aragonite
Calcite
66.7 %
1 %
33.3 %
600
400
200
0
10
20
30
40
50
Position [°2Theta] (Copper (Cu))


Counts
K. Emas 30'C
Vaterite, syn
Aragonite
Calcite
42 %
3 %
55 %
2000
1000
0
10
20
30
40
50
Position [°2Theta] (Copper (Cu))

5) CaCO3 precipitated from Batik muslle shells

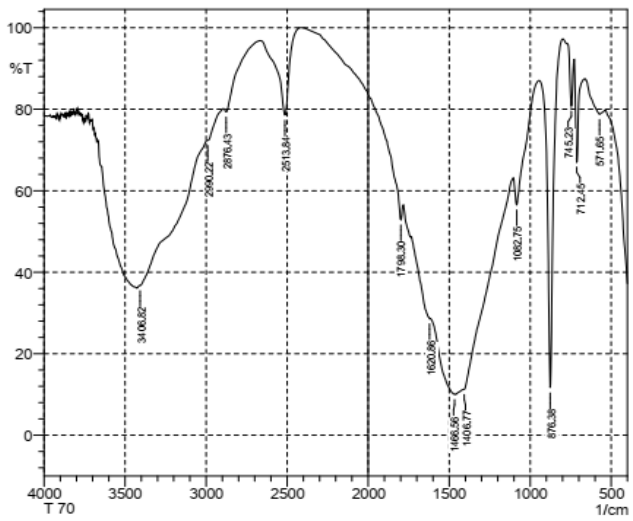






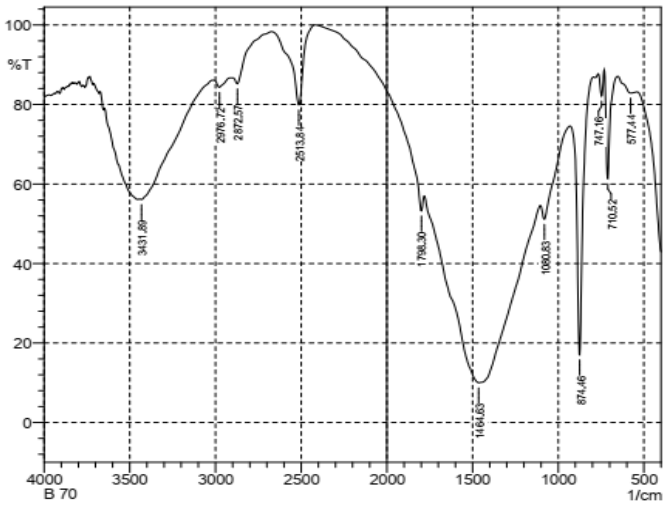
FTIR Analysis

Precipitated CaCO3 from Eggshells at 70C



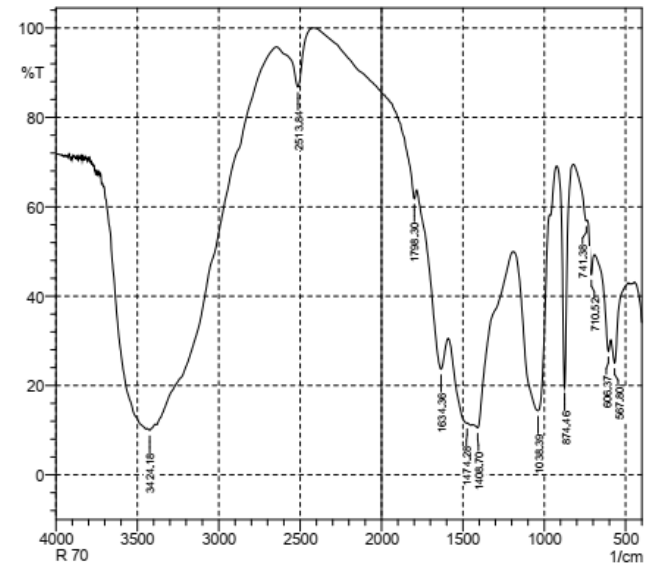
	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	571.65	78.784	3.152	662.3	536.94	11.083	1.302
2	712.45	67.094	24.004	727.88	662.3	5.701	2.641
3	745.23	80.785	13.002	770.31	727.88	2.233	1.116
4	876.38	11.642	80.222	945.82	799.24	28.33	23.016
5	1082.75	56.571	9.793	1103.97	945.82	22.854	2.304
6	1406.77	11.255	0.661	1410.63	1105.9	142.715	0.094
7	1466.56	10.039	0.255	1617	1464.63	118.977	1.631
8	1620.86	28.627	0.691	1732.72	1617	50.377	0.865
9	1798.3	52.867	4.733	2413.55	1782.87	45.231	-32.867
10	2513.84	78.572	20.164	2666.2	2413.55	9.441	7.665
11	2876.43	79.33	2.081	2893.79	2666.2	10.409	-2.132
12	2990.22	72.358	0.159	2992.15	2893.79	11.373	-0.264
13	3406.82	36.73	0.184	3408.75	2994.08	117.549	1.295

Precipitated CaCO3 from Snail shells at 70C



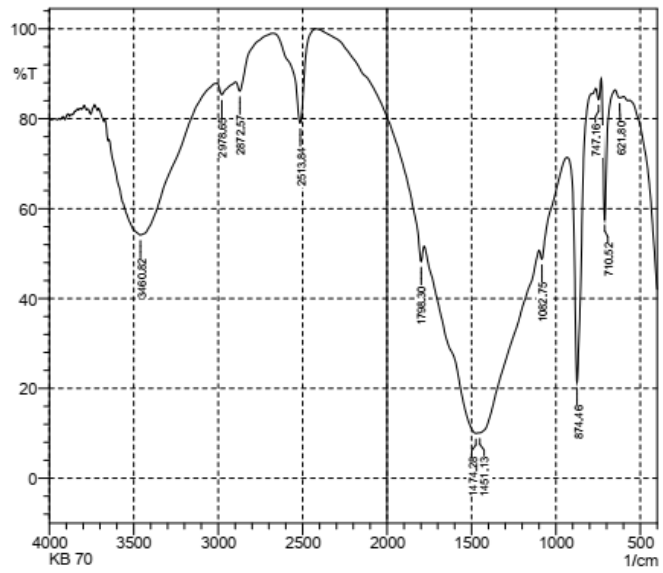
	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	577.44	82.87	1.614	652.66	538.87	8.498	0.522
2	710.52	61.331	26.907	731.73	652.66	8.296	3.855
3	747.16	82.161	6.091	766.45	731.73	2.433	0.54
4	874.46	17.064	62.644	932.32	793.45	31.702	18.621
5	1080.83	51.115	6.172	1103.97	932.32	35.107	1.608
6	1464.63	10	45.868	1780.94	1105.9	388.4	217.237
7	1798.3	53.246	4.933	2419.33	1780.94	45.486	-32.412
8	2513.84	79.897	19.48	2671.99	2419.33	8.268	7.347
9	2872.57	85.221	2.86	2899.57	2671.99	6.714	-1.168
10	2976.72	84.325	1.984	3009.51	2915	6.445	0.443
11	3431.89	56.113	0.77	3441.53	3011.44	63.553	0.639

Precipitated CaCO3 from crab shells at 70C



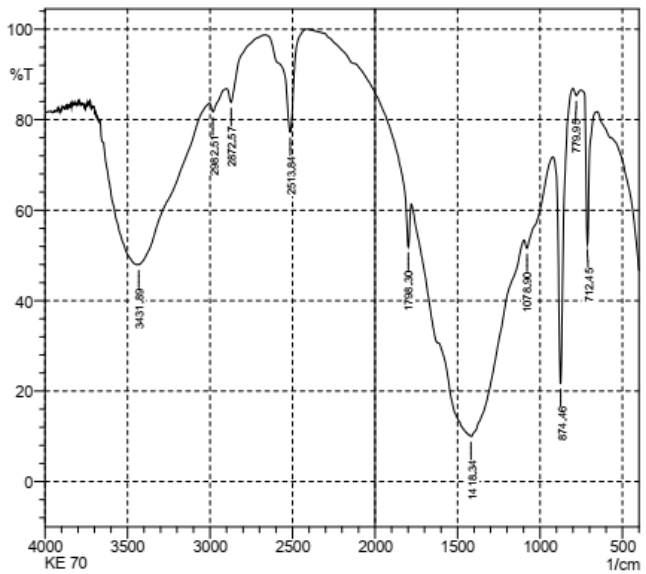
	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	567.8	25.056	7.873	590.94	482.93	49.106	1.203
2	606.37	27.647	5.475	691.23	590.94	40.454	-1.057
3	710.52	44.827	7.782	735.59	691.23	13.477	1.236
4	741.38	56.852	0.991	820.45	735.59	16.525	-0.546
5	874.46	19.559	49.729	922.67	820.45	29.548	13.266
6	1038.39	14.361	41.189	1190.76	967.03	125.311	65.27
7	1408.7	10.538	4.935	1435.7	1190.76	131.558	2.48
8	1474.28	11.578	0.331	1591.93	1472.35	88.927	2.209
9	1634.36	23.661	14.262	1782.87	1591.93	79.331	11.629
10	1798.3	61.816	3.551	1983.45	1782.87	24.226	-2.444
11	2513.84	86.8	11.448	2644.99	2421.26	6.032	3.93
12	3424.18	10	0.694	3441.53	3389.46	50.971	0.729

Precipitated CaCO3 from batik mussel shells at 70C



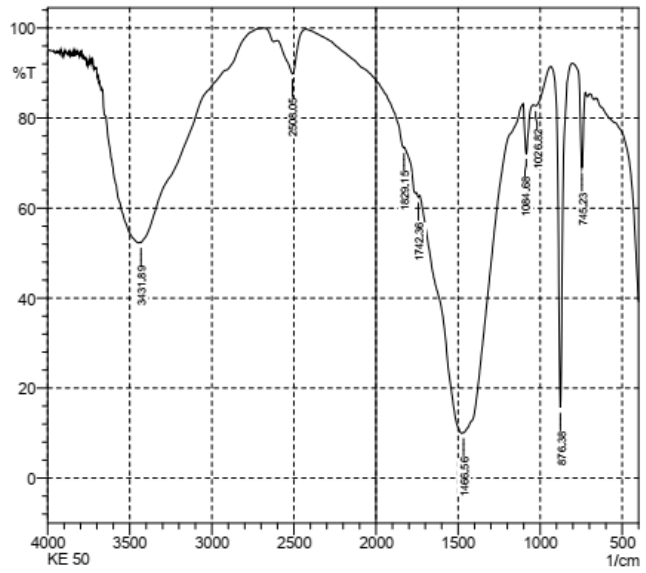
	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	621.8	84.661	0.952	648.8	598.65	3.512	0.143
2	710.52	57.564	30.673	731.73	648.8	9.16	4.402
3	747.16	84.259	3.62	764.52	731.73	2.161	0.31
4	874.46	21.367	55.79	934.25	787.67	35.356	19.654
5	1082.75	48.782	4.076	1100.11	934.25	36.165	-0.446
6	1451.13	10.114	0.442	1454.99	1100.11	210.546	1.449
7	1474.28	10	2.584	1779.01	1454.99	198.501	3.327
8	1798.3	48.238	4.718	2423.19	1780.94	54.359	-37.783
9	2513.84	79.022	20.617	2673.92	2423.19	8.053	7.506
10	2872.57	86.144	3.245	2897.64	2673.92	5.481	-1.121
11	2978.65	85.351	2.608	3007.58	2897.64	6.705	0.617
12	3460.82	54.145	24.799	3645.97	3009.51	105.993	48.972

Precipitated CaCO3 from golden conch shells at 70C



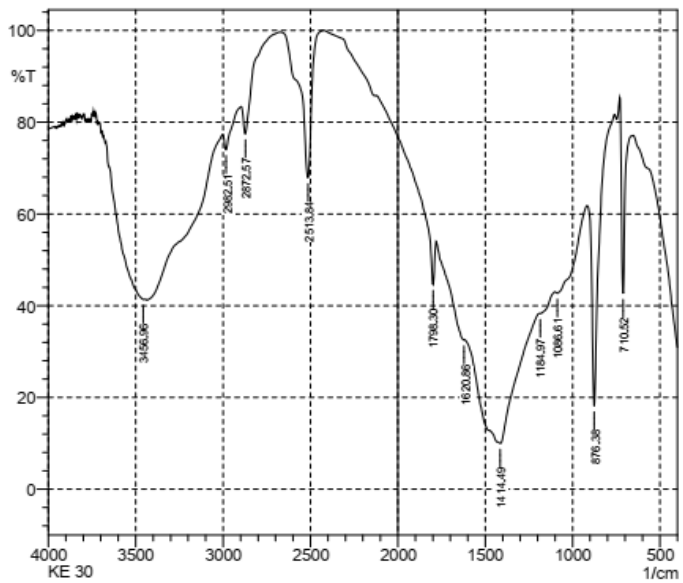
	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	400	46.669	0	650.73	400	39.097	-13.374
2	712.45	52.54	31.896	752.95	660.37	11.191	4.229
3	779.95	85.339	1.4	799.24	752.95	3.023	0.157
4	874.46	21.694	55.977	922.67	799.24	27.204	14.543
5	1078.9	51.556	3.662	1096.25	922.67	38.465	2.301
6	1418.34	10	2.191	1431.85	1098.18	198.487	3.638
7	1798.3	51.859	10.54	2413.55	1780.94	39.413	-27.729
8	2513.84	77.266	22.234	2666.2	2413.55	8.185	7.489
9	2872.57	83.819	4.41	2899.57	2666.2	6.662	-1.124
10	2982.51	81.764	2.517	3003.72	2899.57	7.699	0.467
11	3431.89	47.961	0.437	3435.75	3003.72	82.244	0.755

Precipitated CaCO3 from golden conch shells at 50 C



	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	745.23	68.941	18.398	805.02	724.02	5.821	1.654
2	876.38	15.681	76.084	936.17	805.02	21.794	16.917
3	1026.82	82.716	1.436	1042.25	936.17	6.862	0.485
4	1084.68	72.077	11.033	1103.97	1042.25	6.467	1.491
5	1466.56	10.081	0.801	1470.42	1105.9	149.568	1.923
6	1742.36	62.413	0.421	1755.86	1738.51	3.496	0.018
7	1829.15	73.388	0.152	2427.05	1827.23	24.501	-16.023
8	2508.05	89.813	8.759	2602.56	2427.05	4.025	2.848
9	3431.89	52.352	0.317	3435.75	2687.42	77.401	0.096

Precipitated CaCO3 from golden conch shells at 30C



	Peak	Intensity	Corr. Inte	Base (H)	Base (L)	Area	Corr. Are
1	400	30.927	0	652.66	400	58.689	-19.97
2	710.52	42.644	40.384	729.8	660.37	12.11	5.788
3	876.38	18.13	48.761	916.89	758.74	39.225	15.746
4	1086.61	42.725	1.68	1100.11	916.89	56.301	3.596
5	1184.97	38.283	0.324	1190.76	1100.11	35.894	0.403
6	1414.49	10	1.674	1426.06	1190.76	148.043	0.941
7	1620.86	32.503	0.561	1780.94	1617	61.895	-0.006
8	1798.3	44.612	10.967	2124.24	1780.94	53.65	-3.733
9	2513.84	67.899	31.968	2671.99	2425.12	11.334	11.134
10	2872.57	77.429	7.759	2897.64	2671.99	7.652	-1.436
11	2982.51	73.979	4.561	3003.72	2897.64	10.883	0.775
12	3456.96	41.349	1.519	3671.05	3447.32	63.947	7.556