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Appendice A: XRD Pattern

A.1 XRD Pre-test post-essiccati.

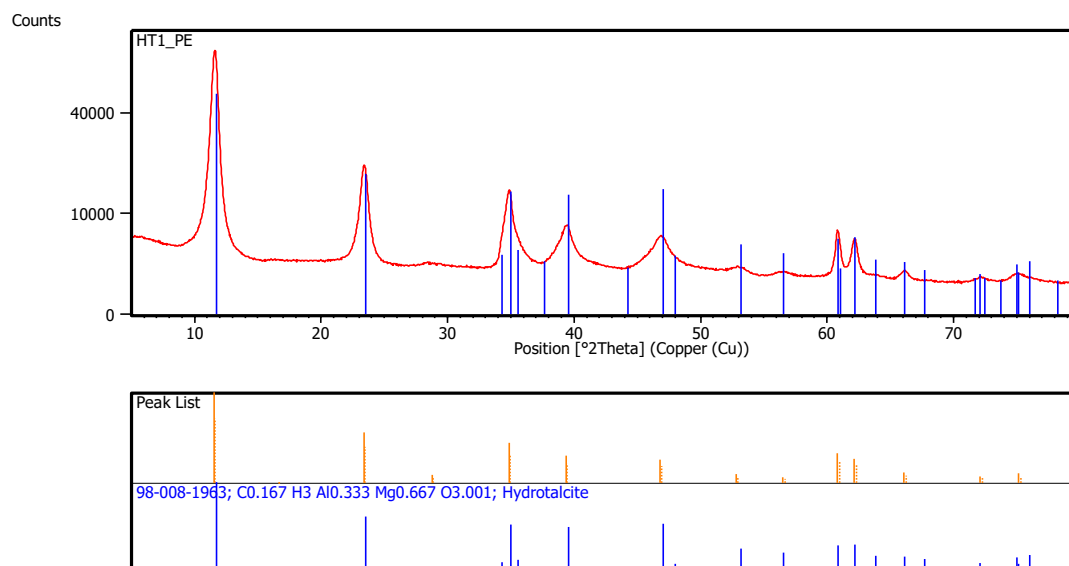


Figura A. 1 XRD Pattern HT1 essiccato a 120 °C per 24 h.

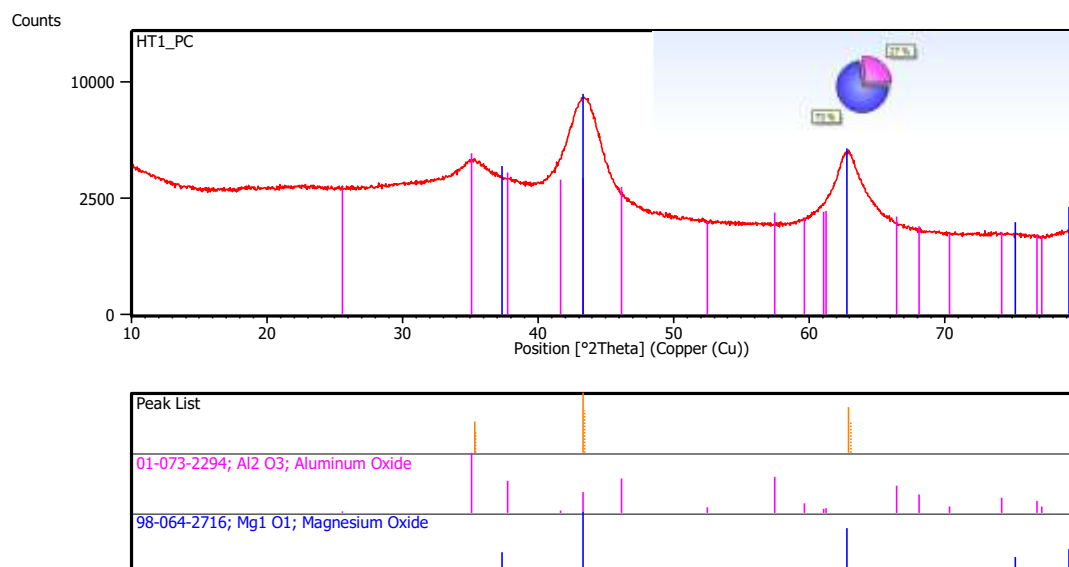


Figura A. 2 XRD Pattern HT1 calcinato a 500 °C per 8 h.

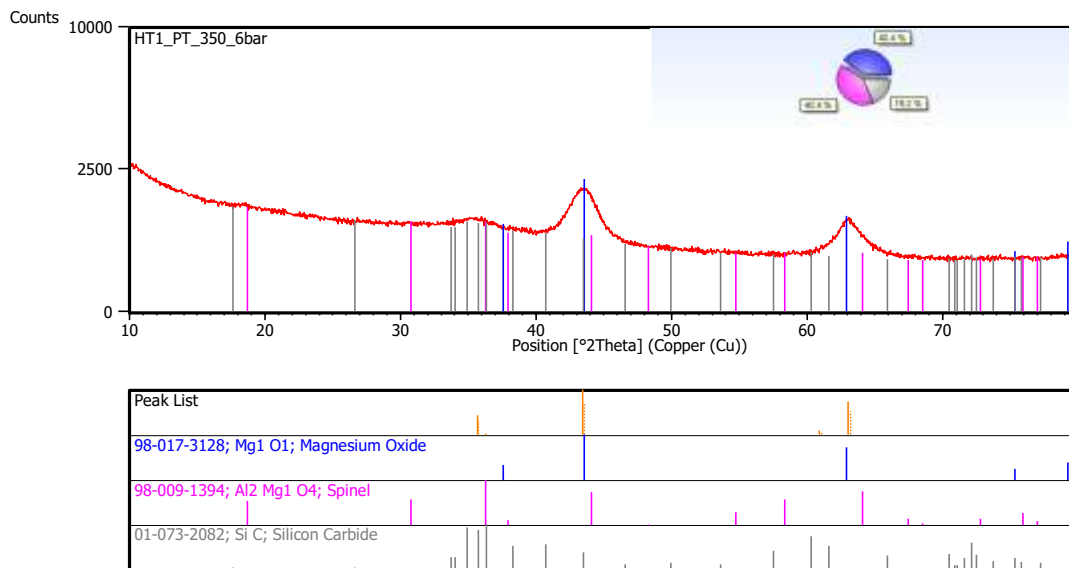


Figura A. 3 XRD Pattern HT1 post test a 350 °C 6 bar.

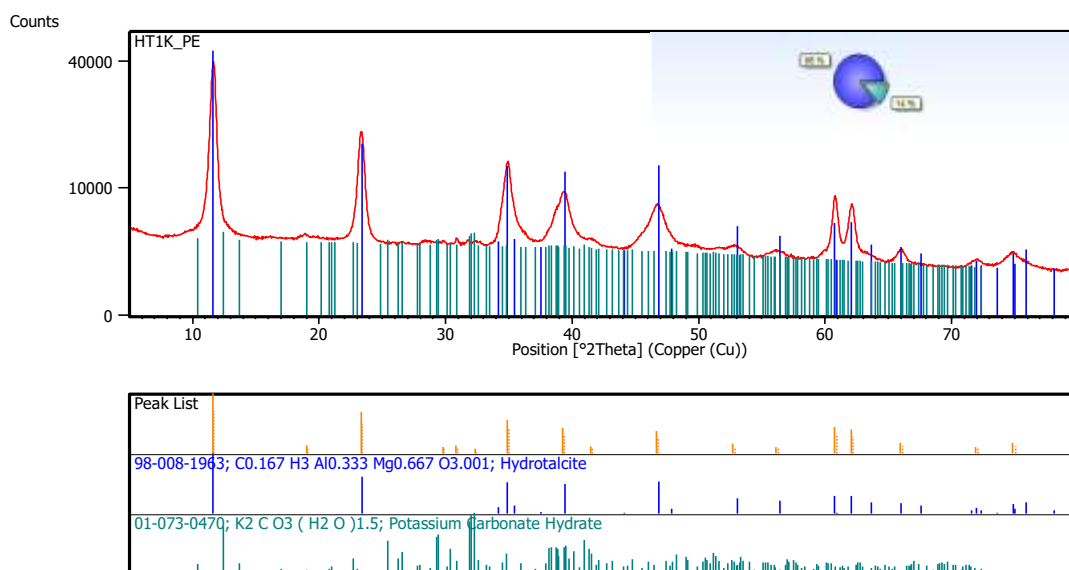


Figura A. 4 XRD Pattern HT1K post essiccato a 120 °C per 24 h.

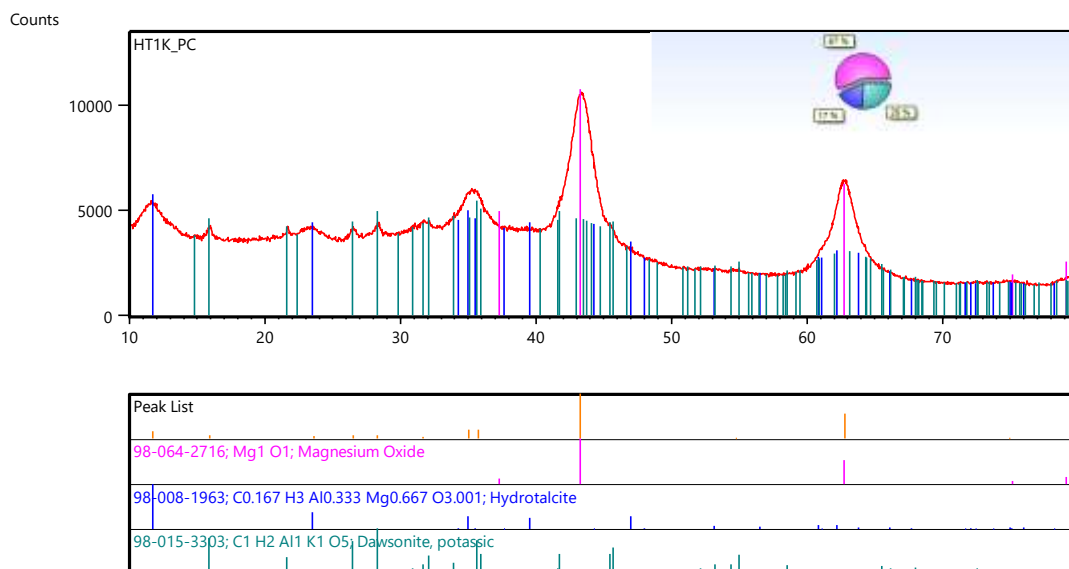


Figura A. 5 XRD Pattern HT1K calcinato a 500 °C per 8 h.

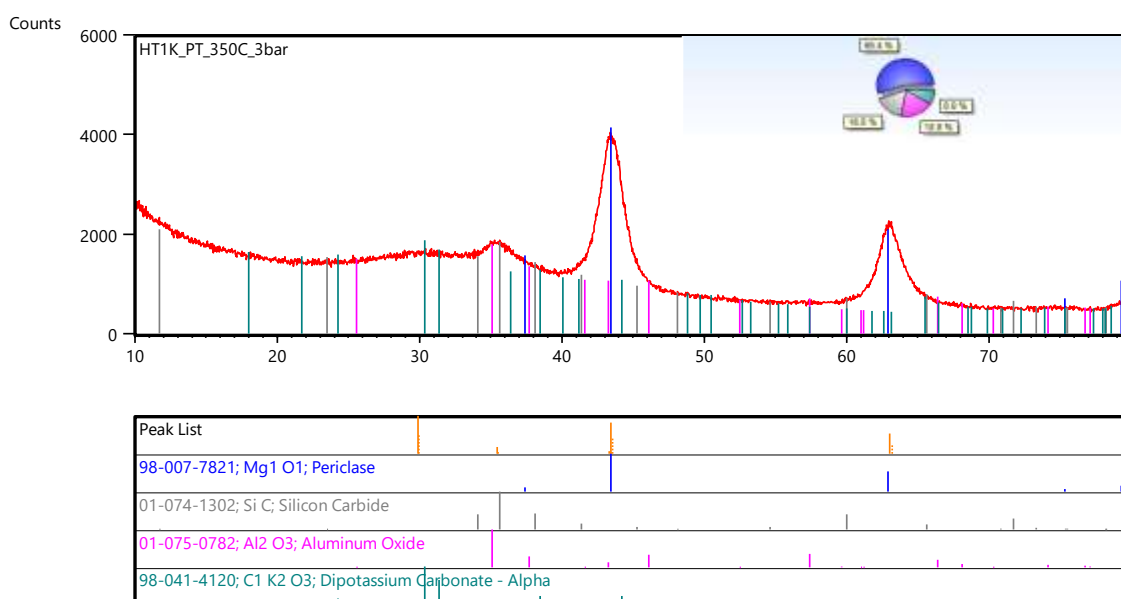


Figura A. 6 XRD Pattern HT1K post test a 350 °C 3 bar.

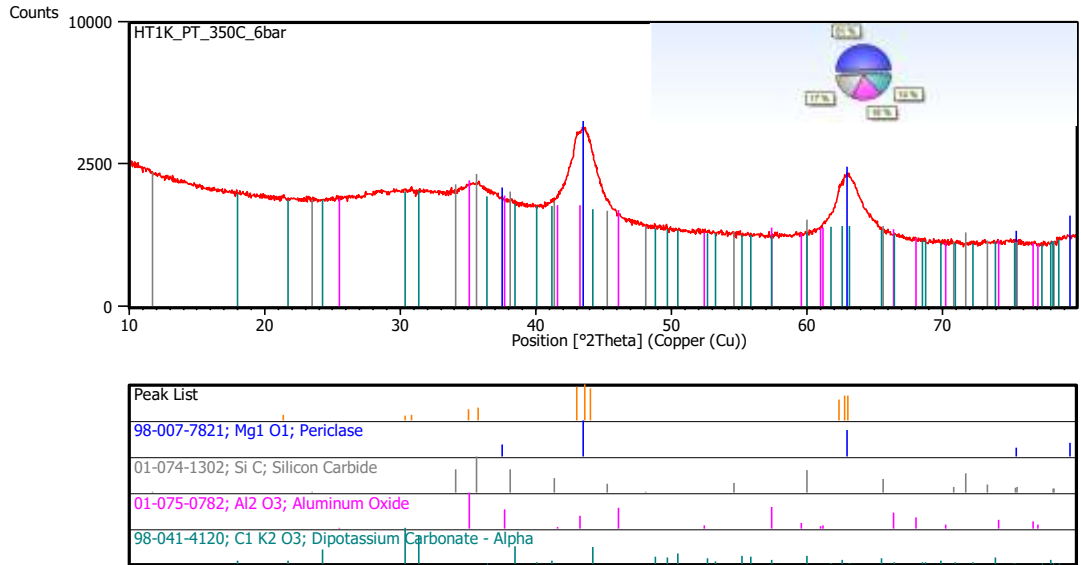


Figura A. 7 XRD Pattern HT1K post test a 350 °C 6 bar.

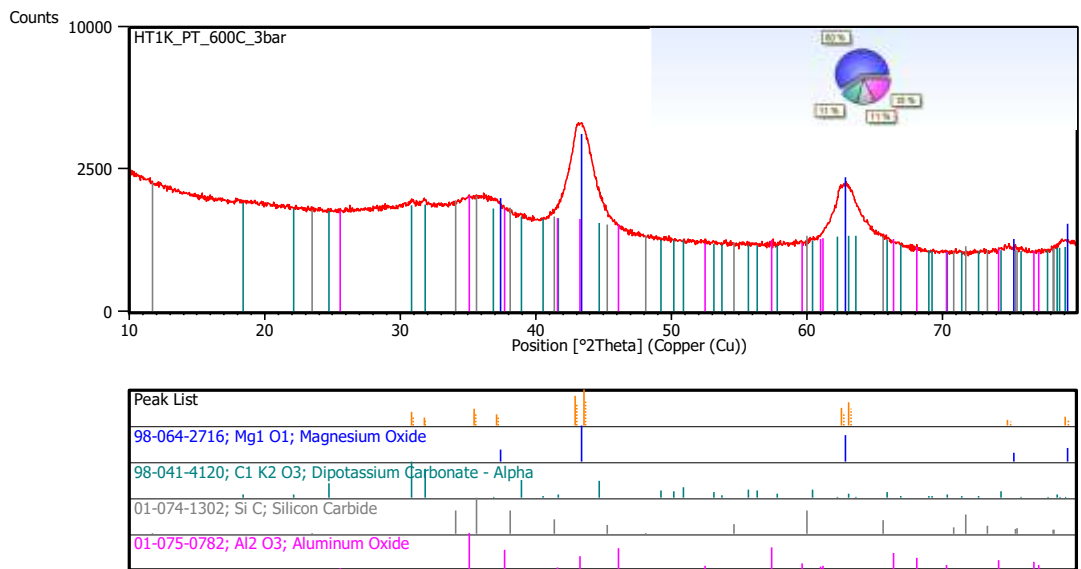


Figura A. 8 XRD Pattern HT1K post test a 600 °C 3 bar.

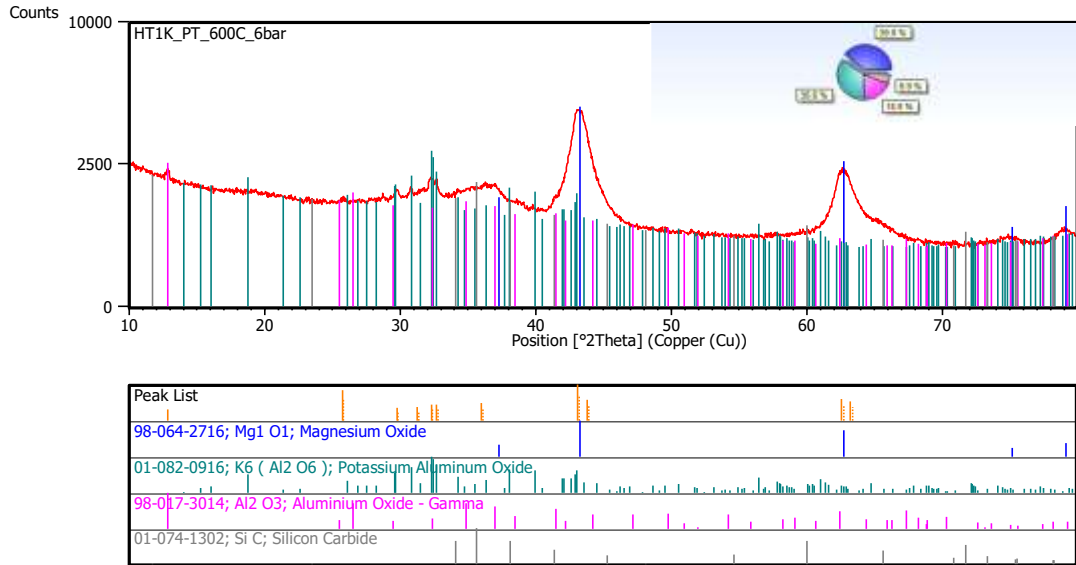


Figura A. 9 XRD Pattern HT1K post test a 600 °C 6 bar.

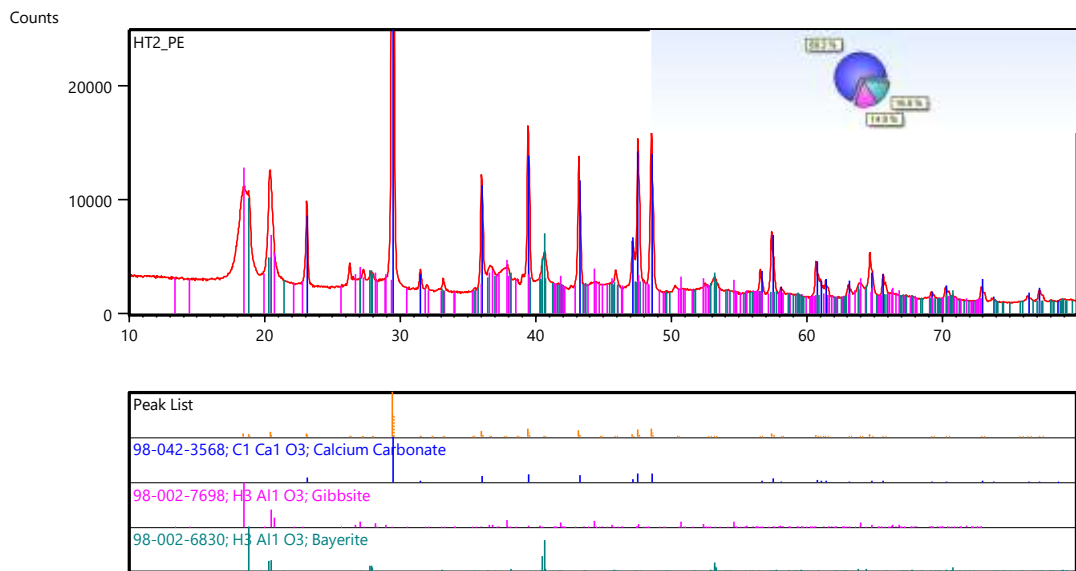


Figura A. 10 Pattern HT2 post essiccato a 120 °C per 24h.

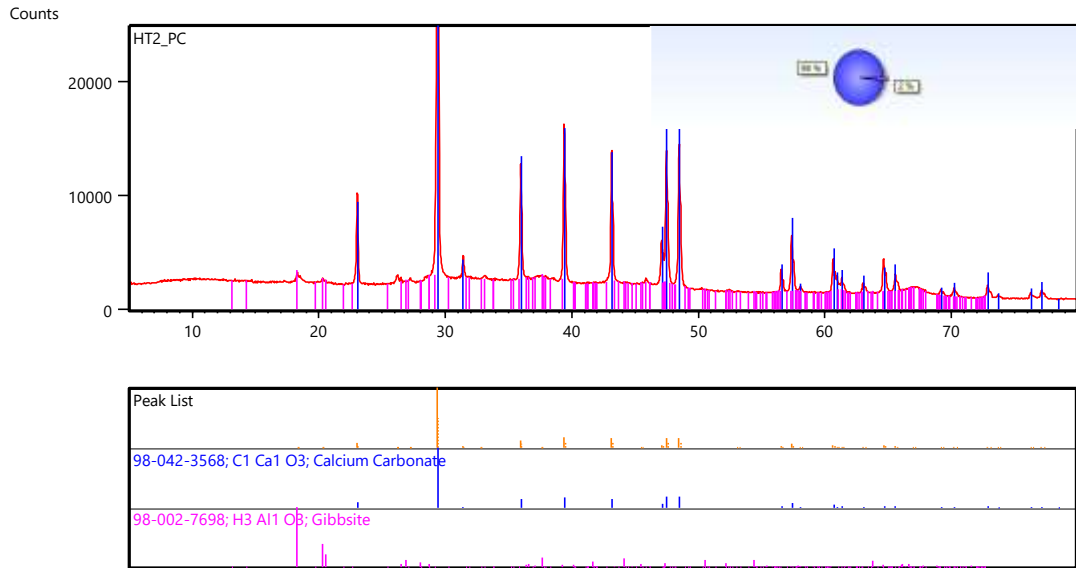


Figura A. 11 XRD Pattern HT2 calcinato a 500 °C per 8 h.

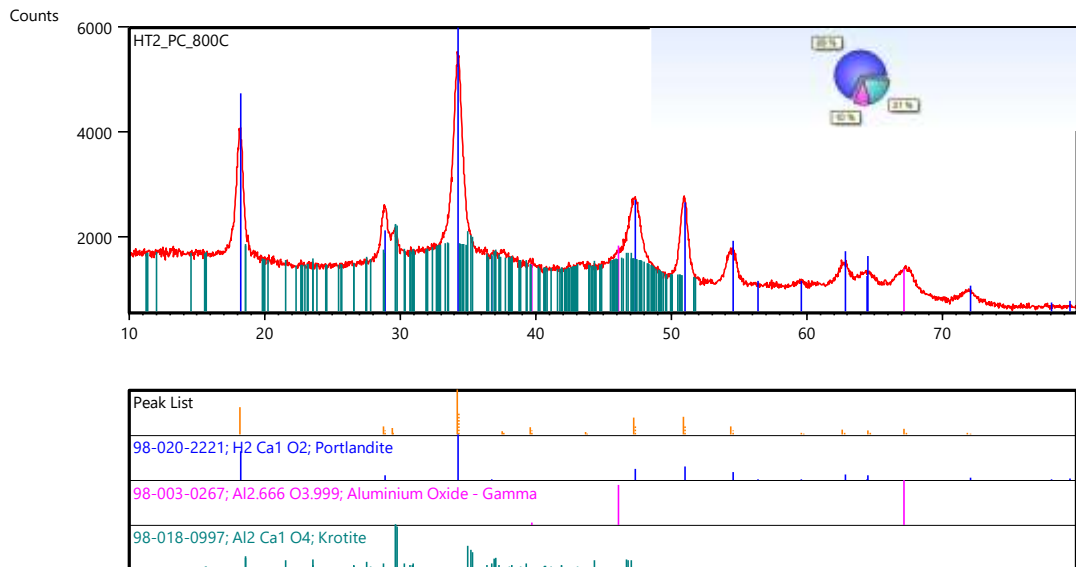


Figura A. 12 XRD Pattern HT2 calcinato a 800 °C per 8 h.

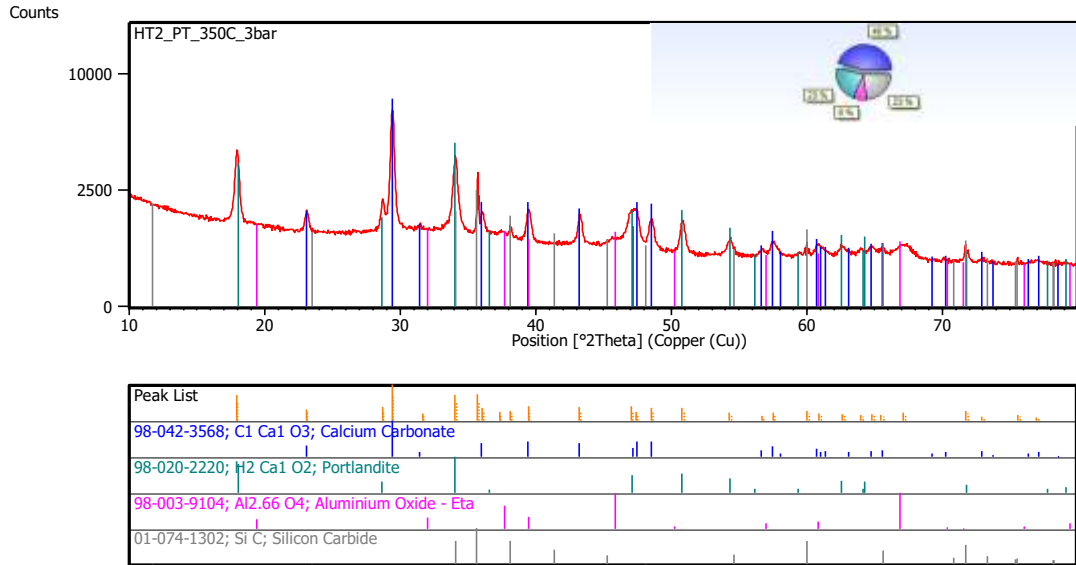


Figura A. 13 XRD Pattern HT2 post test a 350 °C 3 bar.

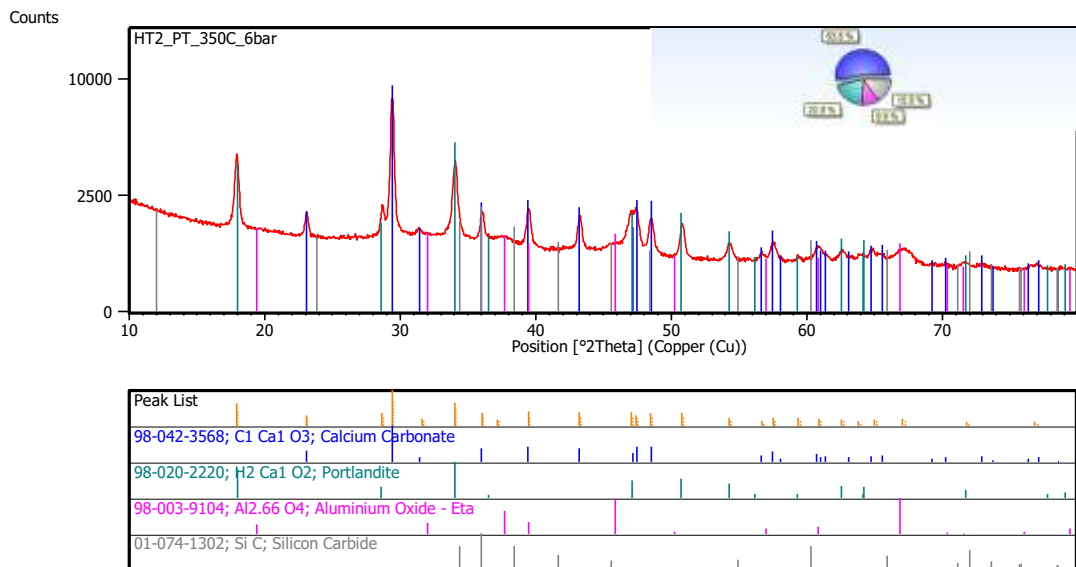


Figura A. 14 XRD Pattern HT2 post test a 350 °C 6 bar.

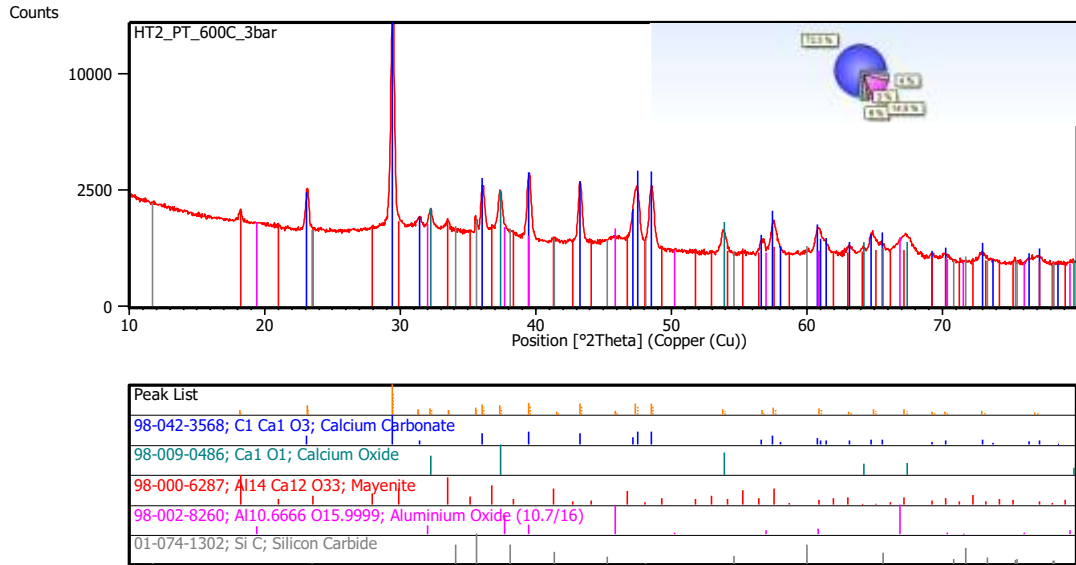


Figura A. 15 XRD Pattern HT2 post test a 600 °C 3 bar

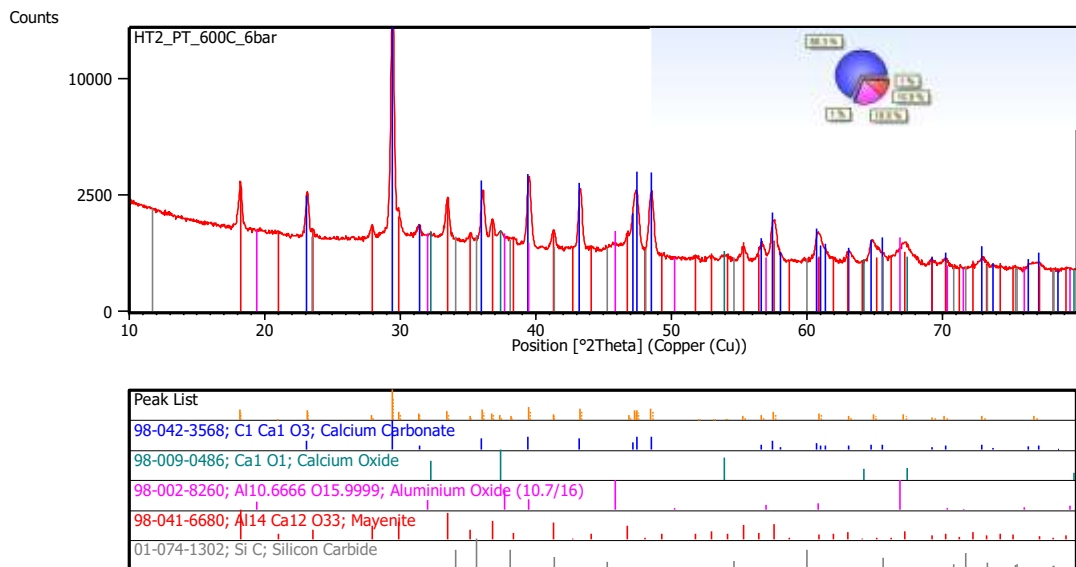


Figura A. 16 XRD Pattern HT2 post test a 600 °C 6 bar

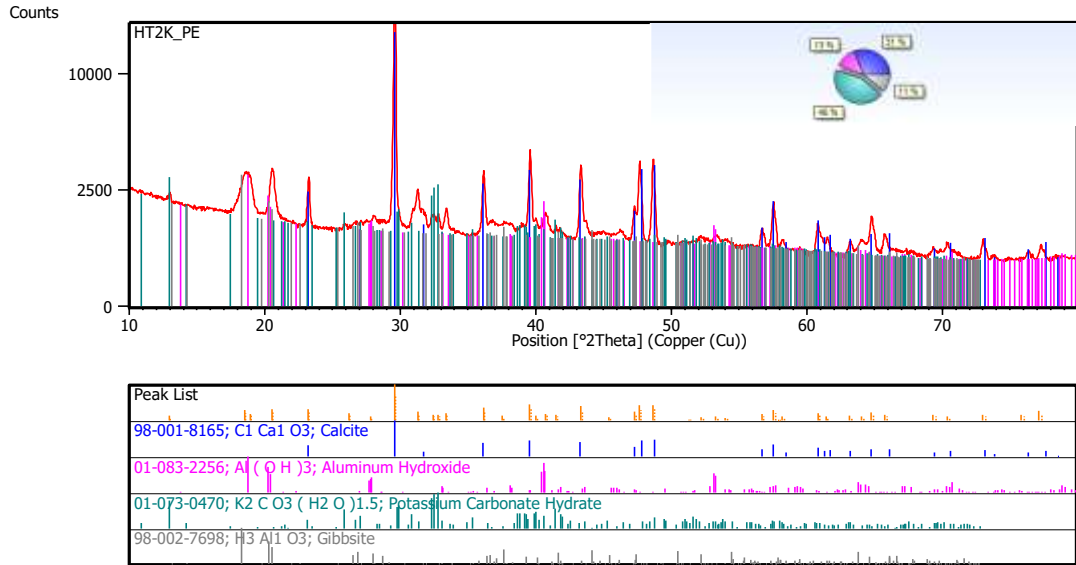


Figura A. 17 XRD Pattern HT2K essiccato a 120 °C per 24h.

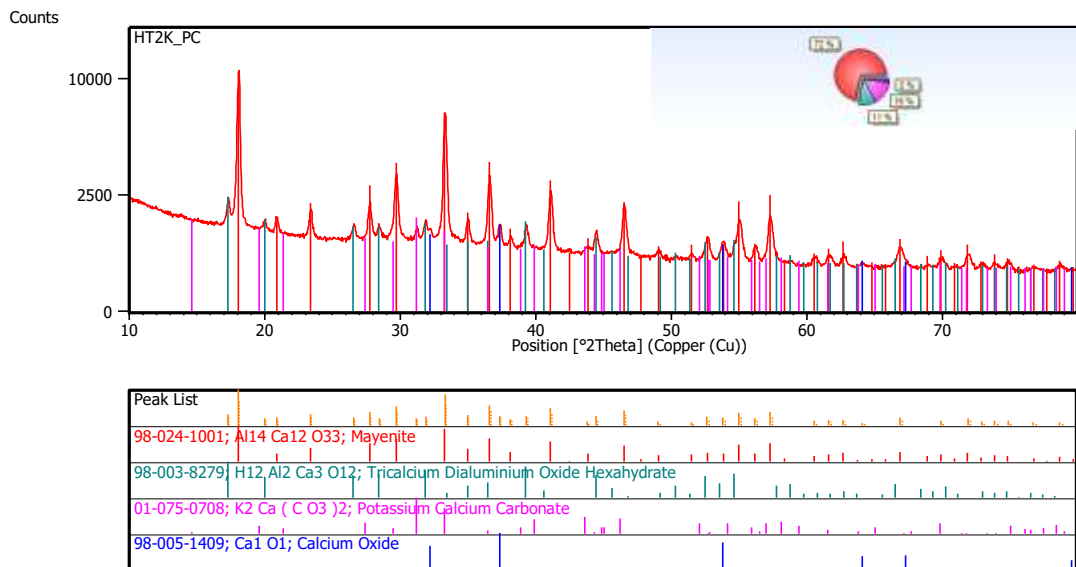


Figura A. 18 XRD Pattern HT2K calcinato a 800 °C per 8h.

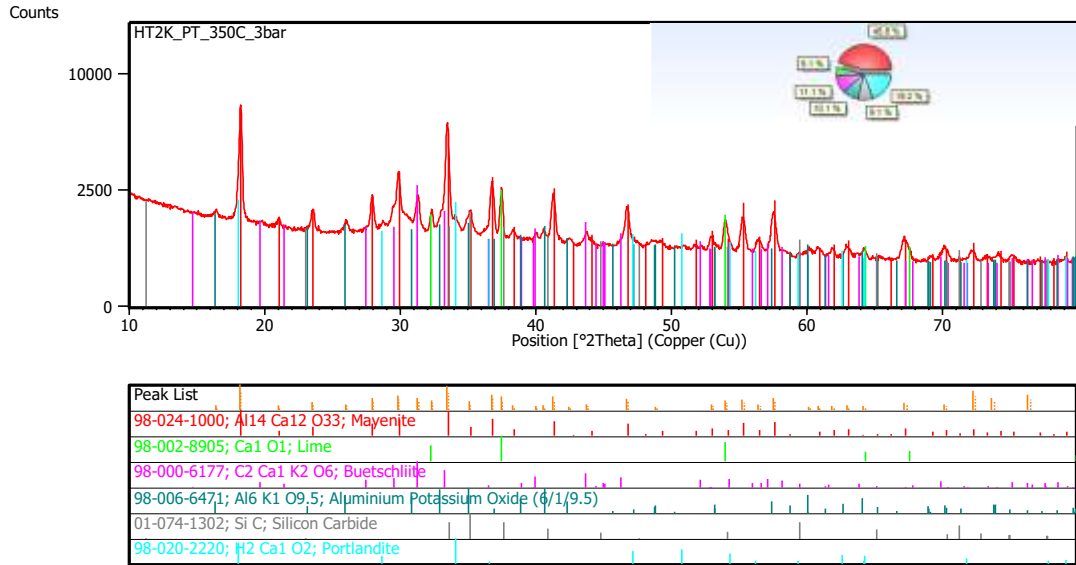


Figure A. 19 XRD Pattern HT2K post test 350 °C 3 bar.

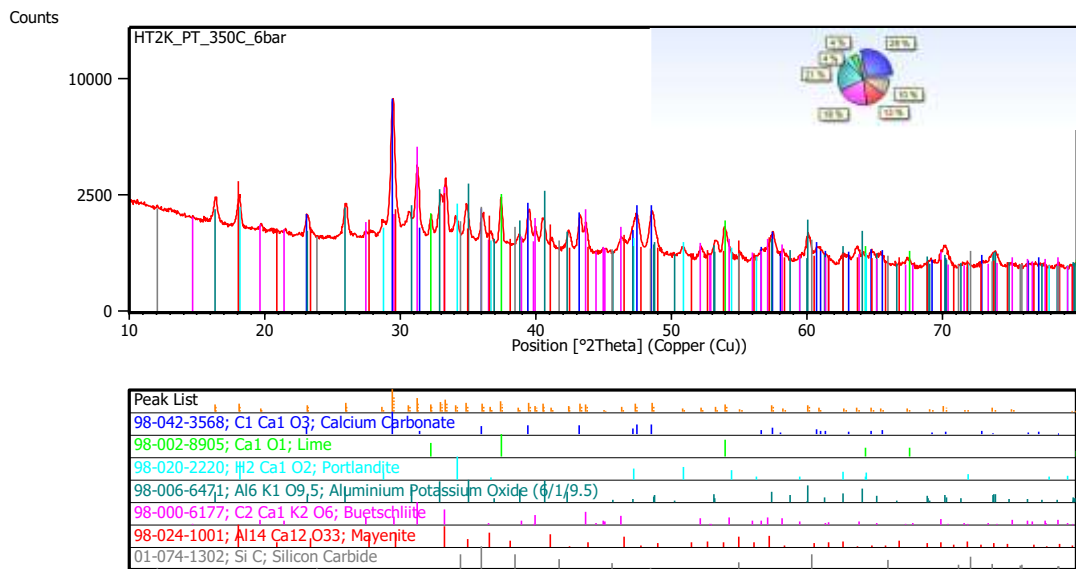


Figure A. 20 XRD Pattern HT2K post test 350 °C 6 bar.

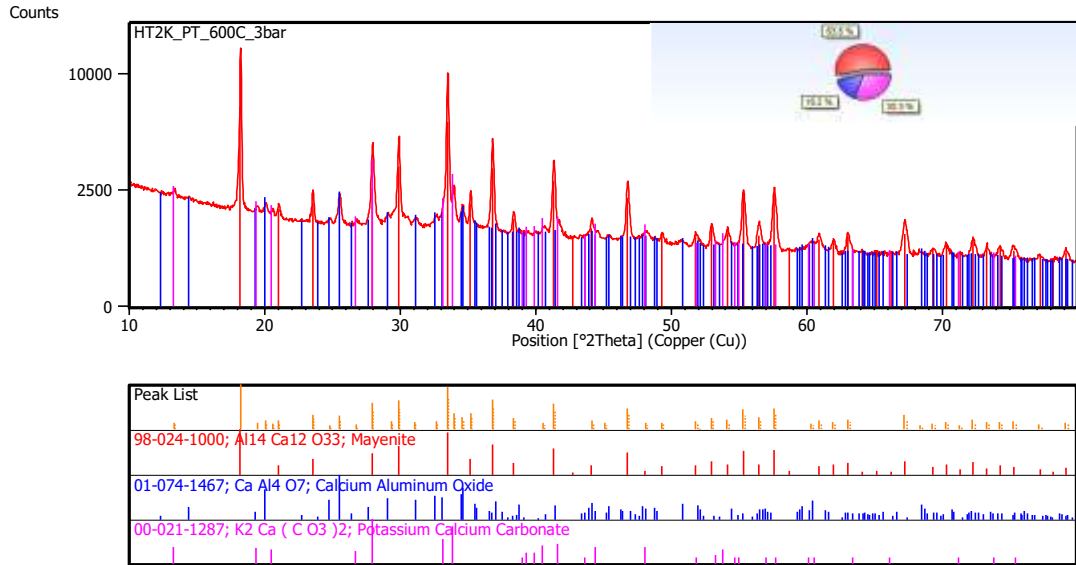


Figura A. 21 XRD Pattern HT2K post test 600 °C 3 bar.

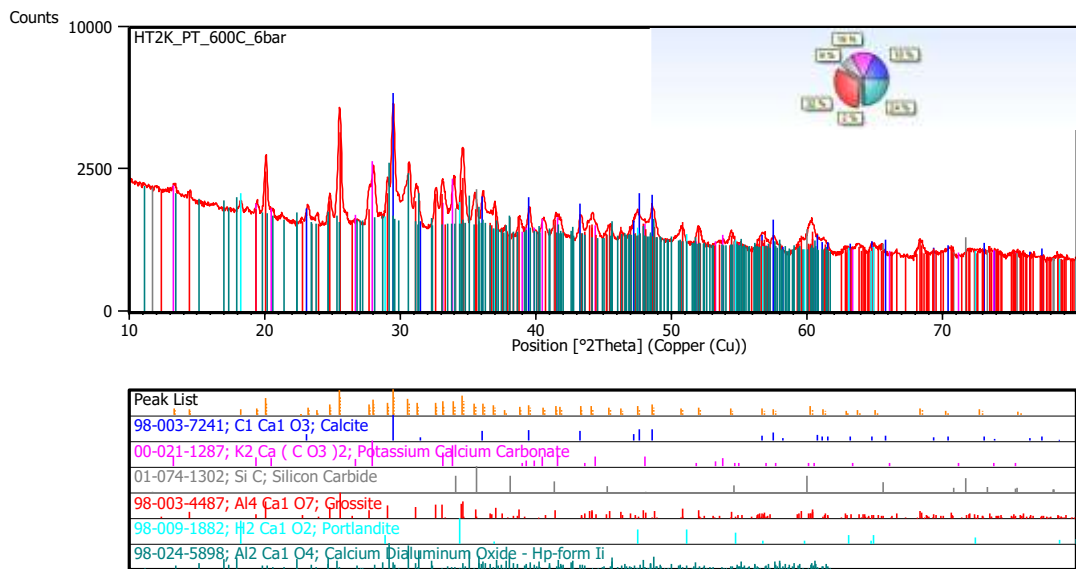


Figura A. 22 XRD Pattern HT2K post test 600 °C 6 bar.

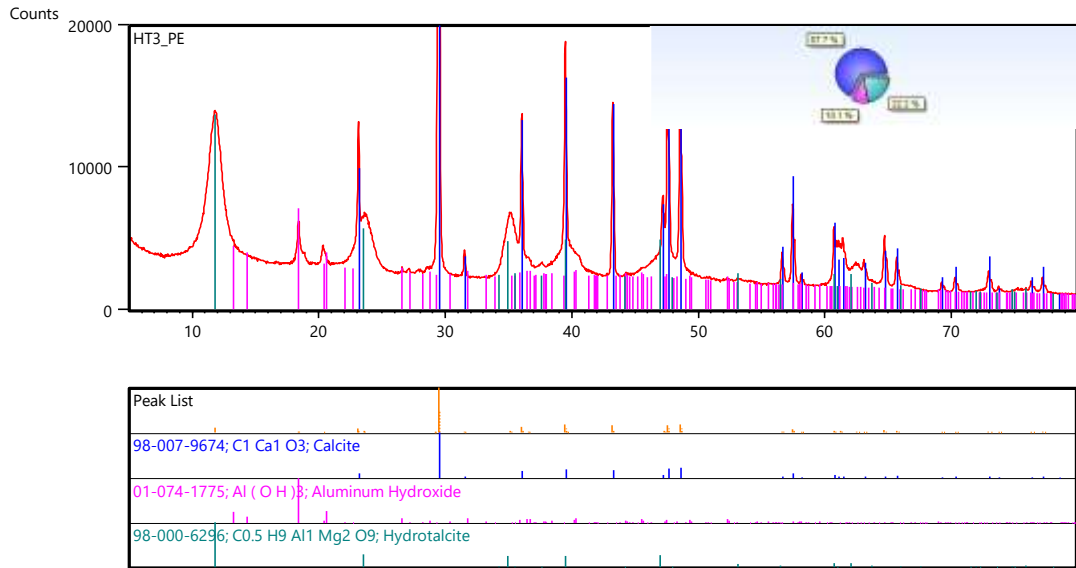


Figura A. 23 XRD Pattern HT3 essiccato a 120 °C per 24h.

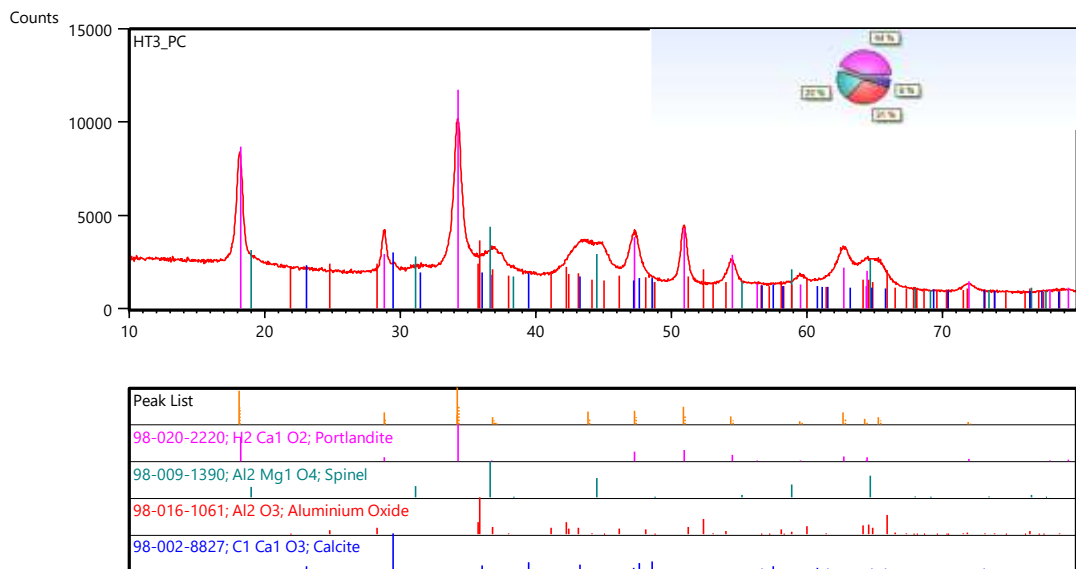


Figura A. 24 XRD Pattern HT3 calcinato a 800 °C per 8h.

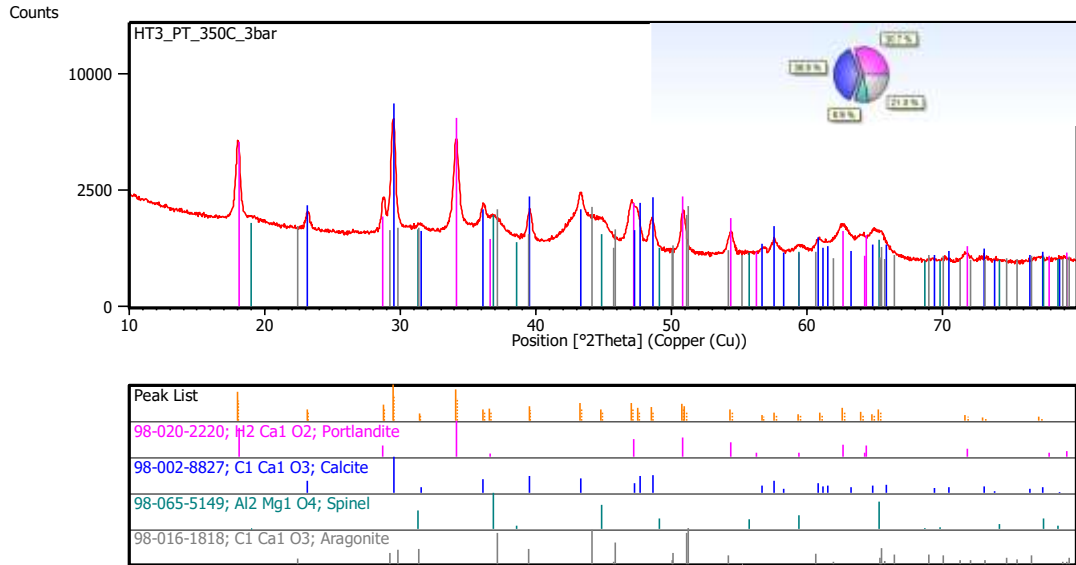


Figura A. 25 XRD Pattern HT3 post test 350 °C 3 bar.

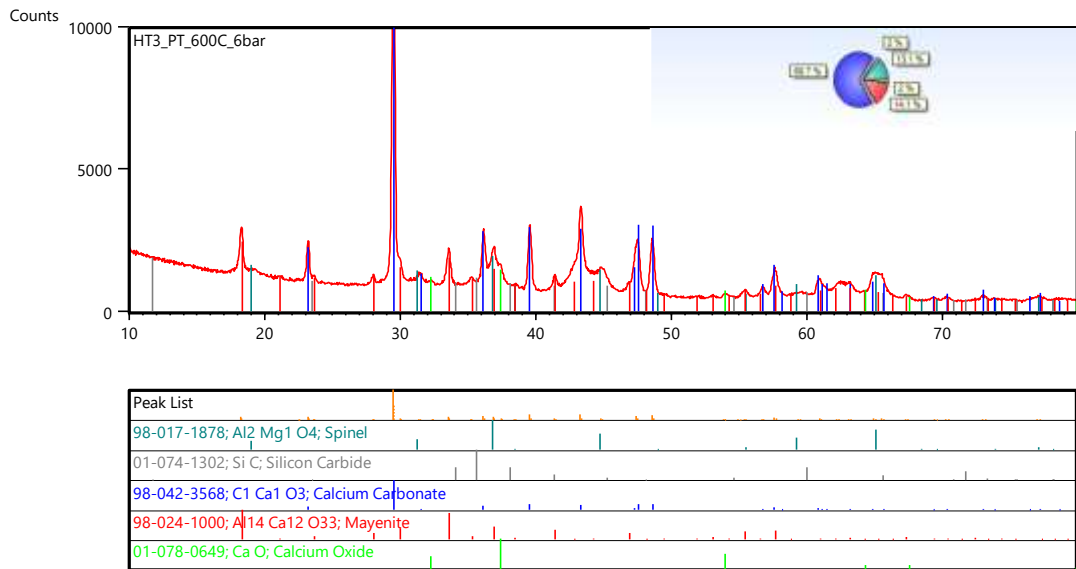


Figura A. 26 XRD Pattern HT3 post test 600 °C 6 bar.

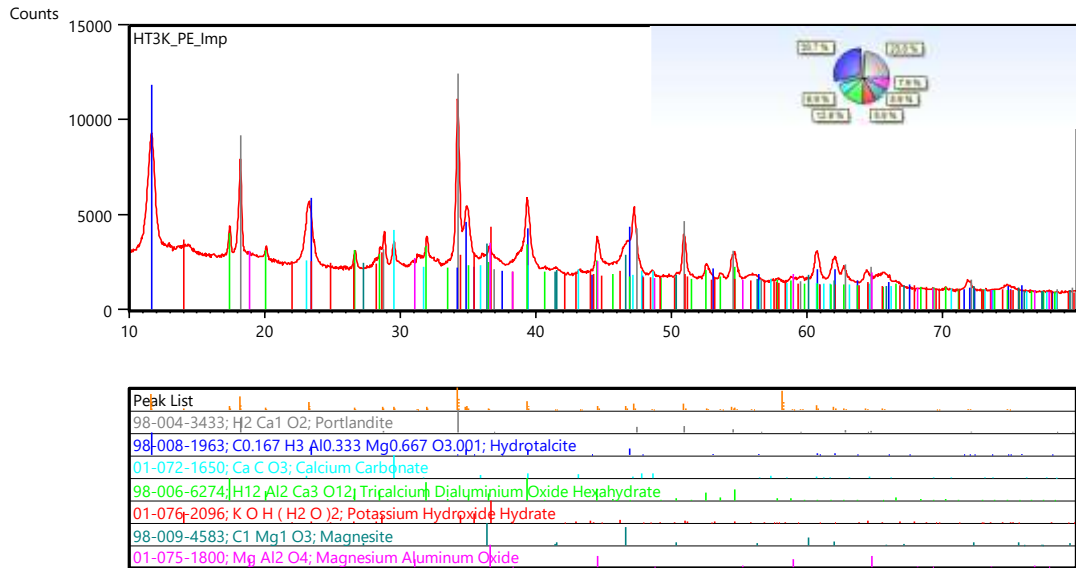


Figura A. 27 XRD Pattern HT3K essiccato a 120 °C per 24h.

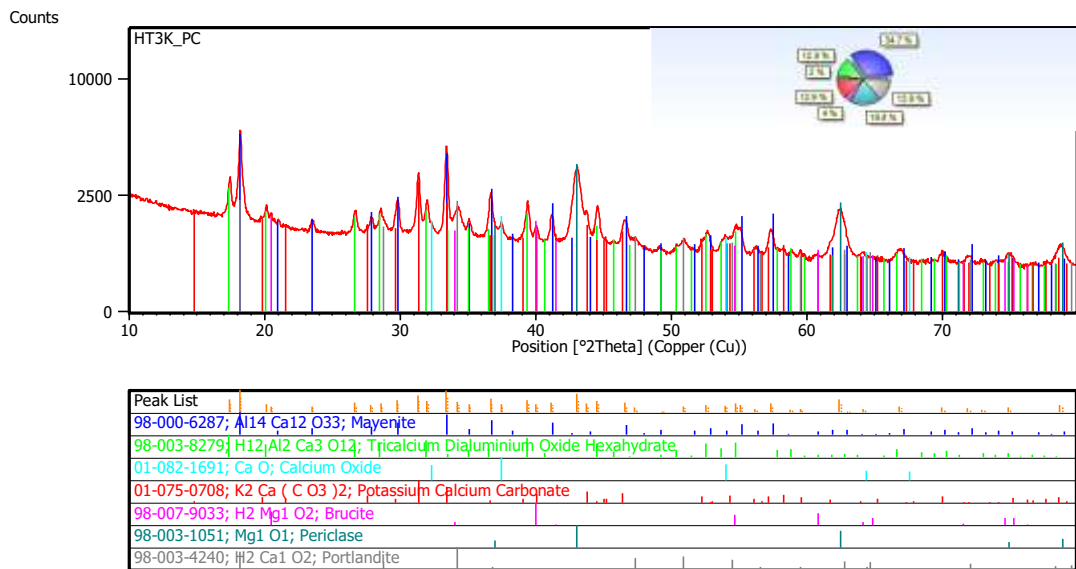


Figura A. 28 XRD Pattern HT3K calcinato a 800 °C per 8h.

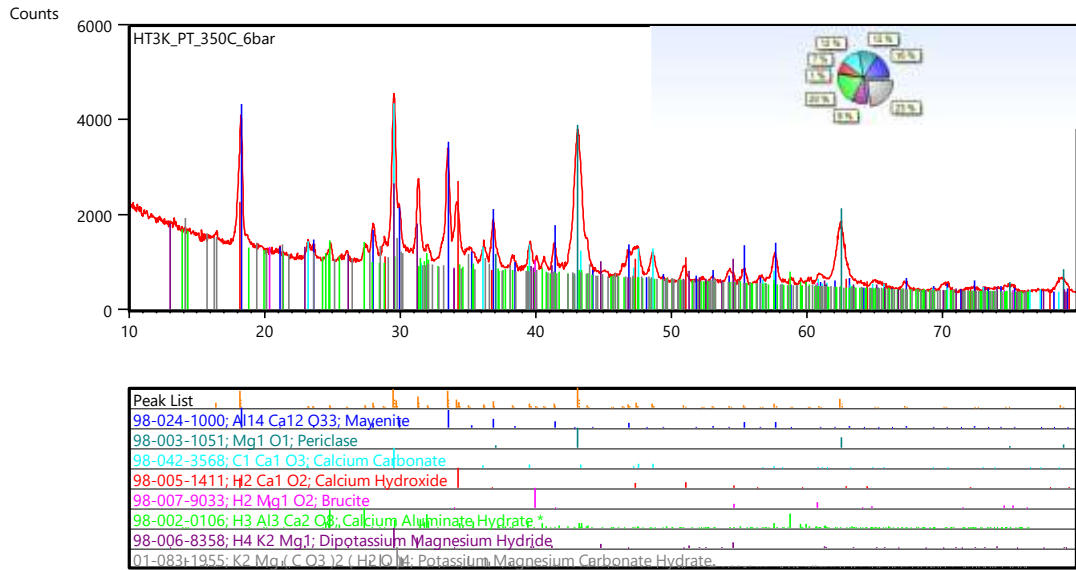


Figura A. 29 XRD Pattern HT3K post test a 350 °C 6bar.

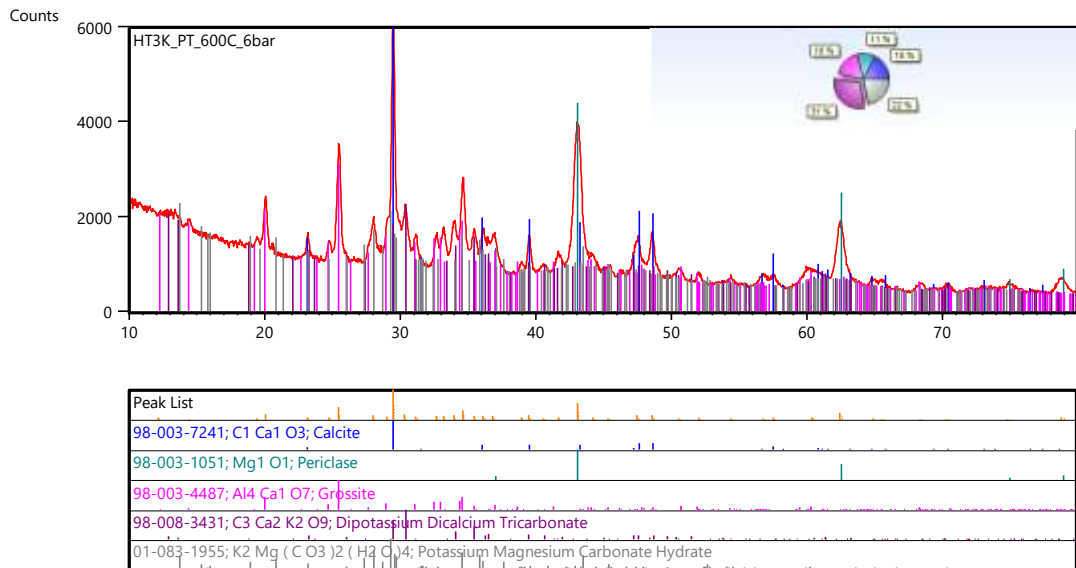


Figura A. 30 XRD Pattern HT3K post test a 600 °C 6 bar.

Appendice B: Analisi XRF

B.1 XRF Solidi.

– Preset Sample Data

Sample Name	1	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.1586
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

– Results

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	3312.7531	32.41 %	0.03 %
13	Al	Aluminum	4288.3314	13.69 %	0.01 %
14	Si	Silicon	17.6286	0.02315 %	0.00041 %
15	P	Phosphorus	5.8650	0.00300 %	0.00013 %
16	S	Sulfur	15.2261	< 0.00020 %	(0.0) %
17	Cl	Chlorine	254.9233	0.02385 %	0.00007 %
19	K	Potassium	1.5233	0.00181 %	0.00014 %
20	Ca	Calcium	34.6464	< 0.0010 %	(0.0) %
22	Ti	Titanium	2.2340	0.00068 %	0.00004 %
23	V	Vanadium	1.5832	< 0.00006 %	(0.00003) %
24	Cr	Chromium	11.6801	0.00109 %	0.00003 %
25	Mn	Manganese	0.0000	< 0.00010 %	(0.0) %
26	Fe	Iron	58.6169	0.00246 %	0.00003 %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	19.9417	0.00115 %	0.00003 %
29	Cu	Copper	0.0000	< 0.00005 %	(0.0) %
30	Zn	Zinc	28.7442	0.00098 %	0.00002 %

Figura B. 1 Risultati analisi XRF HT1.

– Preset Sample Data

Sample Name	2	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.5702
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

– Results

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	0.0000	< 0.00020 %	(0.0) %
13	Al	Aluminum	9715.5603	23.57 %	0.02 %
14	Si	Silicon	19.3525	0.02043 %	0.00052 %
15	P	Phosphorus	19.3786	0.00794 %	0.00022 %
16	S	Sulfur	28.4820	< 0.00020 %	(0.0) %
17	Cl	Chlorine	1003.9696	0.08921 %	0.00014 %
19	K	Potassium	0.0000	< 0.0010 %	(0.0) %
20	Ca	Calcium	25961.5229	19.28 %	0.01 %
22	Ti	Titanium	0.0000	< 0.00020 %	(0.0) %
23	V	Vanadium	1.0966	< 0.00010 %	(0.0) %
24	Cr	Chromium	7.2841	0.00119 %	0.00004 %
25	Mn	Manganese	5.9290	0.00102 %	0.00004 %
26	Fe	Iron	45.8054	0.00094 %	0.00001 %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	9.2838	0.00094 %	0.00005 %
29	Cu	Copper	1.6562	0.00016 %	0.00005 %
30	Zn	Zinc	17.2257	0.00114 %	0.00003 %

Figura B. 2 Risultati analisi XRF per HT2.

– Preset Sample Data

Sample Name	4	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.3521
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

– Results

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	2025.7965	22.58 %	0.03 %
13	Al	Aluminum	5864.5445	19.43 %	0.01 %
14	Si	Silicon	28.0125	0.03728 %	0.00058 %
15	P	Phosphorus	15.5593	0.00806 %	0.00023 %
16	S	Sulfur	23.6967	< 0.00020 %	(0.0) %
17	Cl	Chlorine	67.3903	0.00198 %	0.00002 %
19	K	Potassium	0.0000	< 0.0010 %	(0.0) %
20	Ca	Calcium	20351.6868	18.37 %	0.01 %
22	Ti	Titanium	0.0000	< 0.00020 %	(0.0) %
23	V	Vanadium	1.4808	< 0.00012 %	(0.0) %
24	Cr	Chromium	8.5870	0.00157 %	0.00005 %
25	Mn	Manganese	3.0421	0.00056 %	0.00006 %
26	Fe	Iron	42.8083	< 0.00023 %	(0.00005) %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	9.7627	0.00108 %	0.00006 %
29	Cu	Copper	1.9169	0.00020 %	0.00006 %
30	Zn	Zinc	13.0576	0.00098 %	0.00004 %

Figura B. 3 Risultati analisi XRF per HT3.

– Preset Sample Data

Sample Name	6	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.8291
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

– Results

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	3154.6739	31.45 %	0.03 %
13	Al	Aluminum	4001.2877	12.30 %	0.01 %
14	Si	Silicon	37.2375	0.04775 %	0.00049 %
15	P	Phosphorus	0.0000	< 0.00030 %	(0.0) %
16	S	Sulfur	36.3614	0.00025 %	0.00001 %
17	Cl	Chlorine	116.8550	0.00754 %	0.00004 %
19	K	Potassium	4177.3655	4.977 %	0.005 %
20	Ca	Calcium	57.1022	0.00881 %	0.00025 %
22	Ti	Titanium	2.3311	0.00085 %	0.00005 %
23	V	Vanadium	1.2991	< 0.00010 %	(0.0) %
24	Cr	Chromium	9.6024	0.00106 %	0.00003 %
25	Mn	Manganese	0.0000	< 0.00010 %	(0.0) %
26	Fe	Iron	57.1303	0.00274 %	0.00004 %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	16.5647	0.00116 %	0.00004 %
29	Cu	Copper	3.5706	0.00022 %	0.00004 %
30	Zn	Zinc	24.9893	0.00107 %	0.00003 %

Figura B. 4 Risultati analisi XRF per HT1K.

—Preset Sample Data—

Sample Name	7	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.1146
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

—Results—

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	0.0000	< 0.0020 %	(0.0) %
13	Al	Aluminum	11547.1342	29.89 %	0.02 %
14	Si	Silicon	99.1061	0.1155 %	0.0008 %
15	P	Phosphorus	26.9300	0.01219 %	0.00026 %
16	S	Sulfur	59.6353	0.00536 %	0.00005 %
17	Cl	Chlorine	278.3817	0.02329 %	0.00008 %
19	K	Potassium	2914.8454	3.342 %	0.005 %
20	Ca	Calcium	29087.7361	27.98 %	0.02 %
22	Ti	Titanium	0.0000	< 0.00020 %	(0.0) %
23	V	Vanadium	1.6530	< 0.00014 %	(0.00004) %
24	Cr	Chromium	7.1862	0.00155 %	0.00006 %
25	Mn	Manganese	4.0586	0.00092 %	0.00007 %
26	Fe	Iron	53.1697	0.00423 %	0.00005 %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	17.0502	0.00258 %	0.00008 %
29	Cu	Copper	5.6530	0.00074 %	0.00006 %
30	Zn	Zinc	16.5840	0.00146 %	0.00004 %

Figura B. 5 Risultati analisi XRF per HT2K.

—Preset Sample Data—

Sample Name	8	Dilution Material	
Description	UMBERTO	Sample Mass (g)	1.3063
Method	FP-Powder	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Powder, 24 mm	Sample rotation	Yes
Sample State	Powder	Date of Receipt	05/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	05/05/2015

—Results—

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
12	Mg	Magnesium	1416.8817	15.92 %	0.02 %
13	Al	Aluminum	4926.9574	13.76 %	0.01 %
14	Si	Silicon	38.9471	0.04374 %	0.00053 %
15	P	Phosphorus	15.1757	0.00661 %	0.00019 %
16	S	Sulfur	18.4568	< 0.00020 %	(0.0) %
17	Cl	Chlorine	67.2805	0.00165 %	0.00001 %
19	K	Potassium	4847.0499	5.270 %	0.006 %
20	Ca	Calcium	17549.9874	16.38 %	0.01 %
22	Ti	Titanium	0.0000	< 0.00020 %	(0.0) %
23	V	Vanadium	1.2328	< 0.00010 %	(0.0) %
24	Cr	Chromium	7.2015	0.00126 %	0.00004 %
25	Mn	Manganese	5.5781	0.00103 %	0.00005 %
26	Fe	Iron	43.6335	0.00032 %	0.00001 %
27	Co	Cobalt	0.0000	< 0.00030 %	(0.0) %
28	Ni	Nickel	12.3148	0.00142 %	0.00006 %
29	Cu	Copper	3.5586	0.00037 %	0.00005 %
30	Zn	Zinc	13.0925	0.00093 %	0.00003 %

Figura B. 6 Risultati analisi XRF per HT3K.

B.2 XRF Liquidi.

- Preset Sample Data					
Sample Name	1 L	Dilution Material			
Description	UMBERTO	Sample Mass (g)	4.9382		
Method	FP-Water	Dilution Mass (g)	0.0000		
Job Number	Foscolo	Dilution Factor	1.0000		
Sample Type	Liquid, 24 mm	Sample rotation	No		
Sample State	Liquid	Date of Receipt	04/05/2015		
Sample Status	A X X A X X A A	Date of Evaluation	04/05/2015		
- Results					
The error is the statistical error with 1 sigma confidence interval					
Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
11	Na	Sodium	11.9462	0.1944 %	0.0061 %
12	Mg	Magnesium	48.7177	0.4262 %	0.0035 %
13	Al	Aluminum	96.9590	0.1565 %	0.0008 %
14	Si	Silicon	8.0039	< 0.00051 %	(0.0) %
15	P	Phosphorus	0.6745	0.00014 %	0.00006 %
16	S	Sulfur	13.7479	0.00126 %	0.00003 %
17	Cl	Chlorine	95.3388	< 0.00020 %	(0.0) %
19	K	Potassium	2.0625	< 0.0010 %	(0.00088) %
20	Ca	Calcium	9.4984	0.00240 %	0.00006 %
22	Ti	Titanium	1.3543	0.00011 %	0.00002 %
23	V	Vanadium	1.9530	0.00004 %	0.00001 %
24	Cr	Chromium	9.4765	0.00021 %	0.00001 %
25	Mn	Manganese	5.8370	0.00016 %	0.00001 %

Figura B. 7 Risultati analisi XRF per H₂O di lavaggio HT1.

- Preset Sample Data					
Sample Name	6L	Dilution Material			
Description	UMBERTO	Sample Mass (g)	4.0788		
Method	FP-Water	Dilution Mass (g)	0.0000		
Job Number	Foscolo	Dilution Factor	1.0000		
Sample Type	Liquid, 24 mm	Sample rotation	No		
Sample State	Liquid	Date of Receipt	04/05/2015		
Sample Status	A X X A X X A A	Date of Evaluation	04/05/2015		
- Results					
The error is the statistical error with 1 sigma confidence interval					
Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
11	Na	Sodium	48.3858	0.7873 %	0.0076 %
12	Mg	Magnesium	0.0000	< 0.010 %	(0.0) %
13	Al	Aluminum	46.2554	0.06313 %	0.00054 %
14	Si	Silicon	0.0000	< 0.00051 %	(0.0) %
15	P	Phosphorus	2.9934	0.00064 %	0.00006 %
16	S	Sulfur	17.1010	0.00157 %	0.00003 %
17	Cl	Chlorine	63.3341	< 0.00020 %	(0.0) %
19	K	Potassium	2.1196	0.00090 %	0.00015 %
20	Ca	Calcium	2296.8858	0.6460 %	0.0009 %
22	Ti	Titanium	0.9363	0.00007 %	0.00001 %
23	V	Vanadium	2.1196	0.00005 %	0.00001 %
24	Cr	Chromium	9.4518	0.00023 %	0.00001 %
25	Mn	Manganese	2.1639	0.00004 %	0.00001 %

Figura B. 8 Risultati analisi XRF per H₂O di lavaggio HT2.

– Preset Sample Data

Sample Name	4L	Dilution Material	
Description	UMBERTO	Sample Mass (g)	4.0889
Method	FP-Water	Dilution Mass (g)	0.0000
Job Number	Foscolo	Dilution Factor	1.0000
Sample Type	Liquid, 24 mm	Sample rotation	No
Sample State	Liquid	Date of Receipt	04/05/2015
Sample Status	A X X A X X A A	Date of Evaluation	04/05/2015

– Results

The error is the statistical error with 1 sigma confidence interval

Z	Symbol	Element	Norm. Int.	Concentration	Abs. Error
11	Na	Sodium	15.8982	0.2591 %	0.0065 %
12	Mg	Magnesium	9.5953	0.0707 %	0.0022 %
13	Al	Aluminum	127.5470	0.2117 %	0.0009 %
14	Si	Silicon	4.5313	< 0.00051 %	(0.0) %
15	P	Phosphorus	0.0000	< 0.00030 %	(0.0) %
16	S	Sulfur	15.8982	0.00145 %	0.00003 %
17	Cl	Chlorine	67.3388	< 0.00020 %	(0.0) %
19	K	Potassium	2.1395	0.00091 %	0.00009 %
20	Ca	Calcium	463.2237	0.1282 %	0.0004 %
22	Ti	Titanium	1.9055	0.00017 %	0.00002 %
23	V	Vanadium	3.2111	0.00012 %	0.00001 %
24	Cr	Chromium	11.2243	0.00030 %	0.00001 %
25	Mn	Manganese	5.7603	0.00016 %	0.00001 %

Figura B. 9 Risultati analisi XRF per H₂O di lavaggio HT3.

Appendice C: FTIR Pattern

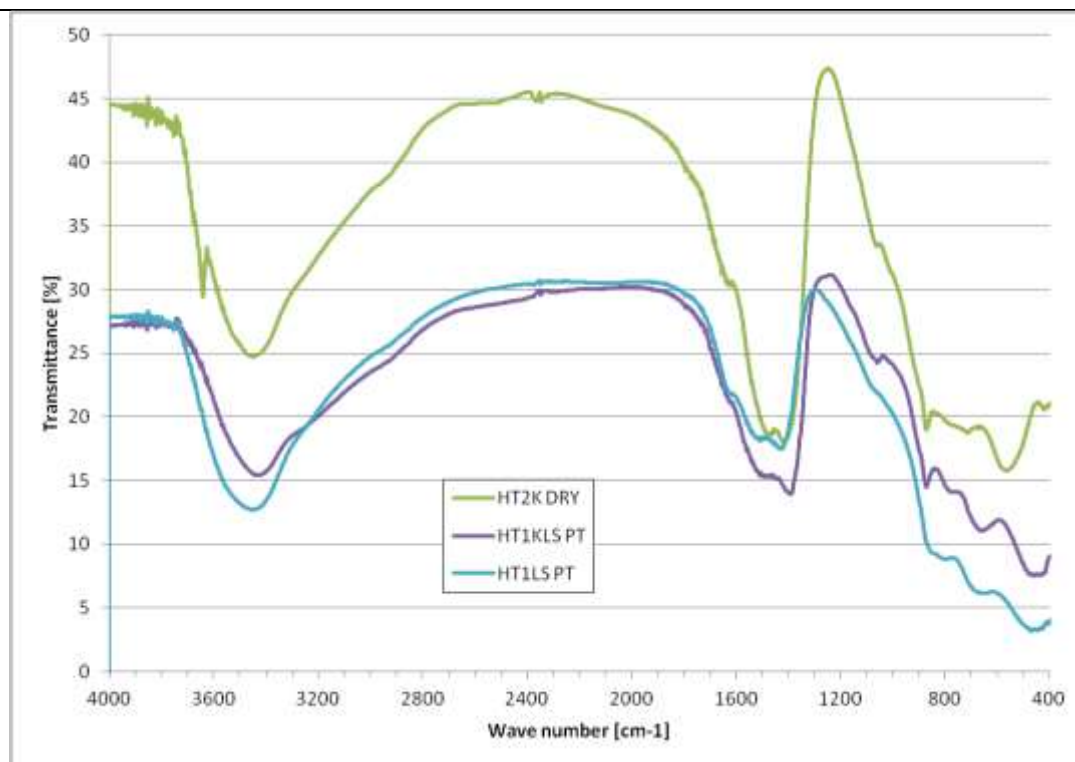


Figura C. 1 FT-IR spettri di HT2K essiccato, HT1K dopo il test, HT1 calcinato a 700°C post test

Table C. 1 – Picchi identificati di HT2

Numero d'onda[cm ⁻¹]	Numero d'onda di riferimento[cm ⁻¹]	Letteratura
711	713 v4 di CO ₃ ²⁻ possibile per calcite e aragonite	Andersen & Brecevic, 1991)
871	877 v2 di CO ₃ ²⁻ dalla calcite	
1014	Al catione trivalente in ottaedro	(Stuart, 2004)
2507	2510 v1 di CO ₃ ²⁻ dalla calcite	Andersen & Brecevic, 1991)
2867	Vibrazione del gruppo idrossido	(Umbreit & Jedrasiewicz, 2000)
3585	3580 Vibrazione dei gruppi idrossido	

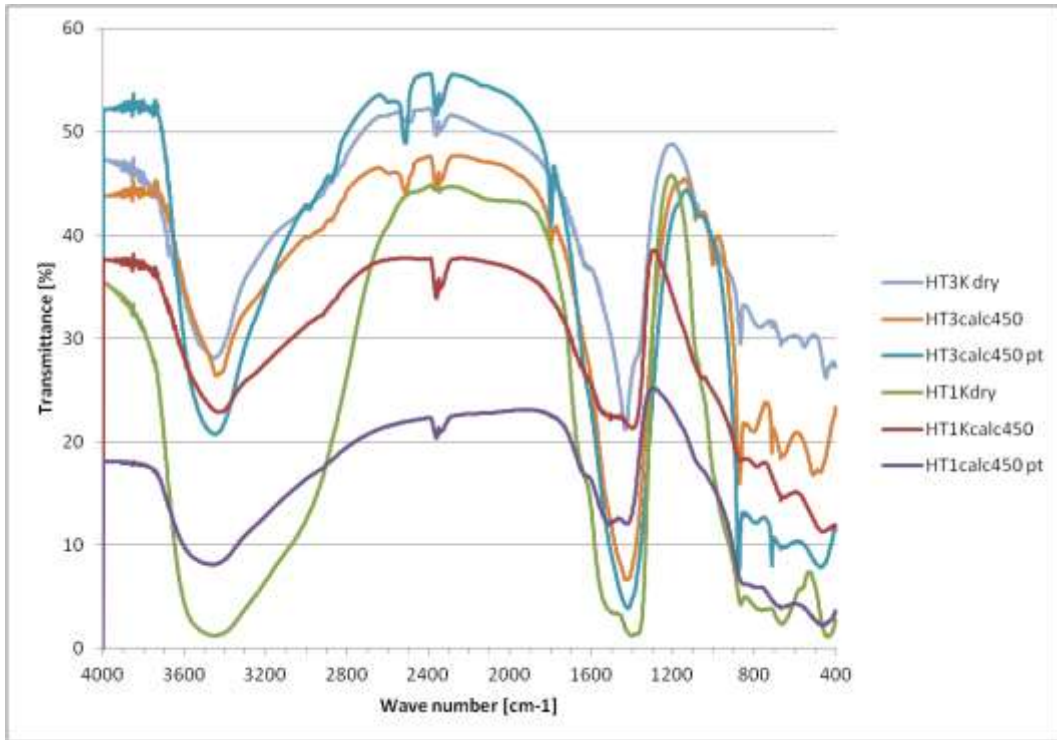


Figura C. 2 Spettri FT-IR HT3K essiccato, HT3 calcinato a 450°C, HT3 calcinato a 450°C post test, HT1 essiccato, HT1K calcinato a 450°C, HT1 calcinato a 450°C dopo test senza acqua.

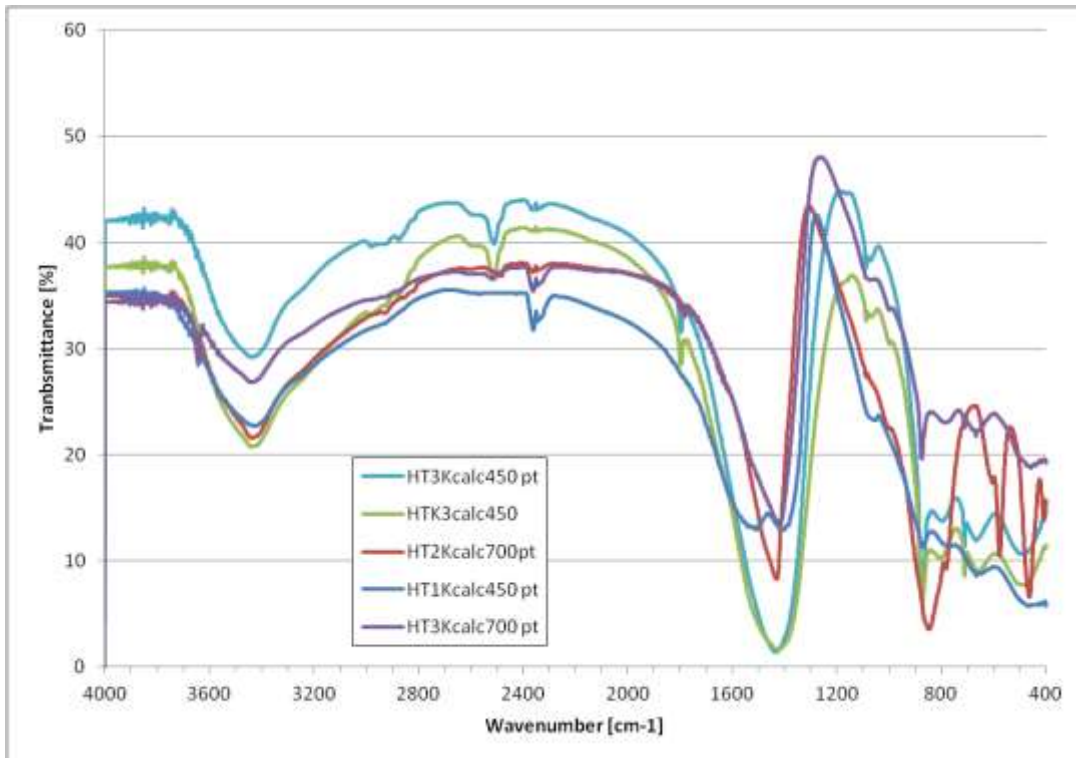


Figura C. 3 Spettri FT-IR di HT3K calcinato a 450°C post test, HT3K calcinato a 450°C, HT2K calcinato a 700°C post test, HT1 calcinato a 450°C post test, HT3K calcinato a 700°C post test.

Appendice D: Analisi BET-BJH

D.1 BET-BJH pre test.

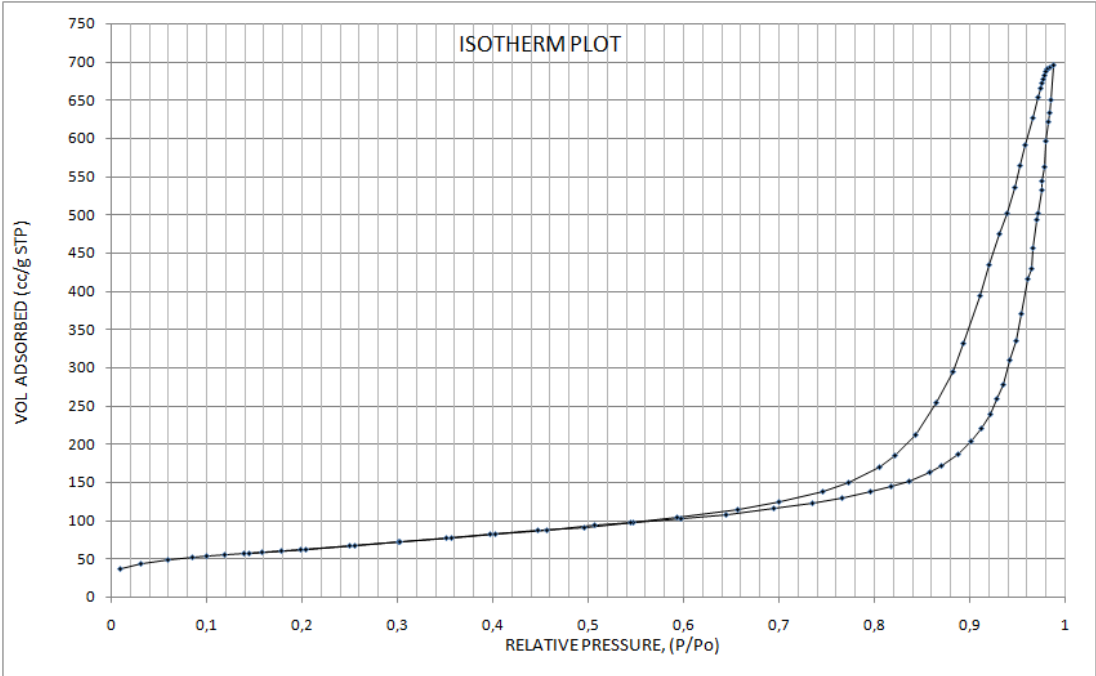


Figura D. 1 Isotherma di assorbimento/desorbimento HT1 calcinato a 500 °C

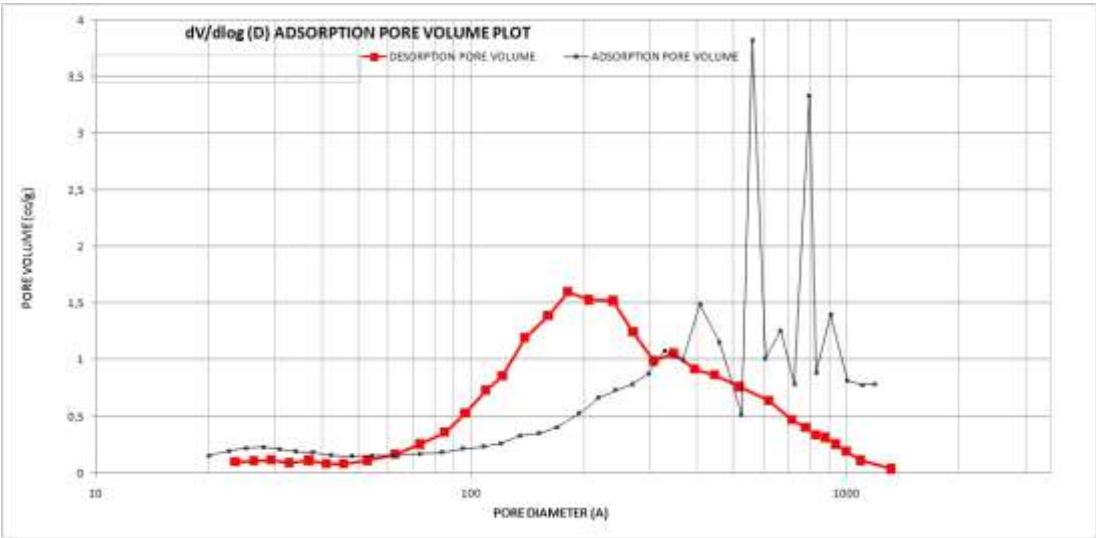


Figura D. 2 Volume dei pori di assorbimento/desorbimento HT1 calcinato a 500 °C

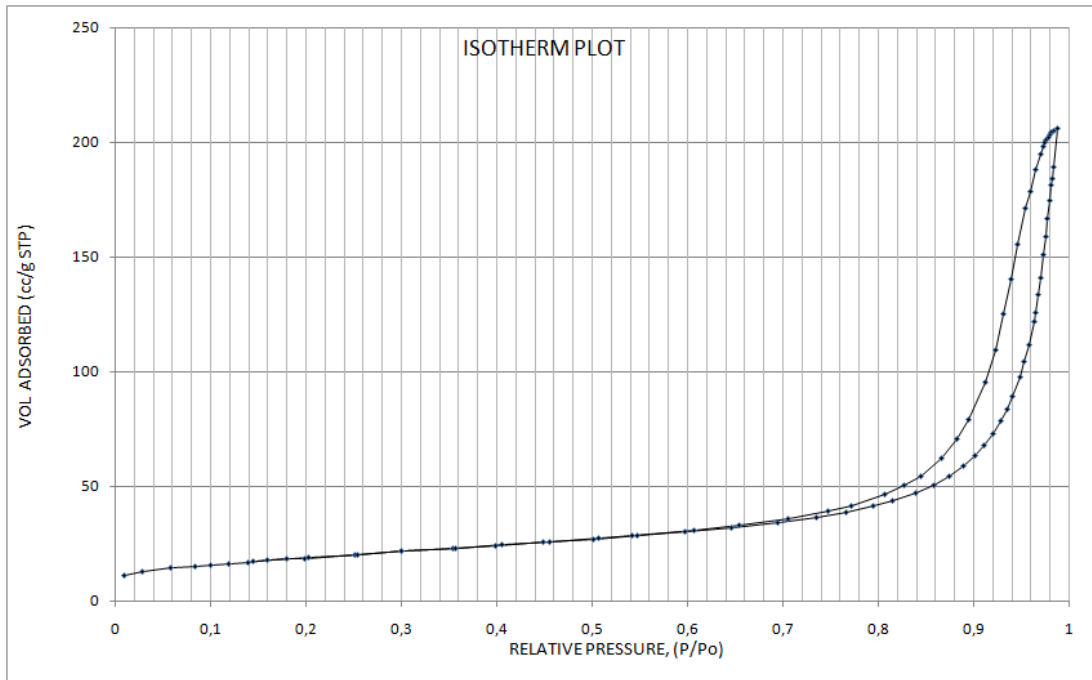


Figura D. 3 Isoterma di assorbimento/desorbimento HT2 calcinato a 500 °C

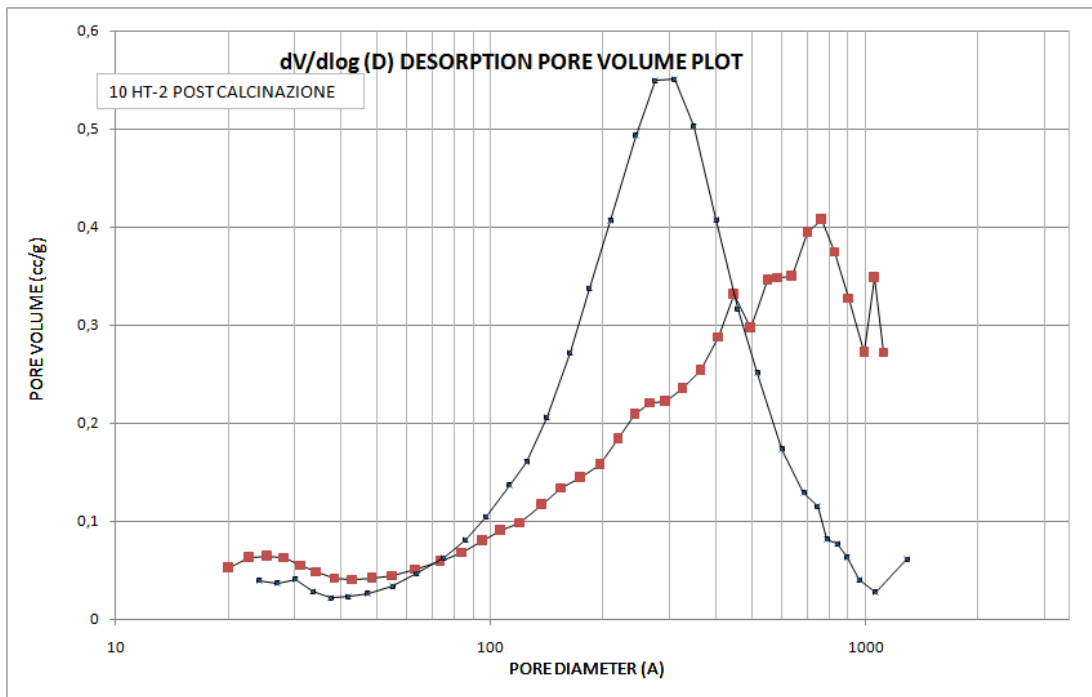


Figura D. 4 Volume dei pori di assorbimento/desorbimento HT2 calcinato a 500 °C

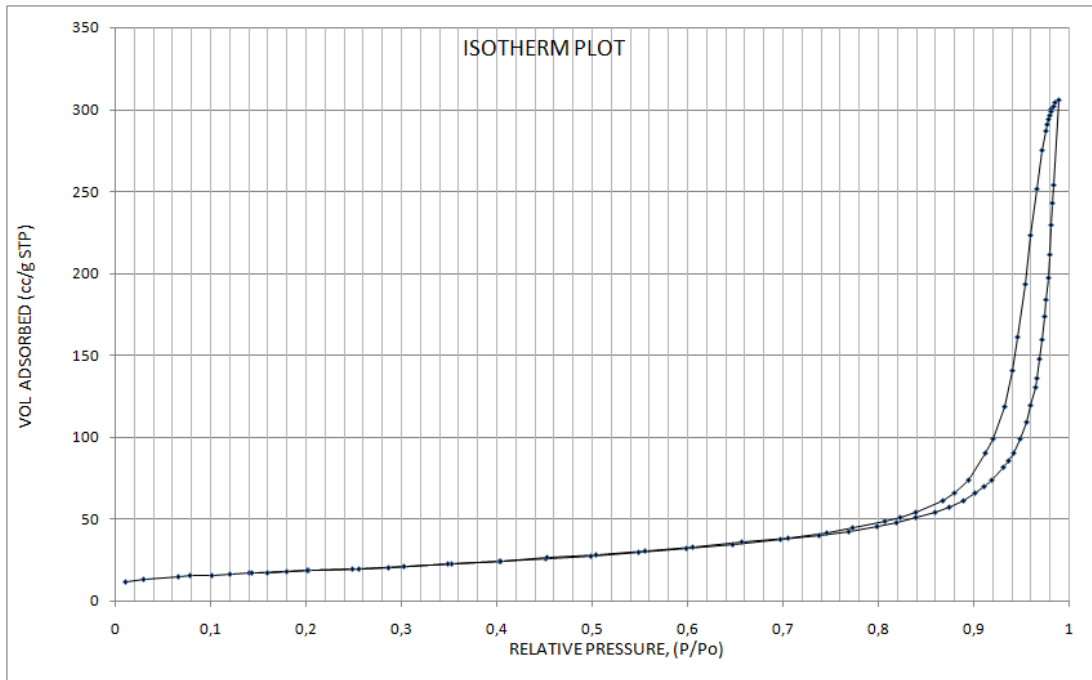


Figura D. 5 Isotherma di assorbimento/desorbimento HT2 calcinato a 800 °C

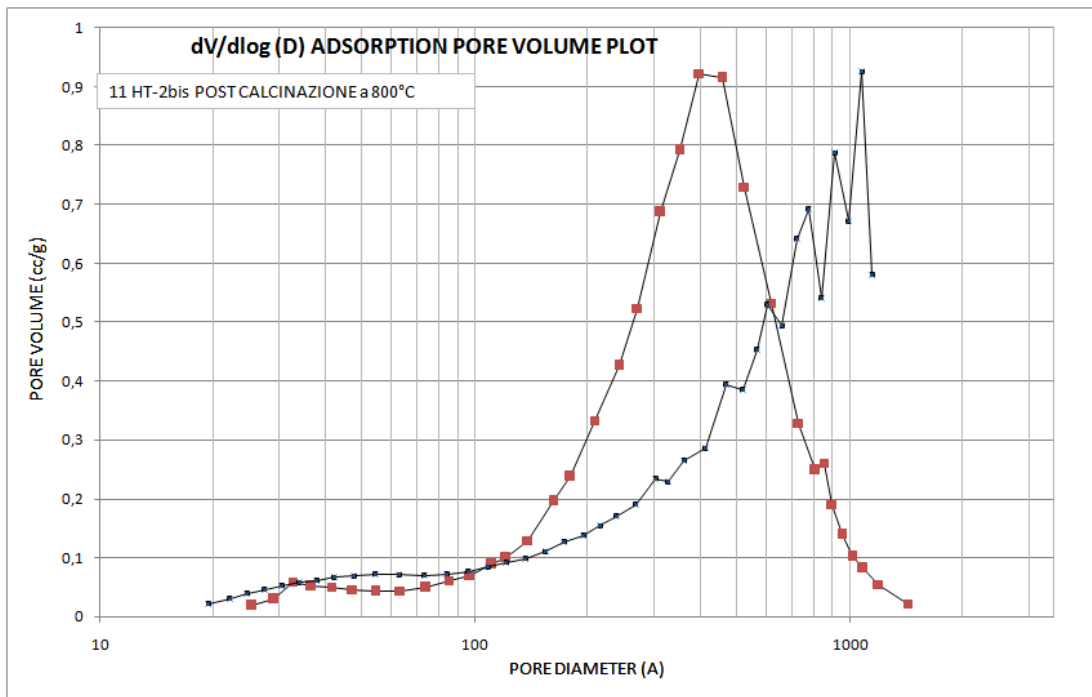


Figura D. 6 Volume dei pori di assorbimento/desorbimento HT2 calcinato a 800 °C

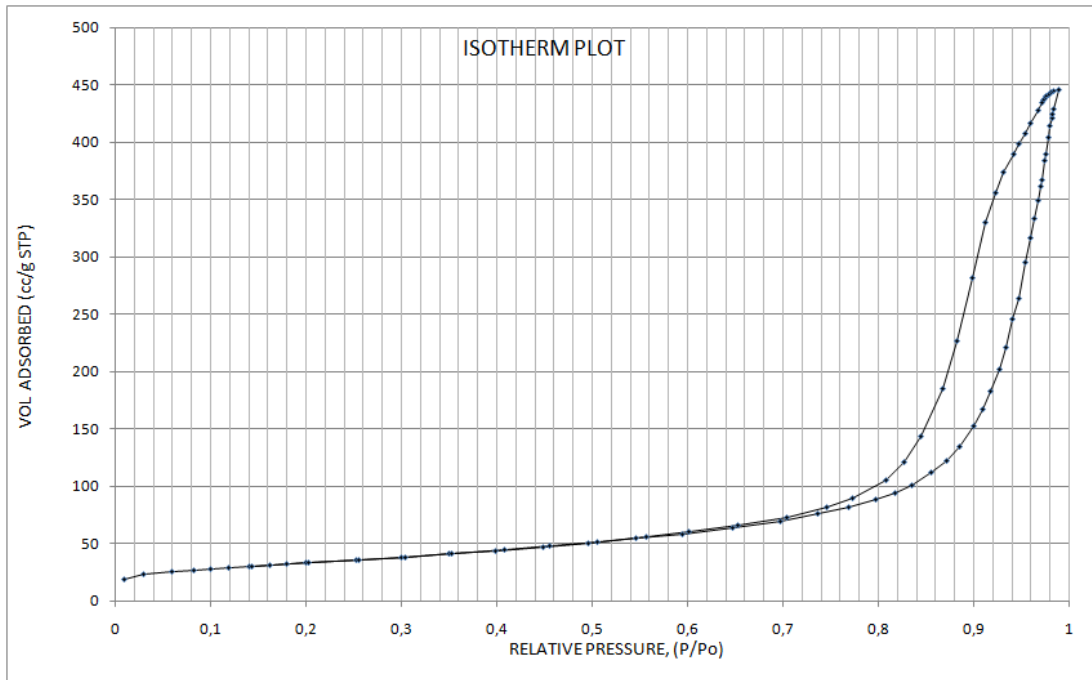


Figura D. 7 Isotherma di assorbimento/desorbimento HT3 calcinato a 800 °C

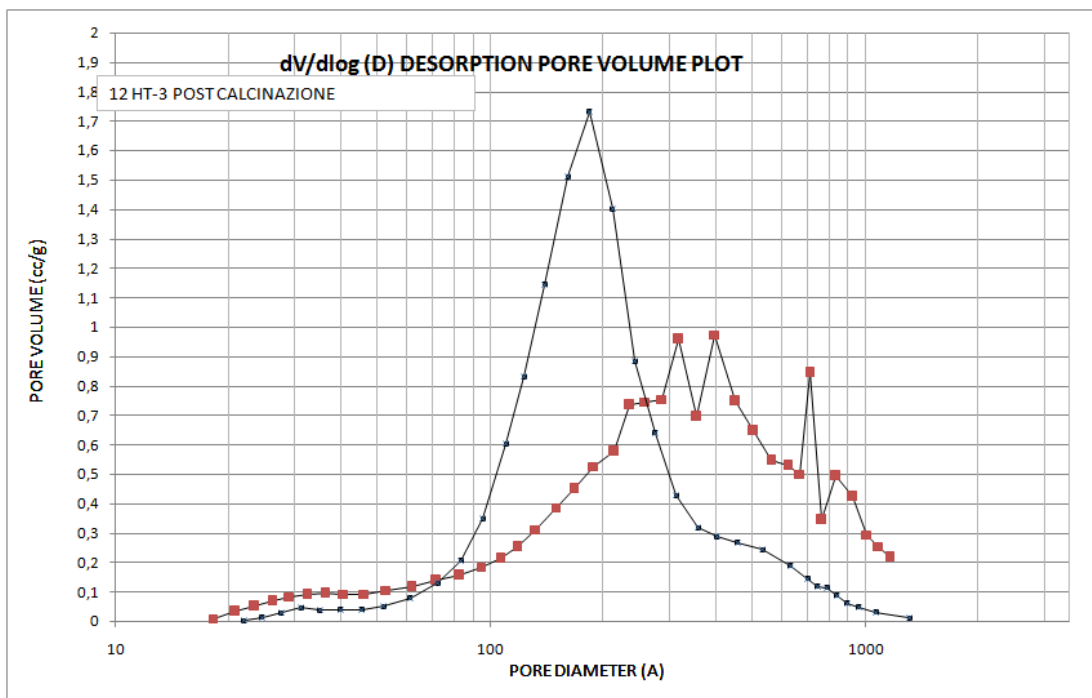


Figura D. 8 Volume dei pori di assorbimento/desorbimento HT3 calcinato a 800 °C

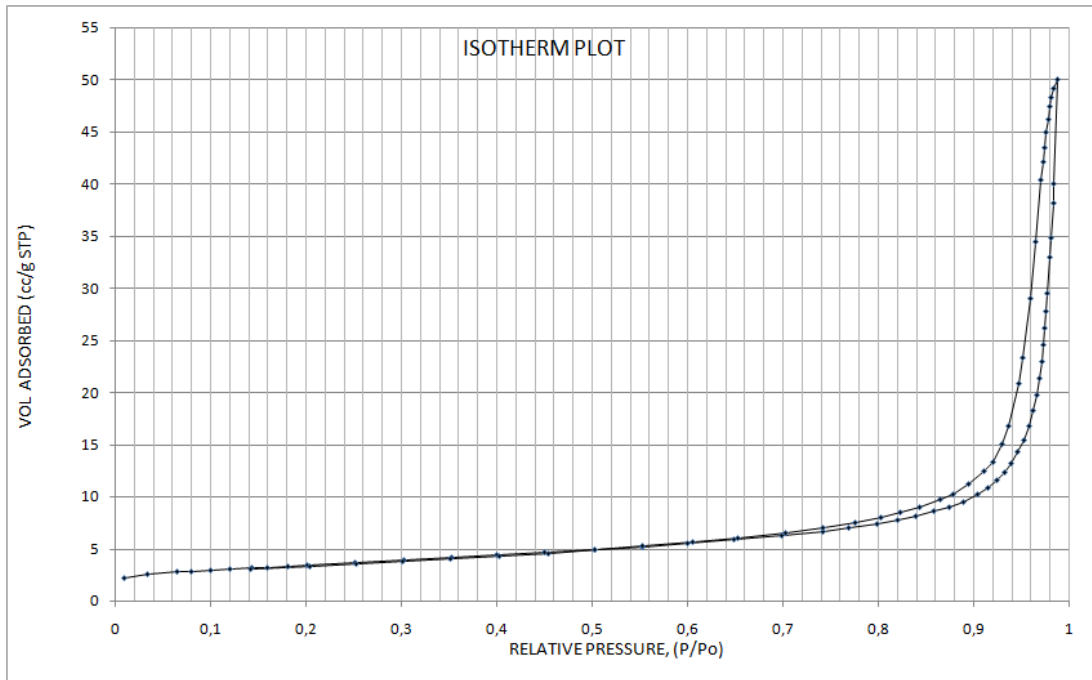


Figura D. 9 Isotherma di assorbimento/desorbimento di HT1K calcinato a 500 °C

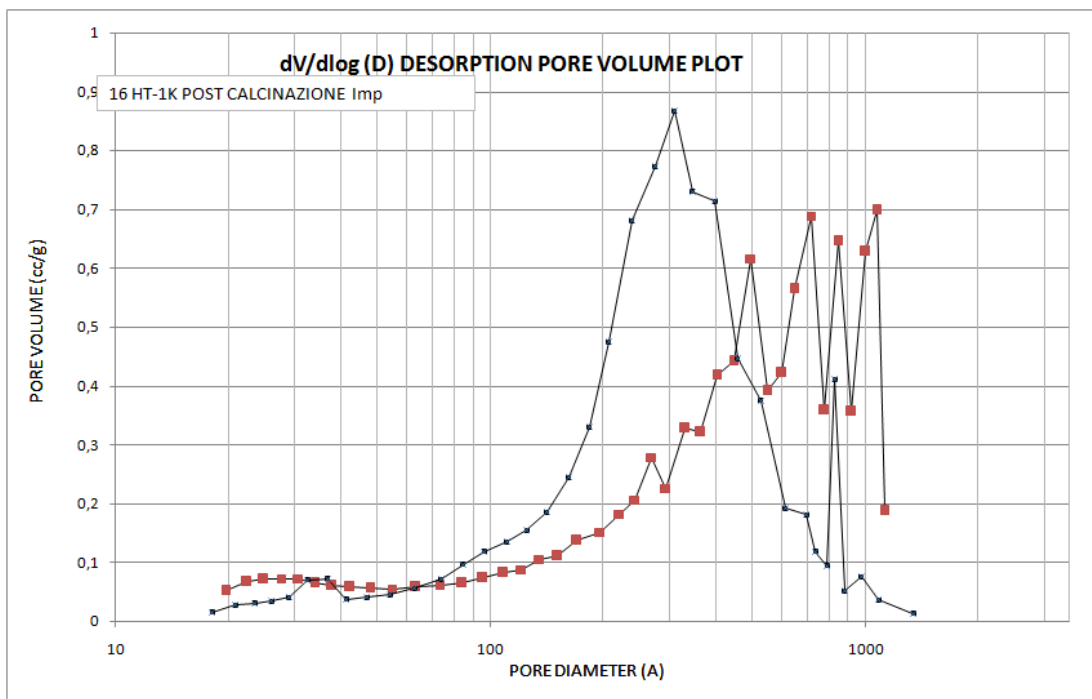


Figura D. 10 Volume dei pori di assorbimento/desorbimento di HT1K calcinato a 500 °C

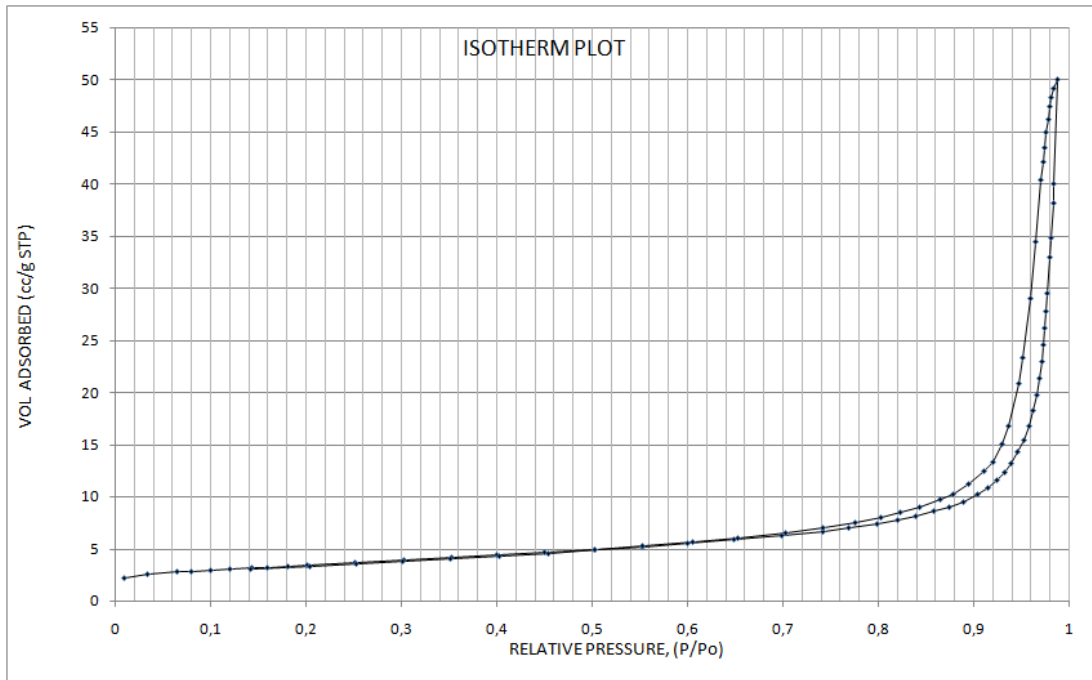


Figura D. 11 Isotherma di assorbimento/desorbimento di HT2K calcinato a 800 °C

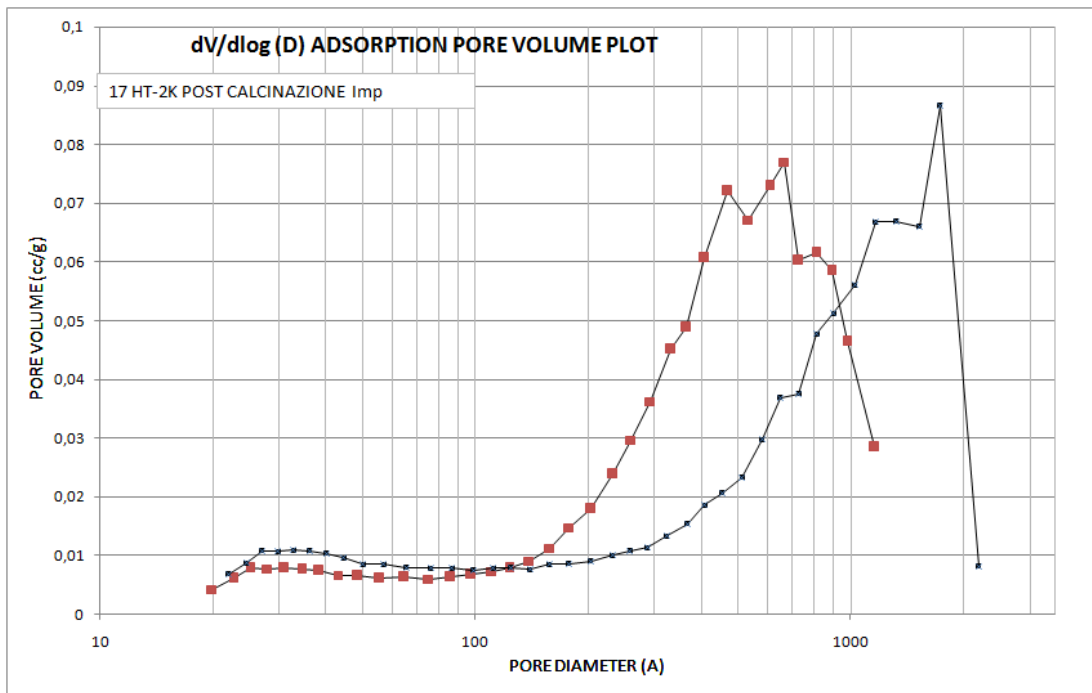


Figura D. 12 Volume dei pori di assorbimento/desorbimento di HT2K calcinato a 800 °C

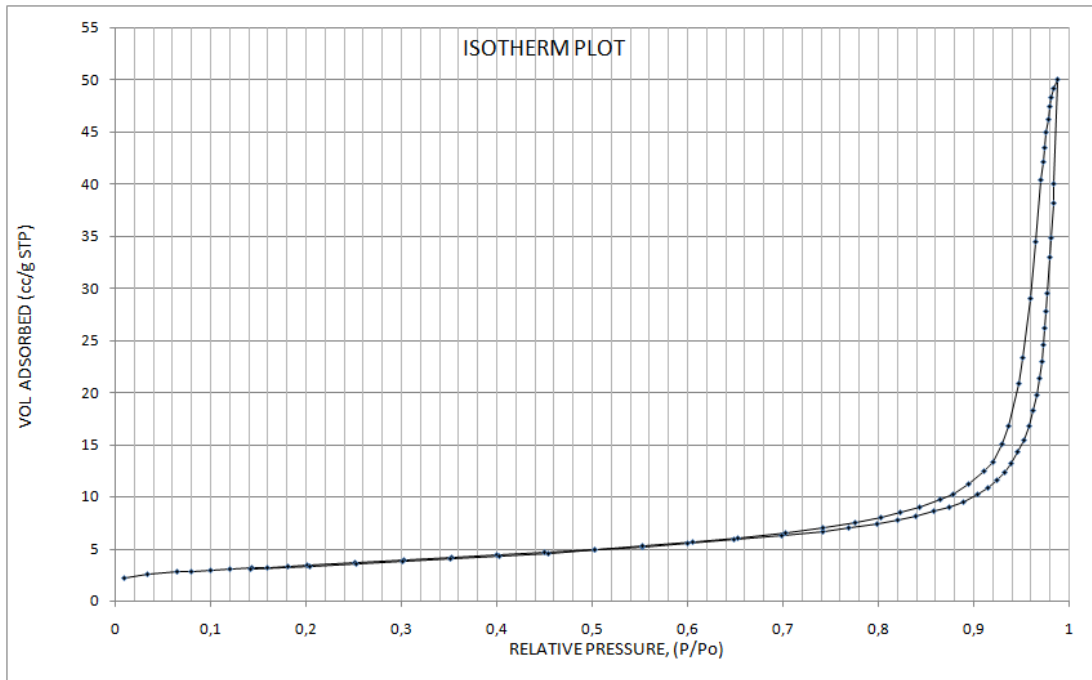


Figura D. 13 Isotherma di assorbimento/desorbimento di HT3K calcinato a 800 °C

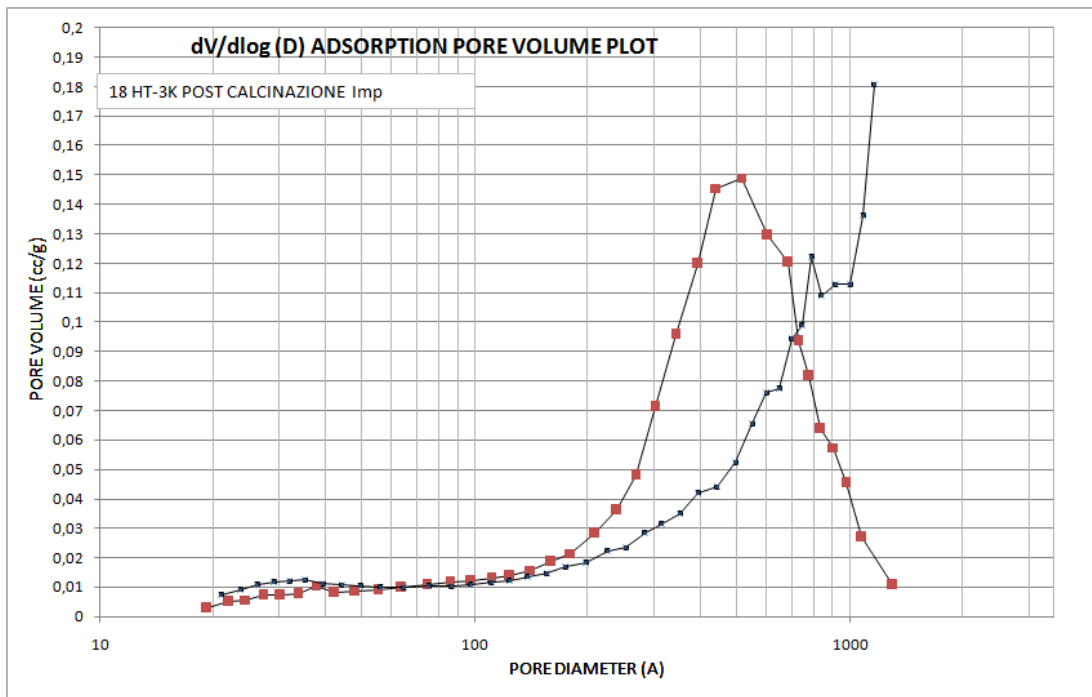


Figura D. 14 Volume dei pori di assorbimento/desorbimento di HT3K calcinato a 800 °C

D.2 BET-BJH post-test.

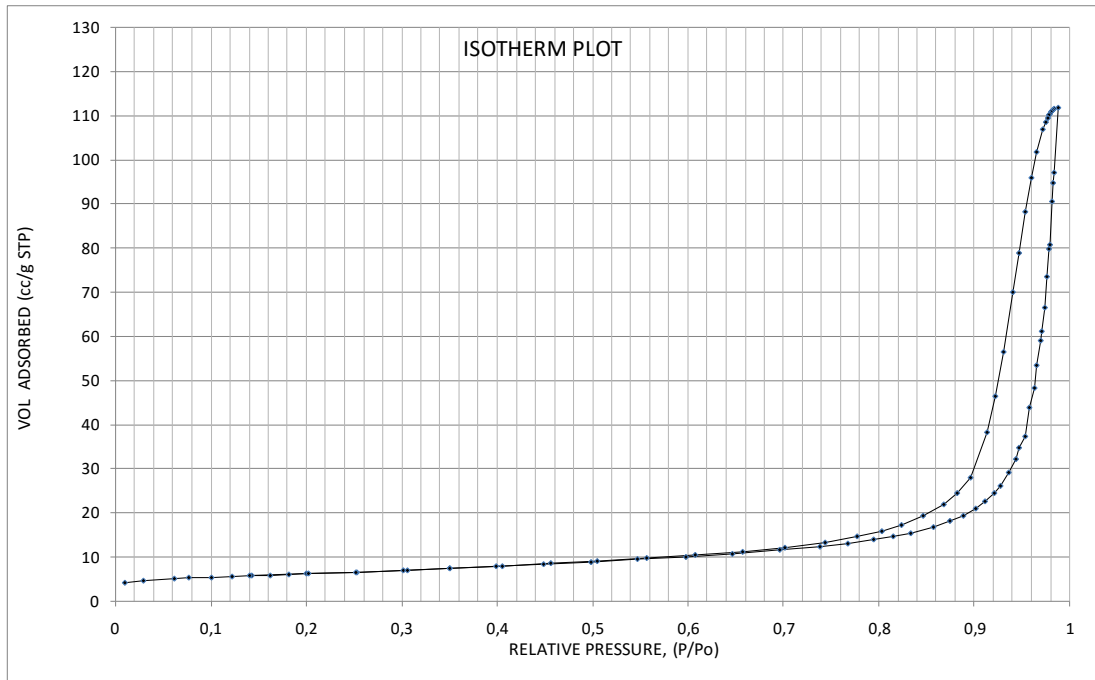


Figura D. 15 Isoterma di assorbimento/desorbimento di HT1K post test 350 °C 3bar.

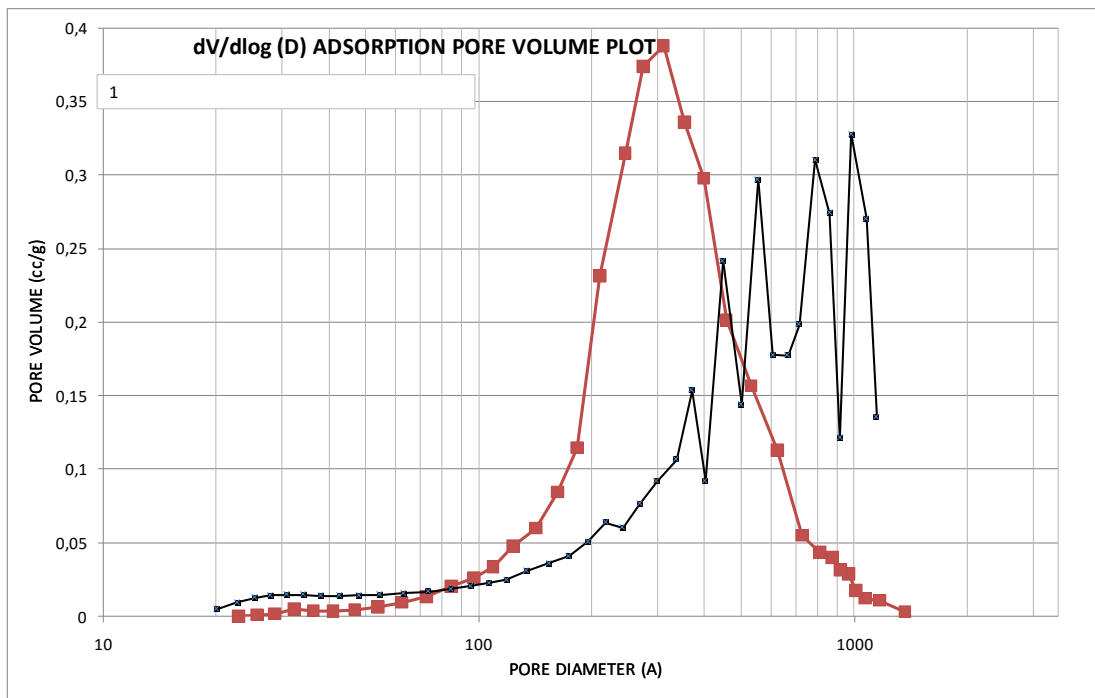


Figura D. 16 Volume dei pori di assorbimento/desorbimento di HT1K post test 350 °C 3bar.

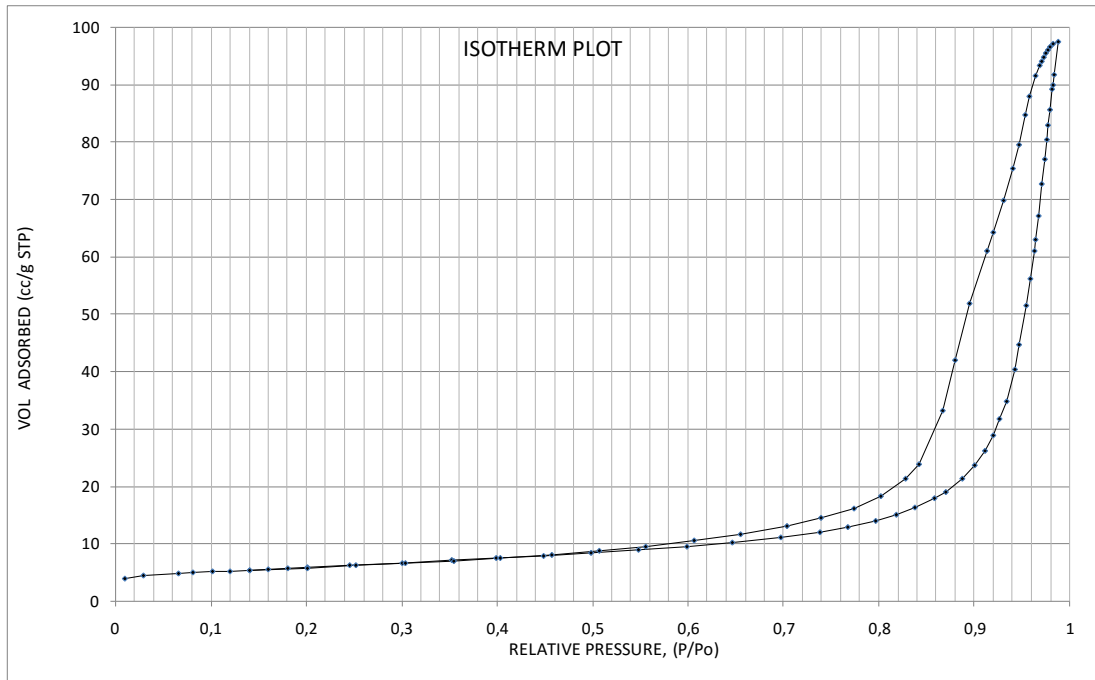


Figura D. 17 Isotherma di assorbimento/desorbimento di HT1K post test 350 °C 6 bar.

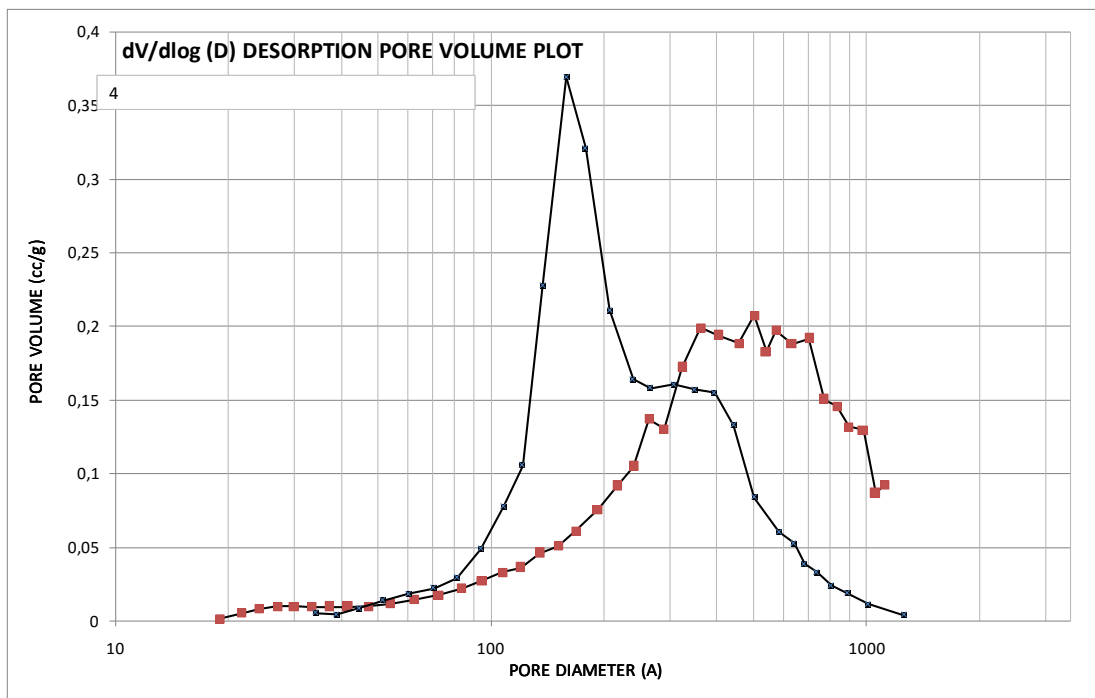


Figura D. 18 Volume dei pori di assorbimento/desorbimento di HT1K post test 350 °C 6bar.

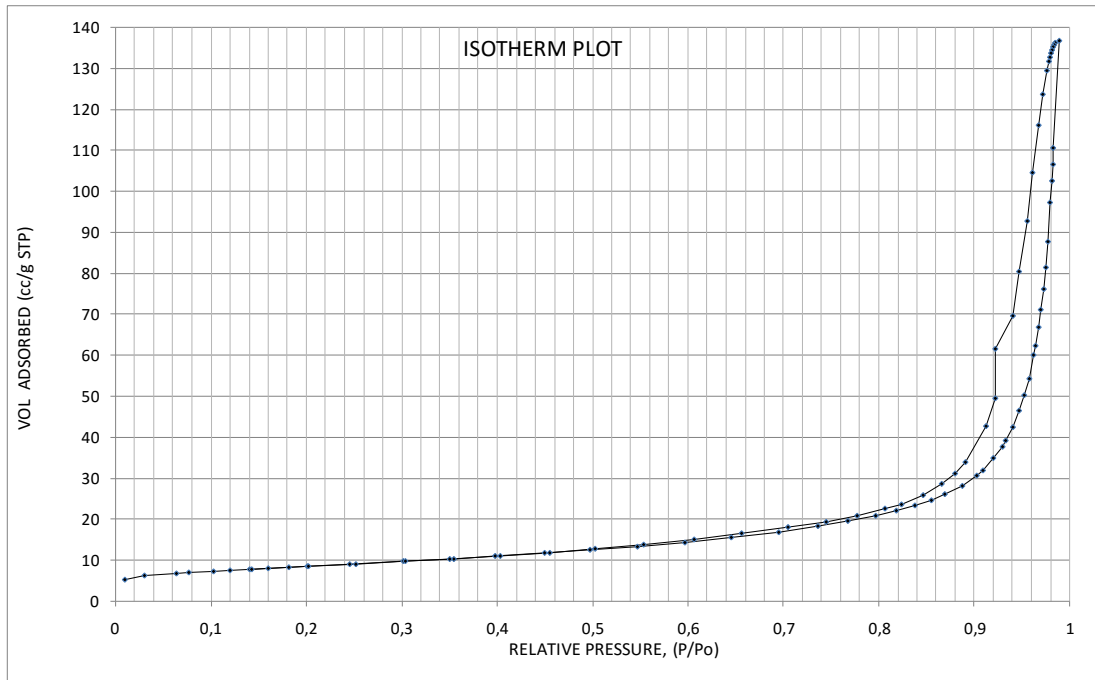


Figura D. 19 Isotherma di assorbimento/desorbimento di HT2 post test 600 °C 3 bar.

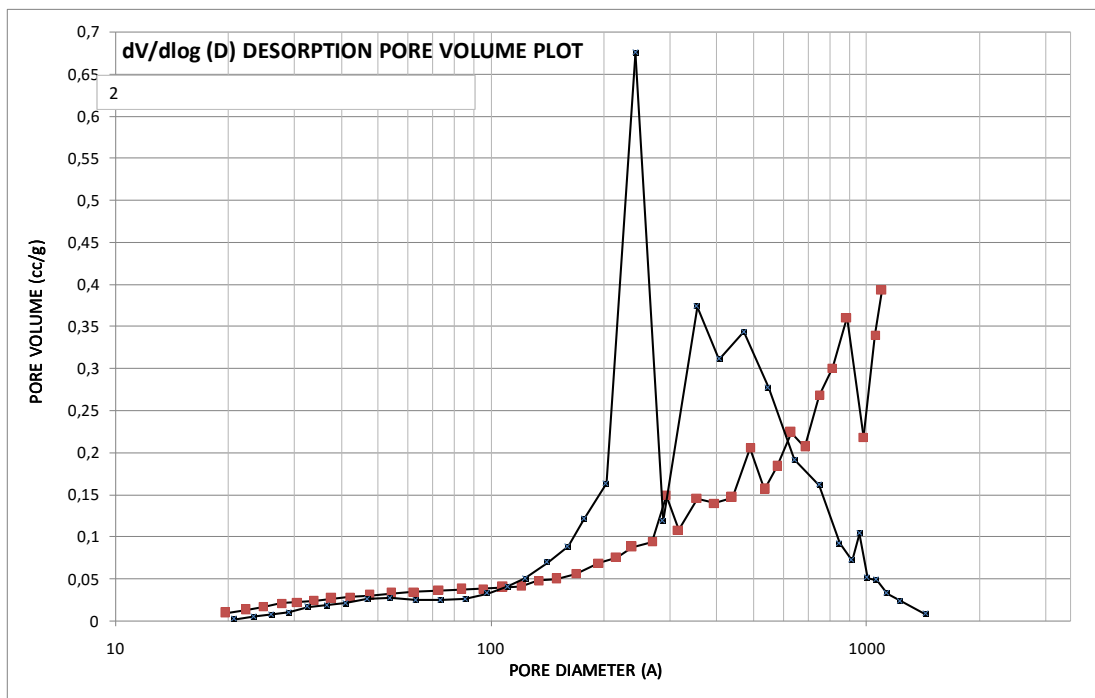


Figura D. 20 Volume dei pori di assorbimento/desorbimento di HT2 post test 600 °C 3 bar.

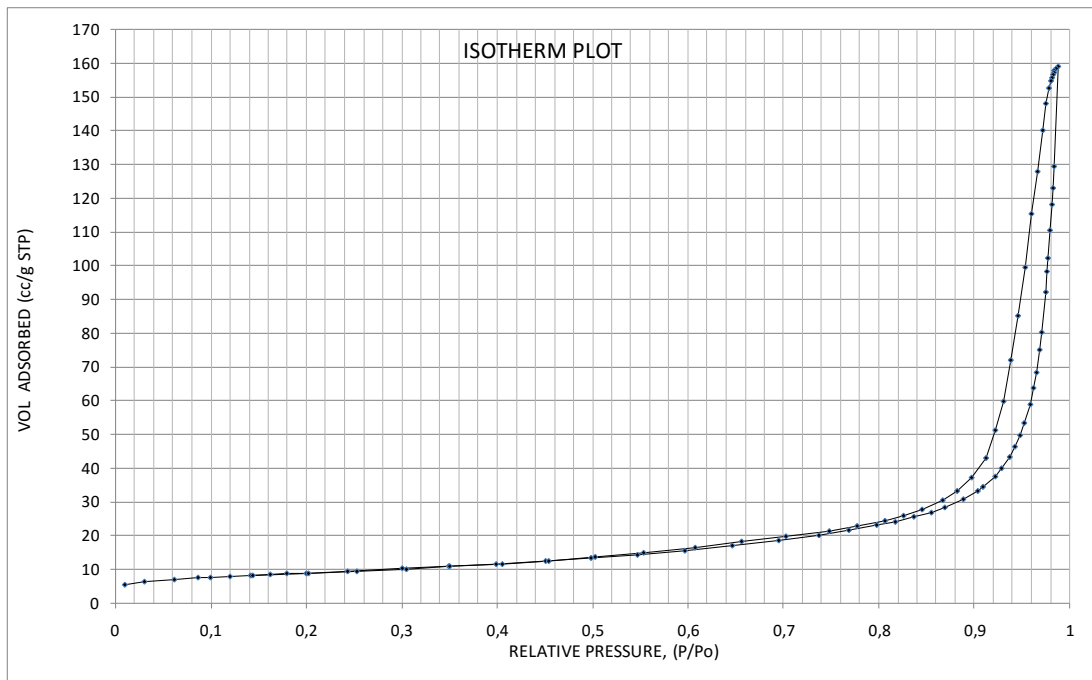


Figura D. 21 Isoterma di assorbimento/desorbimento di HT2 post test 600 °C 6 bar.

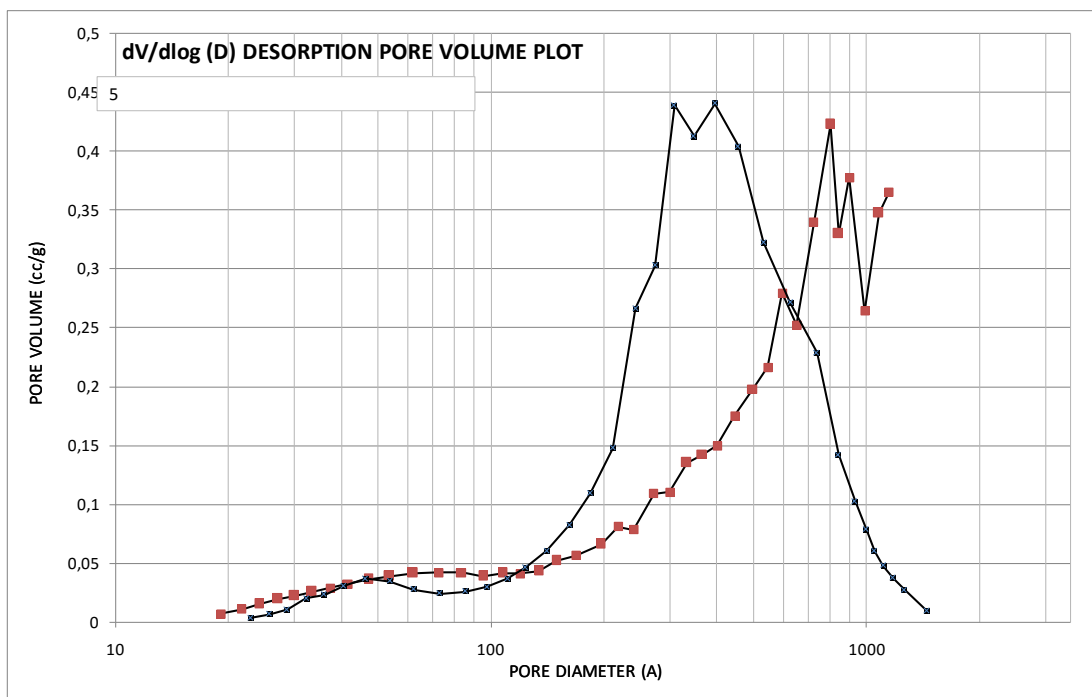


Figura D. 22 Volume dei pori di assorbimento/desorbimento di HT2 post test 600 °C 6 bar.

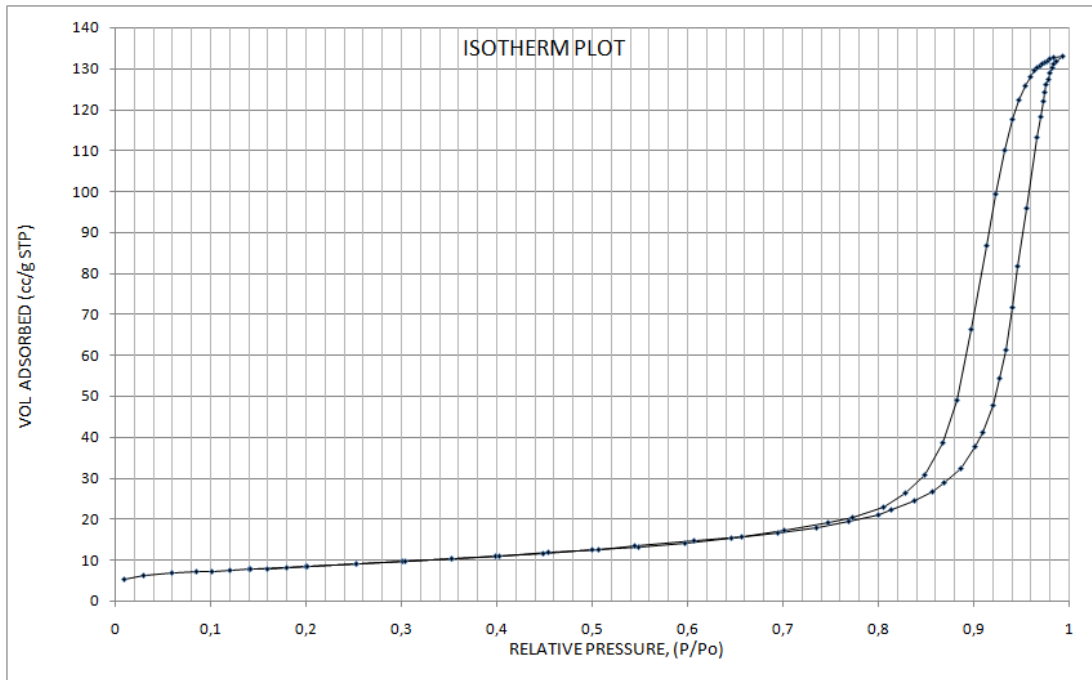


Figura D. 23 Isotherma di assorbimento/desorbimento di HT3 post test 600 °C 3 bar.

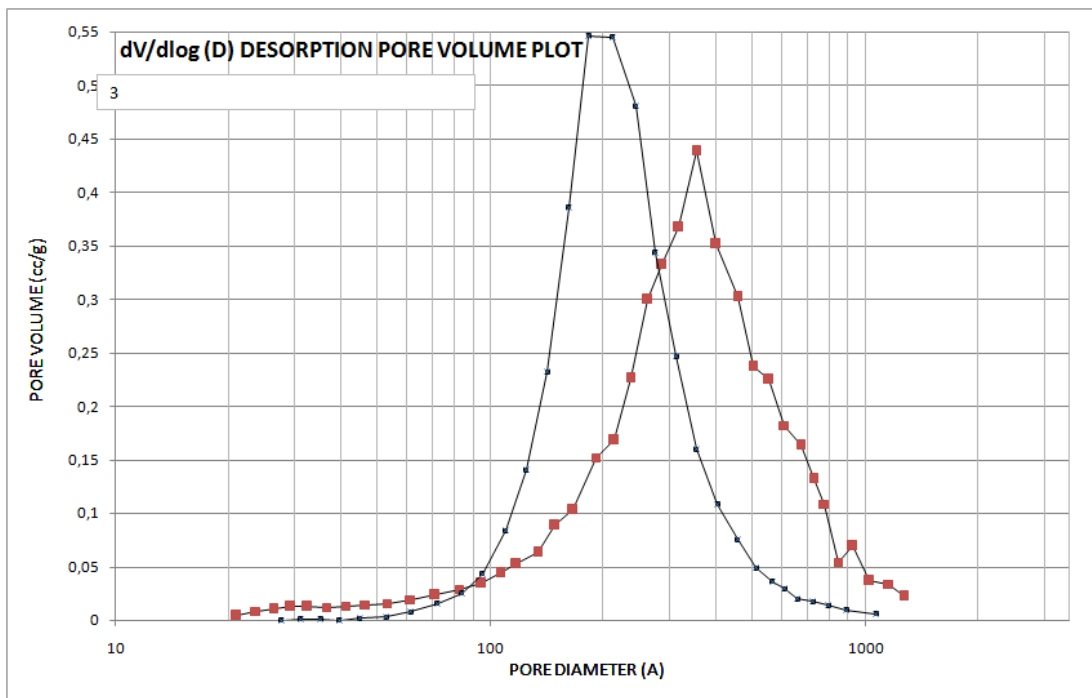


Figura D. 24 Volume dei pori di assorbimento/desorbimento di HT3 post test 600 °C 3 bar.

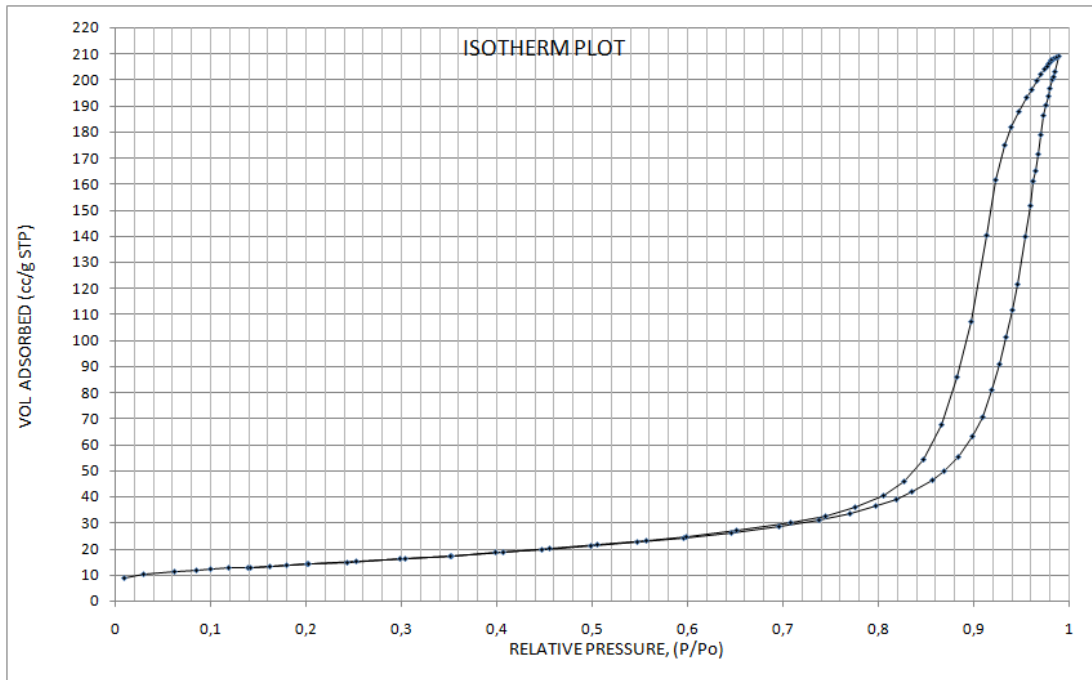


Figura D. 25 Isotherma di assorbimento/desorbimento di HT3 post test 600 °C 6 bar.

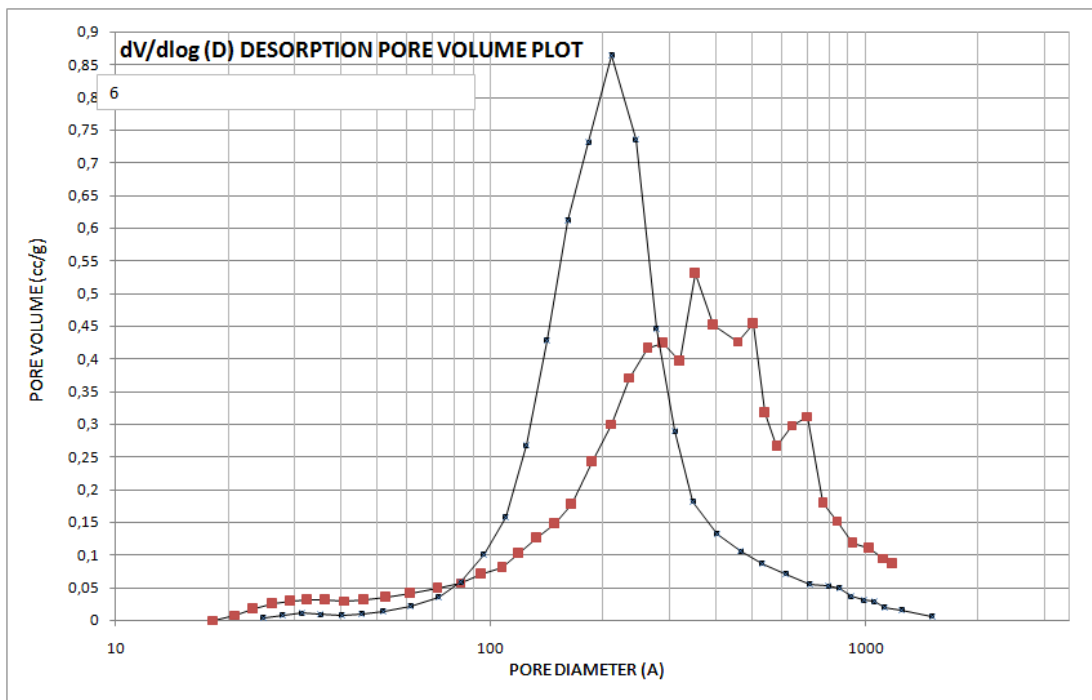


Figura D. 26 Volume dei pori di assorbimento/desorbimento di HT3 post test 600 °C 6 bar.

Appendice E: SEM-EDX

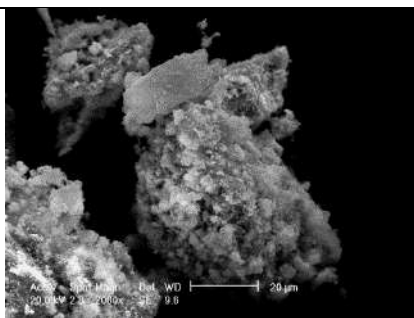


Figura E.1: Immagine SEM a grande ingrandimento (2000X) HT1K dopo calcinazione 500°C per 8 h

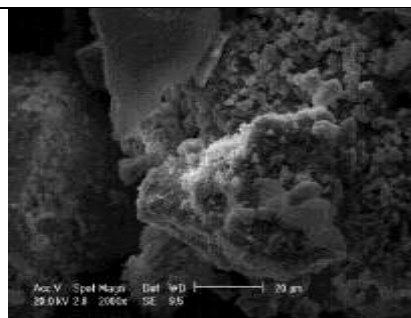


Figura E.2: Immagine SEM a grande ingrandimento (2000X) HT1K dopo calcinazione 500°C per 8 h

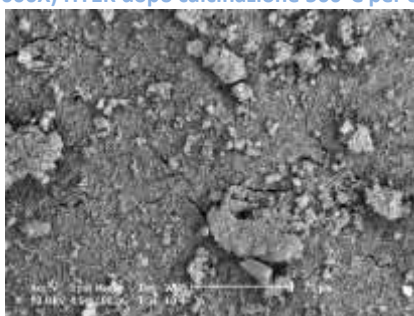


Figura E.3: Immagine SEM a grande ingrandimento (3000X) HT1K dopo calcinazione 500°C per 8 h

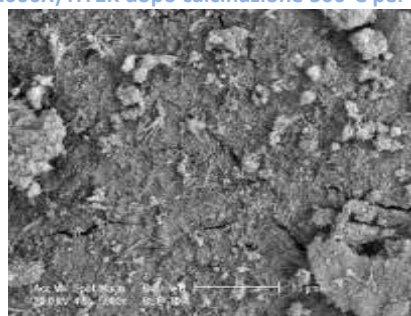


Figura E.4: Immagine SEM a grande ingrandimento (5000X) HT1K dopo calcinazione 500°C per 8 h

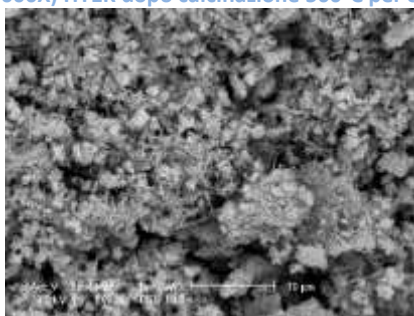


Figura E.5: Immagine SEM a grande ingrandimento (5000X) HT1K dopo calcinazione 500°C per 8 h

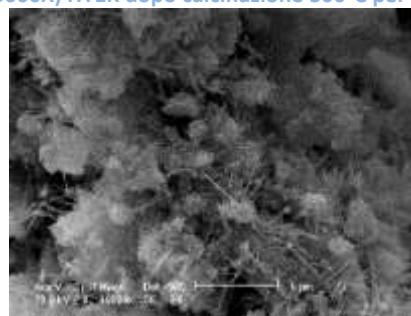


Figura E.6: Immagine SEM a grande ingrandimento (10000X) HT1K dopo calcinazione 500°C per 8 h

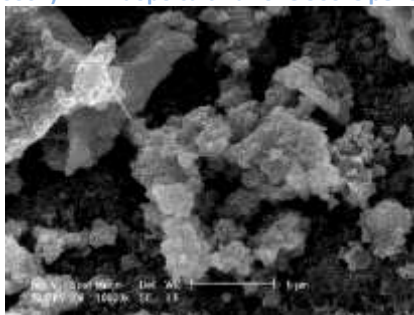


Figura E.7: Immagine SEM a grande ingrandimento (10000X) HT1K dopo calcinazione 500°C per 8 h

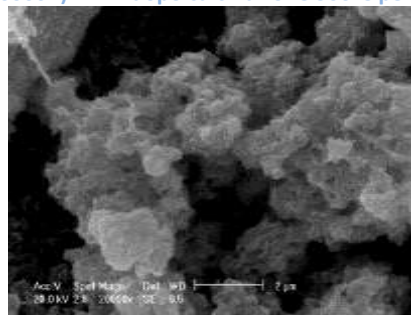


Figura E.8: Immagine SEM a grande ingrandimento (20000X) HT1K dopo calcinazione 500°C per 8 h

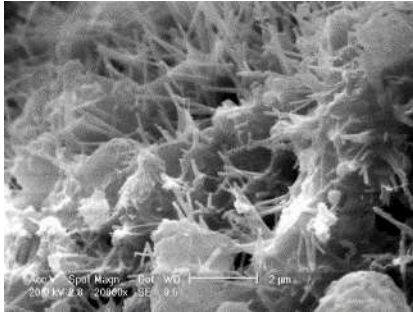


Figura E.9: Immagine SEM a grande ingrandimento (20000X) HT1K dopo calcinazione 500°C per 8 h

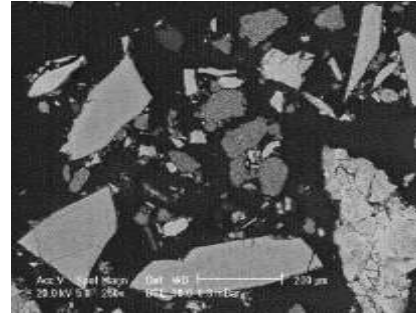


Figura E.10: Immagine SEM ingrandimento (250X) HT1K dopo calcinazione 500°C per 8 h lappato

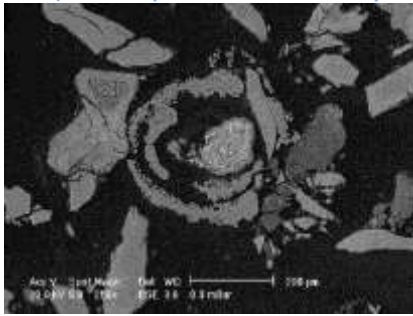


Figura E.11: Immagine SEM ingrandimento (250X) HT1K dopo calcinazione 500°C per 8 h lappato

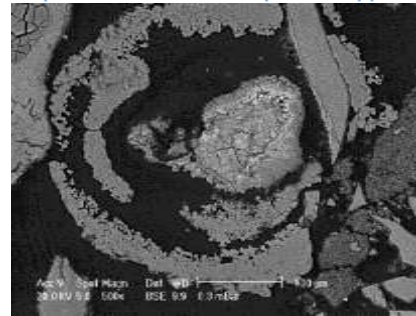


Figura E.12: Immagine SEM ingrandimento (500X) HT1K dopo calcinazione 500°C per 8 h lappato

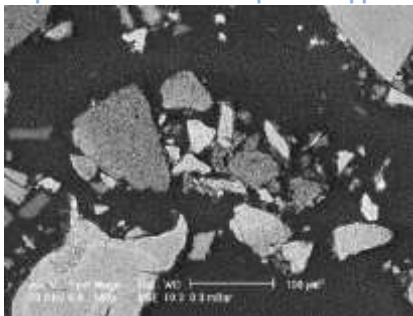


Figura E.13: Immagine SEM ingrandimento (500X) HT1K dopo calcinazione 500°C per 8 h lappato

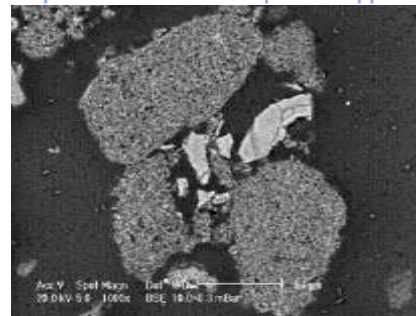


Figura E.14: Immagine SEM ingrandimento (1000X) HT1K dopo calcinazione 500°C per 8 h lappato

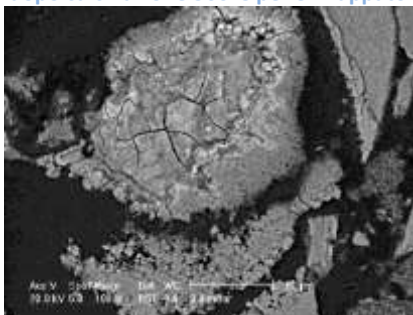


Figura E.15: Immagine SEM ingrandimento (1000X) HT1K dopo calcinazione 500°C per 8 h lappato

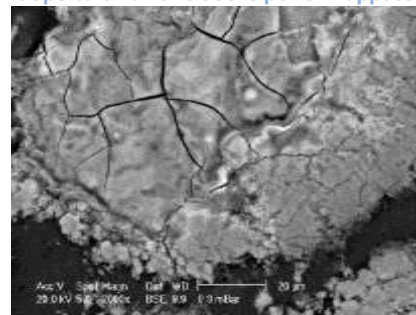


Figura E.16: Immagine SEM ingrandimento (2000X) HT1K dopo calcinazione 500°C per 8 h lappato

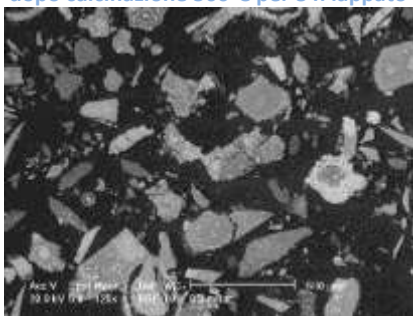


Figura E.17: Immagine SEM ingrandimento (125X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

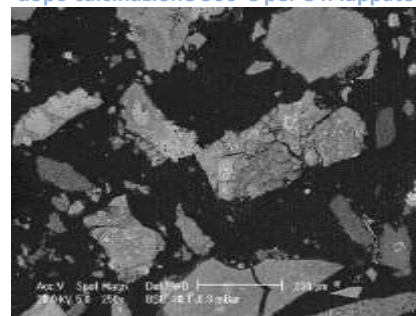


Figura E.18: Immagine SEM ingrandimento (250X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

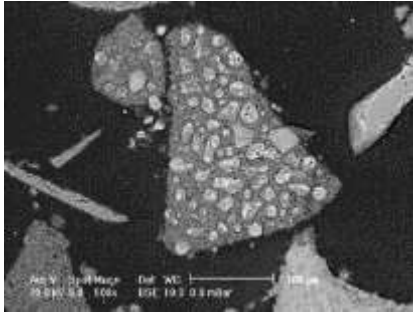


Figura E.19: Immagine SEM ingrandimento (500X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

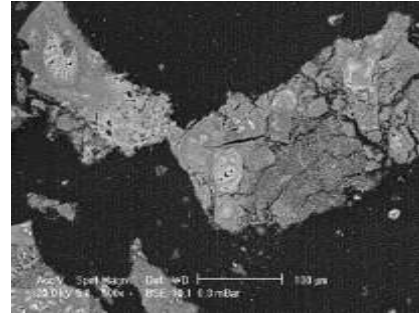


Figura E.20: Immagine SEM ingrandimento (500X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

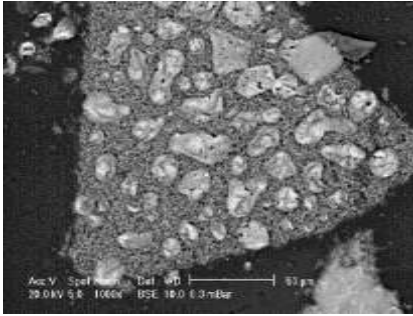


Figura E.21: Immagine SEM ingrandimento (1000X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

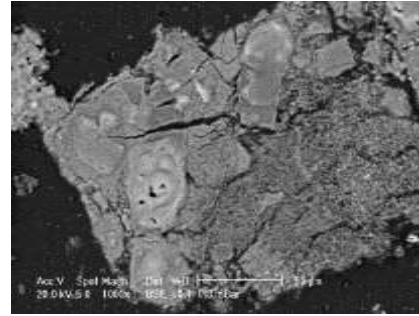


Figura E.22: Immagine SEM ingrandimento (1000X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

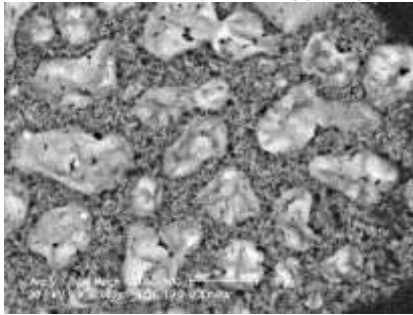


Figura E.23: Immagine SEM ingrandimento (2000X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte



Figura E.24: Immagine SEM ingrandimento (2000X) HT1K dopo calcinazione 500°C per 8 h lappato per 2 volte

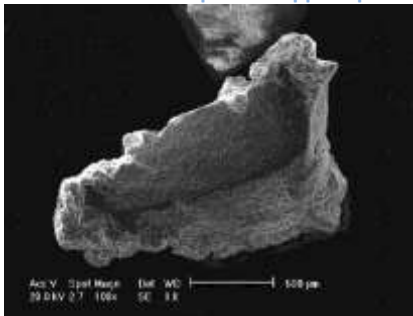


Figura E. 25: Immagine SEM ingrandimento (100X) HT1K dopo il test a T=350°C;P=3 atm;

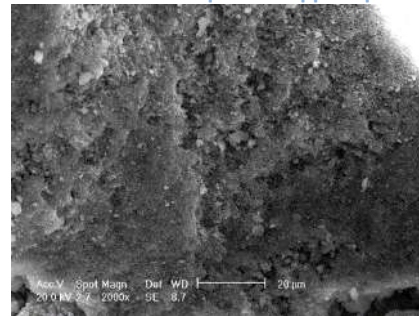


Figura E.26: Immagine SEM ingrandimento (2000X) HT1K dopo il test a T=350°C;P=3 atm;

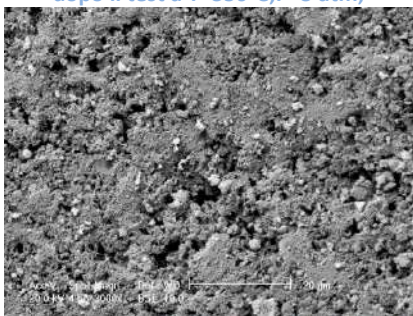


Figura E.27: Immagine SEM ingrandimento (3000X) HT1K dopo il test a T=350°C;P=3 atm;

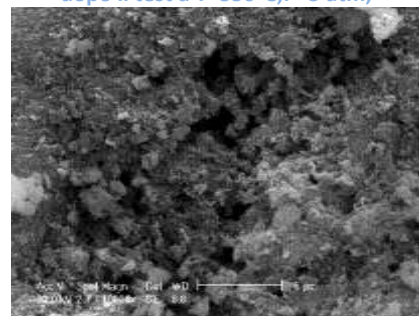


Figura E.28: Immagine SEM ingrandimento (10000X) HT1K dopo il test a T=350°C;P=3 atm;

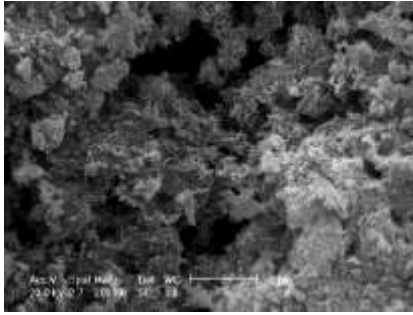


Figura E.29: Immagine SEM ingrandimento (20000X) HT1K dopo il test a T=350°C;P=3 atm;

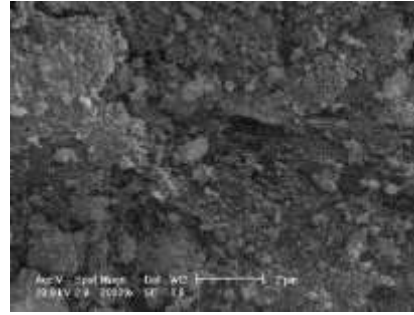


Figura E.30: Immagine SEM ingrandimento (20000X) HT1K dopo il test a T=350°C;P=3 atm;

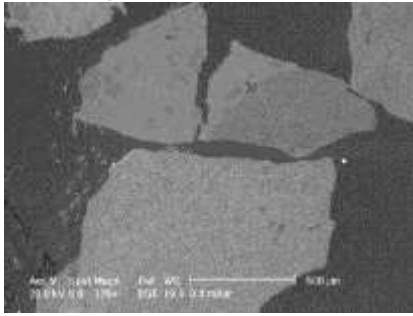


Figura E.31: Immagine SEM ingrandimento (125X) HT1K dopo il test a T=350°C;P=3 atm lappato;

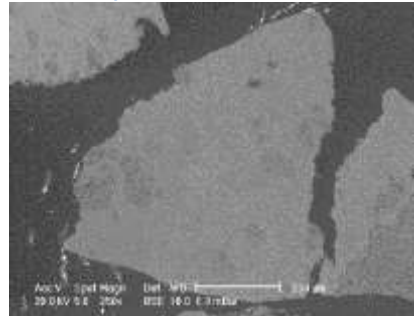


Figura E.32: Immagine SEM ingrandimento (250X) HT1K dopo il test a T=350°C;P=3 atm lappato;

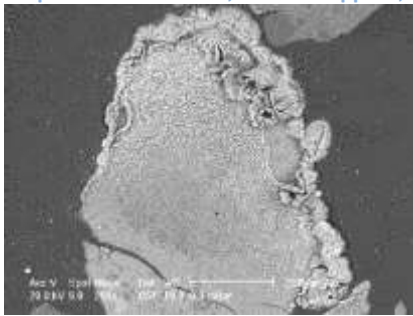


Figura E.33: Immagine SEM ingrandimento (250X) HT1K dopo il test a T=350°C;P=3 atm lappato;

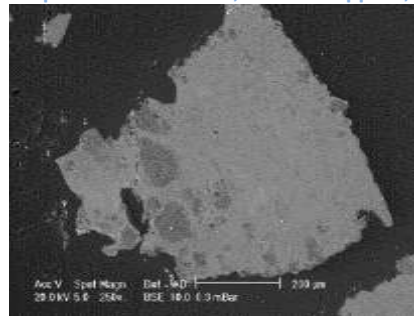


Figura E.34: Immagine SEM ingrandimento (250X) HT1K dopo il test a T=350°C;P=3 atm lappato;

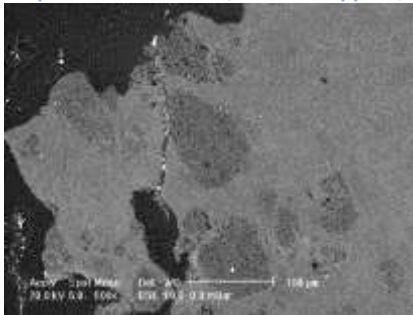


Figura E.35: Immagine SEM ingrandimento (500X) HT1K dopo il test a T=350°C;P=3 atm lappato;

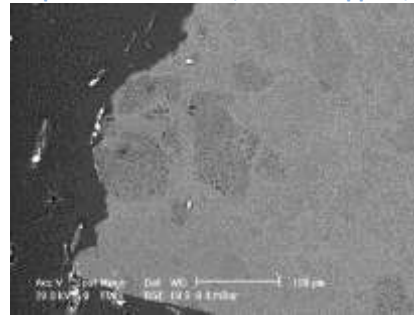


Figura E.36: Immagine SEM ingrandimento (500X) HT1K dopo il test a T=350°C;P=3 atm lappato;

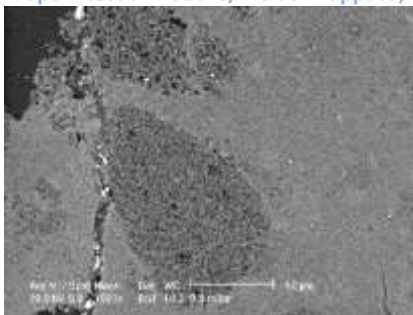


Figura E.37: Immagine SEM ingrandimento (1000X) HT1K dopo il test a T=350°C;P=3 atm lappato;

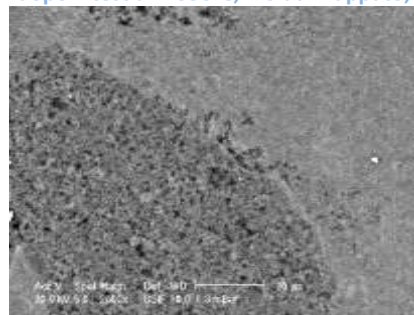


Figura E.38: Immagine SEM ingrandimento (2000X) HT1K dopo il test a T=350°C;P=3 atm lappato;

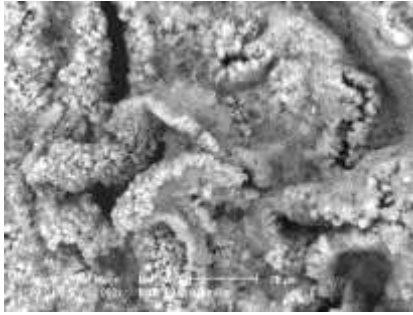


Figura E.39: Immagine SEM ingrandimento (2000X) HT1K dopo il test a T=350°C;P=3 atm lappato;

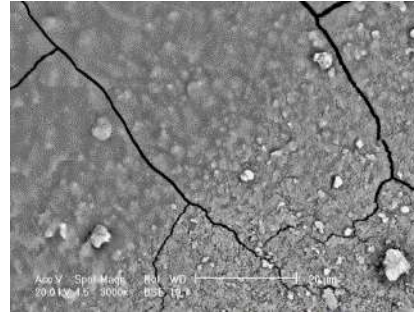


Figura E.40: Immagine SEM ingrandimento (3000X) HT1K dopo il test a T=350°C;P=6 atm;

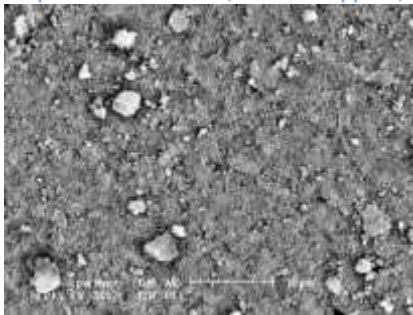


Figura E.41: Immagine SEM ingrandimento (5000X) HT1K dopo il test a T=350°C;P=6 atm;

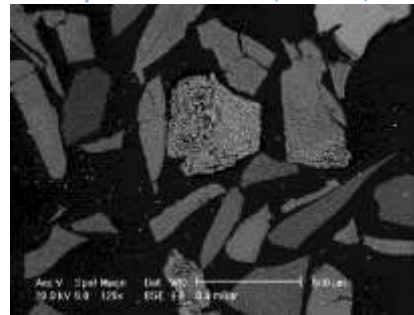


Figura E.42: Immagine SEM ingrandimento (125X) HT1K dopo il test a T=350°C;P=6 atm lappato;

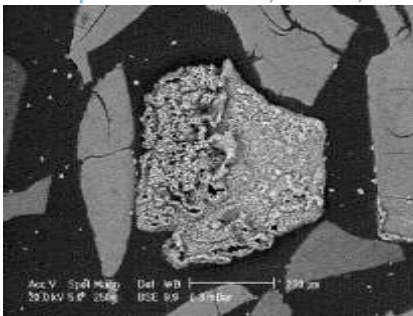


Figura E.43: Immagine SEM ingrandimento (250X) HT1K dopo il test a T=350°C;P=6 atm lappato;

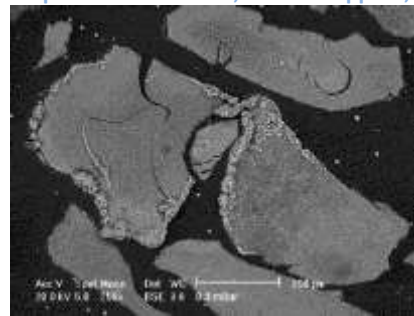


Figura E.44: Immagine SEM ingrandimento (250X) HT1K dopo il test a T=350°C;P=6 atm lappato;

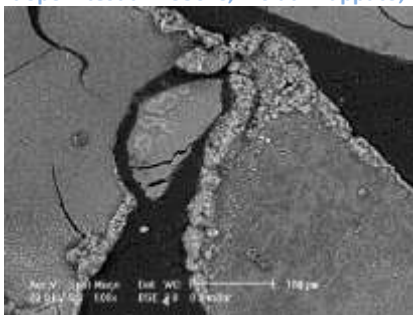


Figura E.45: Immagine SEM ingrandimento (500X) HT1K dopo il test a T=350°C;P=6 atm lappato;

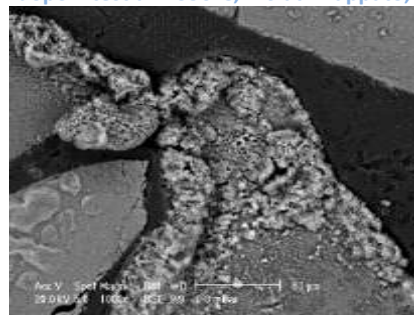


Figura E.46: Immagine SEM ingrandimento (1000X) HT1K dopo il test a T=350°C;P=6 atm lappato;

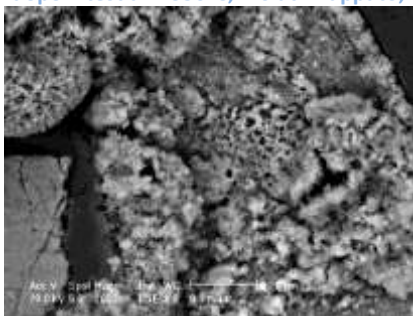


Figura E.47: Immagine SEM ingrandimento (2000X) HT1K dopo il test a T=350°C;P=6 atm lappato;

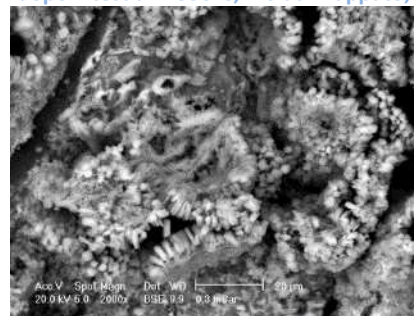


Figura E.48: Immagine SEM ingrandimento (2000X) HT1K dopo il test a T=350°C;P=6 atm lappato;

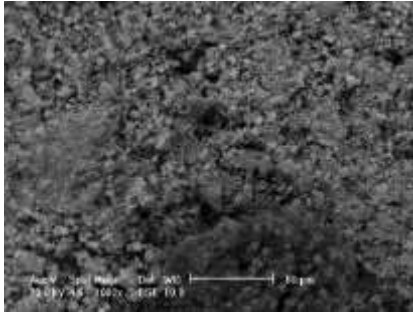


Figura E.49: Immagine SEM ingrandimento (1000X) HT2 dopo calcinazione 800°C per 8 h;

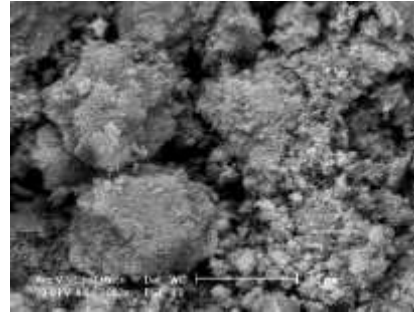


Figura E.50: Immagine SEM ingrandimento (3000X) HT2 dopo calcinazione 800°C per 8 h;

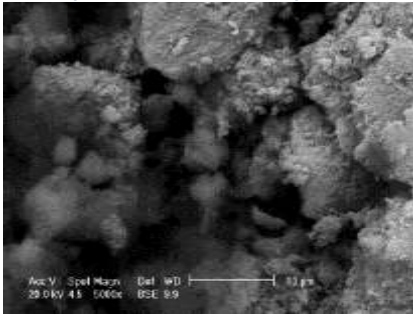


Figura E.51: Immagine SEM ingrandimento (5000X) HT2 dopo calcinazione 800°C per 8 h;

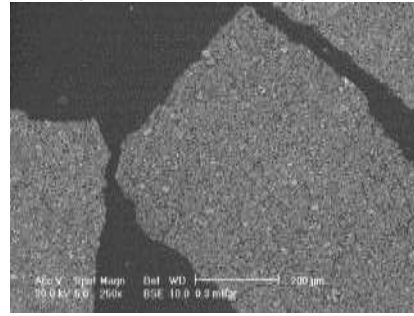


Figura E.52: Immagine SEM ingrandimento (250X) HT2 dopo calcinazione 800°C per 8 h lappato;

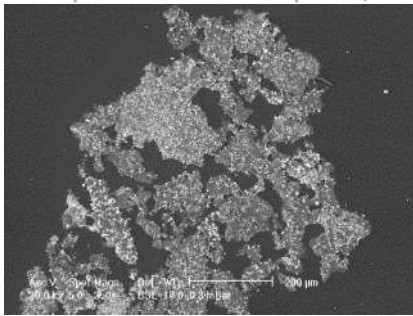


Figura E.53: Immagine SEM ingrandimento (250X) HT2 dopo calcinazione 800°C per 8 h lappato;

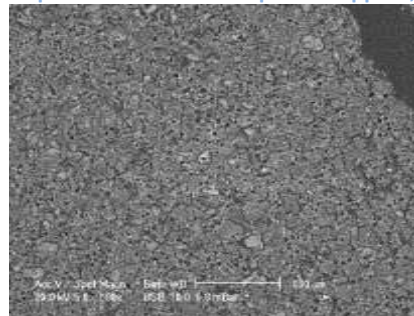


Figura E.54: Immagine SEM ingrandimento (500X) HT2 dopo calcinazione 800°C per 8 h lappato;

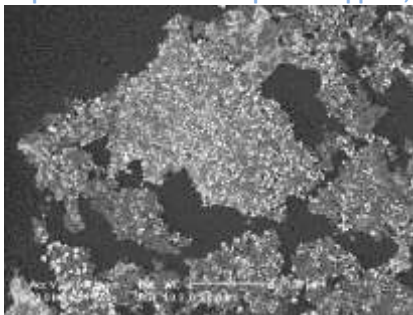


Figura E.55: Immagine SEM ingrandimento (500X) HT2 dopo calcinazione 800°C per 8 h lappato;

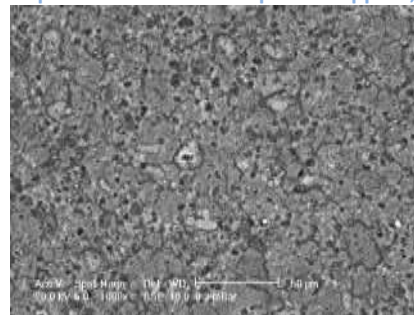


Figura E.56: Immagine SEM ingrandimento (1000X) HT2 dopo calcinazione 800°C per 8 h lappato;

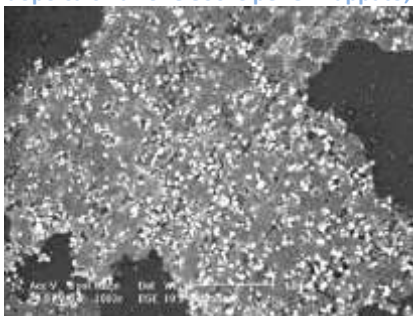


Figura E.57: Immagine SEM ingrandimento (1000X) HT2 dopo calcinazione 800°C per 8 h lappato;

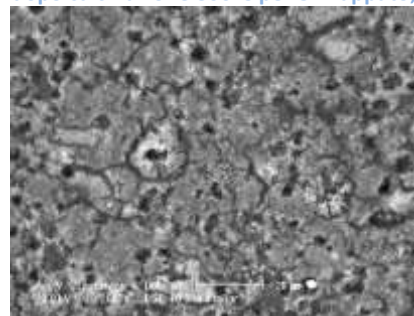


Figura E.58: Immagine SEM ingrandimento (2000X) HT2 dopo calcinazione 800°C per 8 h lappato;

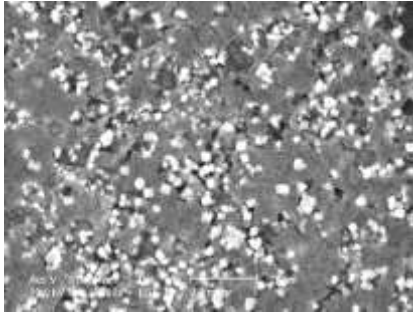


Figura E.59: Immagine SEM ingrandimento (2000X) HT2 dopo calcinazione 800°C per 8 h lappato;

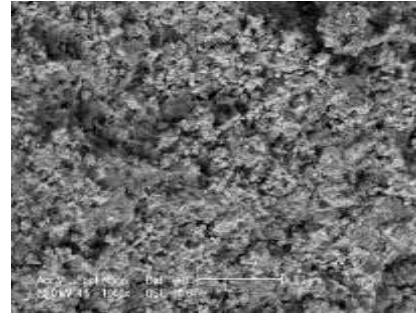


Figura E.60: Immagine SEM ingrandimento (1000X) HT2 dopo test T 600°C P 3 atm;

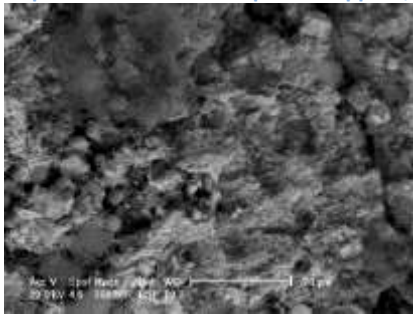


Figura E.61: Immagine SEM ingrandimento (3000X) HT2 dopo test T 600°C P 3 atm;

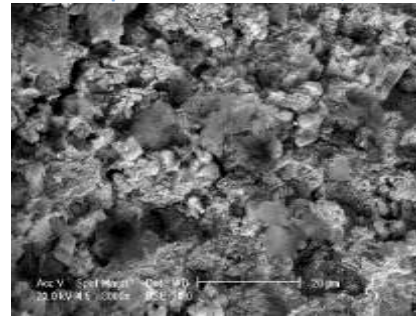


Figura E.62: Immagine SEM ingrandimento (3000X) HT2 dopo test T 600°C P 3 atm;

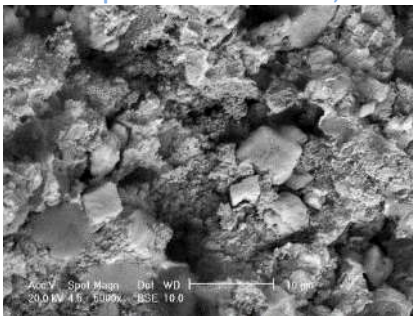


Figura E.63: Immagine SEM ingrandimento (5000X) HT2 dopo test T 600°C P 3 atm;

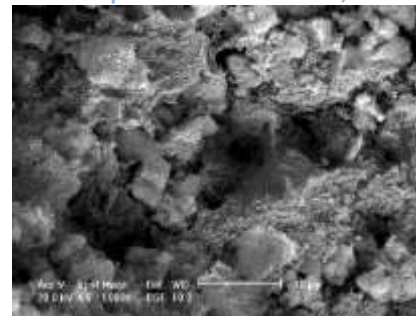


Figura E.64: Immagine SEM ingrandimento (5000X) HT2 dopo test T 600°C P 3 atm;

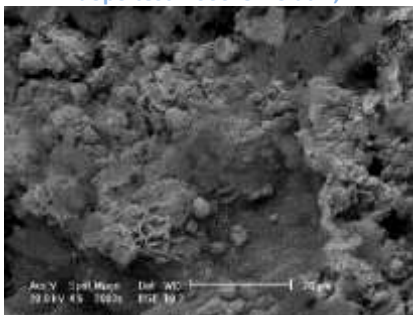


Figura E.65: Immagine SEM ingrandimento (3000X) HT2 dopo test T 600°C P 6 atm;

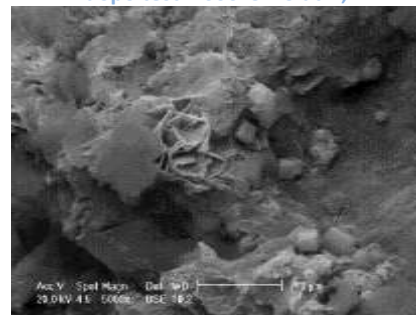


Figura E.66: Immagine SEM ingrandimento (5000X) HT2 dopo test T 600°C P 6 atm;

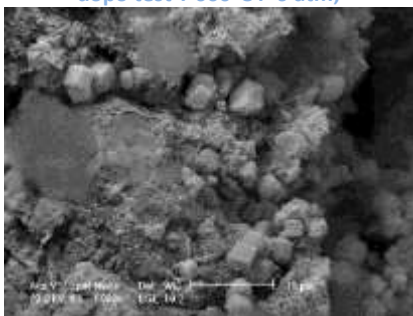


Figura E.67: Immagine SEM ingrandimento (5000X) HT2 dopo test T 600°C P 6 atm;

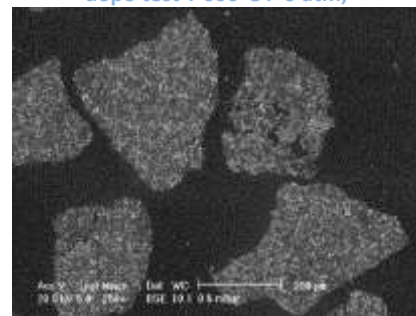


Figura E.68: Immagine SEM ingrandimento (250X) HT2 dopo test T 600°C P 6 atm lappato;

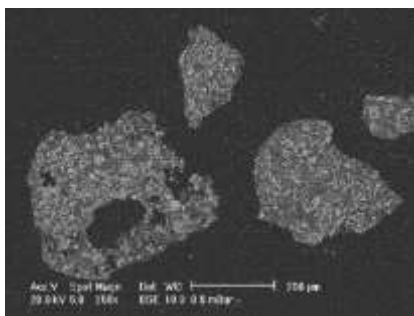


Figura E.69: Immagine SEM ingrandimento (250X) HT2 dopo test T 600°C P 6 atm lappato;

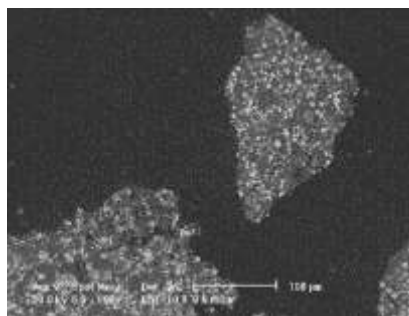


Figura E.70: Immagine SEM ingrandimento (500X) HT2 dopo test T 600°C P 6 atm lappato;

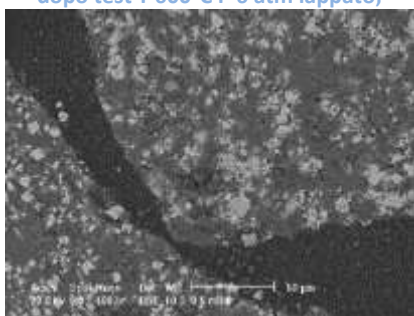


Figura E.71: Immagine SEM ingrandimento (1000X) HT2 dopo test T 600°C P 6 atm lappato;

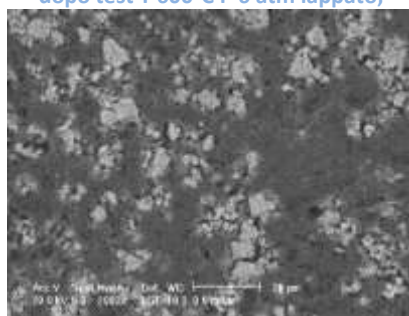


Figura E.72: Immagine SEM ingrandimento (2000X) HT2 dopo test T 600°C P 6 atm lappato;

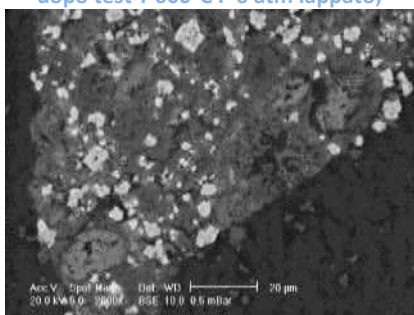


Figura E.73: Immagine SEM ingrandimento (2000X) HT2 dopo test T 600°C P 6 atm lappato;

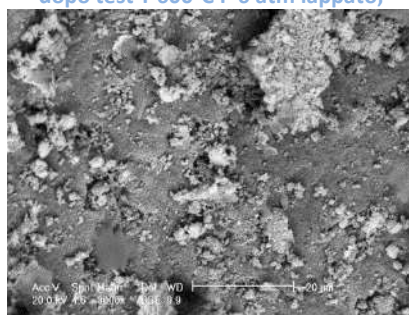


Figura E.74: Immagine SEM ingrandimento (3000X) HT3 dopo calcinazione 800 °C per 8 h;

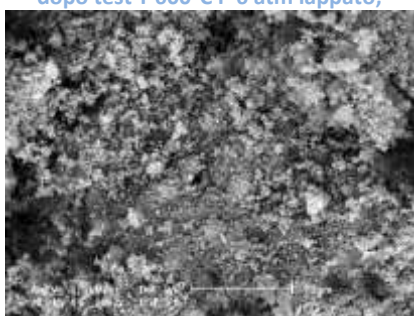


Figura E.75: Immagine SEM ingrandimento (3000X) HT3 dopo calcinazione 800 °C per 8 h;

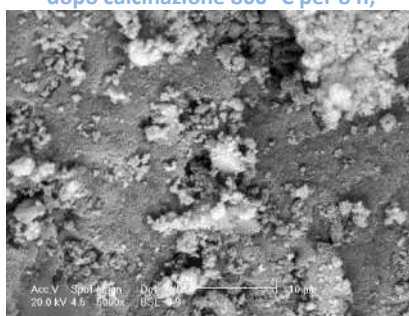


Figura E.76: Immagine SEM ingrandimento (5000X) HT3 dopo calcinazione 800 °C per 8 h;

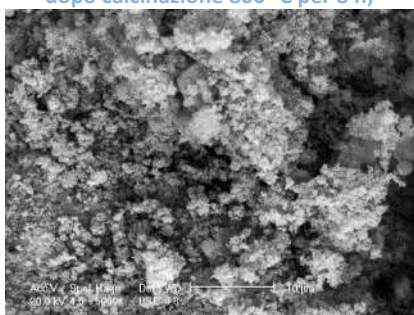


Figura E.77: Immagine SEM ingrandimento (5000X) HT3 dopo calcinazione 800 °C per 8 h;

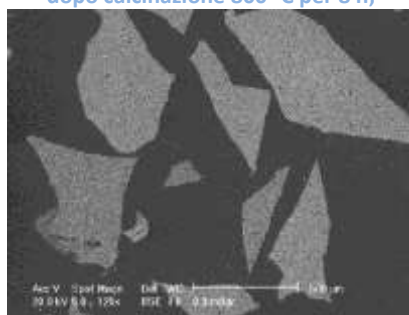


Figura E.78: Immagine SEM ingrandimento (125X) HT3 dopo calcinazione 800 °C per 8 h lappato;

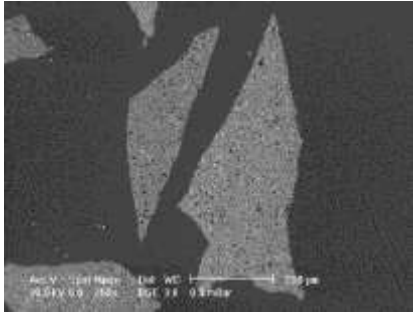


Figura E.79: Immagine SEM ingrandimento (250X) HT3 dopo calcinazione 800 °C per 8 h lappato;

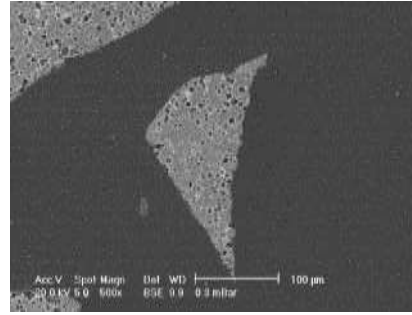


Figura E.80: Immagine SEM ingrandimento (500X) HT3 dopo calcinazione 800 °C per 8 h lappato;

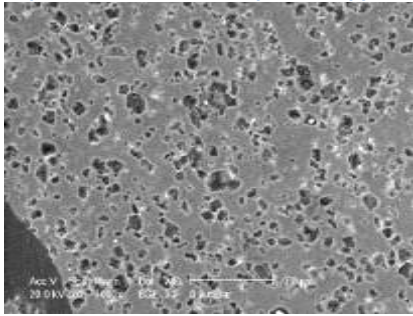


Figura E.81: Immagine SEM ingrandimento (1000X) HT3 dopo calcinazione 800 °C per 8 h lappato;

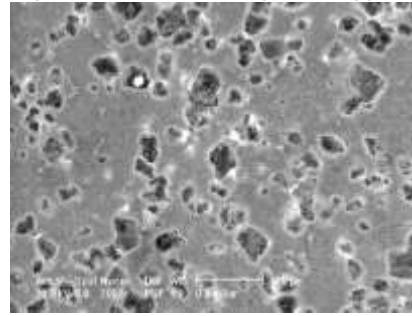


Figura E.82: Immagine SEM ingrandimento (2000X) HT3 dopo calcinazione 800 °C per 8 h lappato;

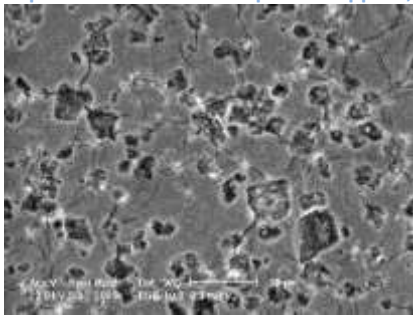


Figura E.83: Immagine SEM ingrandimento (2000X) HT3 dopo calcinazione 800 °C per 8 h lappato;

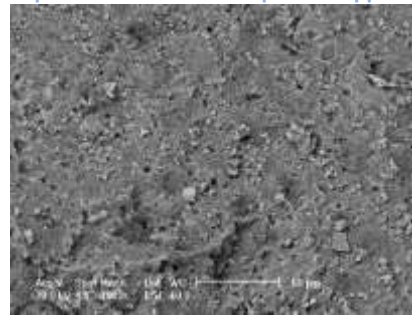


Figura E.84: Immagine SEM ingrandimento (1000X) HT3 dopo test T 600°C P 3 atm ;

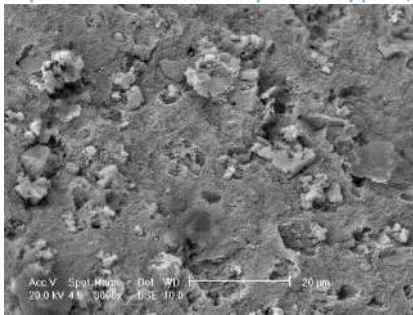


Figura E.85: Immagine SEM ingrandimento (3000X) HT3 dopo test T 600°C P 3 atm ;

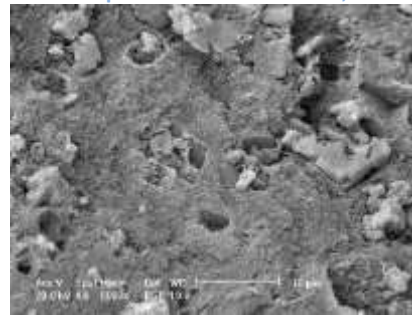


Figura E.86: Immagine SEM ingrandimento (5000X) HT3 dopo test T 600°C P 3 atm ;

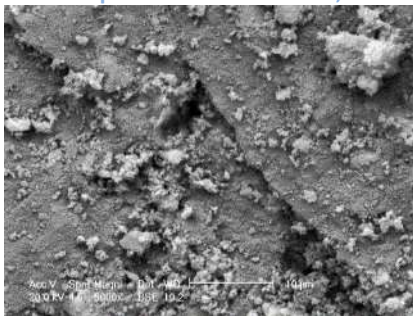


Figura E.87: Immagine SEM ingrandimento (5000X) HT3 dopo test T 600°C P 3 atm ;

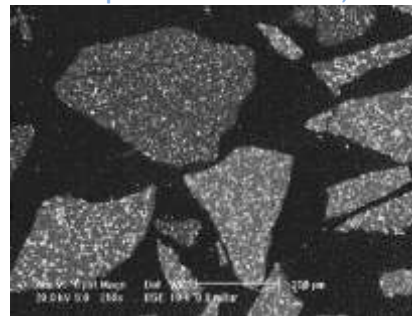


Figura E.88: Immagine SEM ingrandimento (250X) HT3 dopo test T 600°C P 3 atm lappato ;

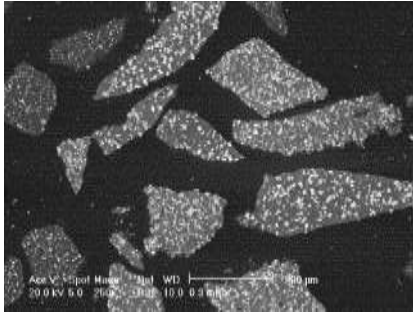


Figura E.89: Immagine SEM ingrandimento (250X) HT3 dopo test T 600°C P 3 atm lappato ;

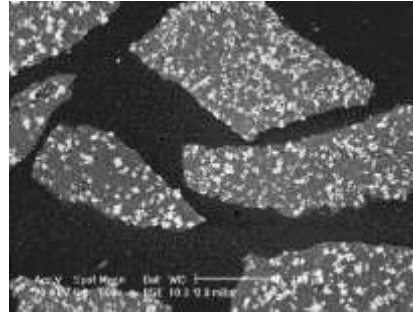


Figura E.90: Immagine SEM ingrandimento (500X) HT3 dopo test T 600°C P 3 atm lappato ;

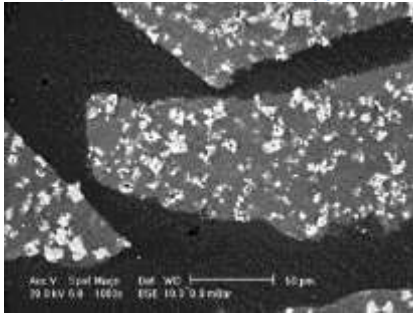


Figura E.91: Immagine SEM ingrandimento (1000X) HT3 dopo test T 600°C P 3 atm lappato ;

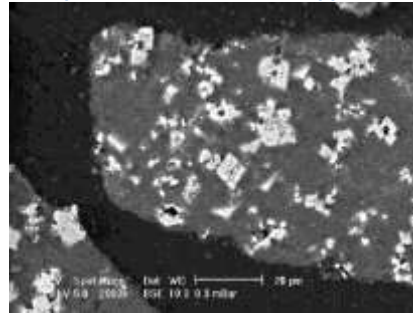


Figura E.92: Immagine SEM ingrandimento (2000X) HT3 dopo test T 600°C P 3 atm lappato ;

Appendice F: Risultati test di cattura.

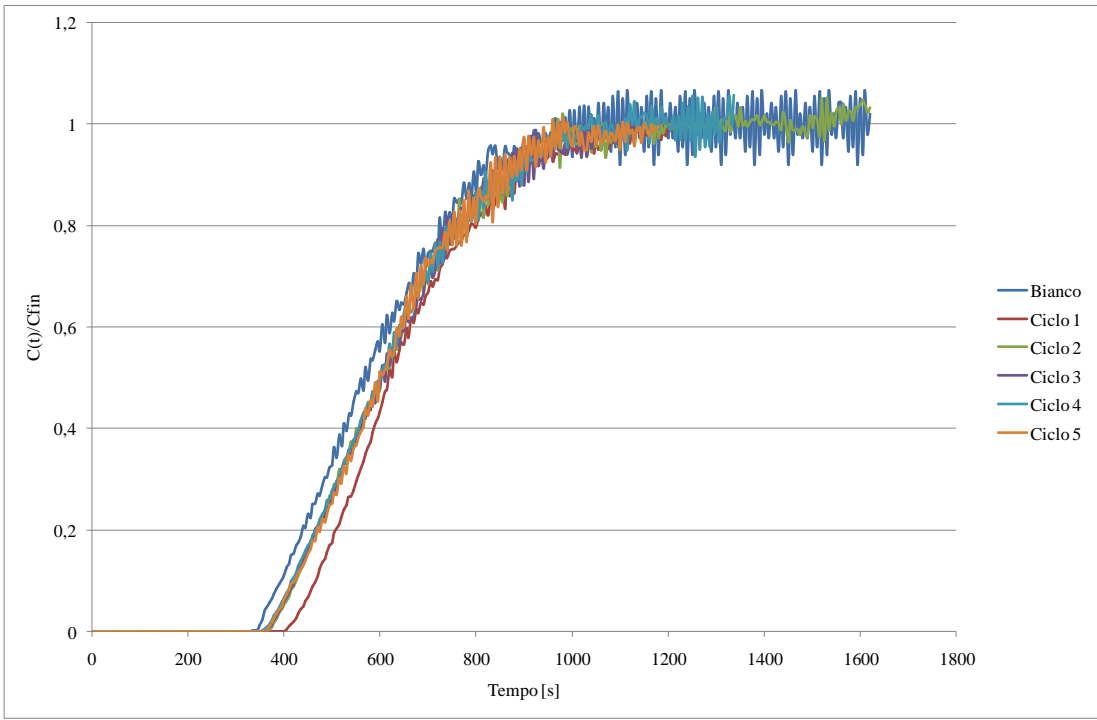


Figura F. 1 Curva di assorbimento della CO₂ HT1T350P3.

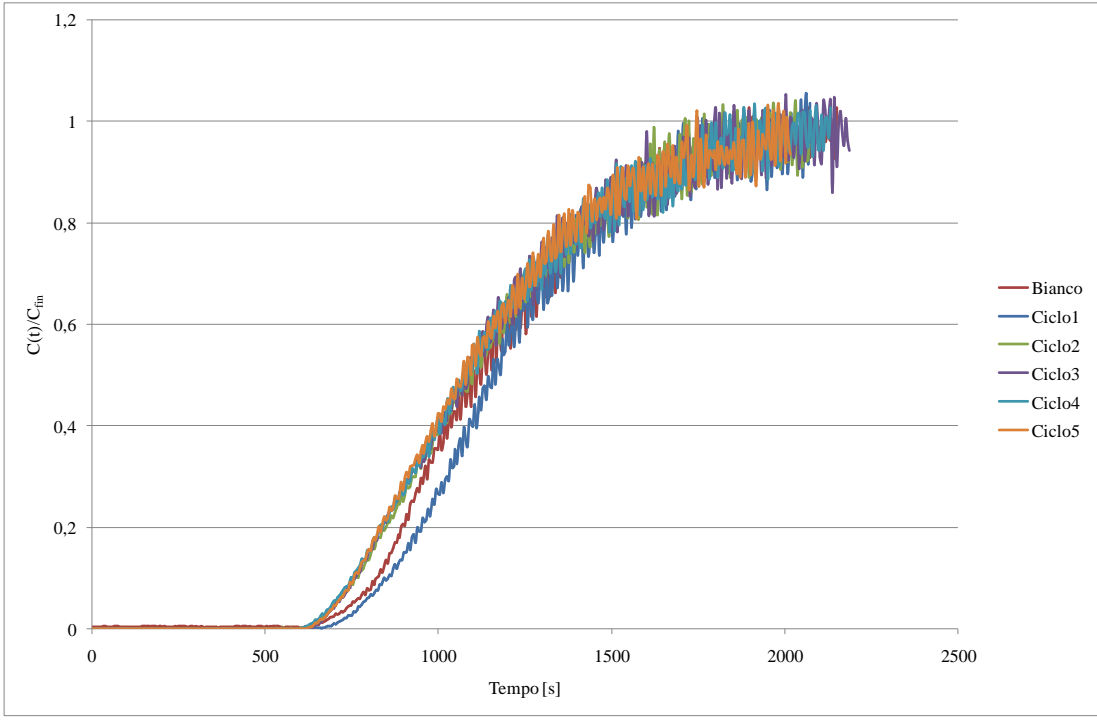


Figura F. 2 Curva di assorbimento della CO₂ HT1T350P6.

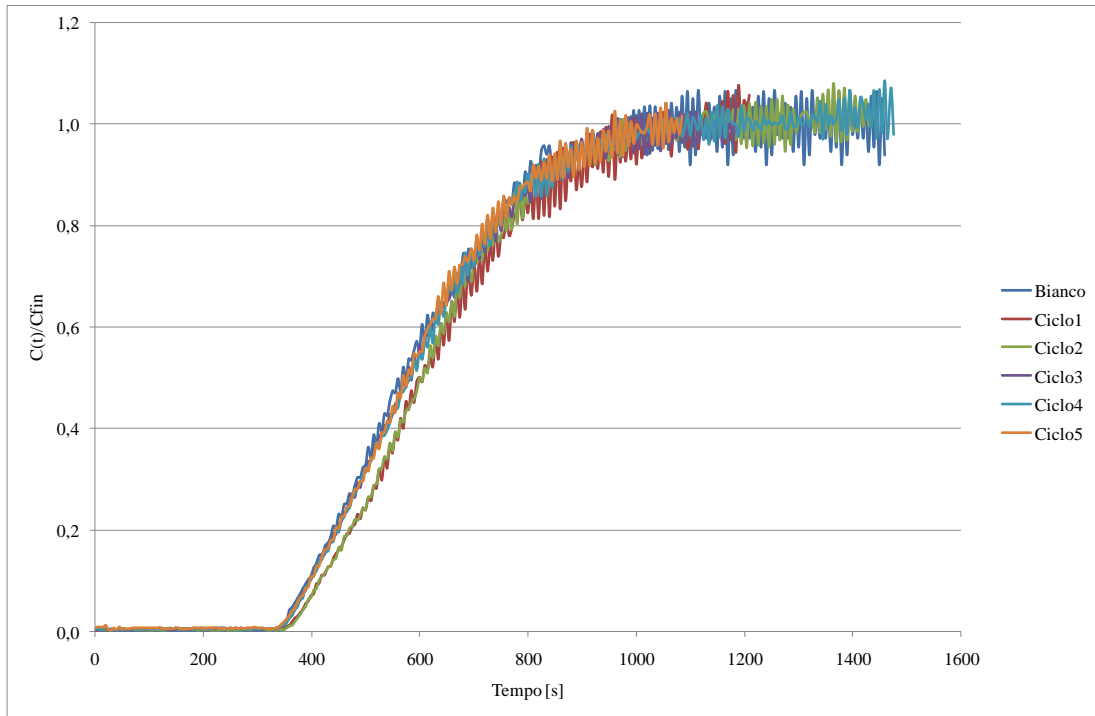


Figura F. 3 Curva di assorbimento della CO₂ HT1T600P3.

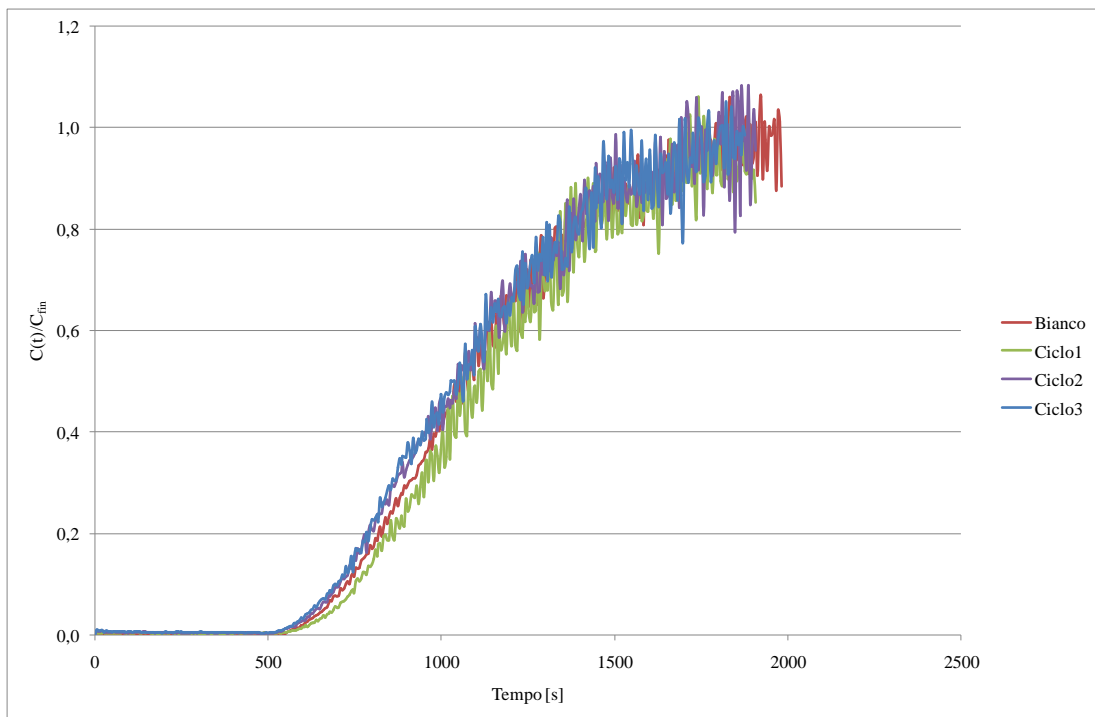


Figura F. 4 Curva di assorbimento della CO₂ HT1T600P6.

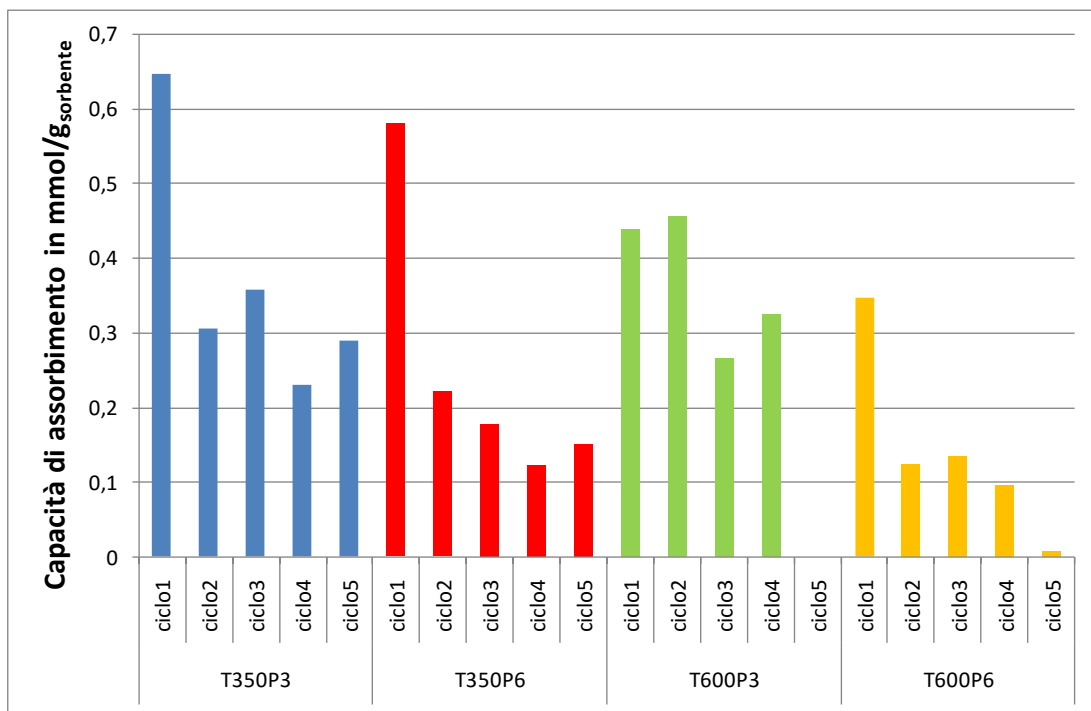


Figura F. 5 CO₂ catturata al variare delle condizioni per HT1.

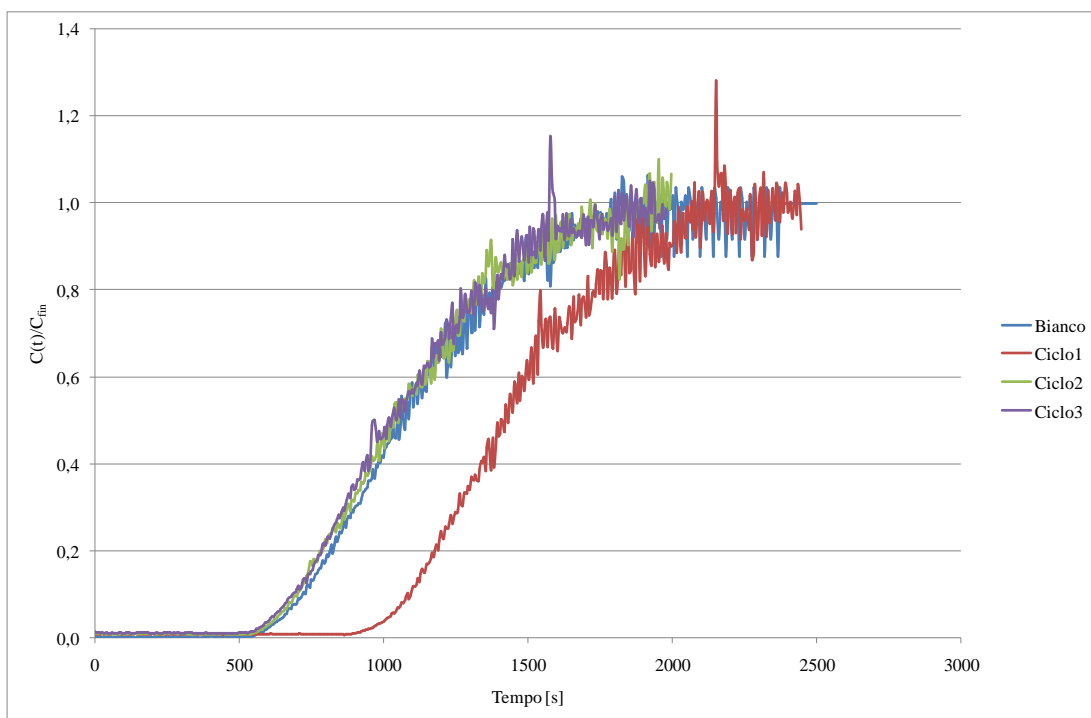


Figura F. 6 Curva di assorbimento CO₂ HT1KT350P3.

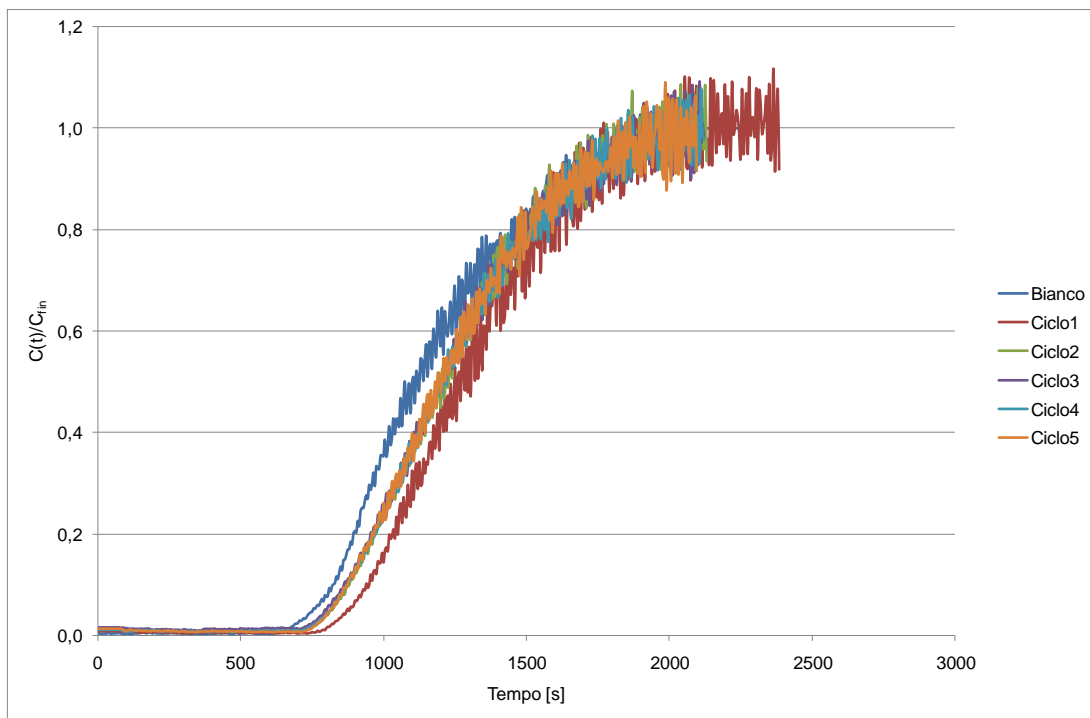


Figura F. 7 Curva di assorbimento CO₂ HT1KT350P6.

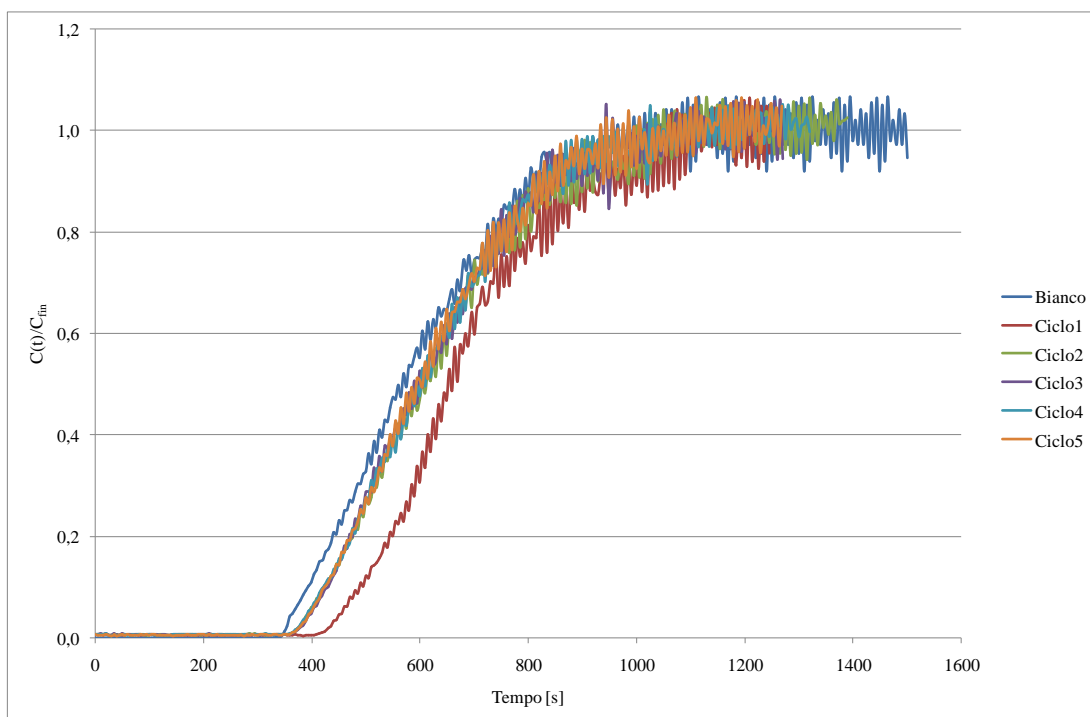


Figura F. 8 Curva di assorbimento CO₂ HT1KT600P3.

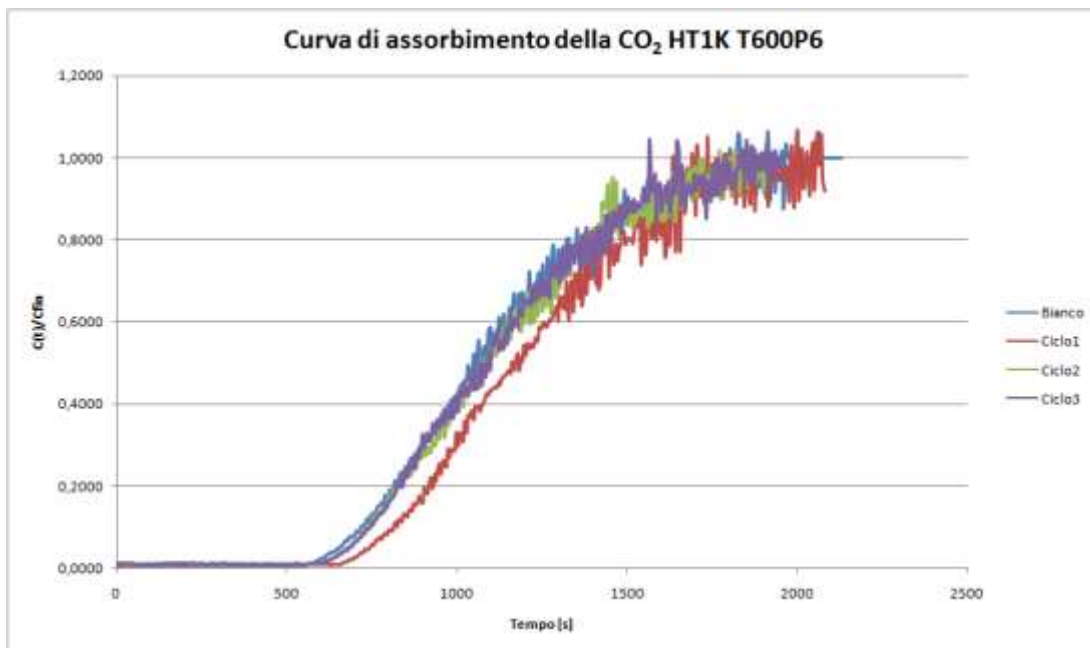


Figura F. 9 Curva di assorbimento CO₂ HT1KT600P6.

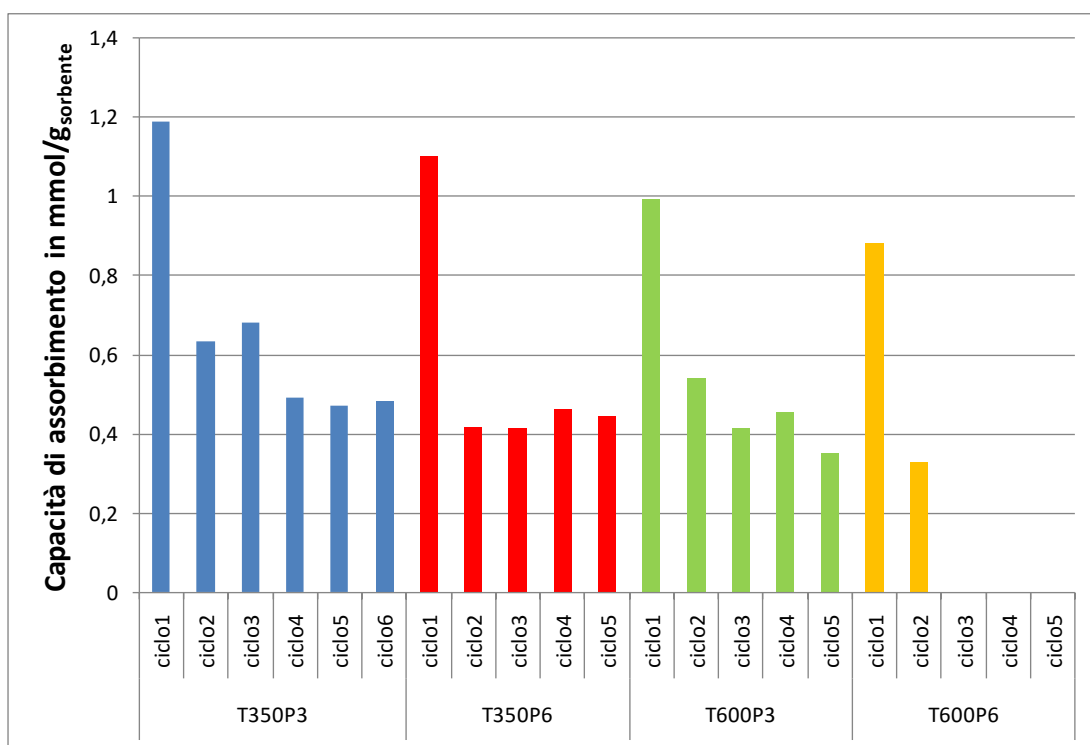


Figura F. 10 CO₂ catturata al variare delle condizioni per HT1K.

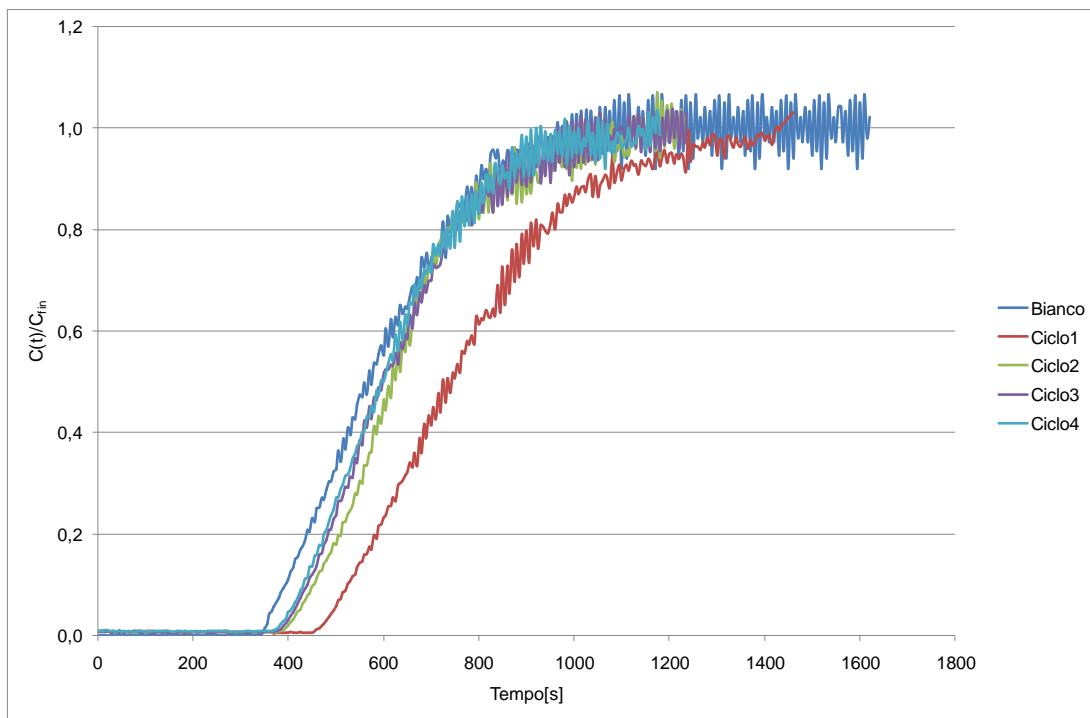


Figura F. 11 Curva di assorbimento della CO₂ per HT2 T350P3.

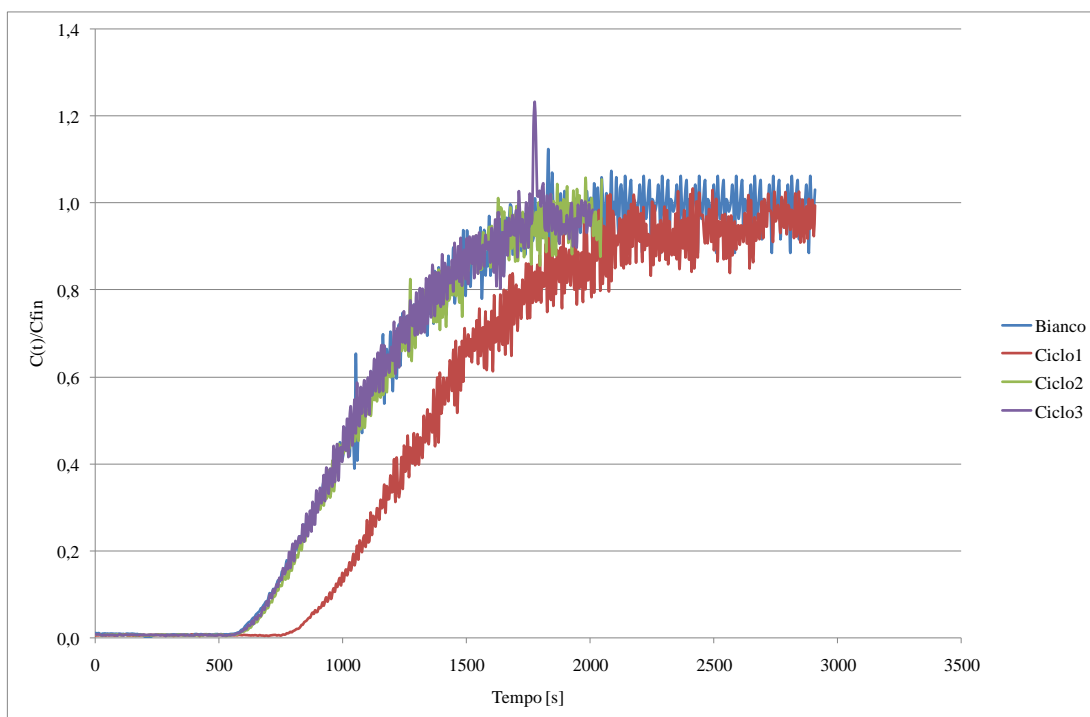


Figura F. 12 Curva di assorbimento della CO₂ per HT2 T350P6.

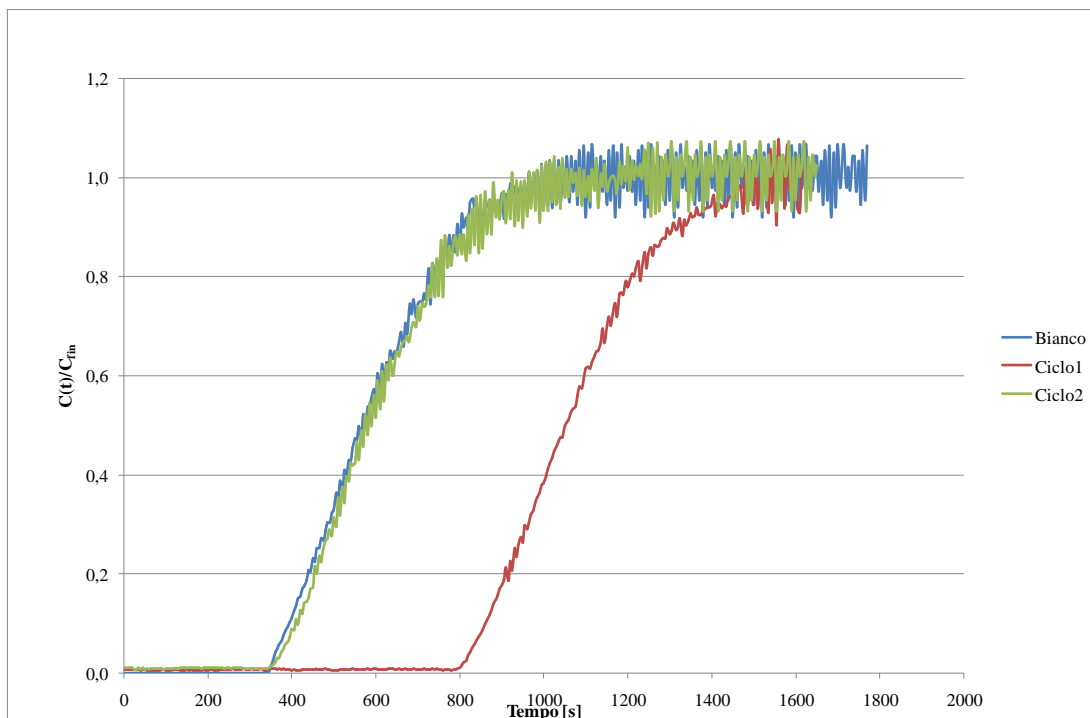


Figura F. 13 Curva di assorbimento della CO₂HT2T600P3, cicli in PSA.

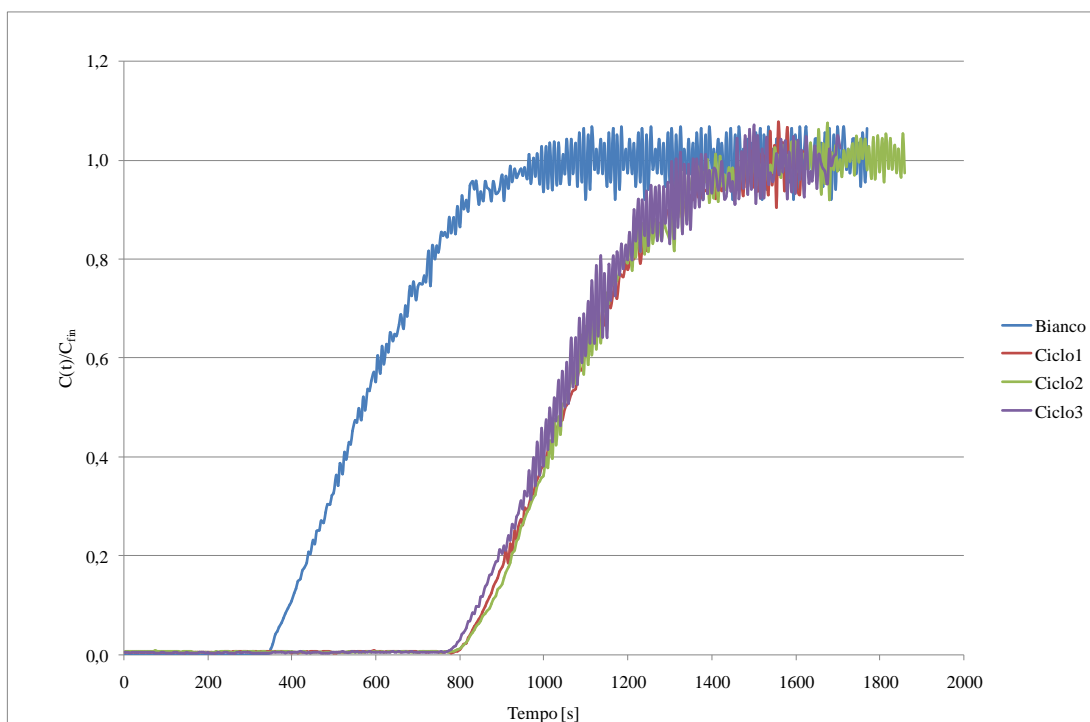


Figura F. 14 Curva di assorbimento della CO₂HT2T600P3, cicli in TSA.

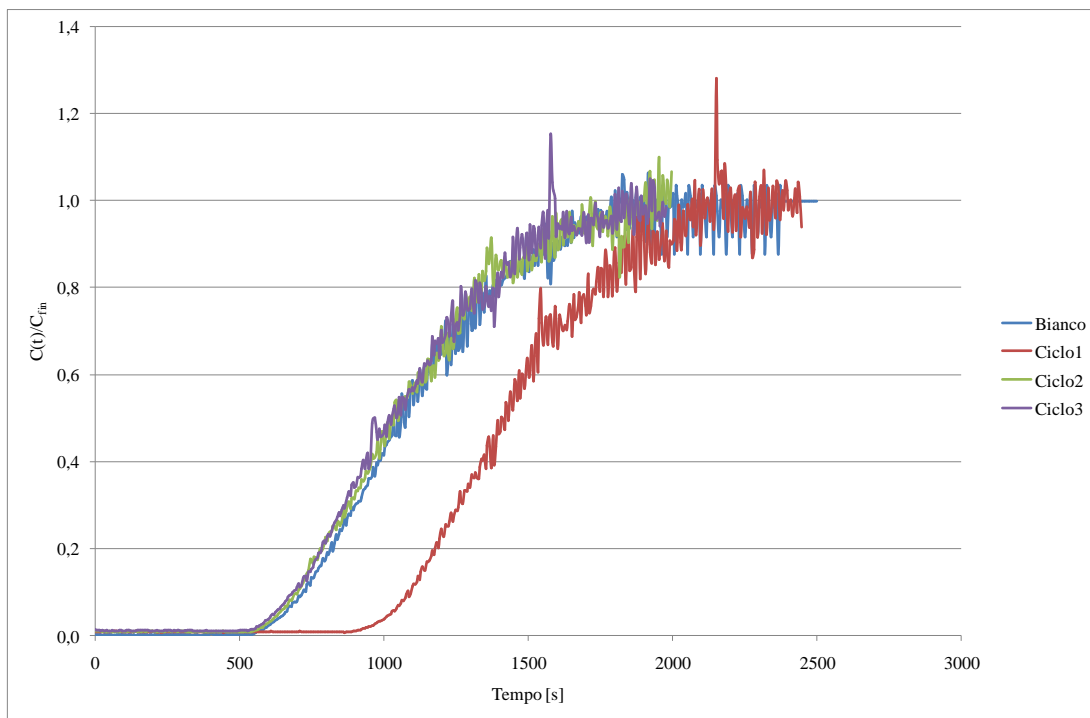


Figura F. 15 Curva di assorbimento della CO₂ su HT2T600P6.

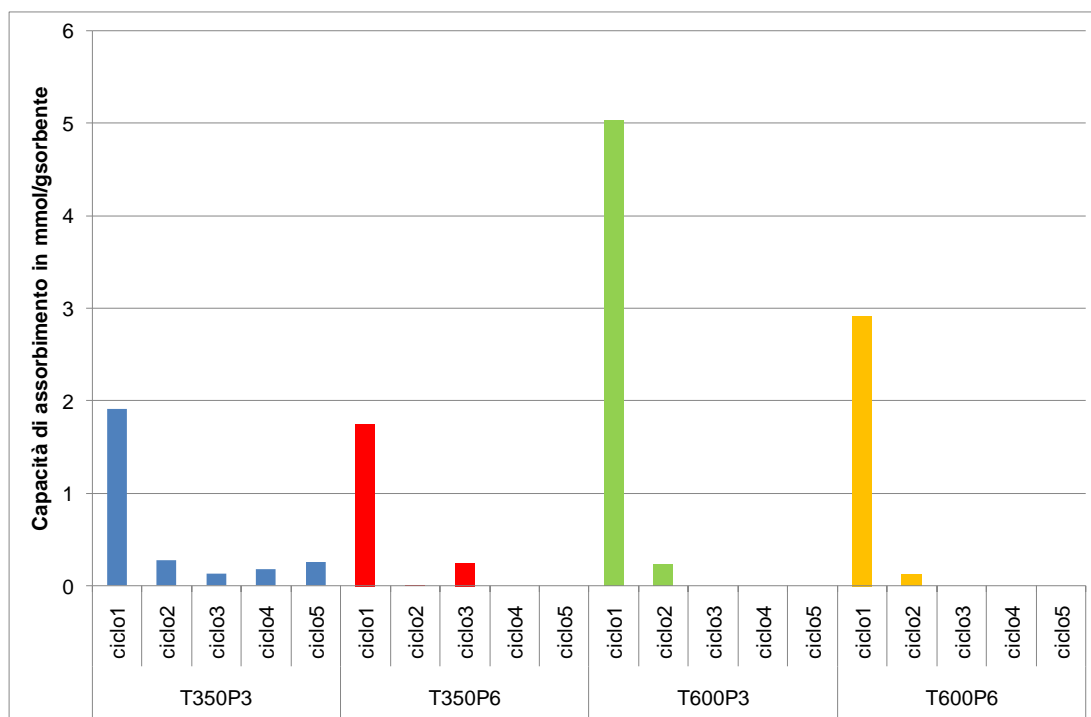


Figura F. 16 Capacità di assorbimento dell'HT2 a diverse condizioni di processo.

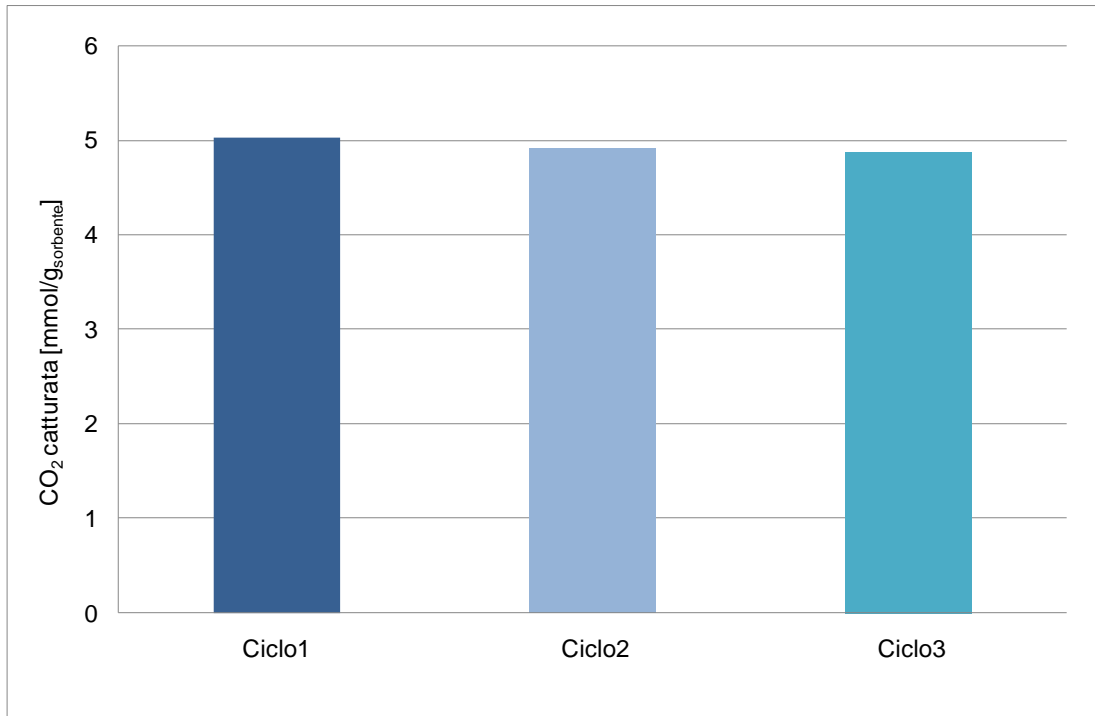


Figura F. 17 Capacità di assorbimento di HT2 a T600 °C e 3 bar dopo 3 cicli in TSA.

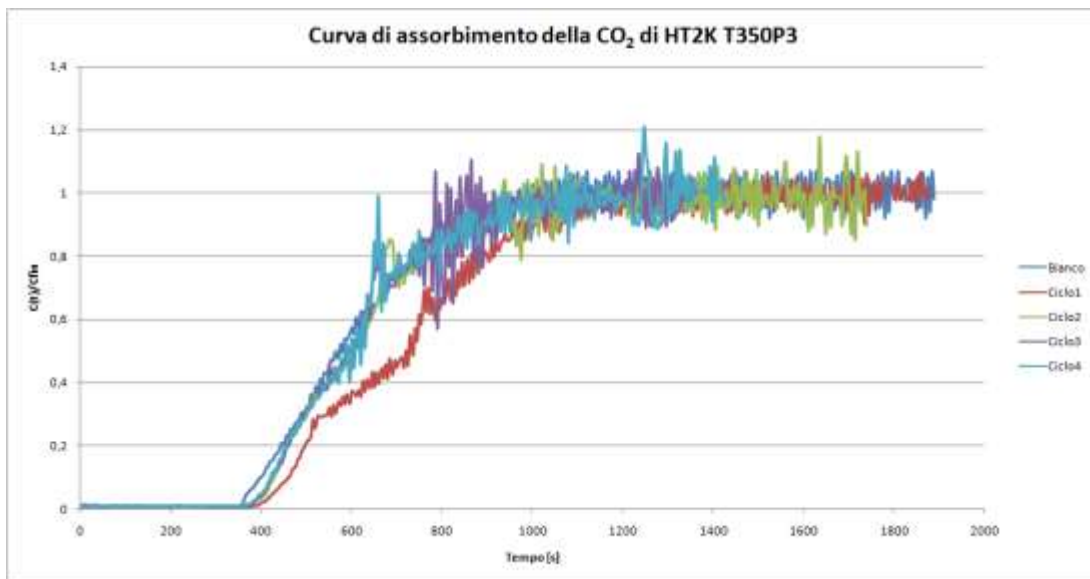


Figura F. 18 Curve di assorbimento di HT2KT350P3

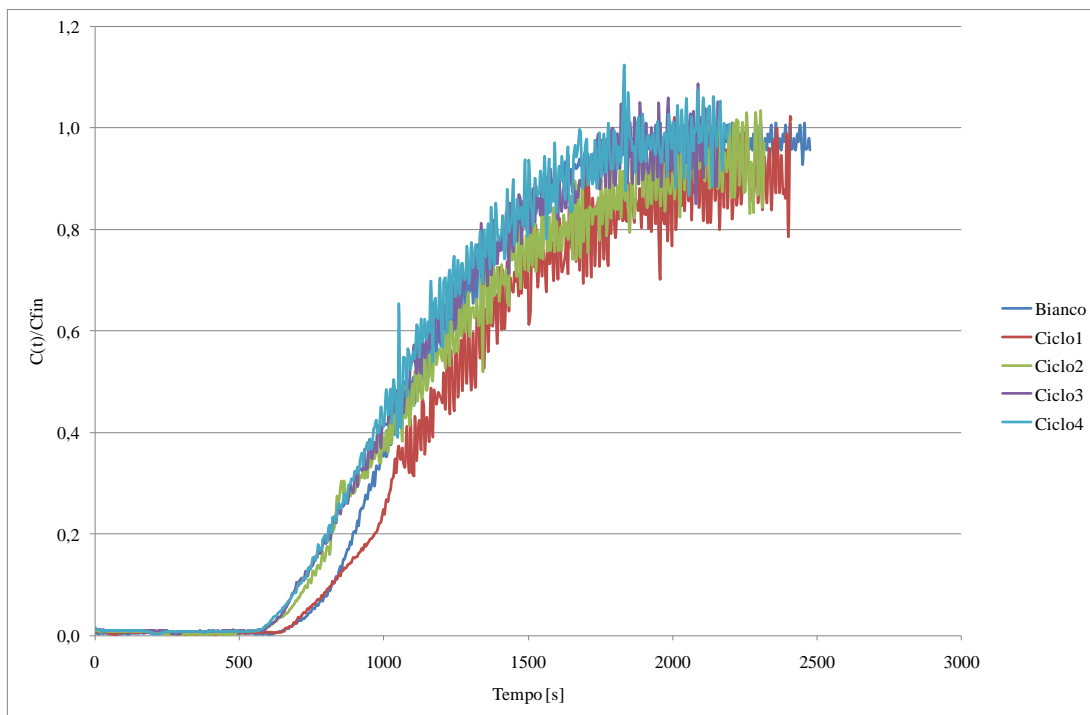


Figura F. 19 Curve di assorbimento di HT2 KT350P6

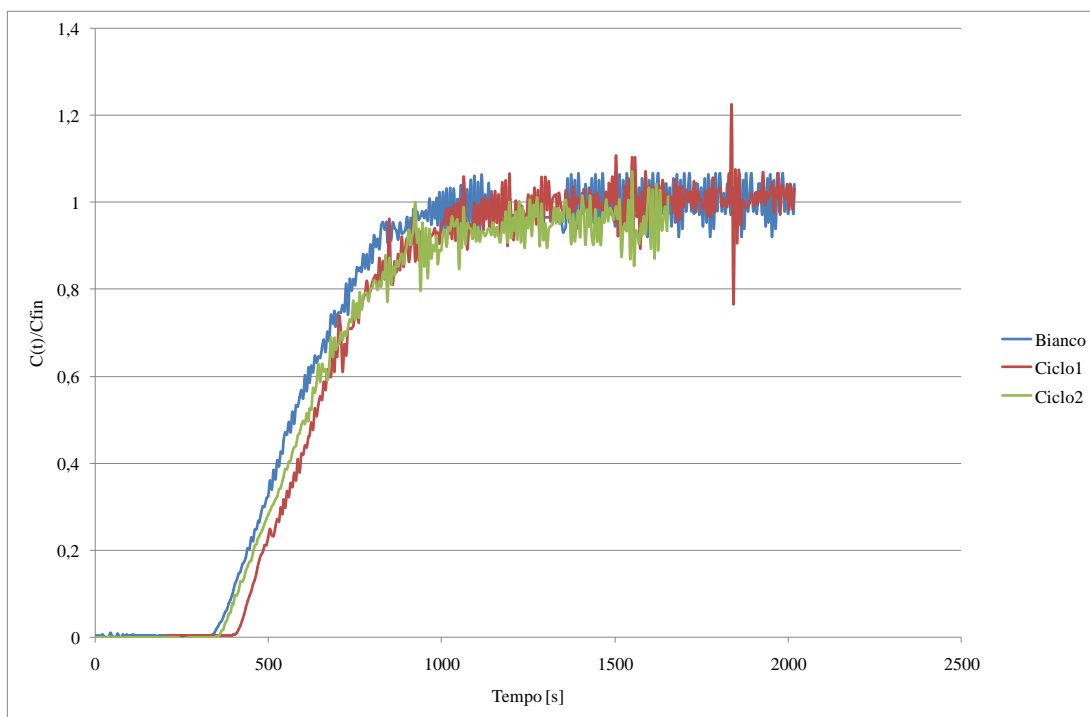


Figura F. 20 Curve di assorbimento di HT2 KT600P3

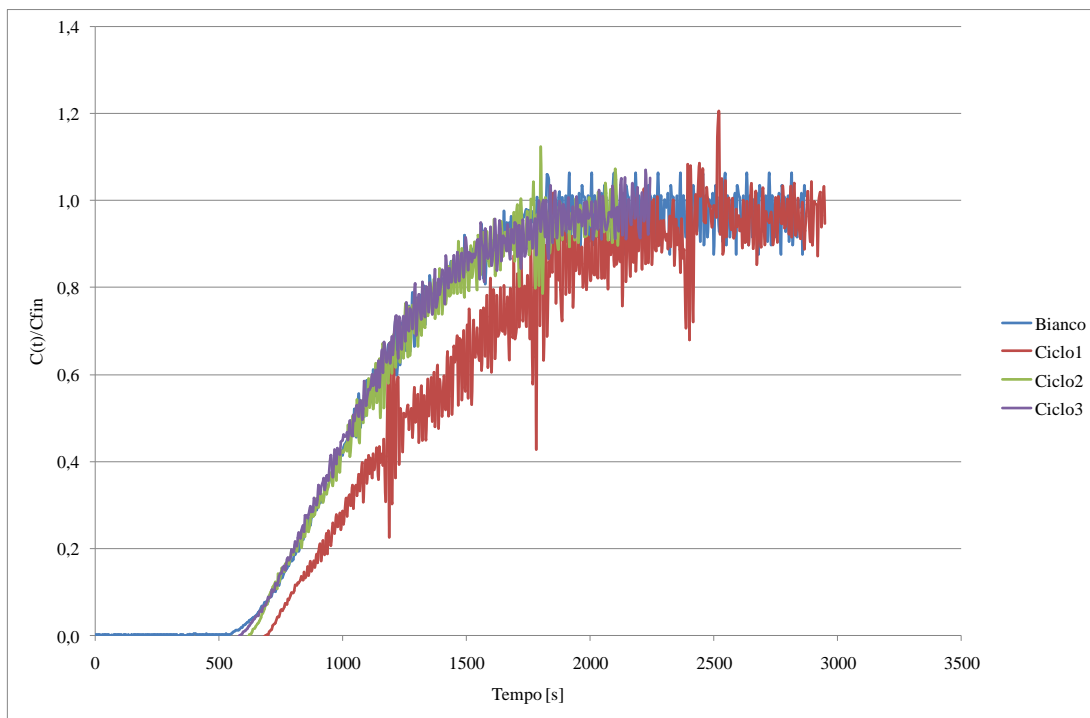


Figura F. 21 Curve di assorbimento di HT2 KT600P6

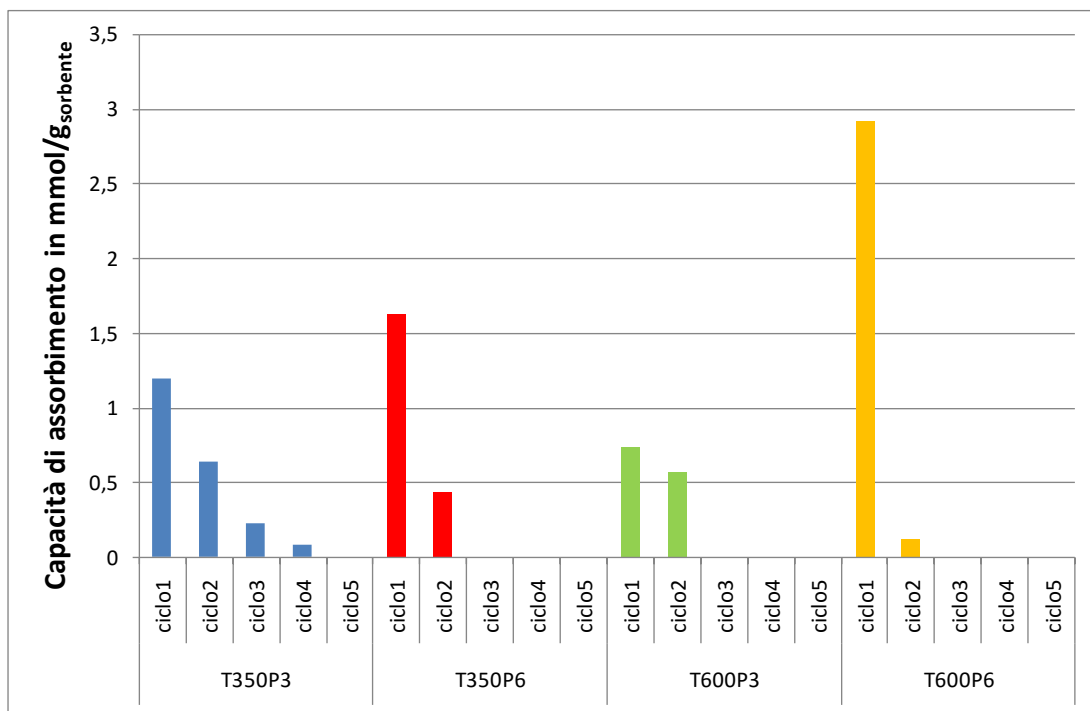


Figura F. 22 Capacità di assorbimento HT2K.

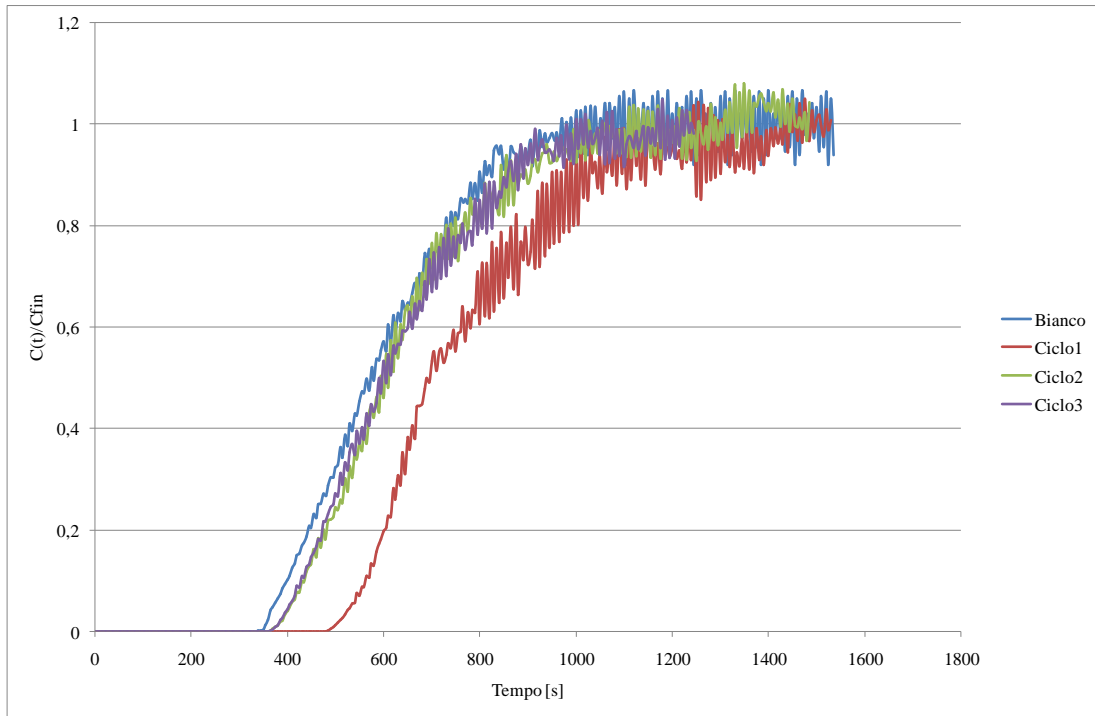


Figura F. 23 Curva di assorbimento della CO₂ per HT3 a T 350 °C e 3 bar.

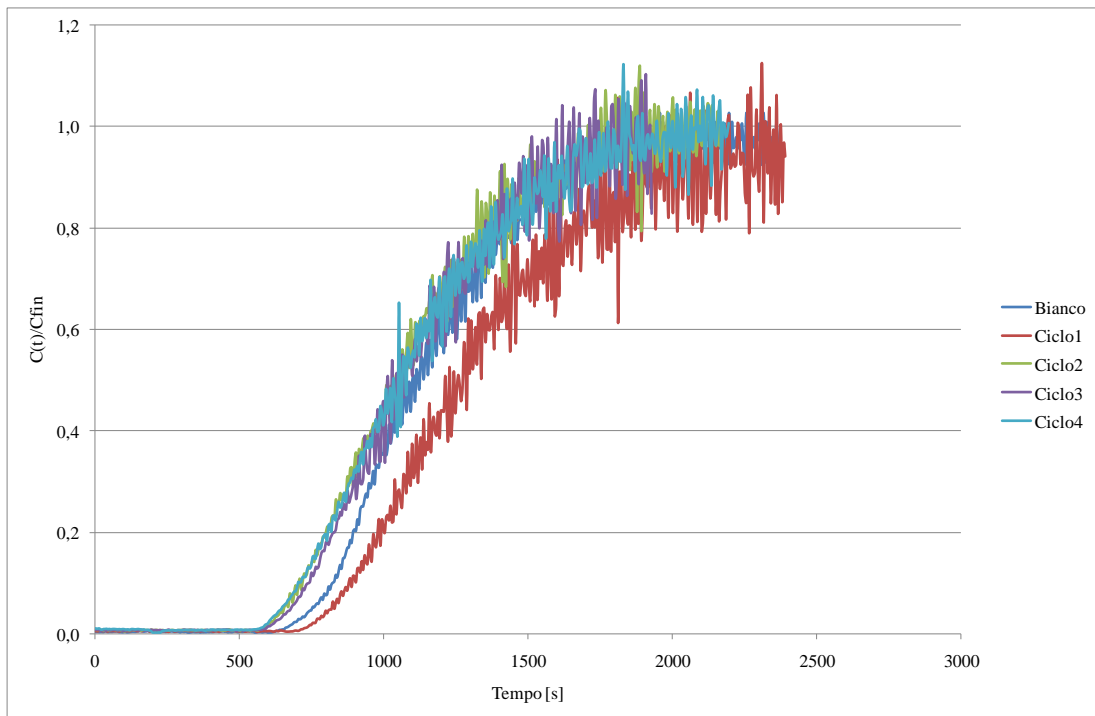


Figura F. 24 Curva di assorbimento della CO₂ per HT3 a T 350 °C e 6 bar.

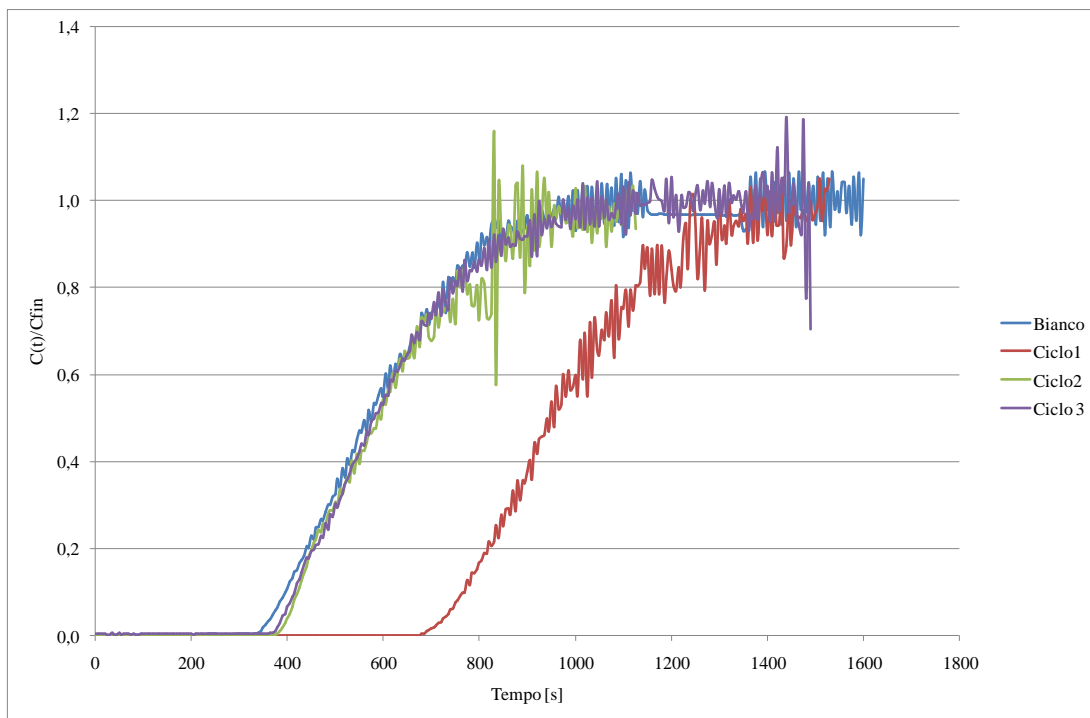


Figura F. 25 Curva di assorbimento della CO₂ per HT3 T600P3.

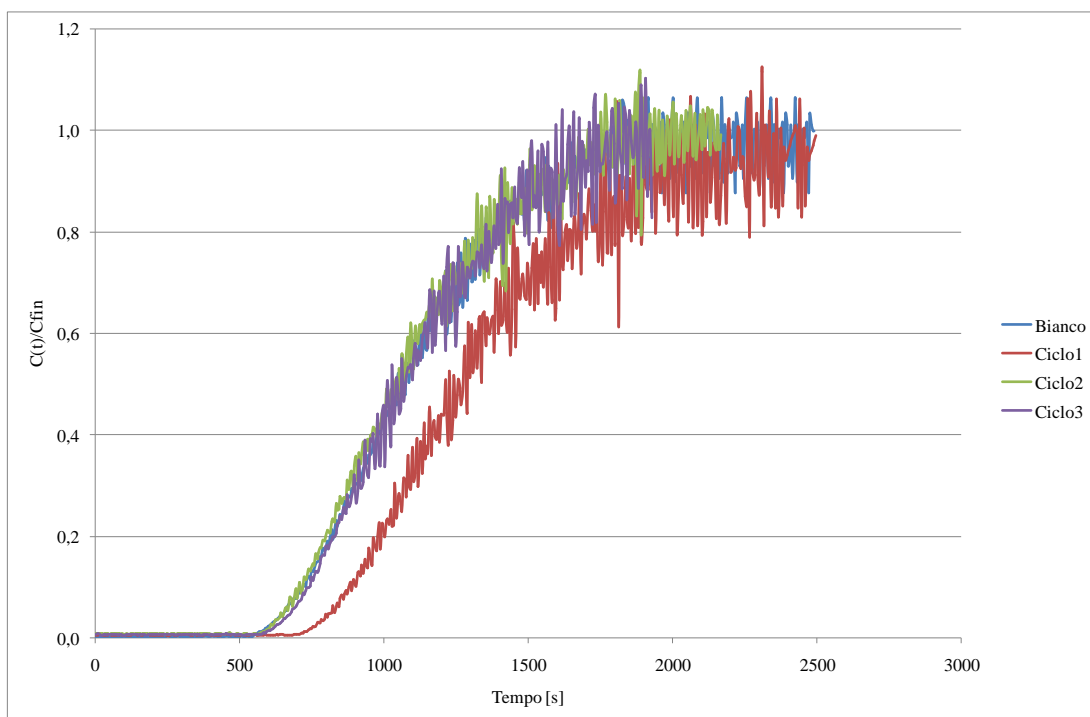


Figura F. 26 Curva di assorbimento della CO₂ per HT3 T600P6.

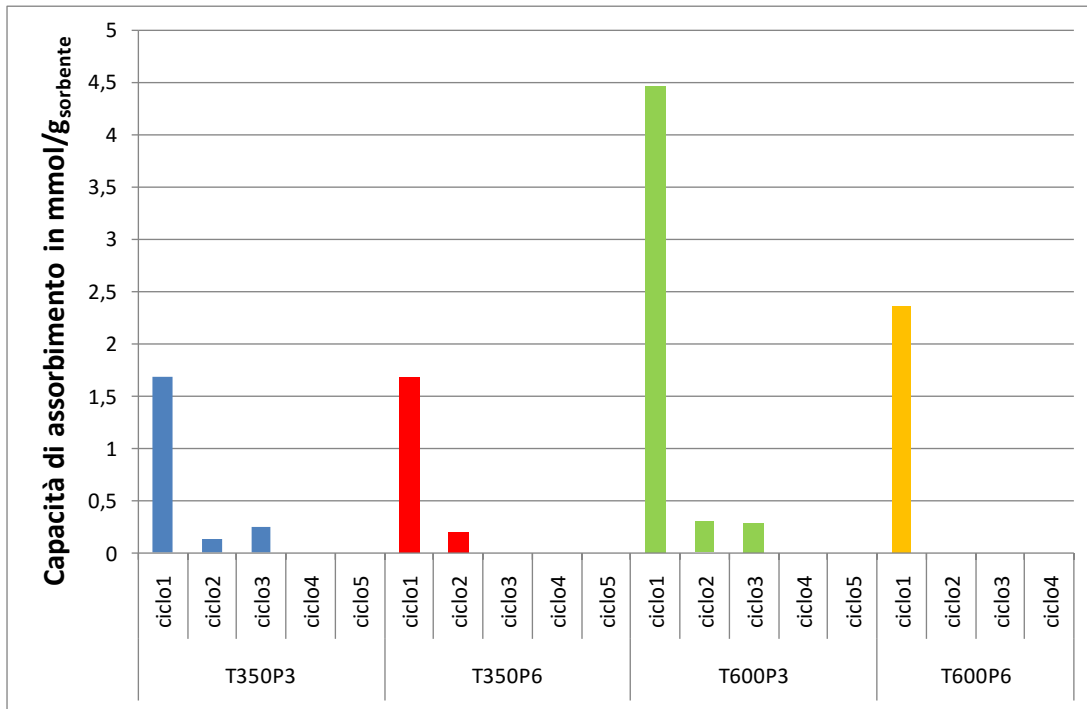


Figura F. 27 Capacità di assorbimento di HT3.

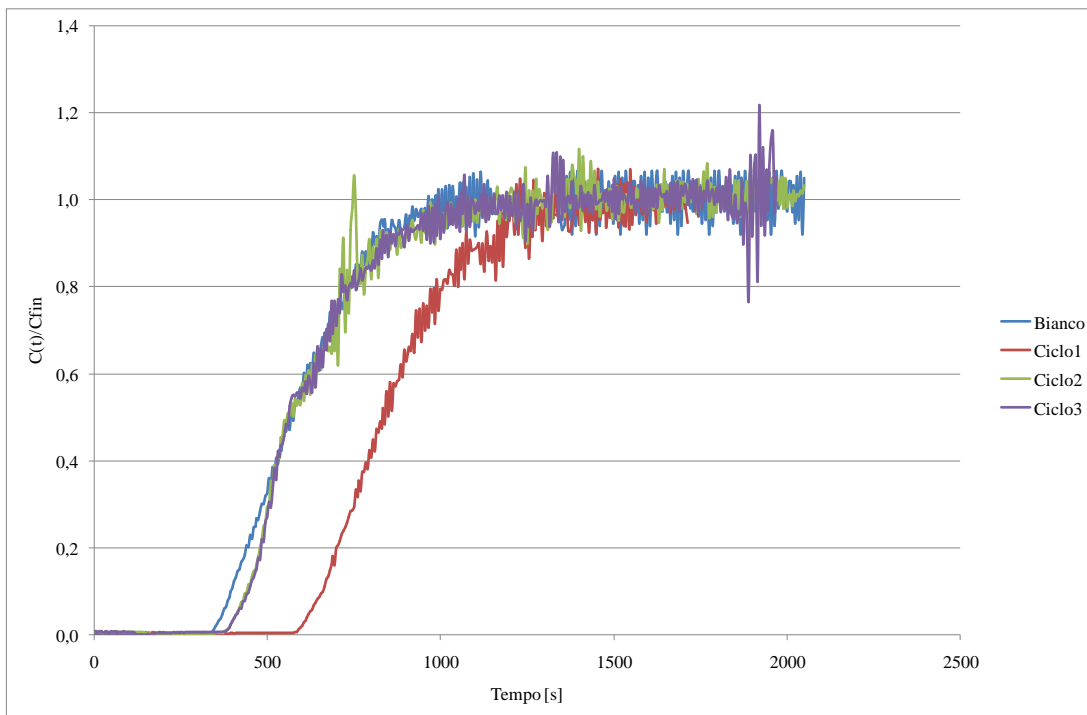


Figura F. 28 Curva di assorbimento della CO₂ per HT3KT600P3.

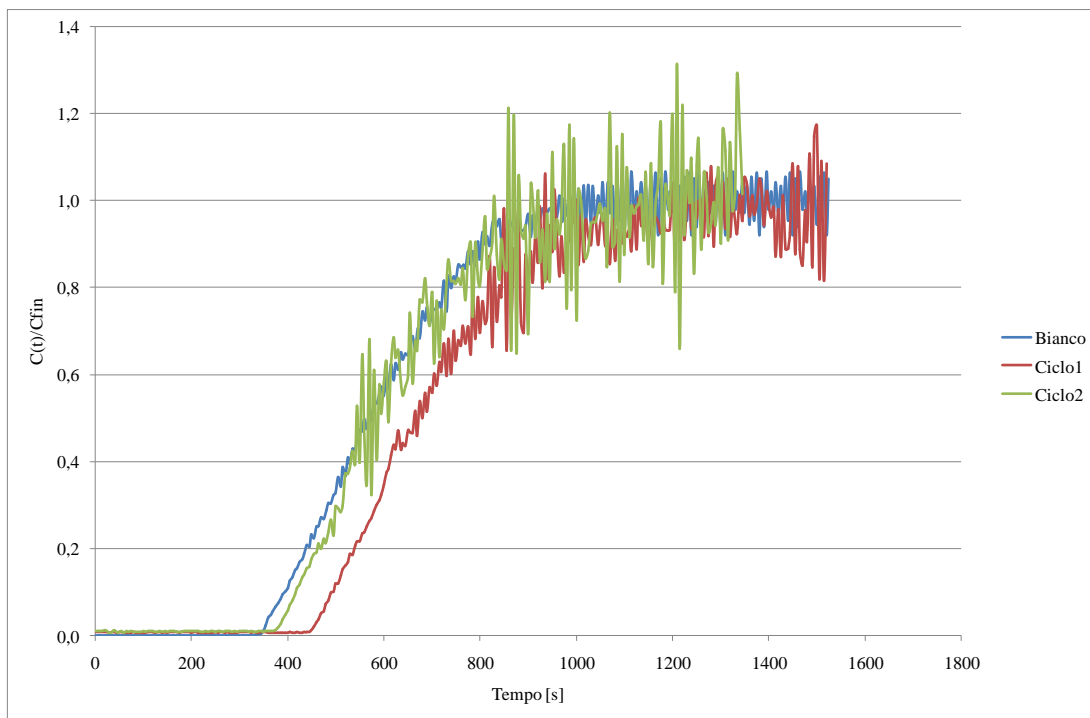


Figura F. 29 Curva di assorbimento della CO₂ per HT3KT350P3.

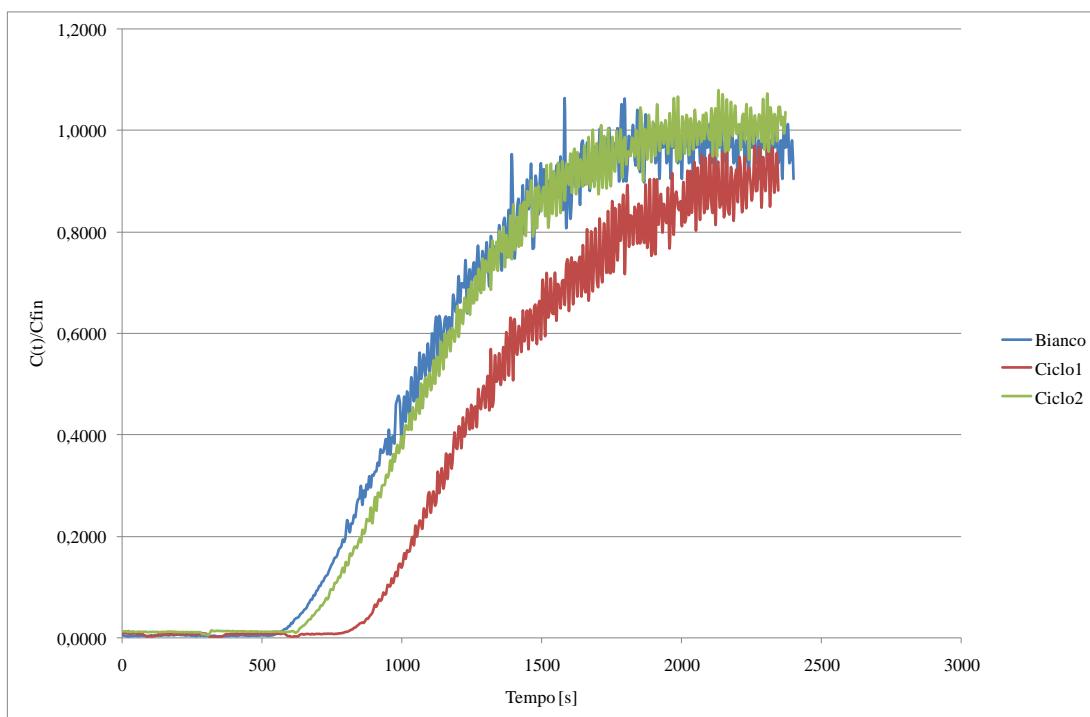


Figura F. 30 Curva di assorbimento della CO₂ per HT3K T350P6.

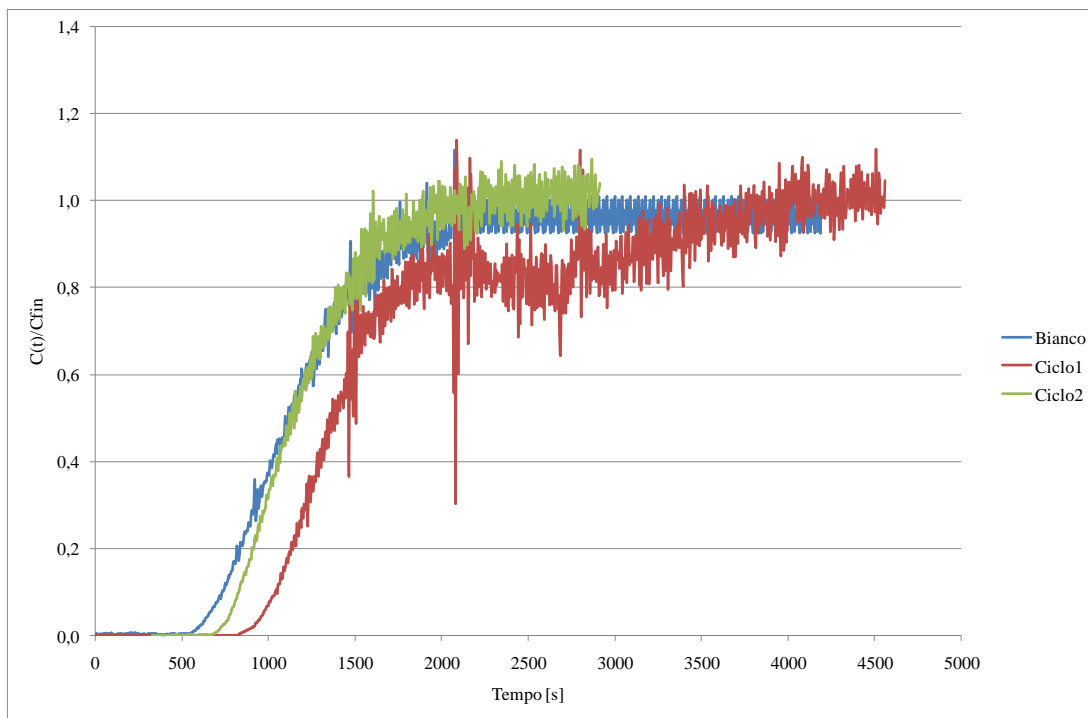


Figura F. 31 Curva di assorbimento della CO₂ per HT3KT600P6.

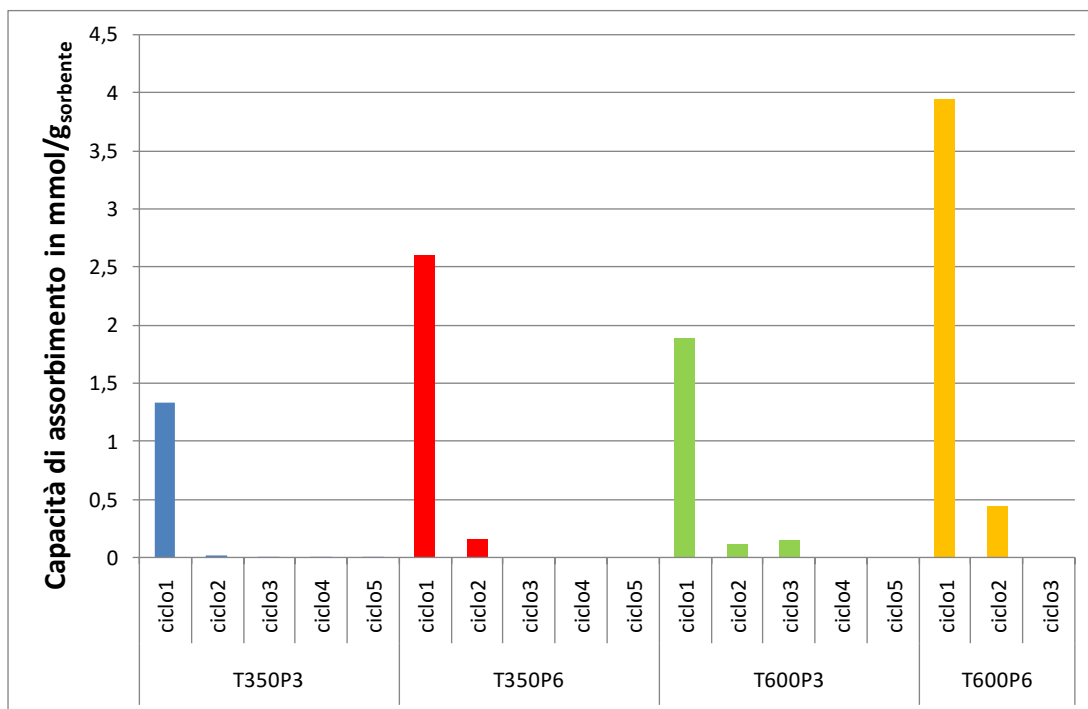


Figura F. 32 Capacità di assorbimento HT3K.

Appendice G: microanalisi (EDX)

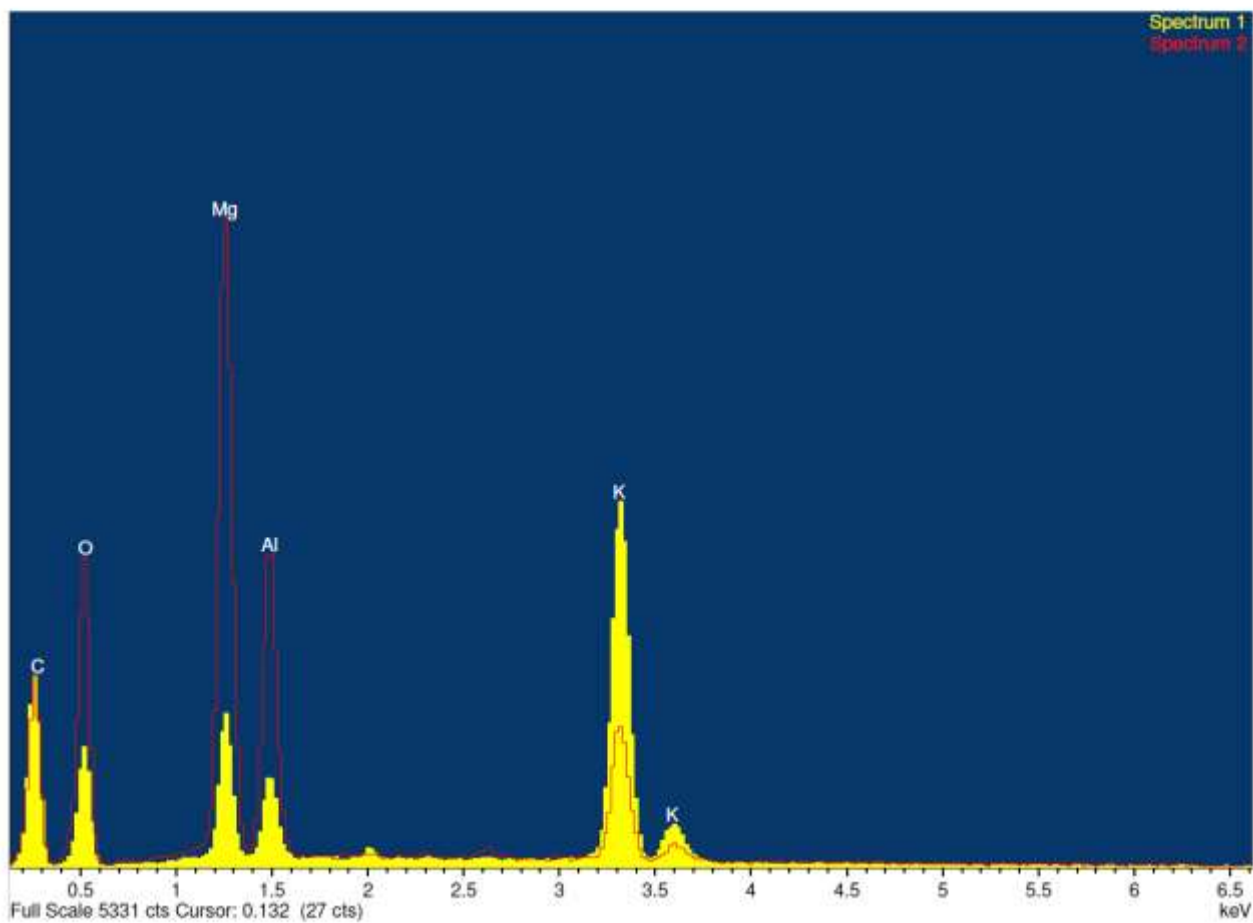
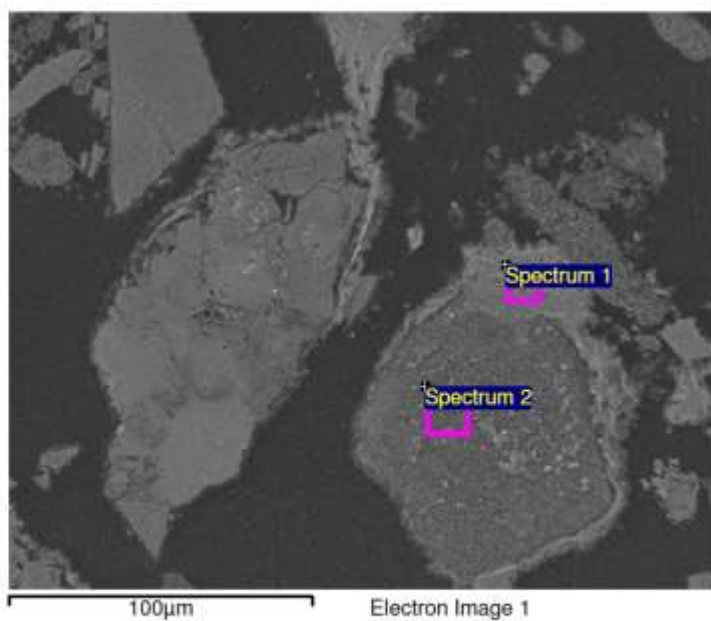


Figura G.1 Campione HT1K 500°C cross old_01

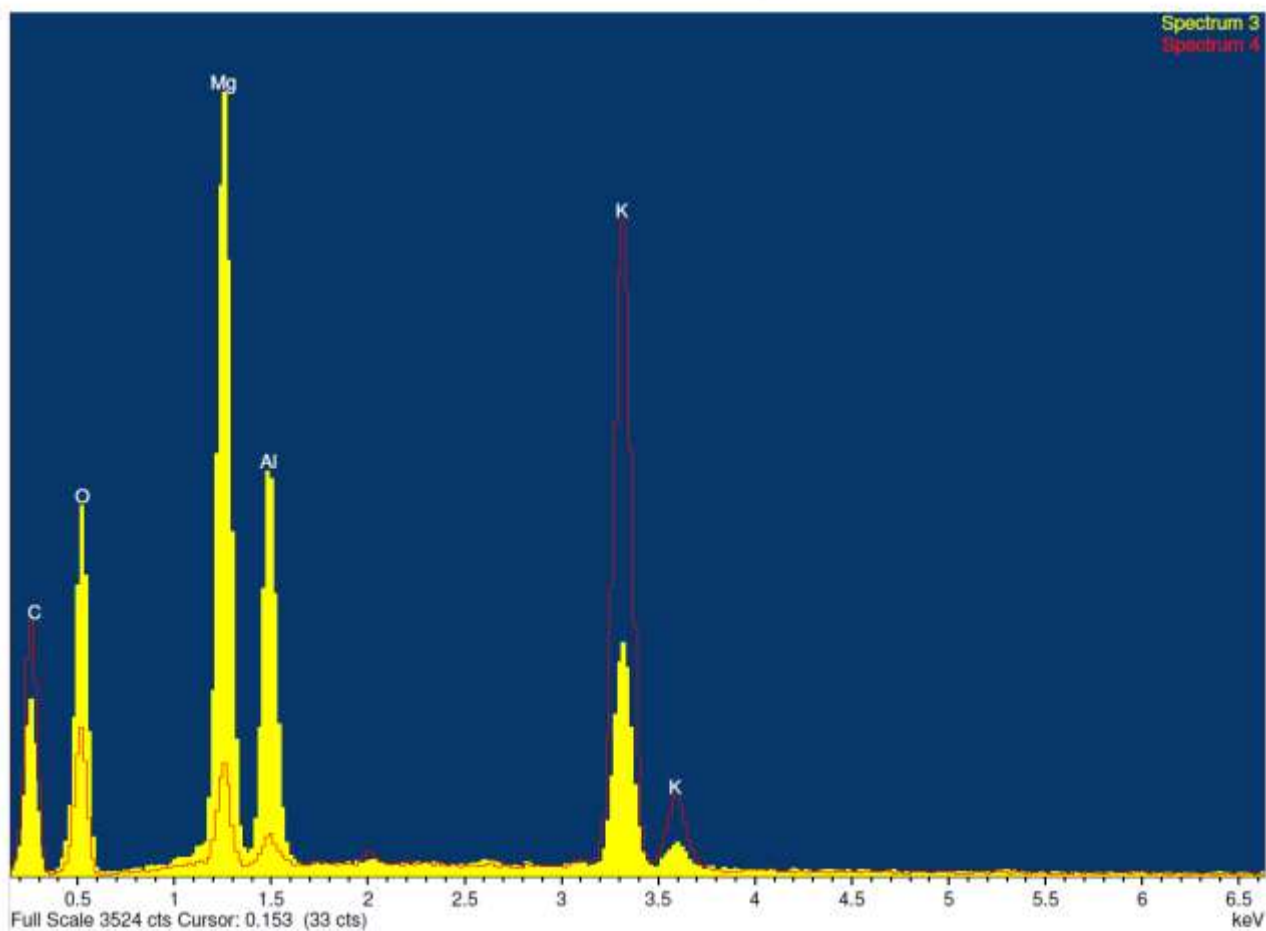
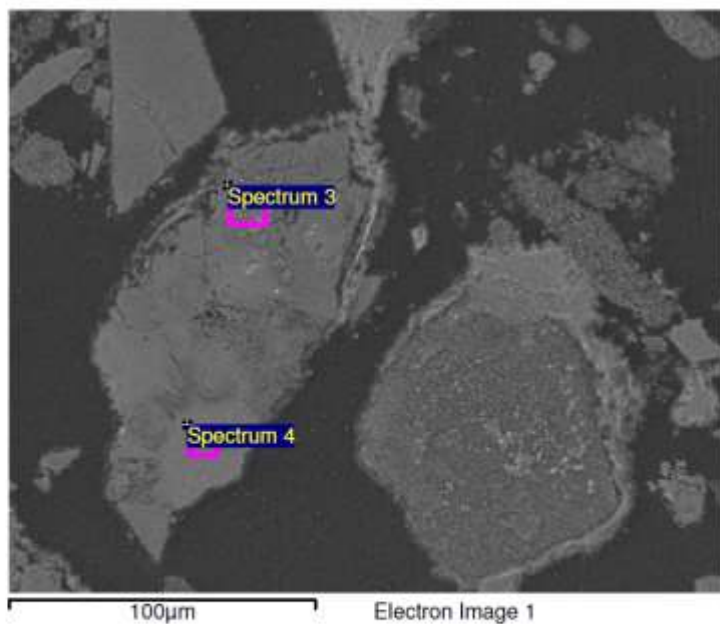


Figura G.2 Campione HT1K 500°C cross old_02

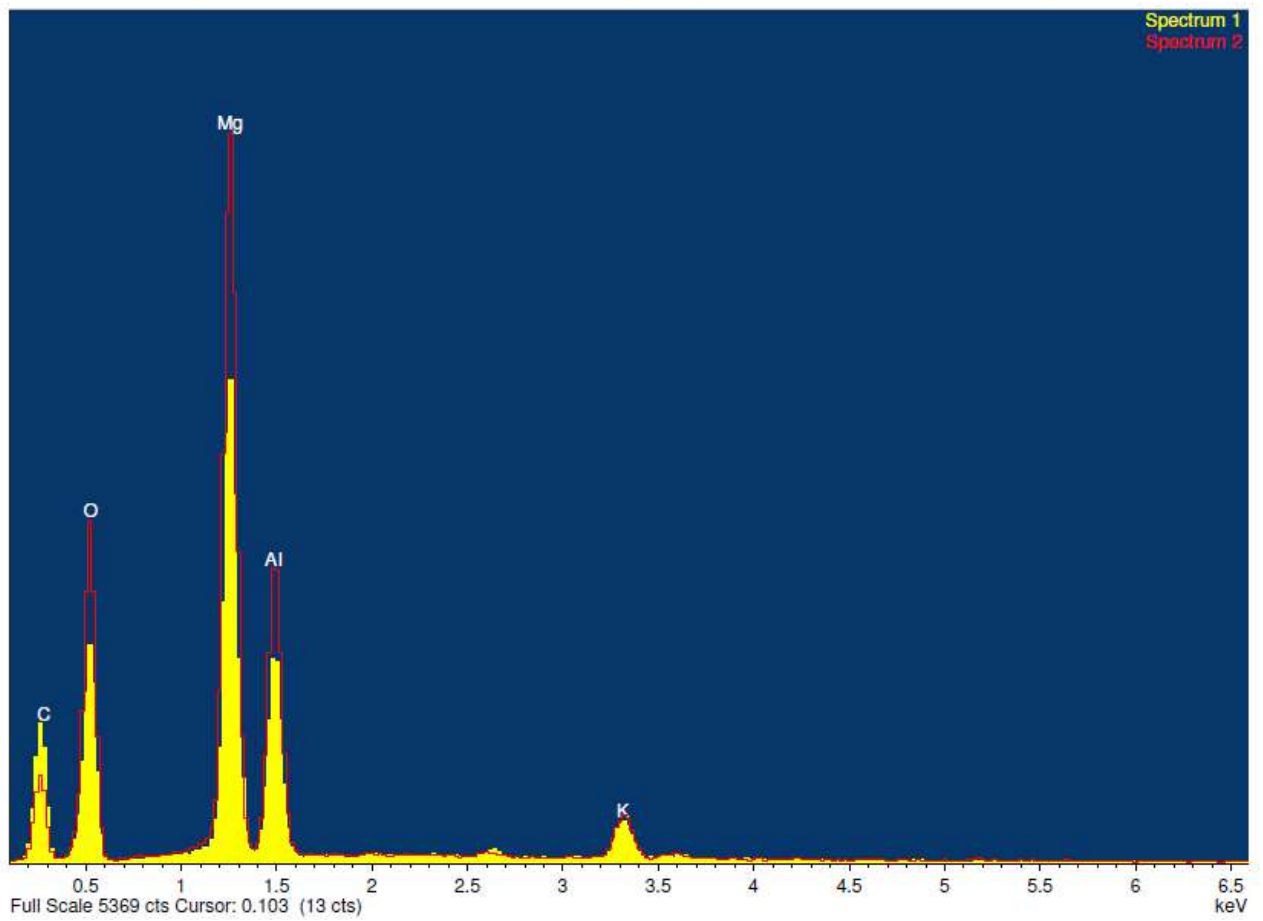
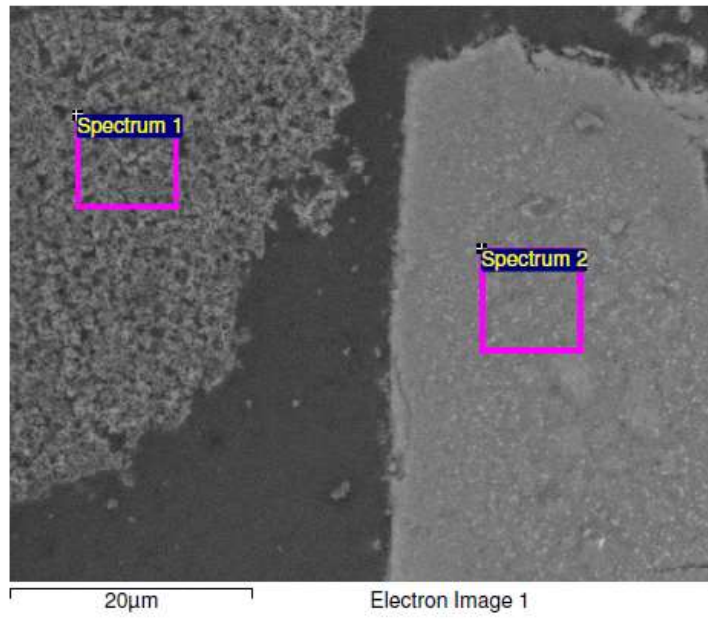


Figura G.3 Campione HT1K 500°C cross old_03

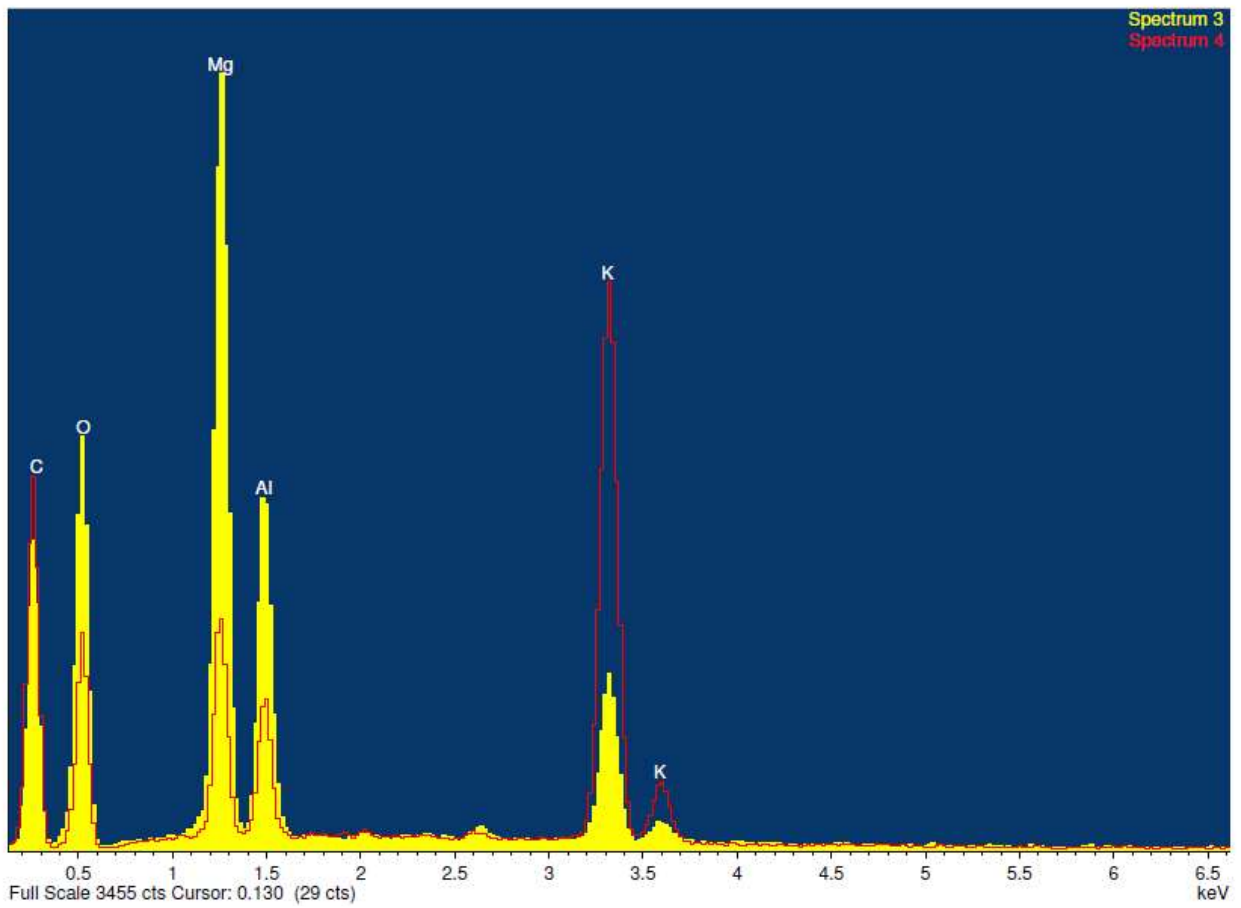
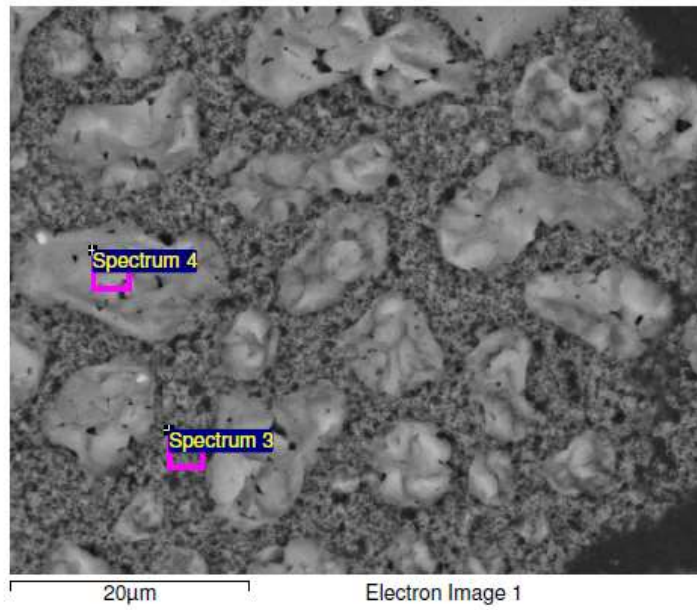


Figura G.4 Campione HT1K 500°C cross old_04

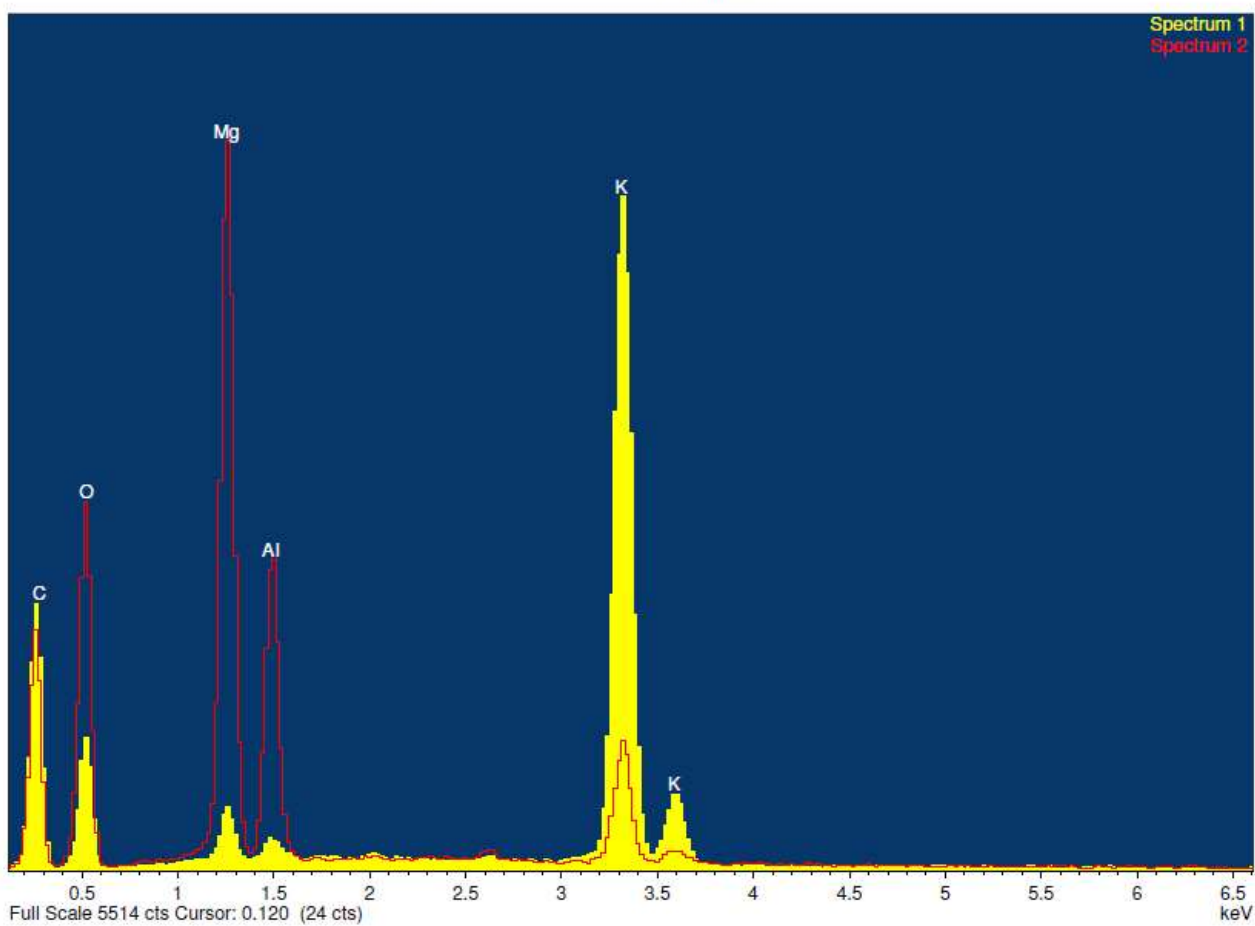
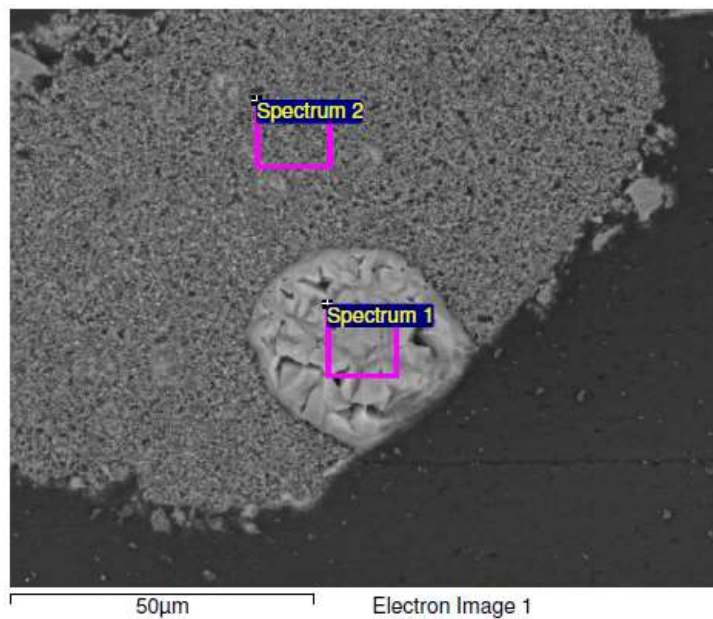


Figura G.5 Campione HT1K 500°C cross_05

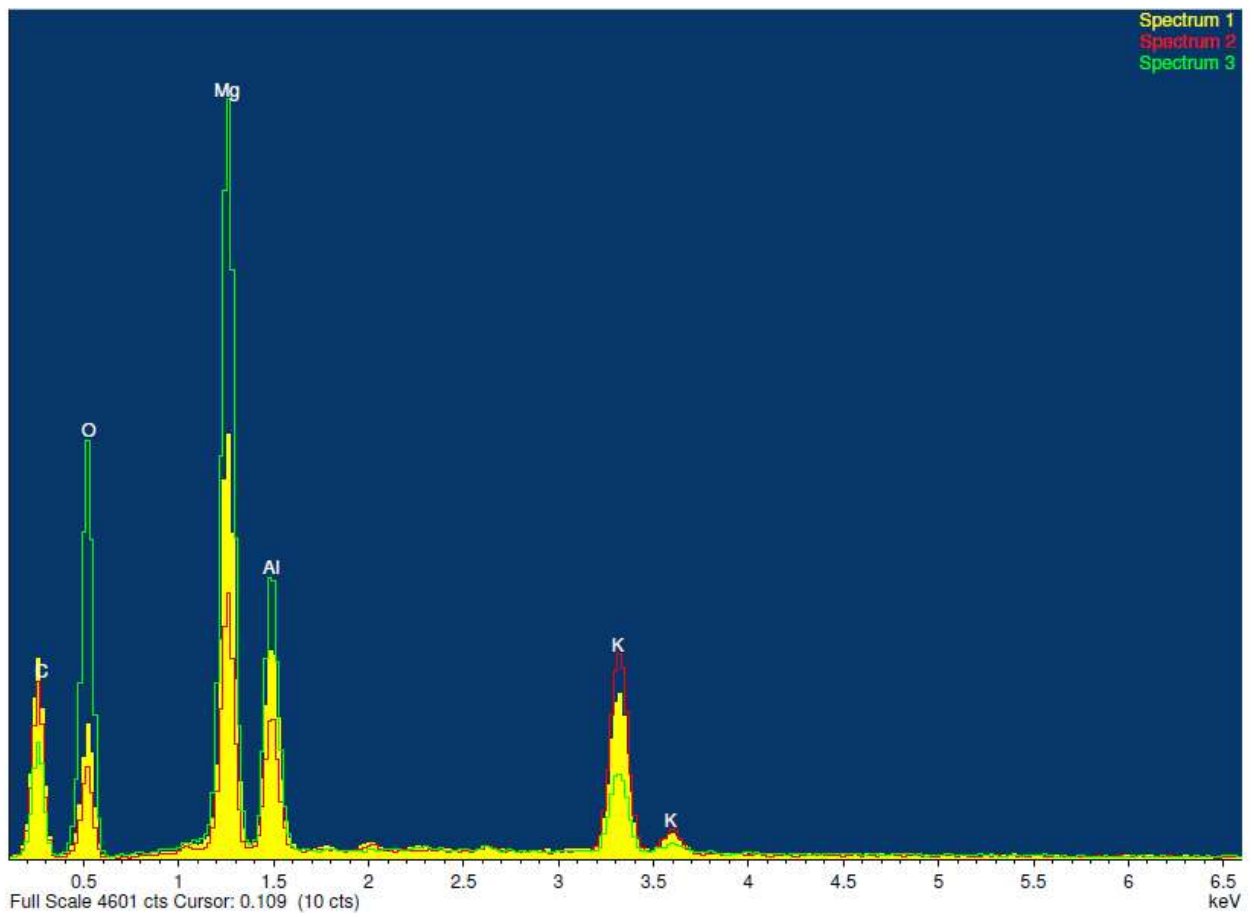
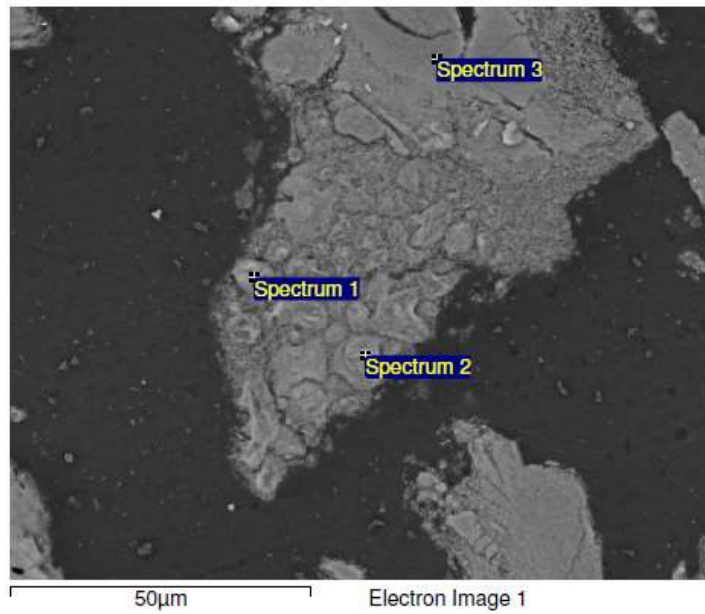


Figura G.6 Campione HT1K 500°C cross_06

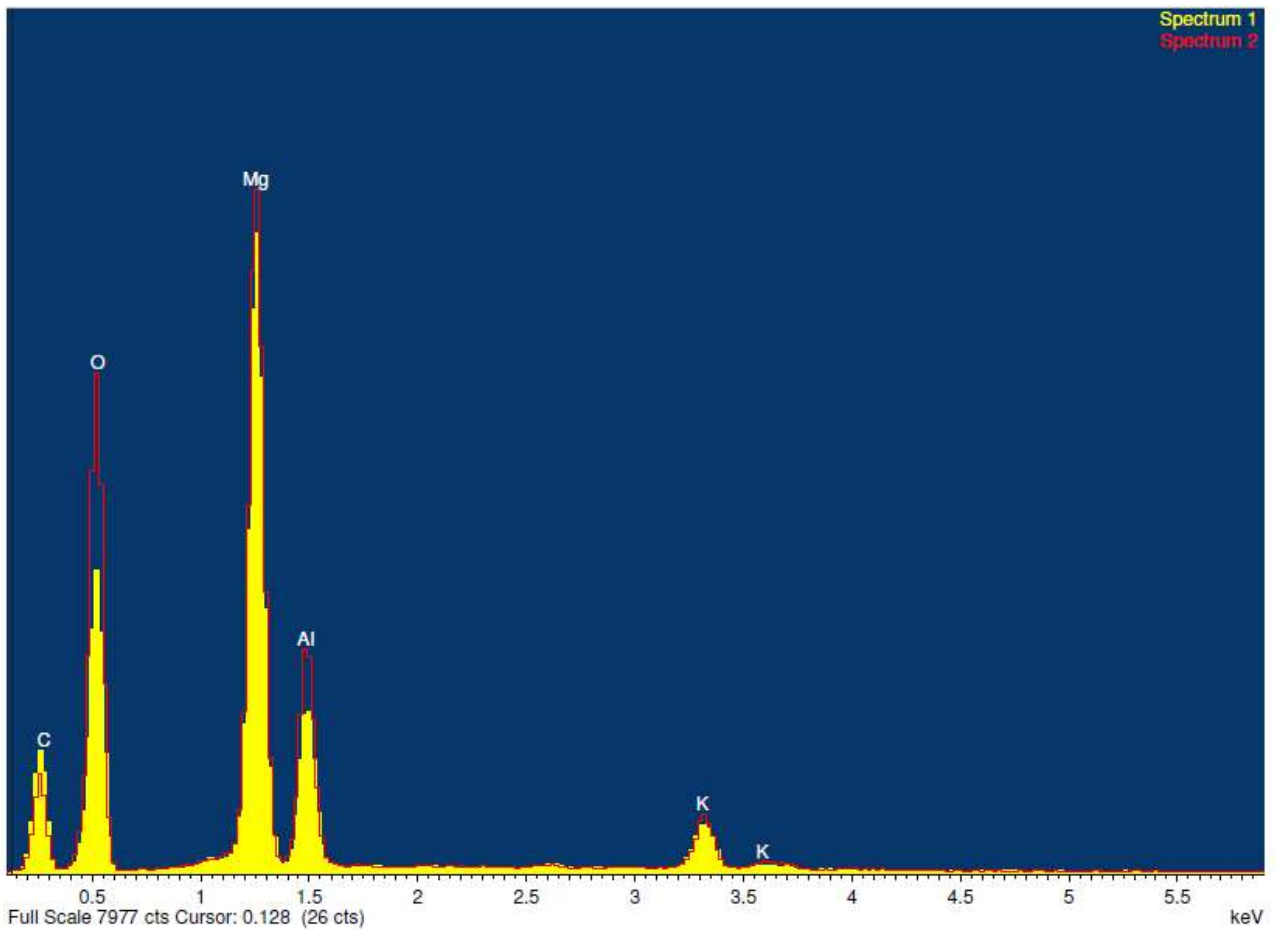
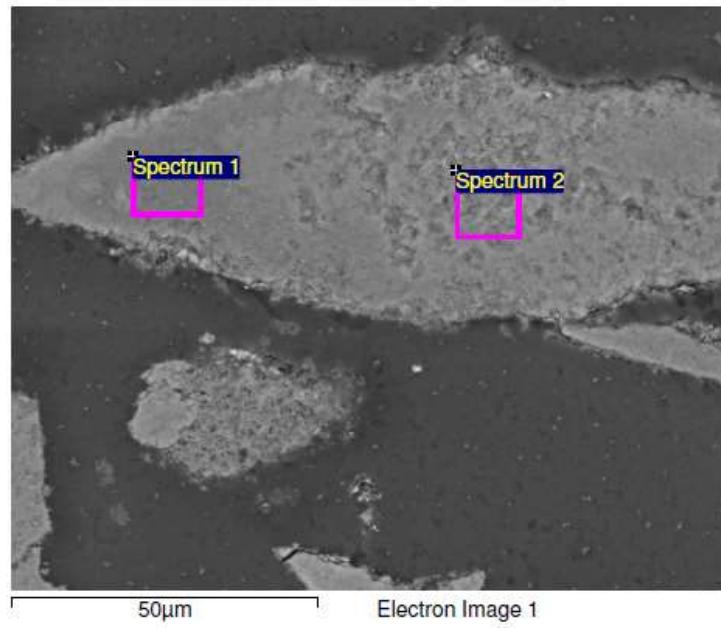


Figura G.7 Campione HT1K 500°C cross 2_01

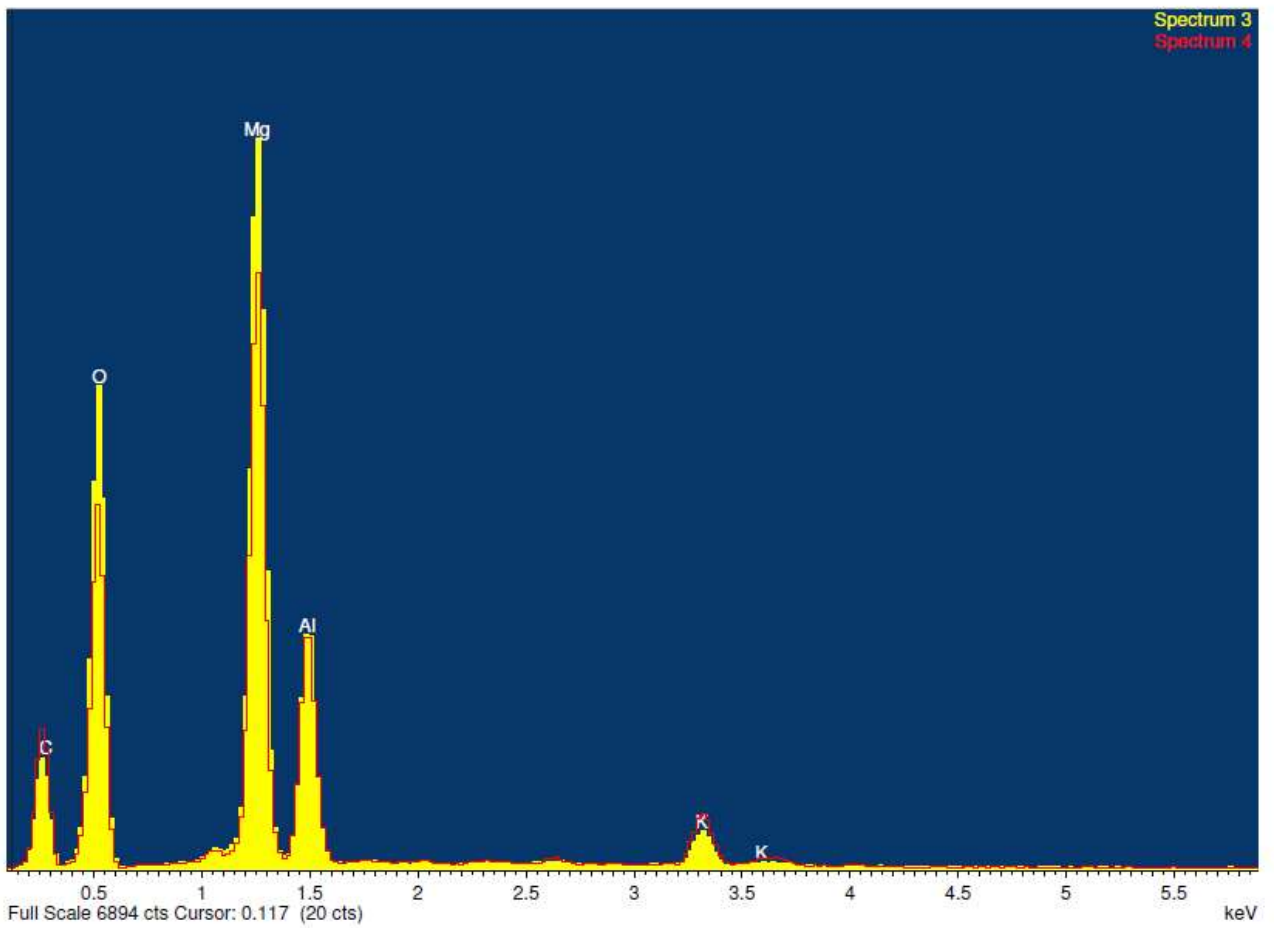
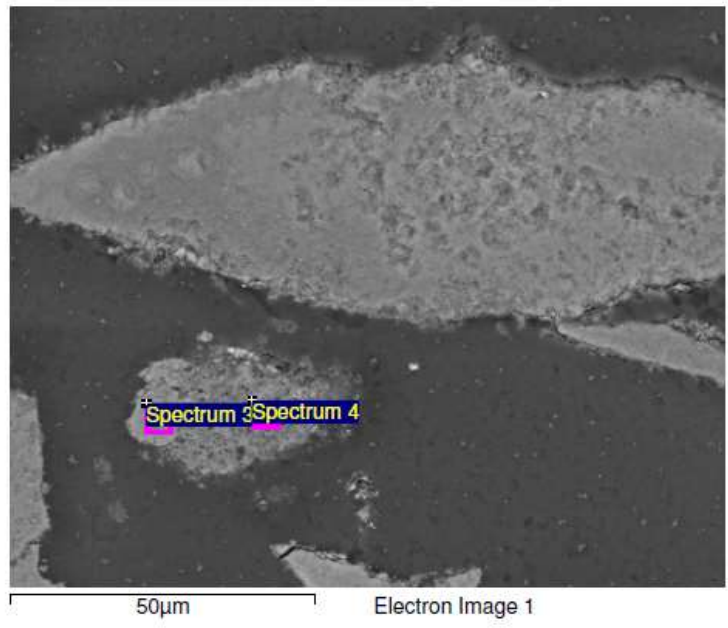


Figura G.8 Campione HT1K 500°C cross 2_02

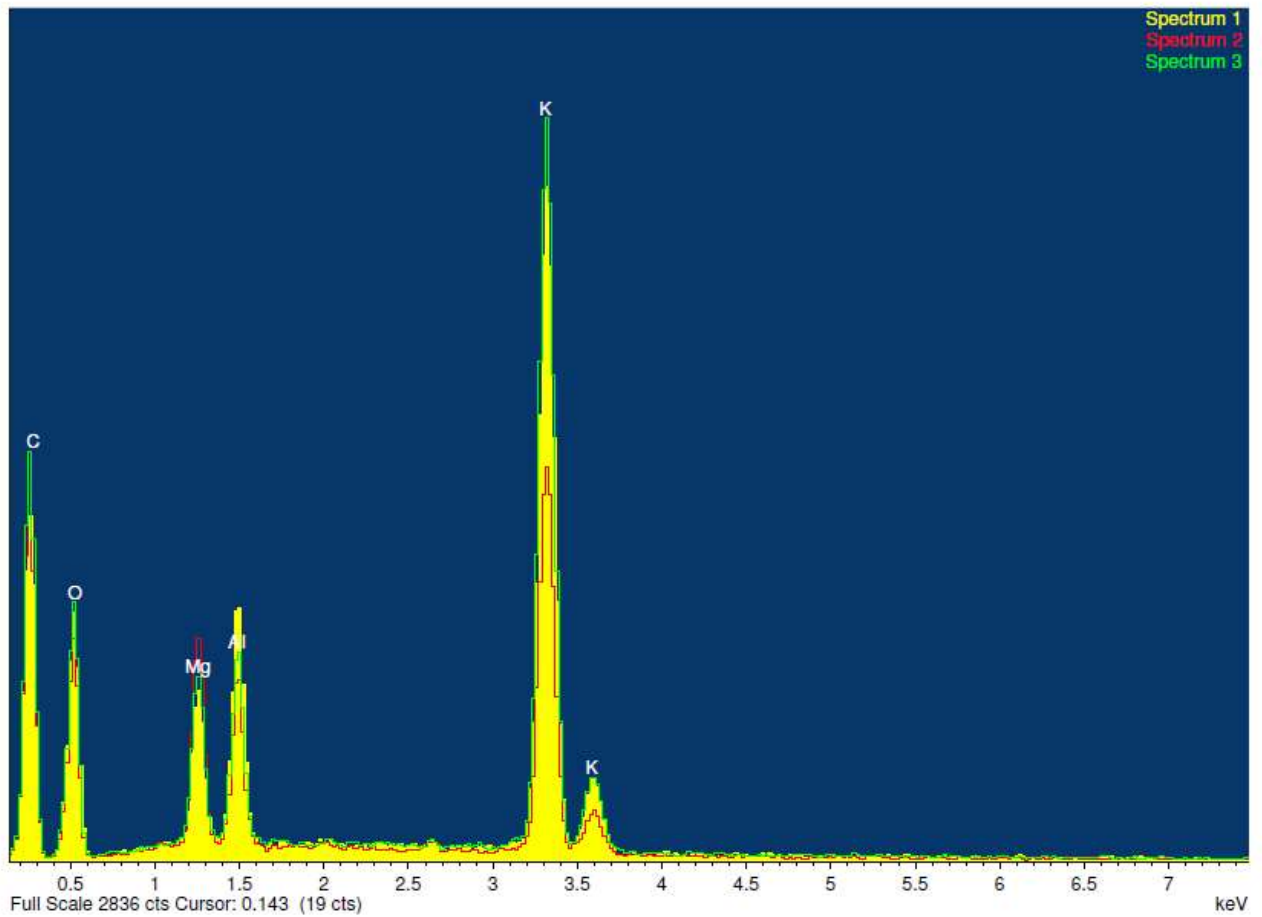
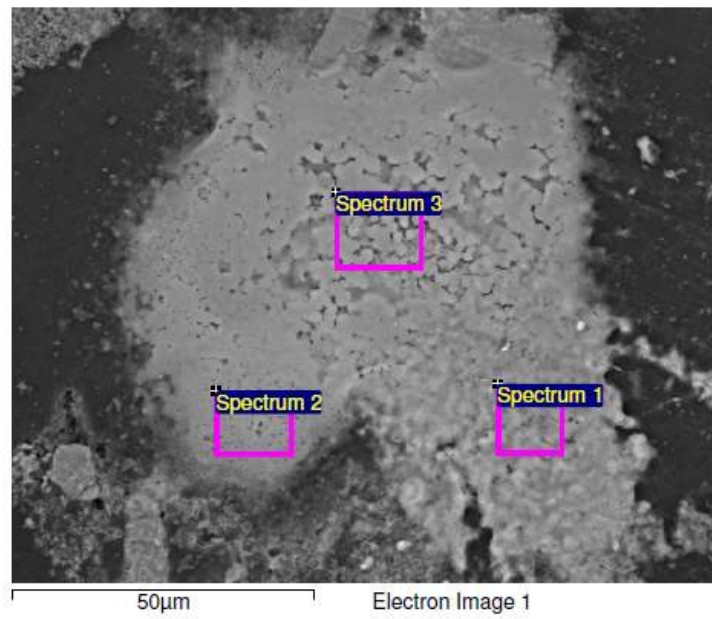


Figura G.9 Campione HT1K 500°C cross 2_03

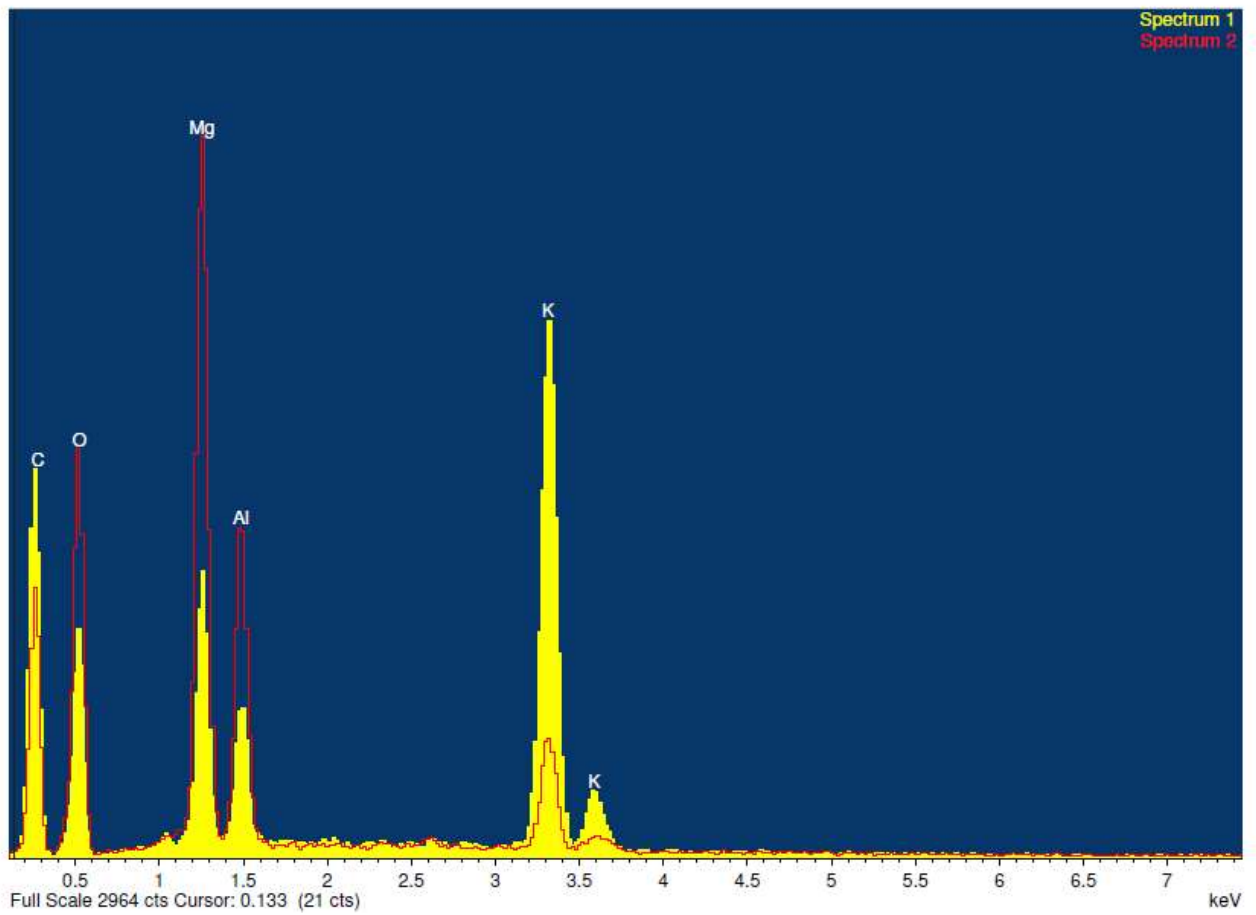
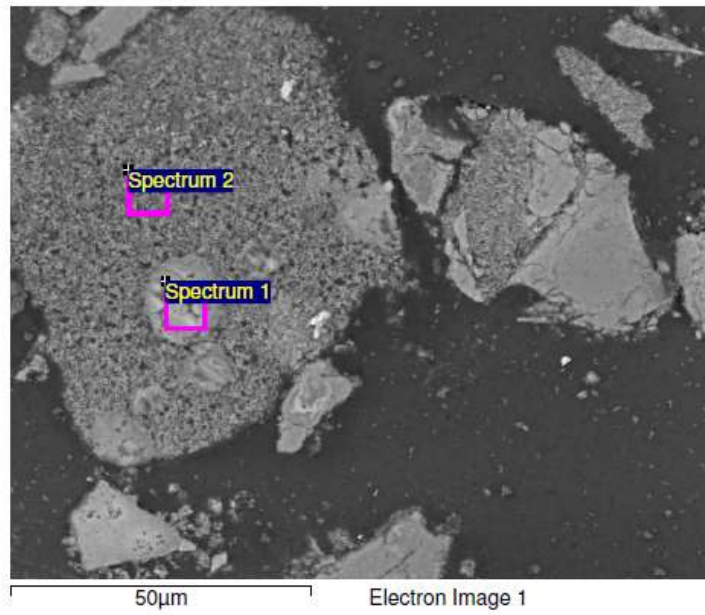


Figura G.10 Campione HT1K 500°C cross 2_04

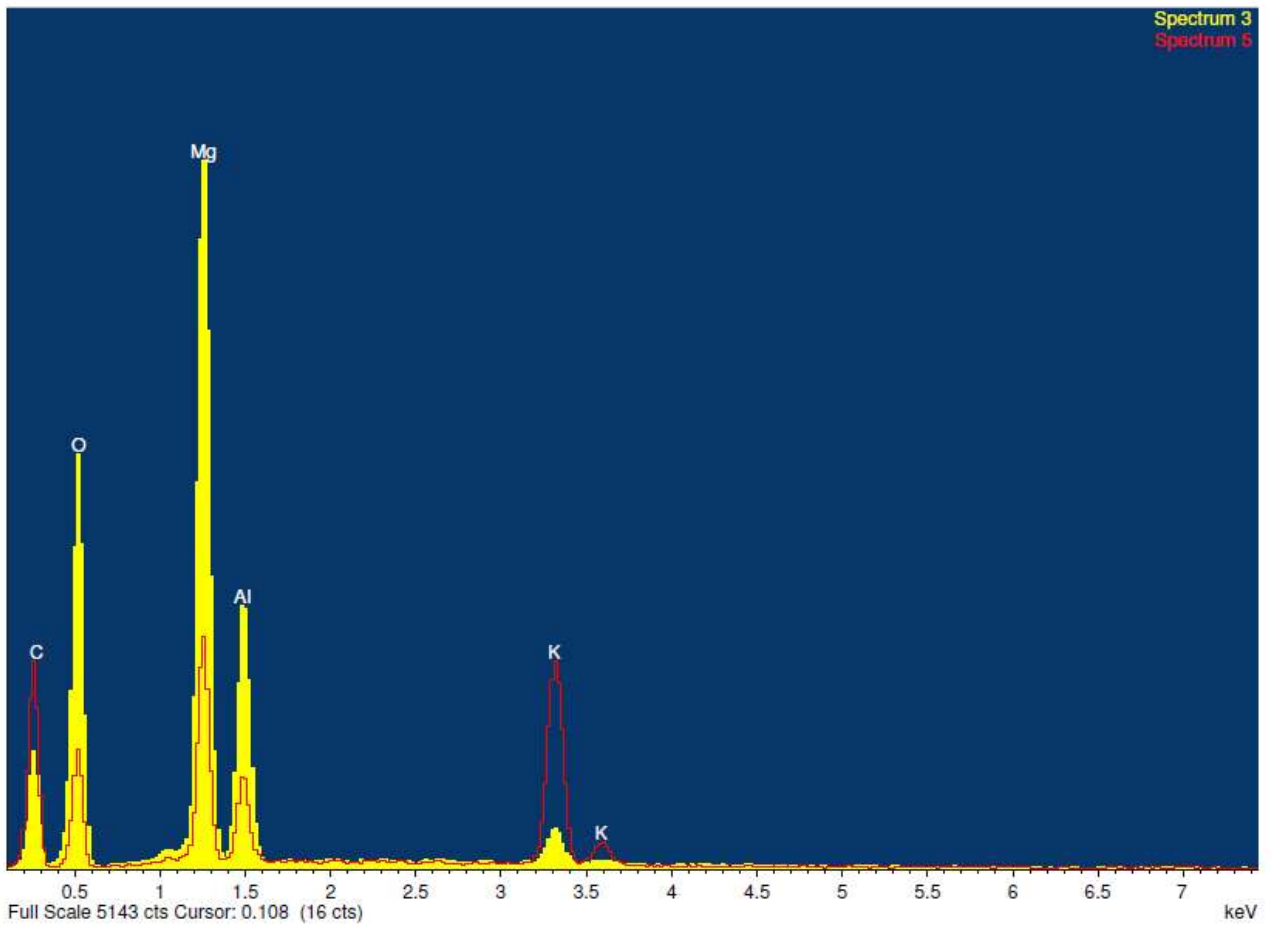
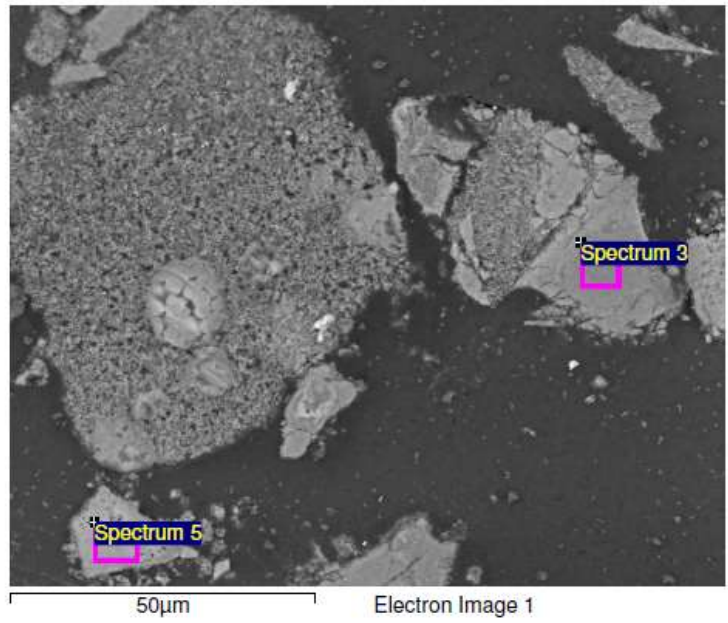


Figura G.11 Campione HT1K 500°C cross 2_05

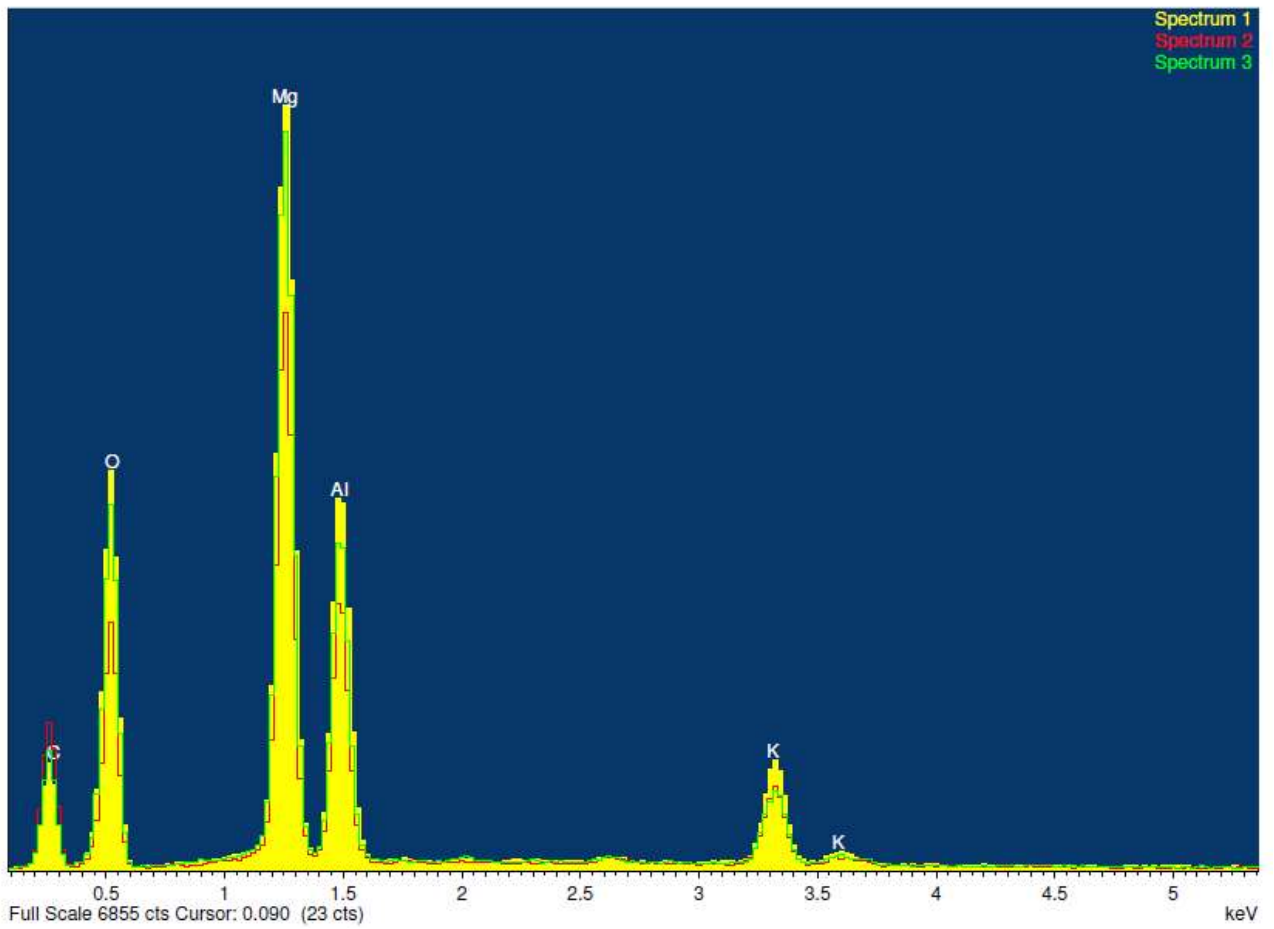
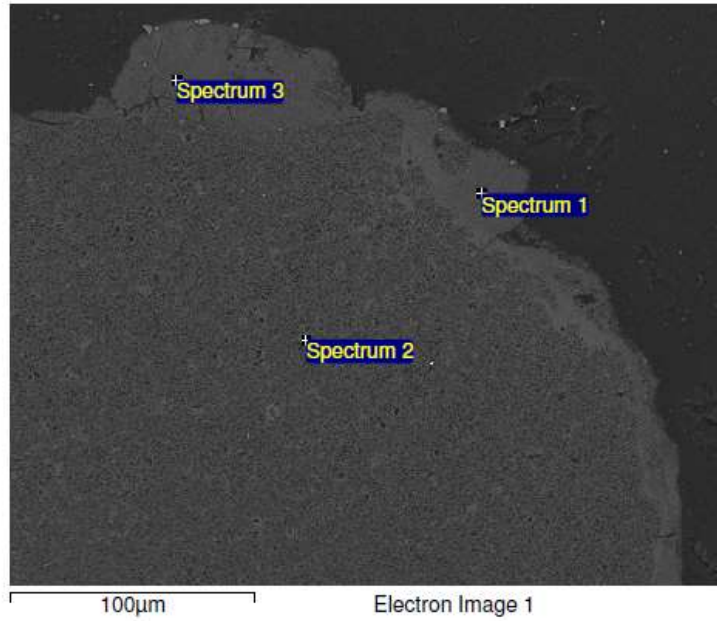


Figura G.12 Campione HT1K 350°C 3 bar cross old_01

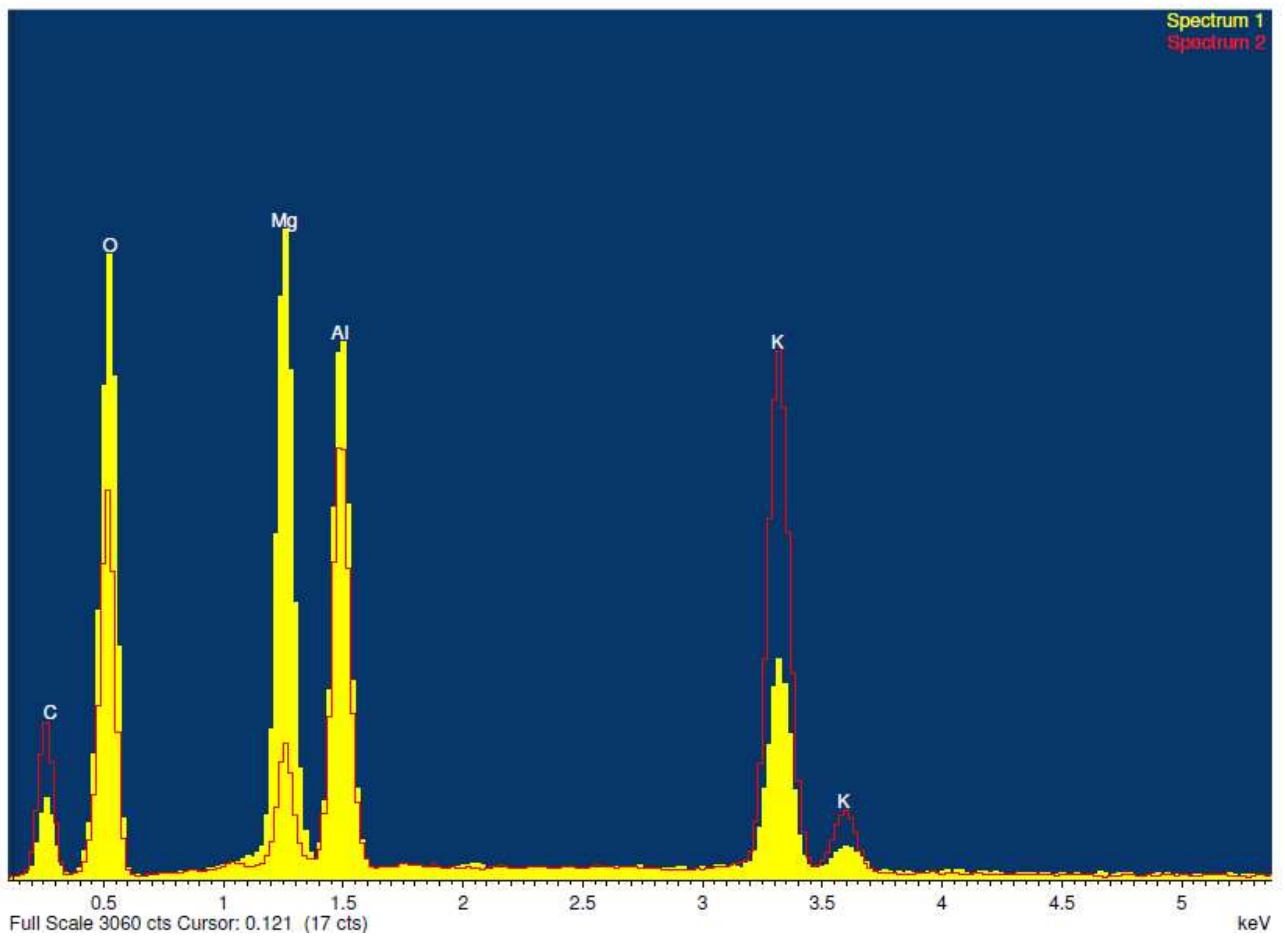
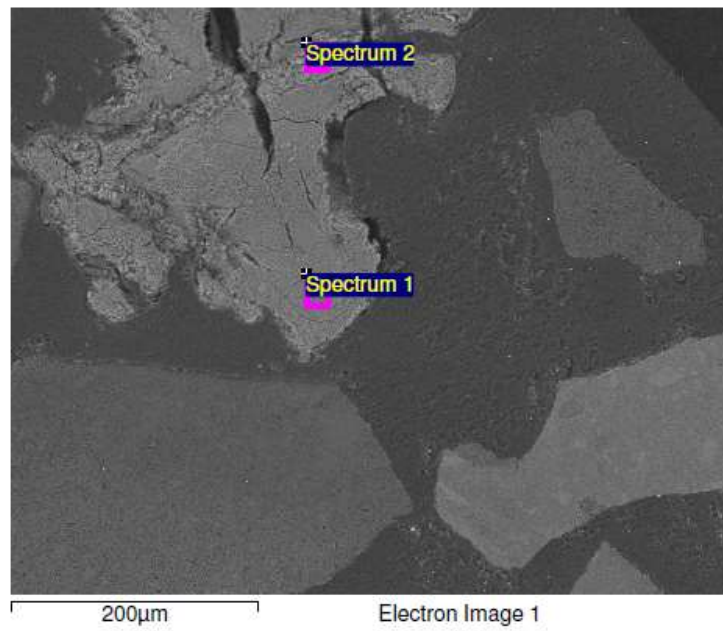


Figura G.13 Campione HT1K 350°C 3 bar cross old_02

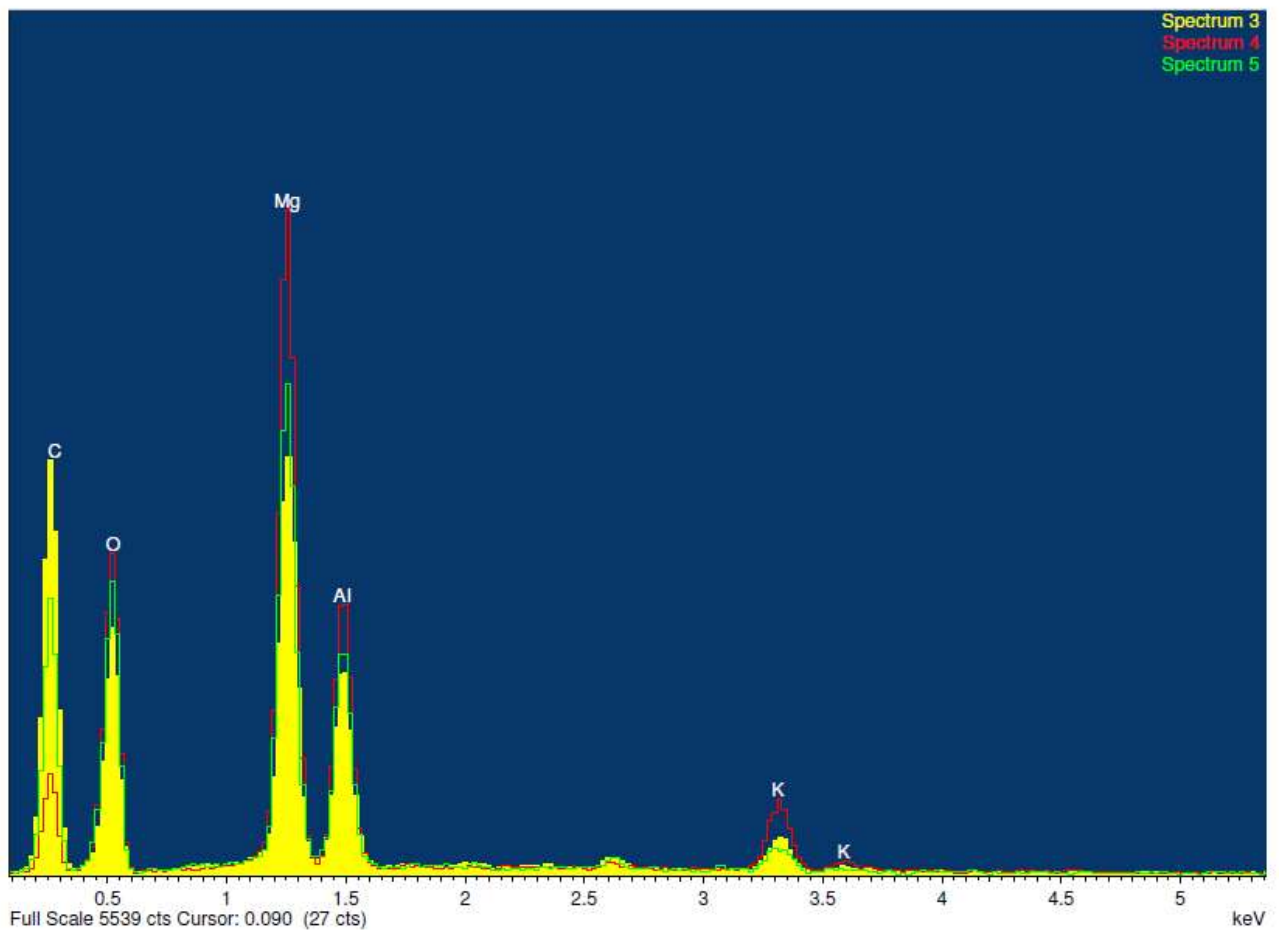
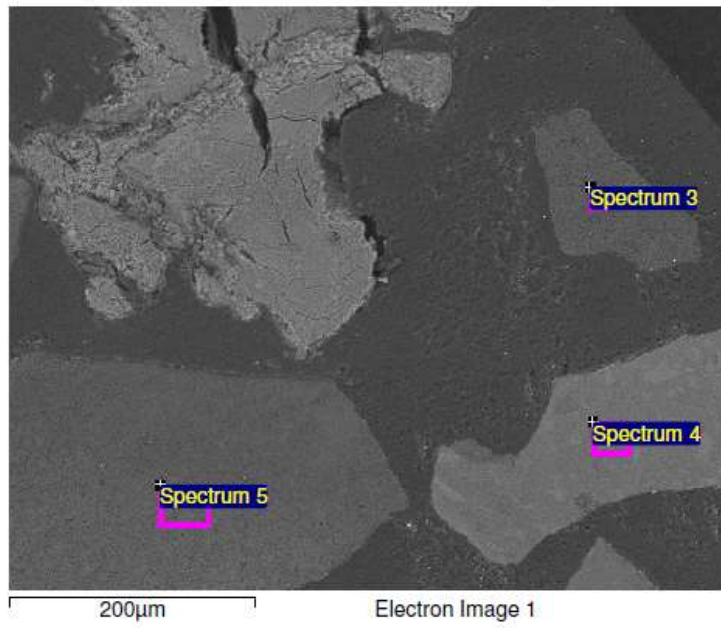


Figura G.14 Campione HT1K 350°C 3 bar cross old_03

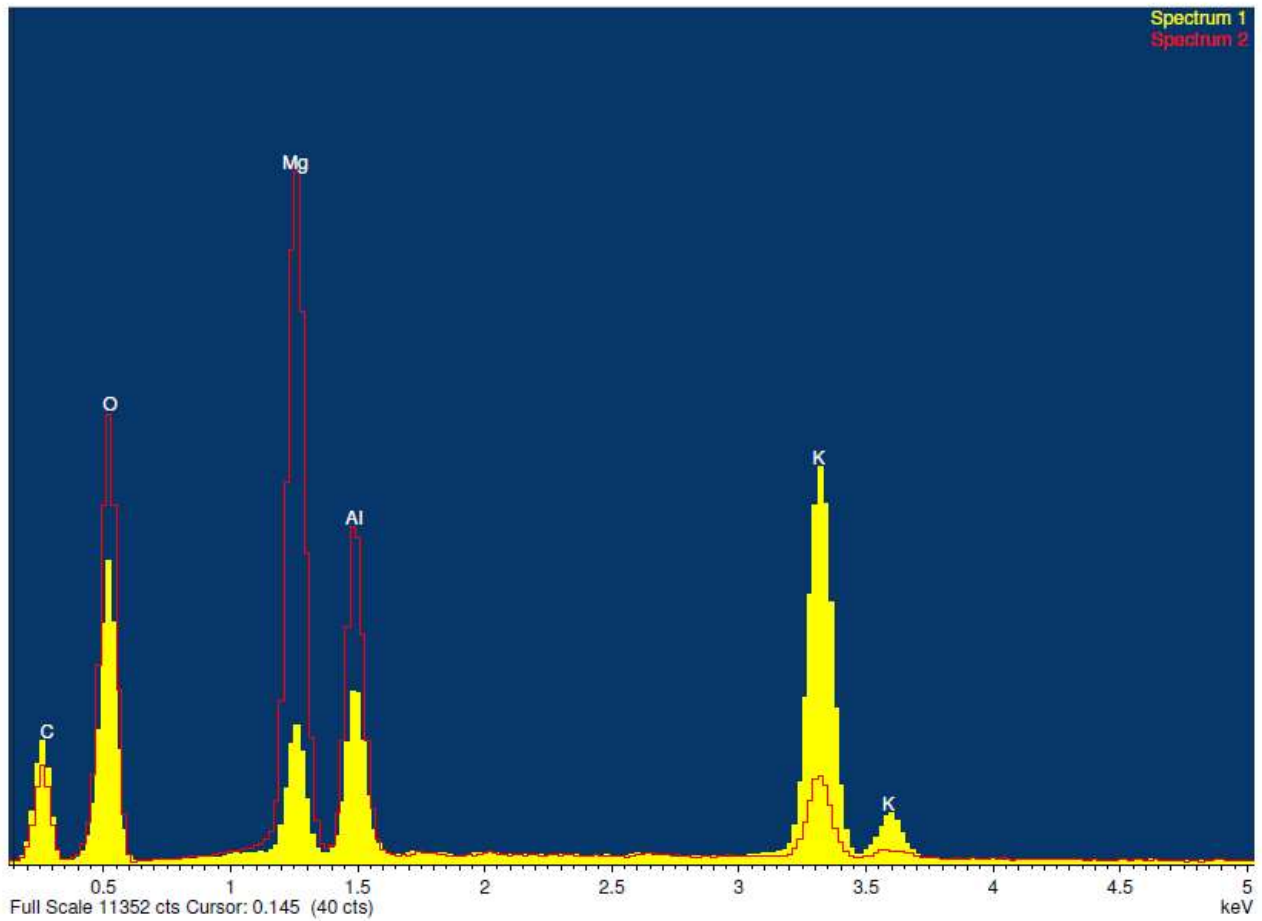
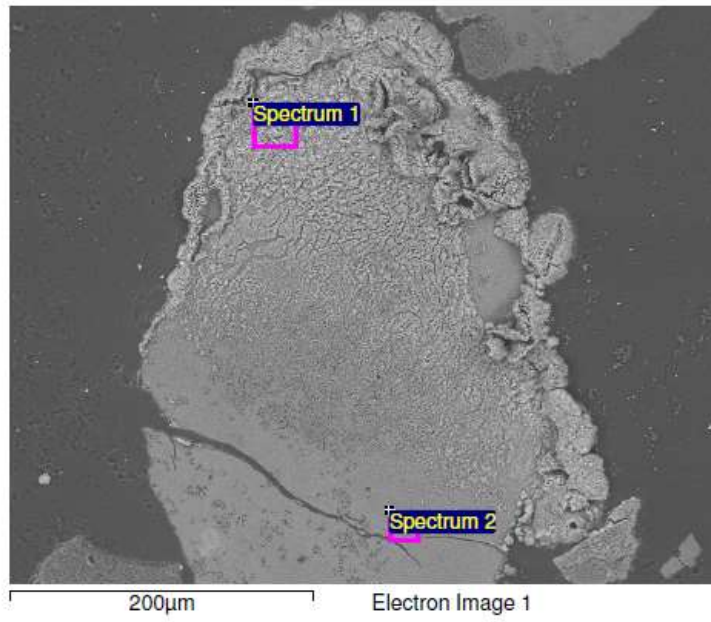


Figura G.15 Campione HT1K 350°C 3 bar cross_04

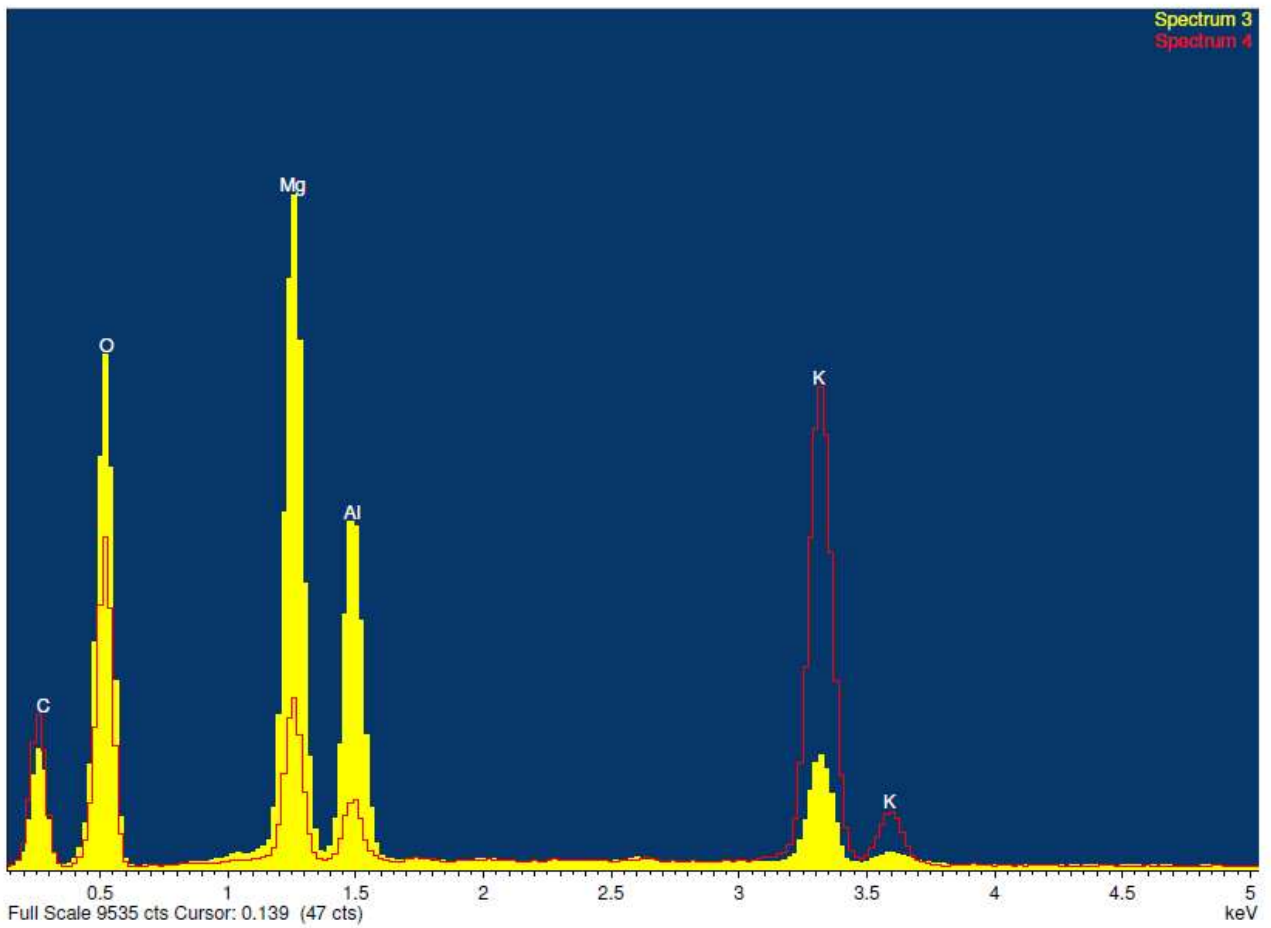
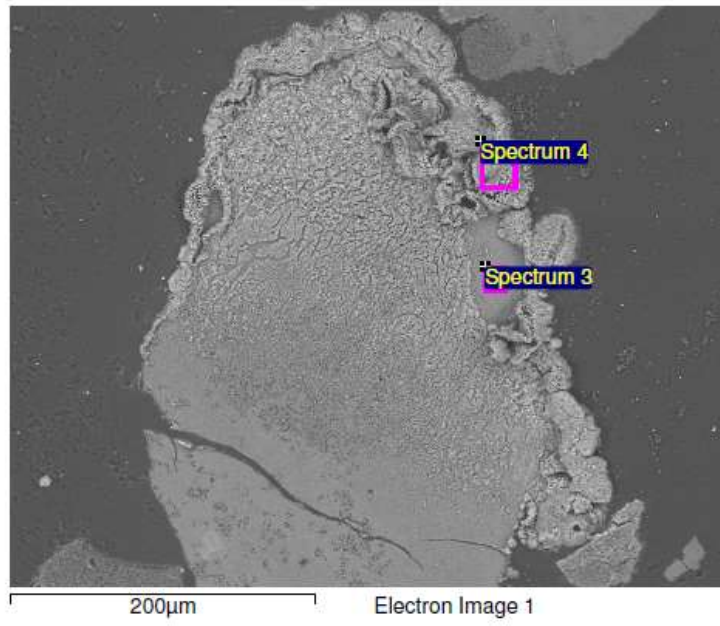


Figura G.16 Campione HT1K 350°C 3 bar cross_05

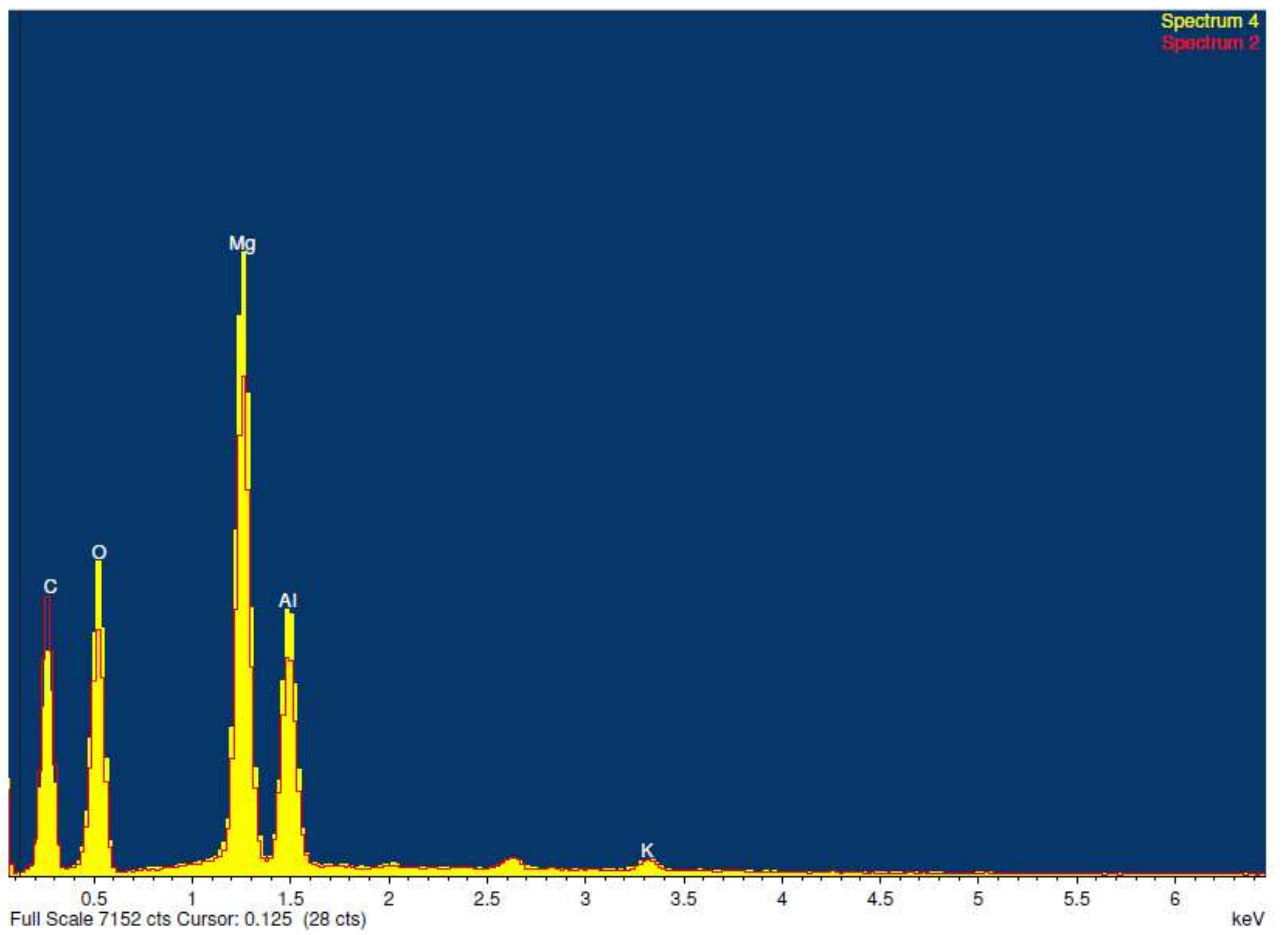
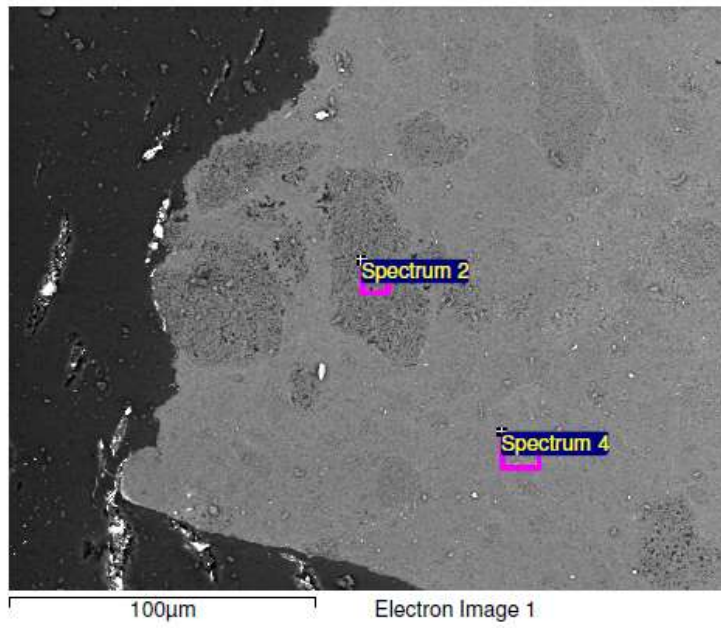


Figura G.17 Campione HT1K 350°C 3 bar cross_06

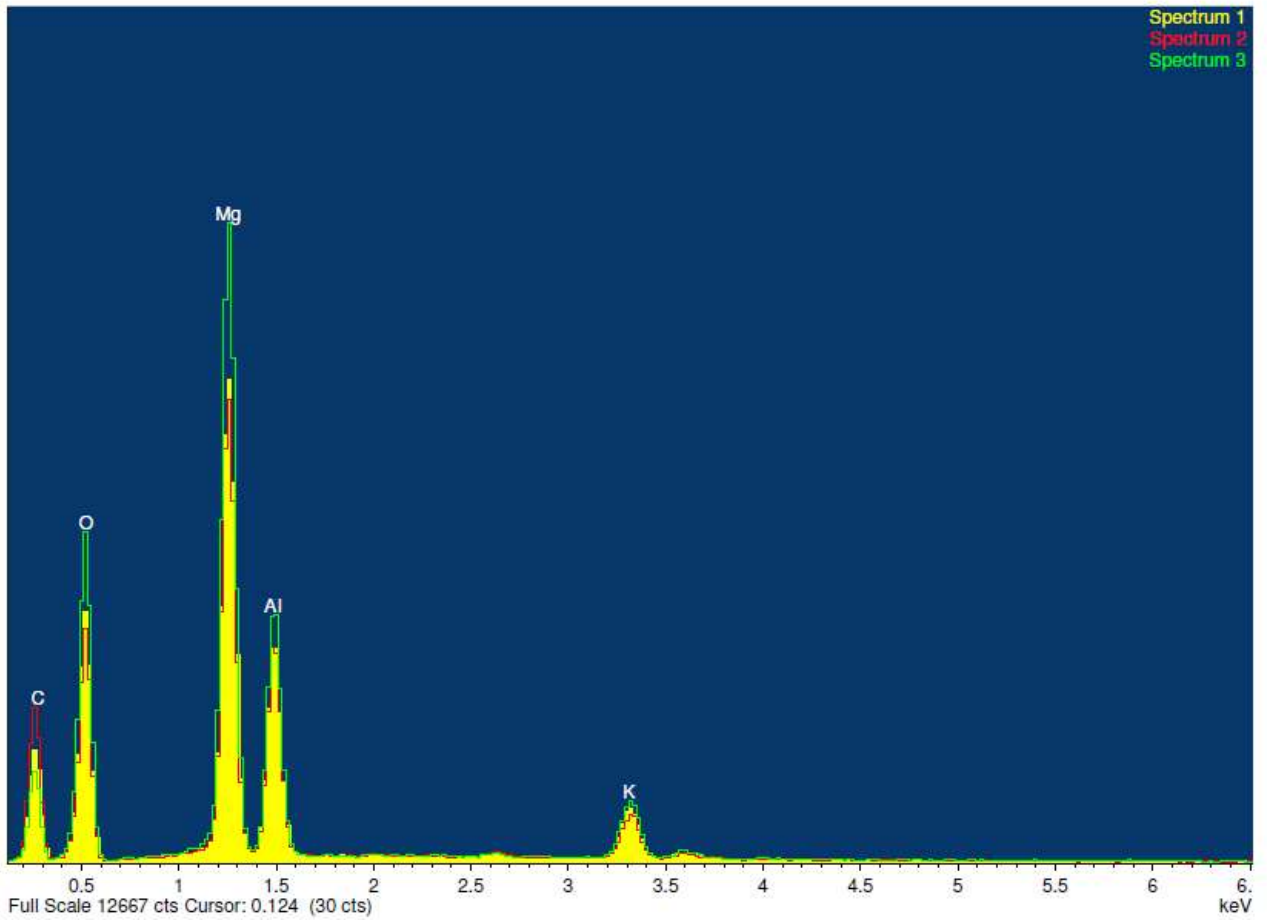
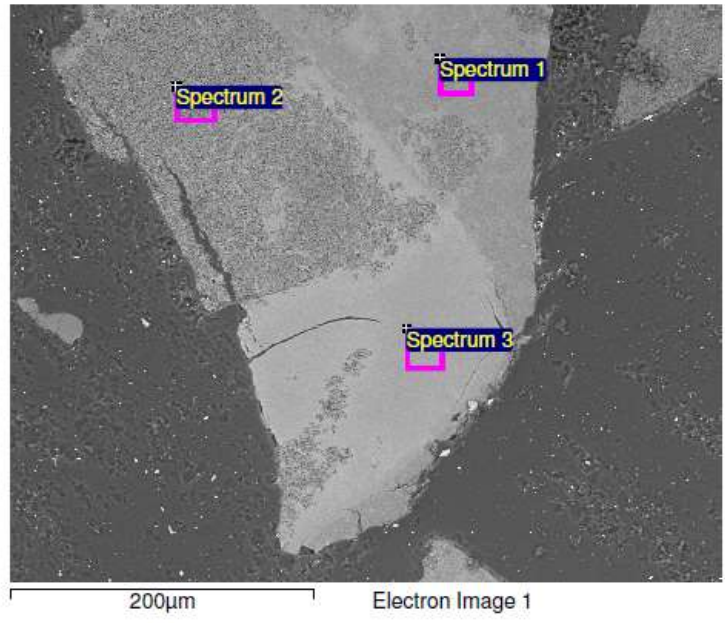


Figura G.18 Campione HT1K 350°C 3 bar cross_07

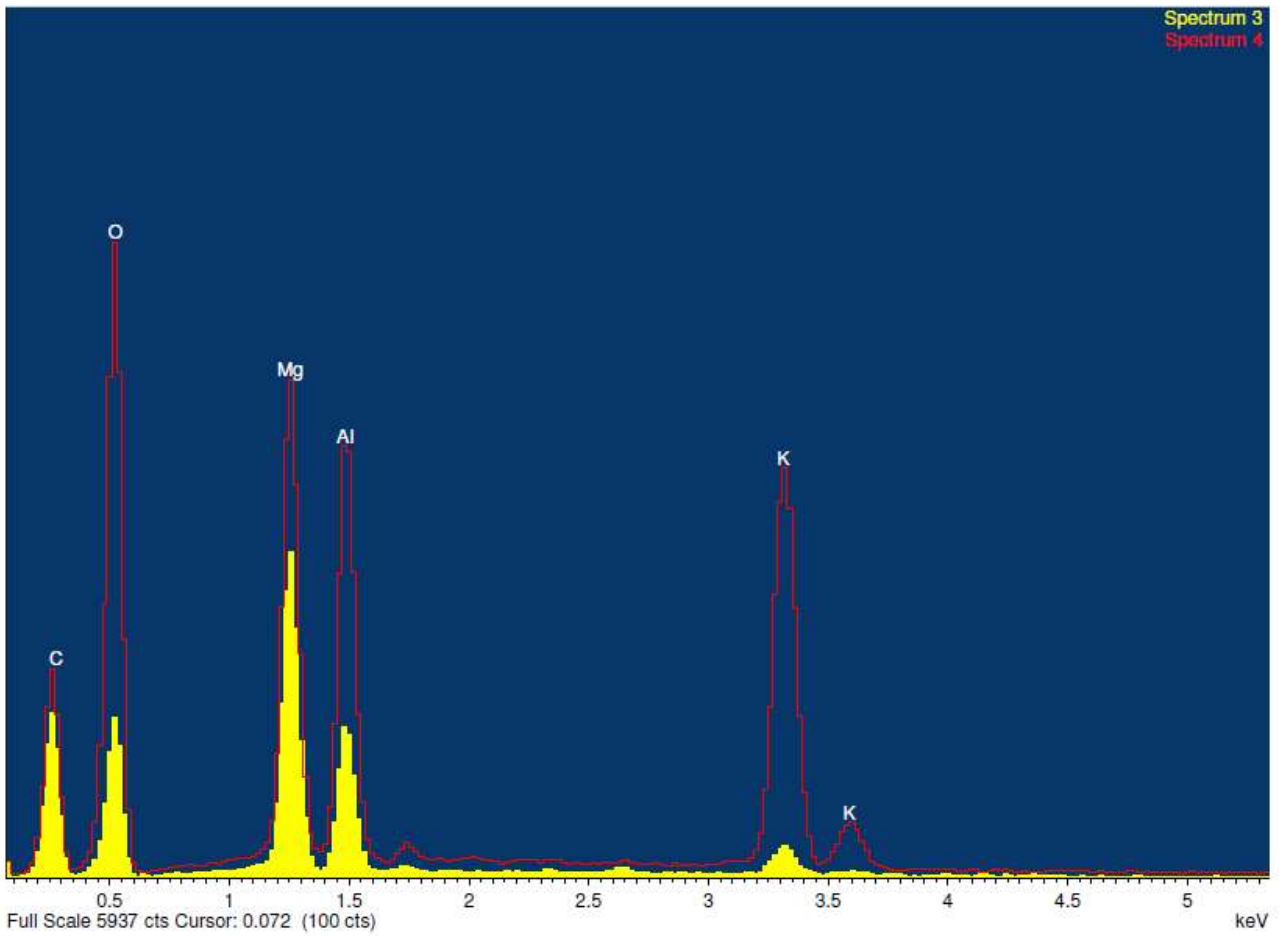
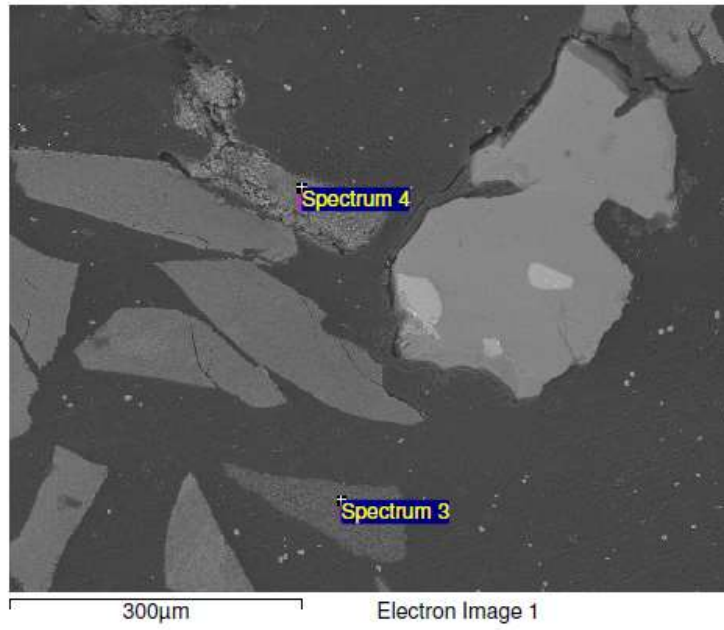


Figura G.19 Campione HT1K 350°C 6 bar cross old_01

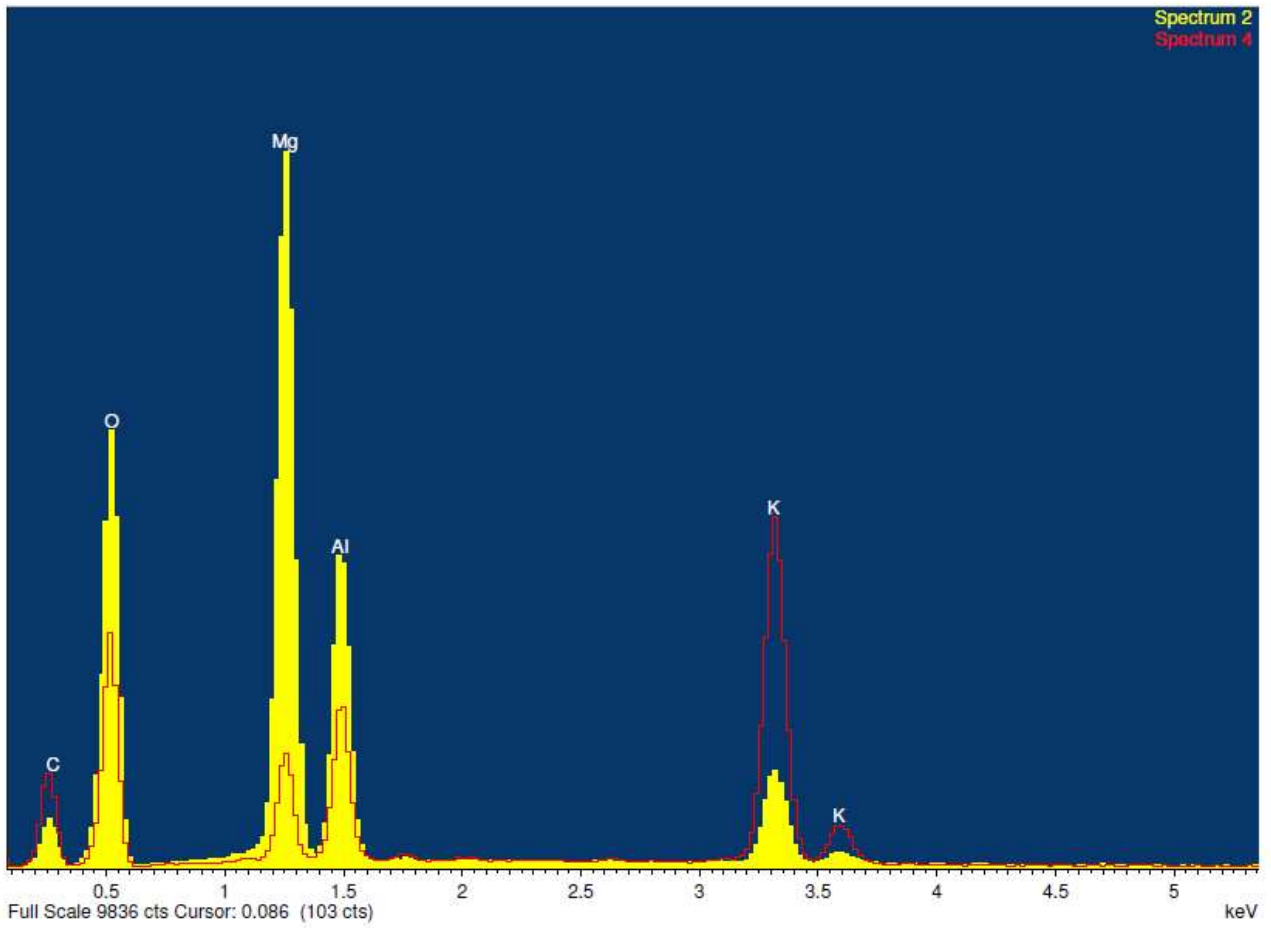
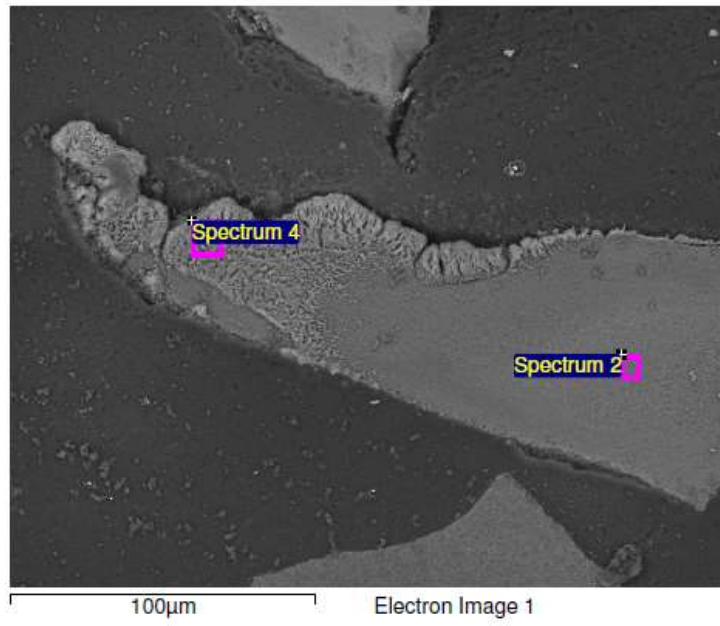


Figura G.20 Campione HT1K 350°C 6 bar cross old_02

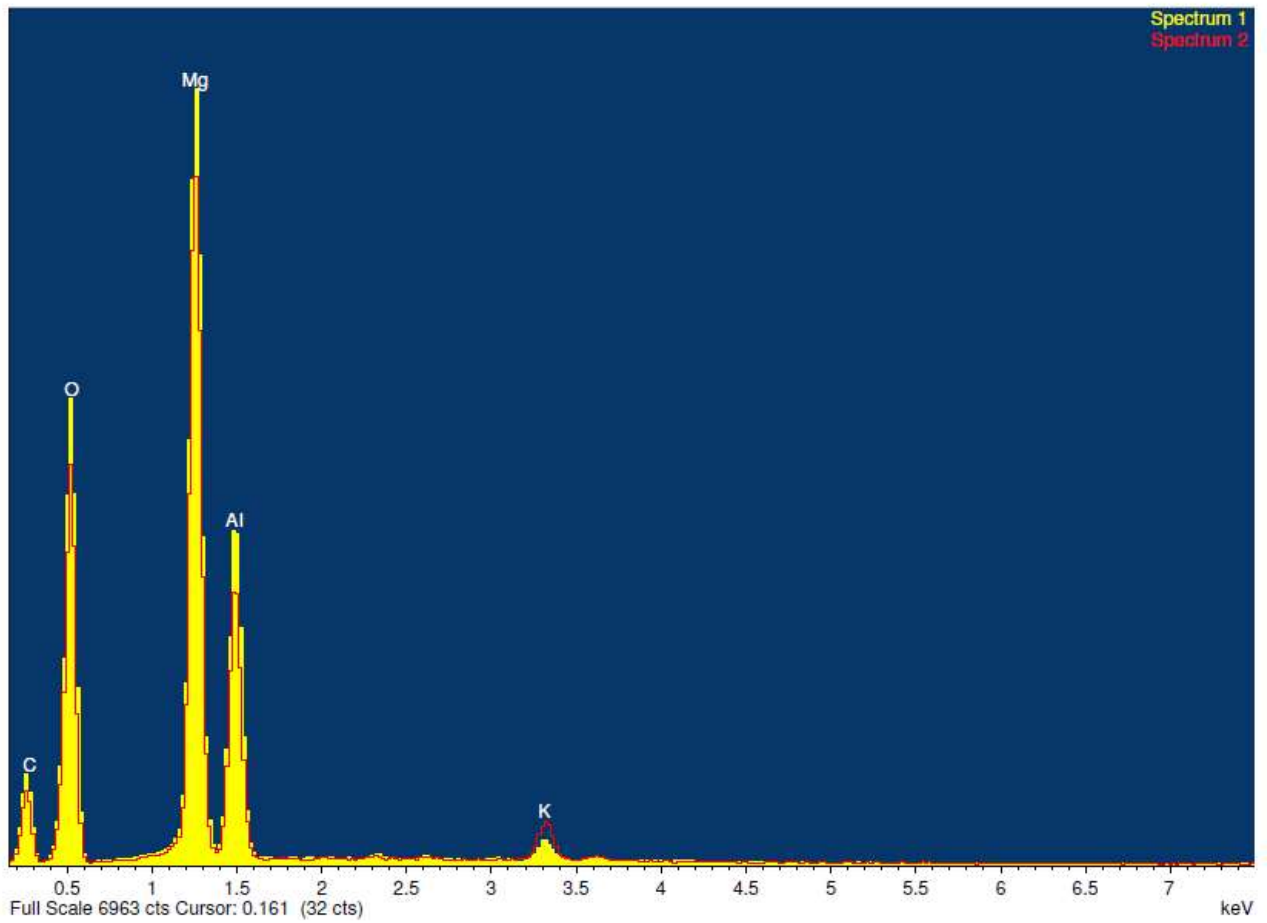
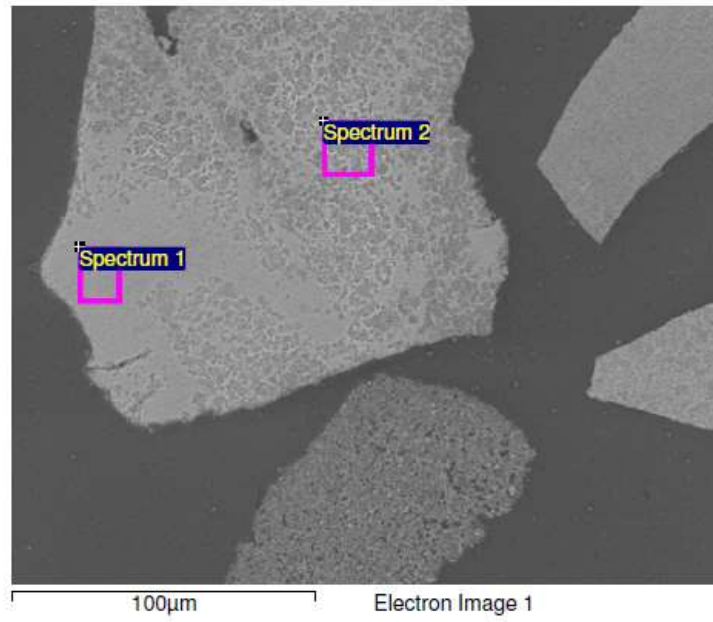


Figura G.21 Campione HT1K 350°C 6 bar cross bis_01

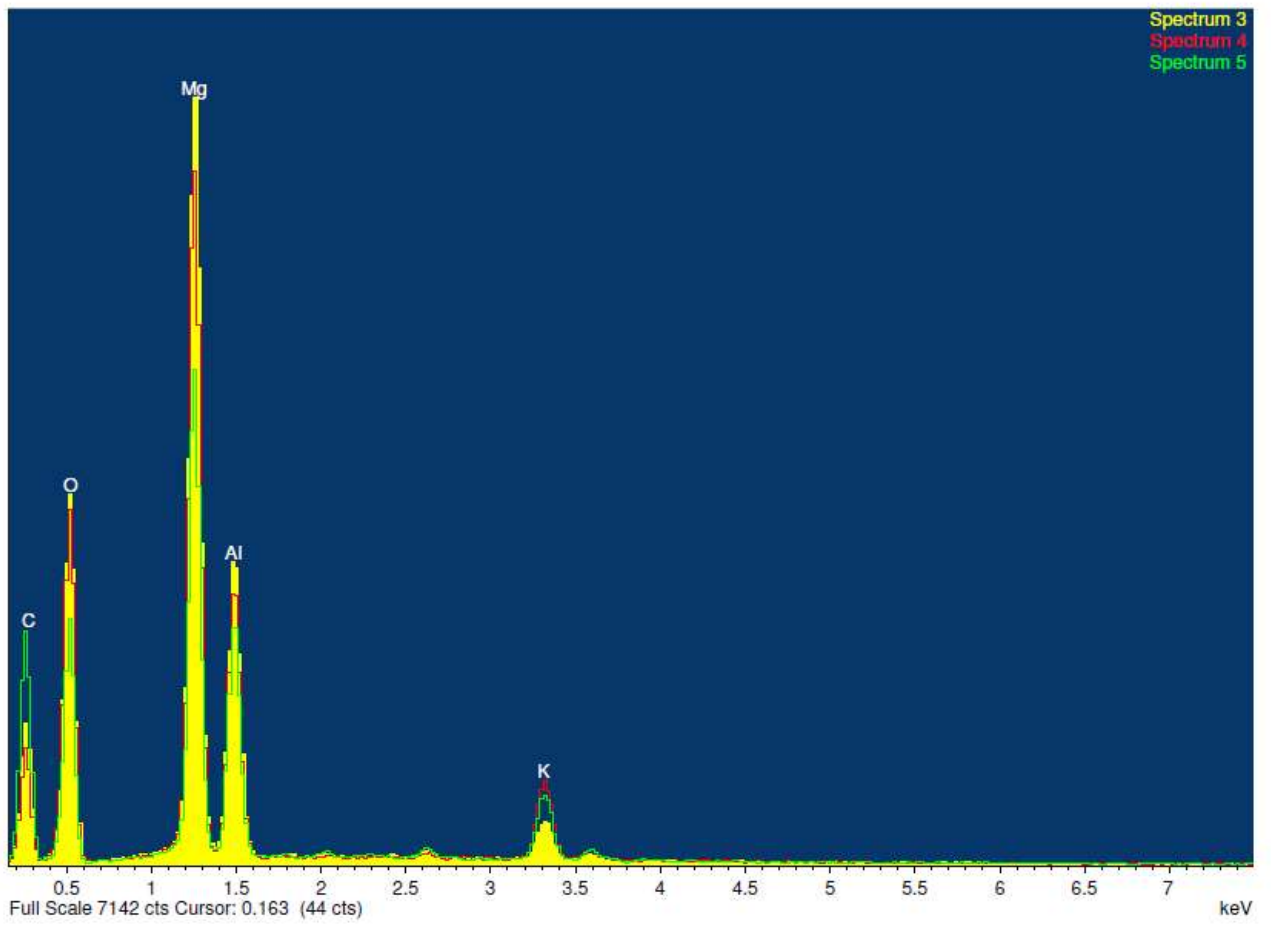
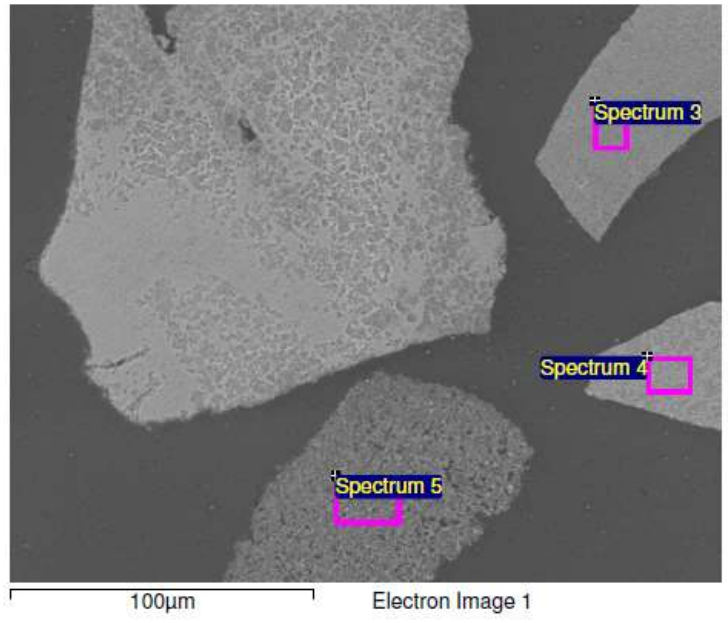


Figura G.22 Campione HT1K 350°C 6 bar cross bis_02

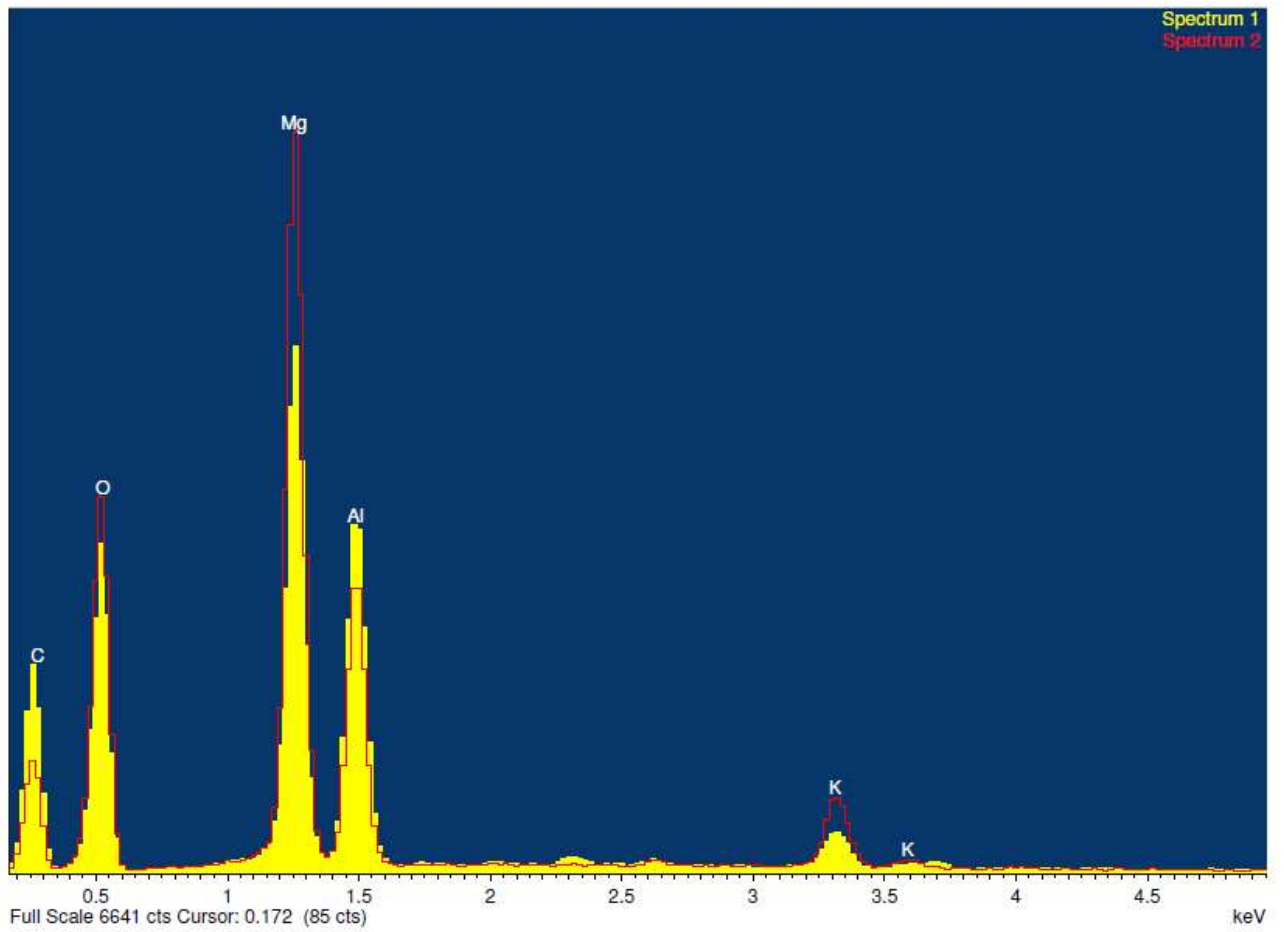
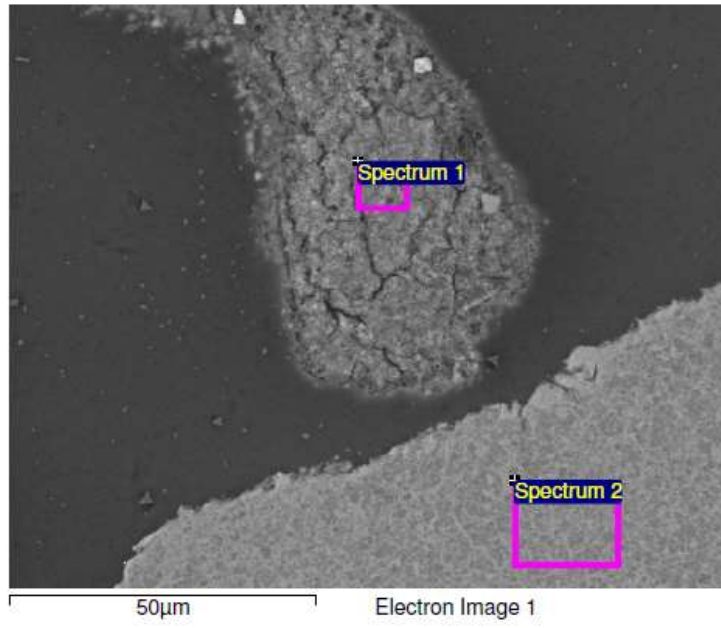


Figura G.23 Campione HT1K 350°C 6 bar cross bis_03

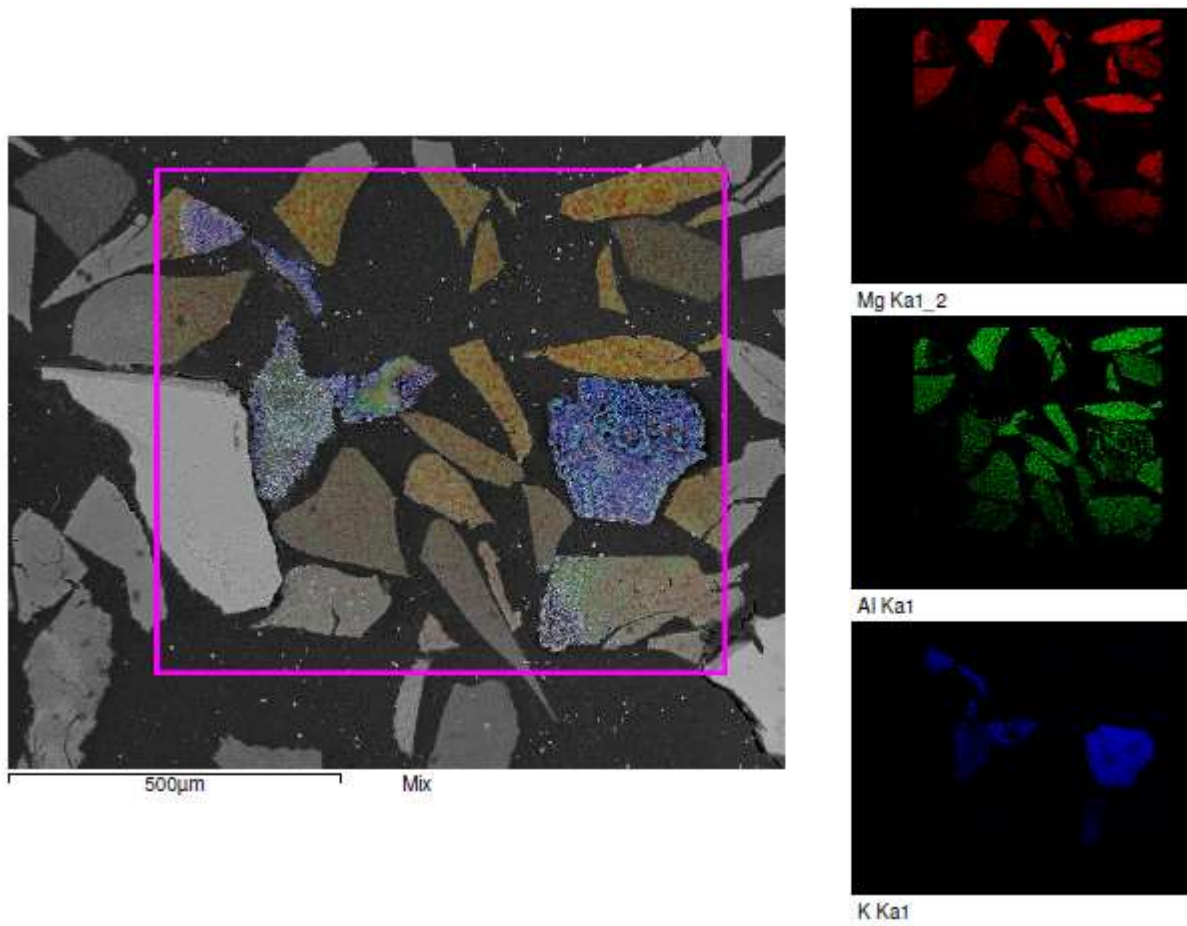


Figura G.24 Campione HT1K 350°C 6 bar maps_01

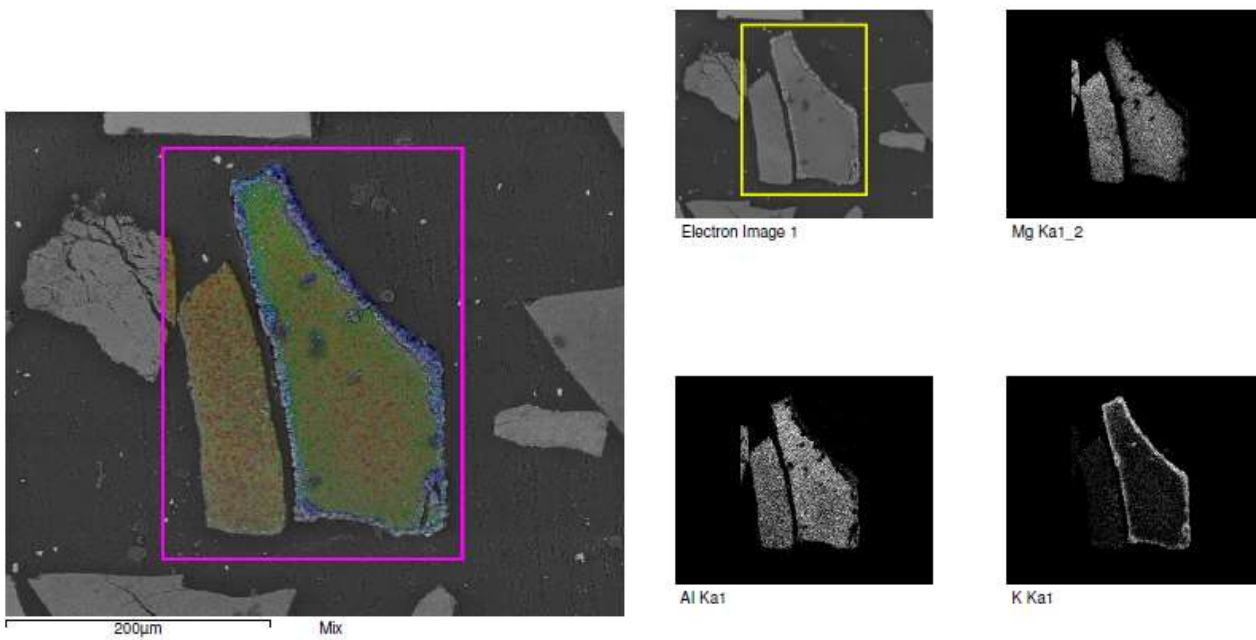


Figura G.25 Campione HT1K 350°C 6 bar maps_02

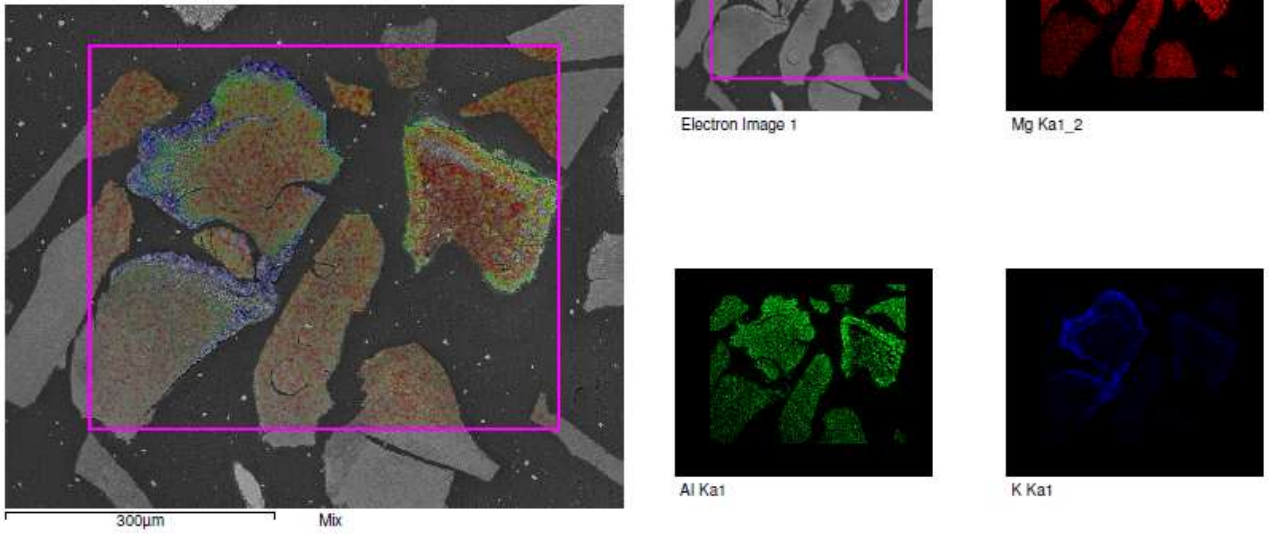


Figura G.26 Campione HT1K 350°C 6 bar maps_03

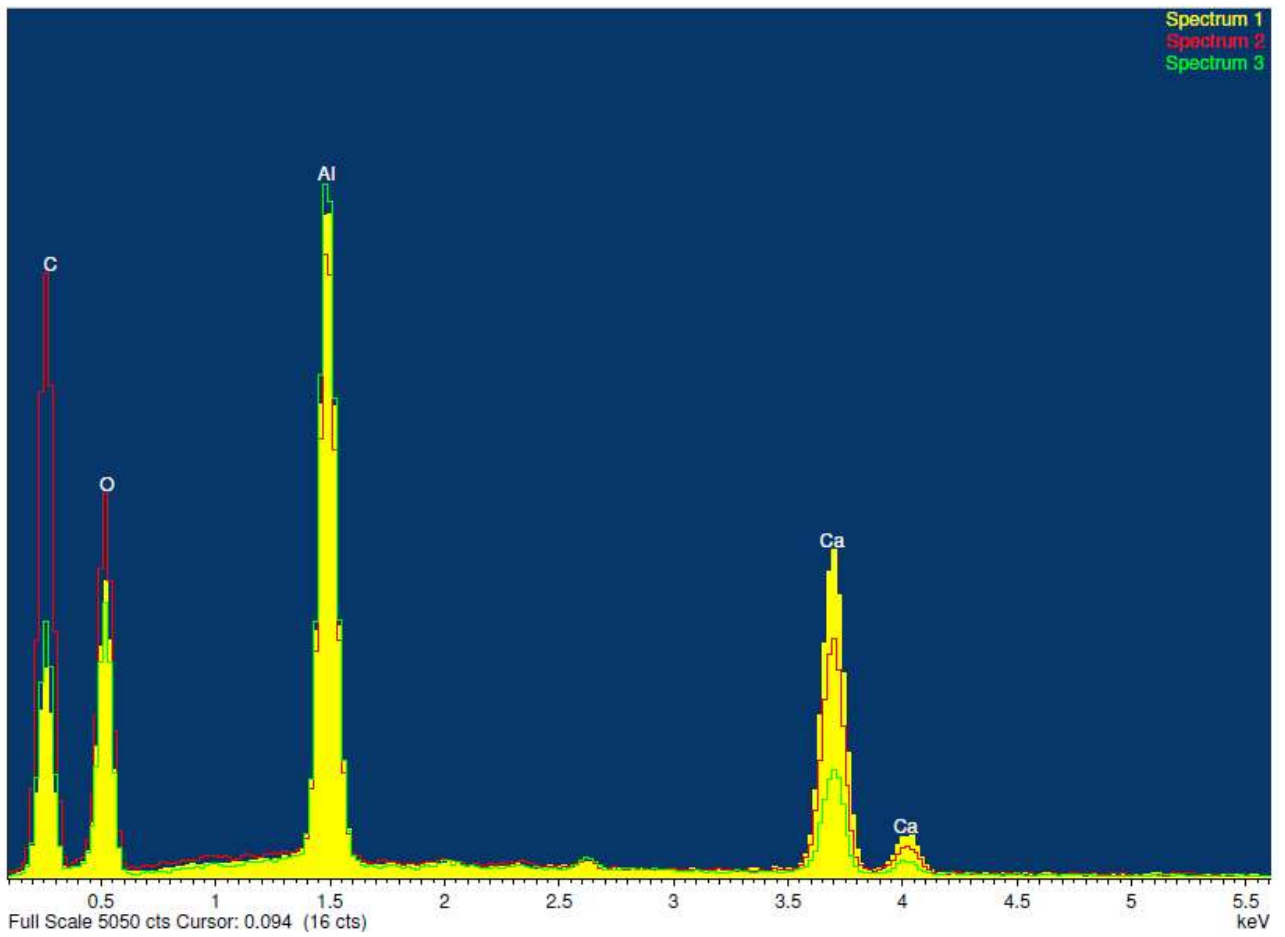
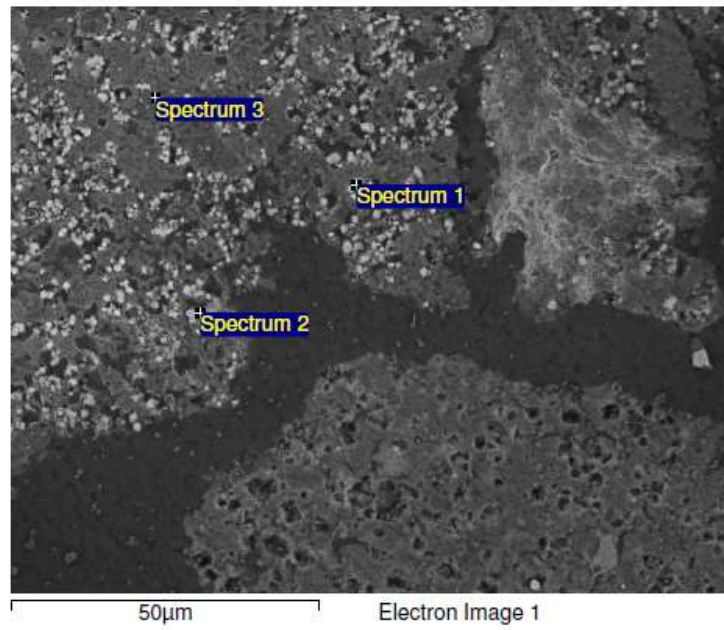


Figura G.27 Campione HT2 800°C cross old_01

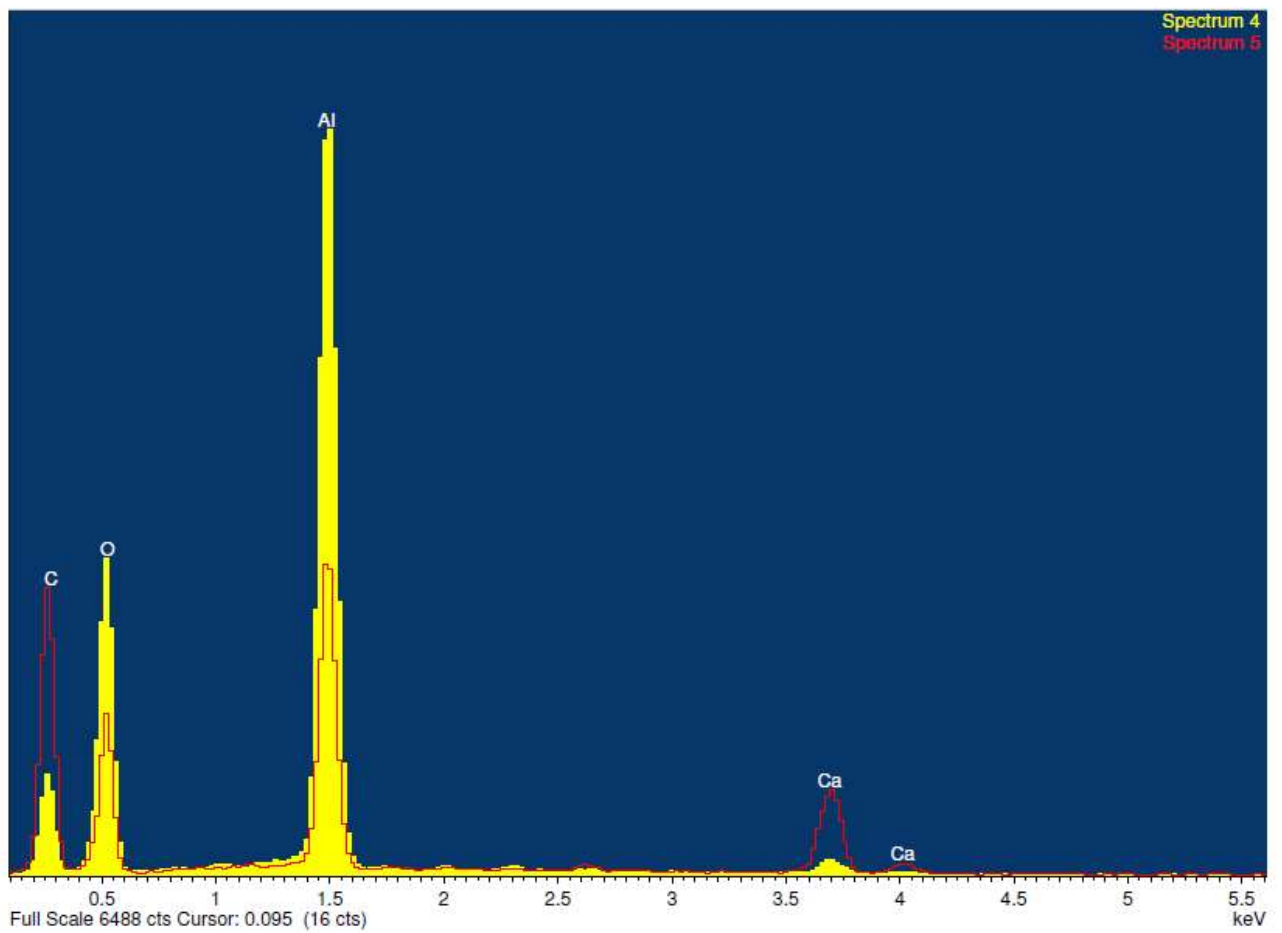
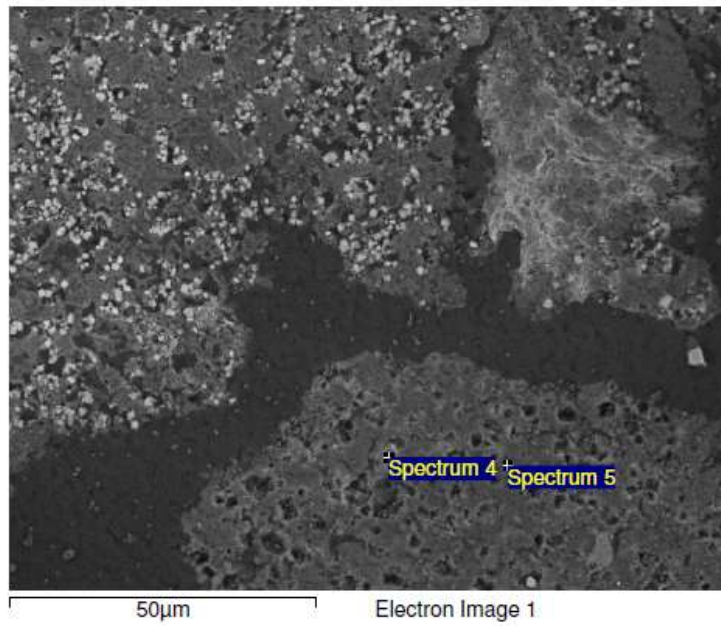


Figura G.28 Campione HT2 800°C cross old_02

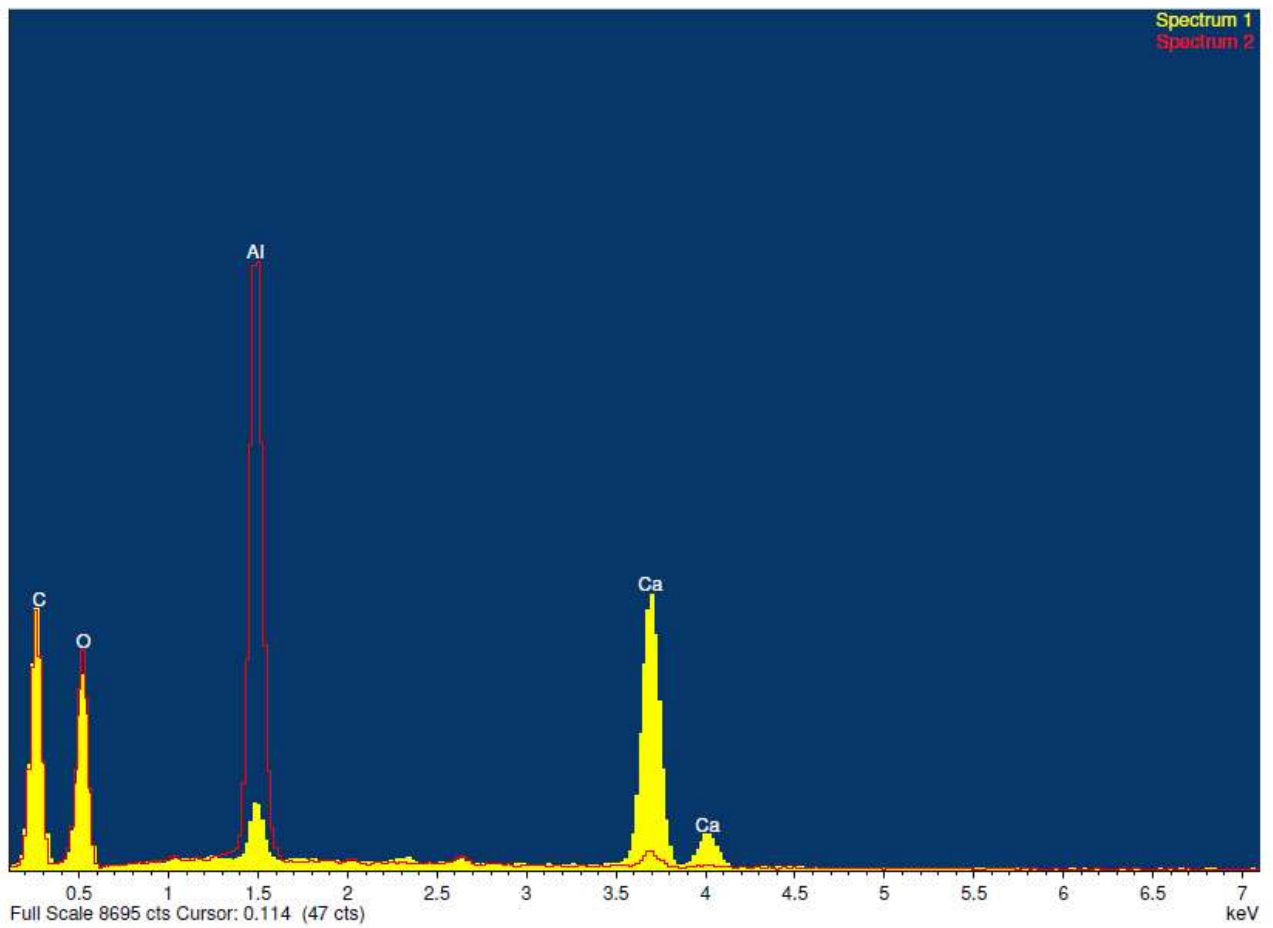
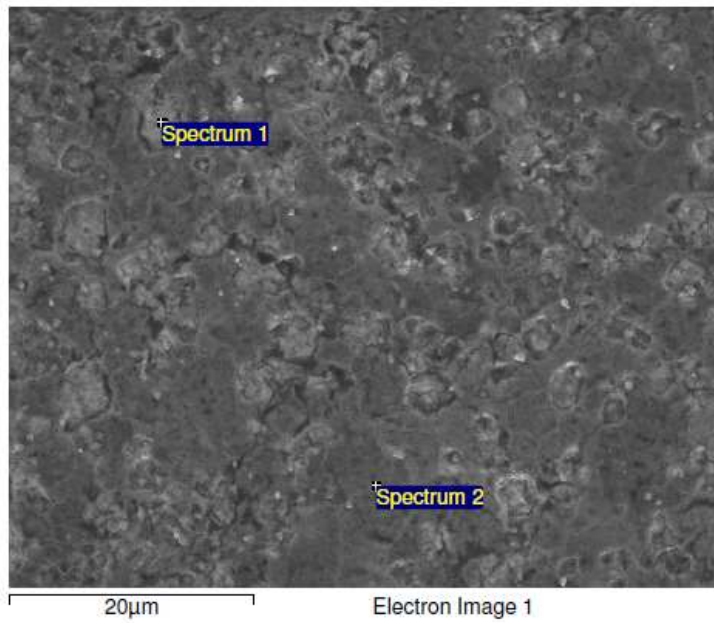


Figura G.29 Campione HT2 800°C cross old_03

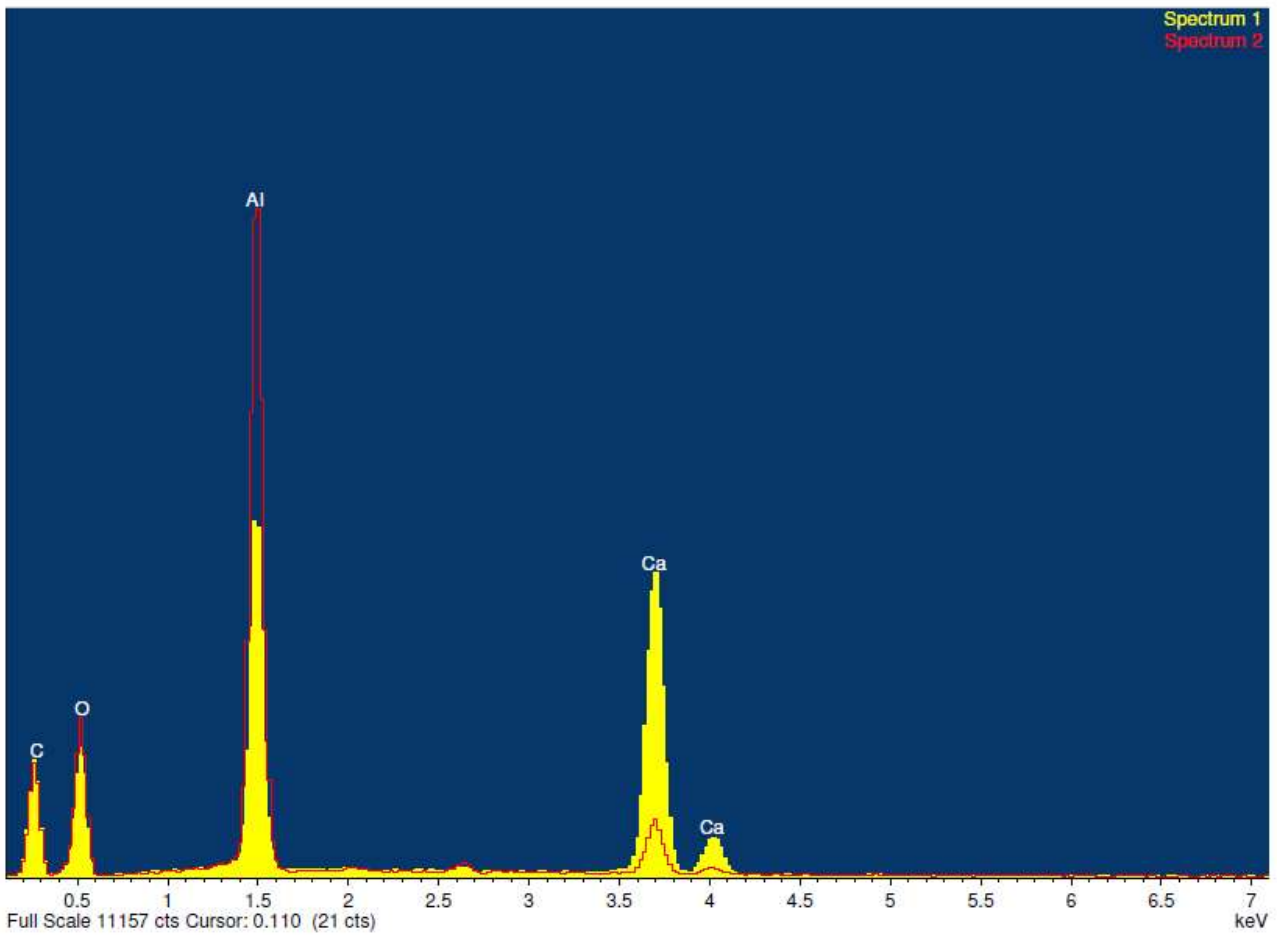
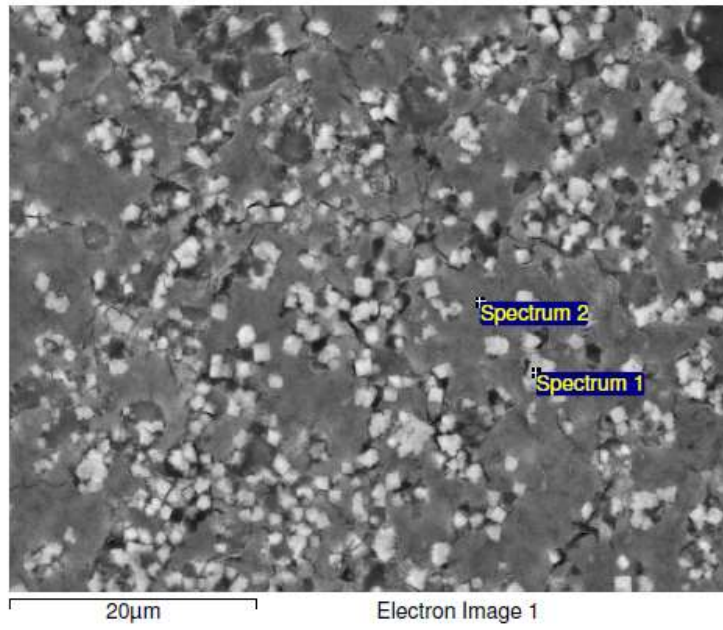


Figura G.30 Campione HT2 800°C cross_04

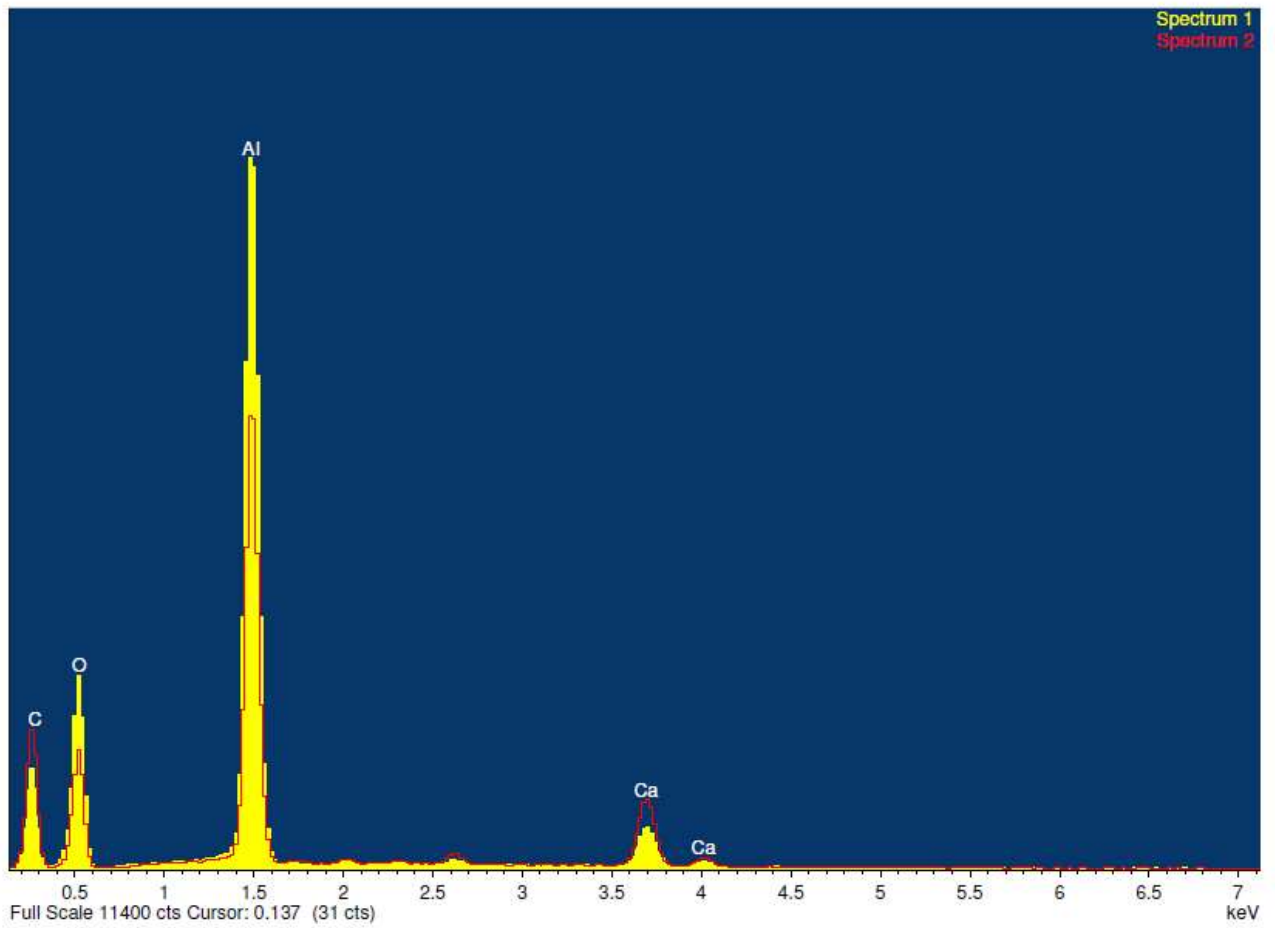
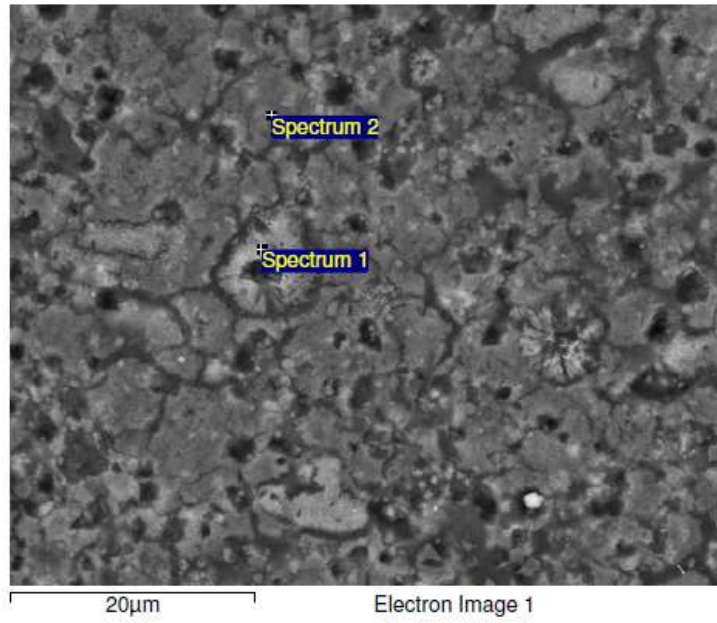


Figura G.31 Campione HT2 800°C cross_05

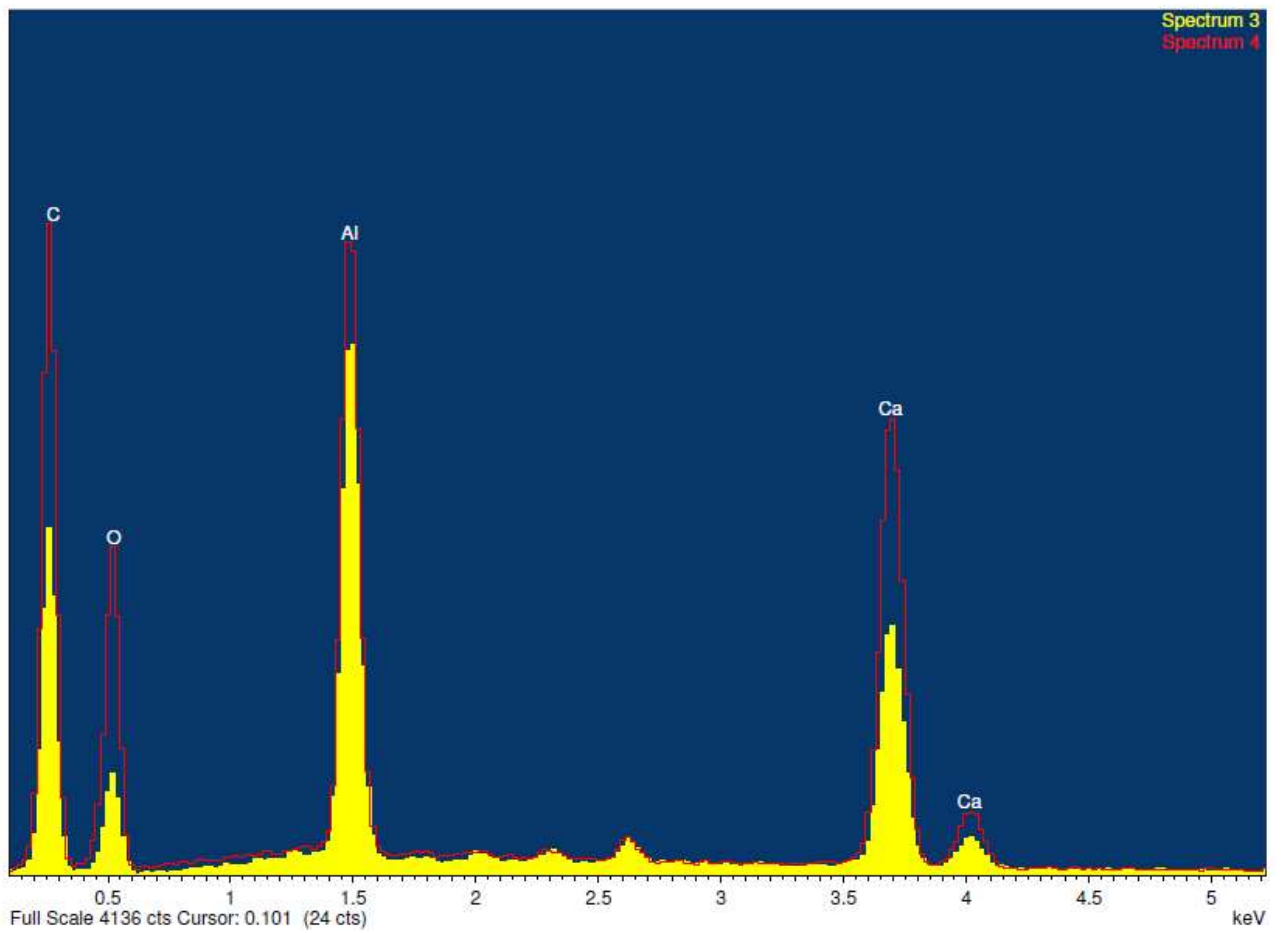
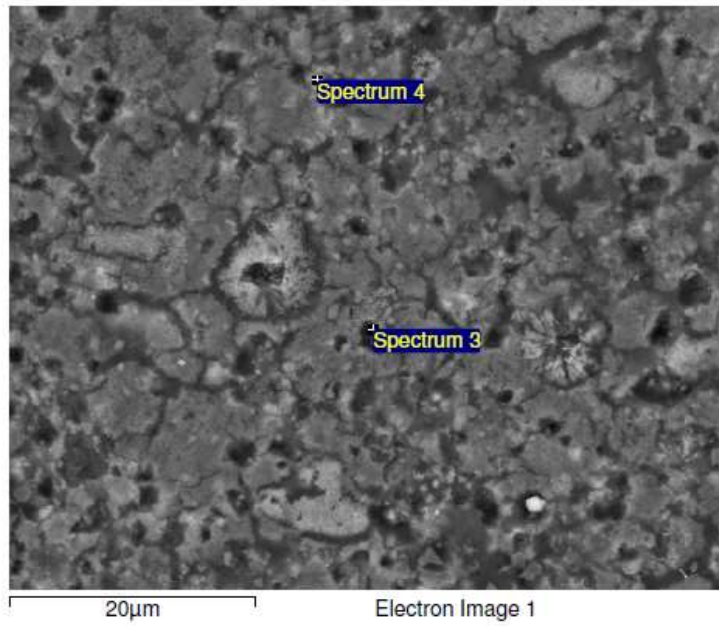


Figura G.32 Campione HT2 800°C cross_06

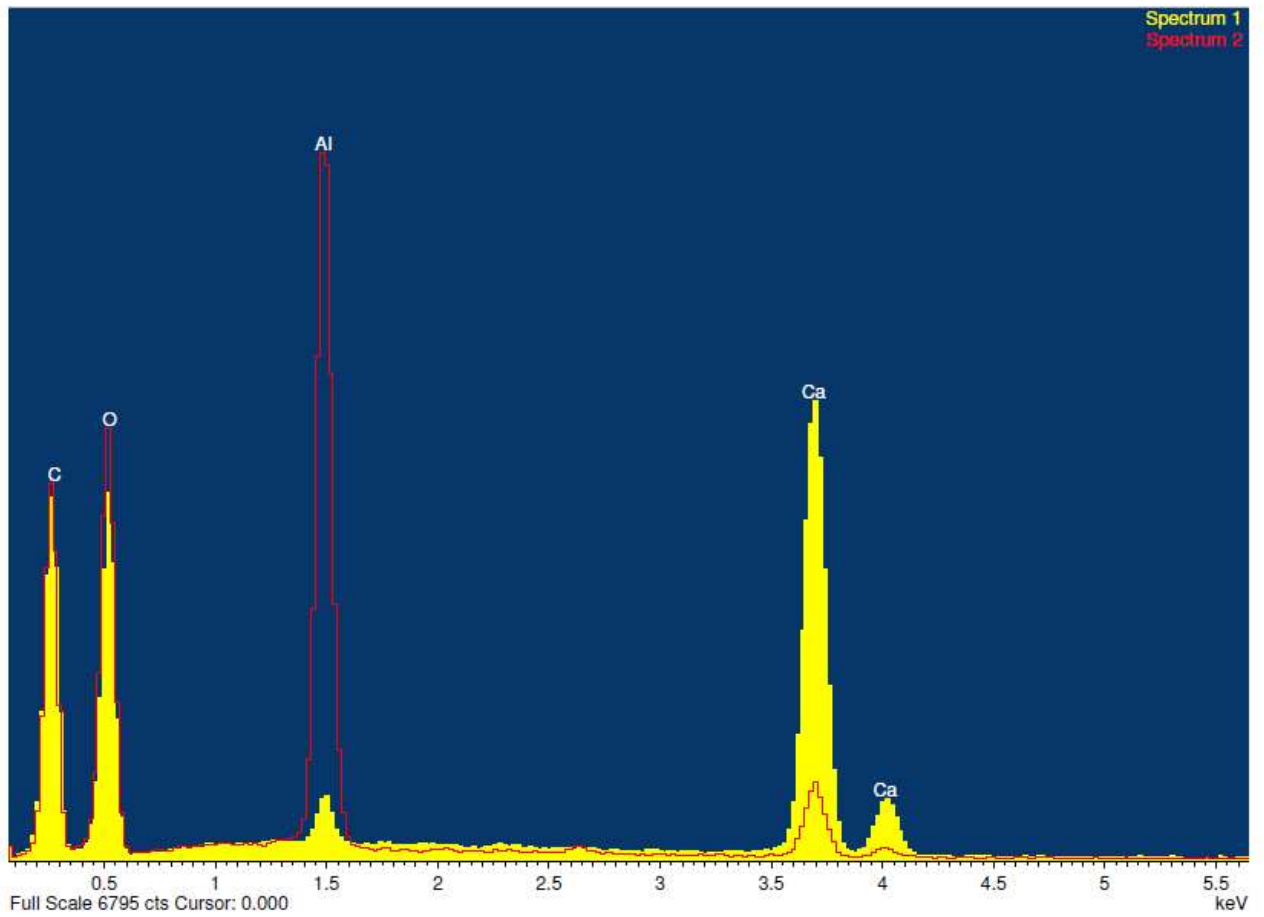
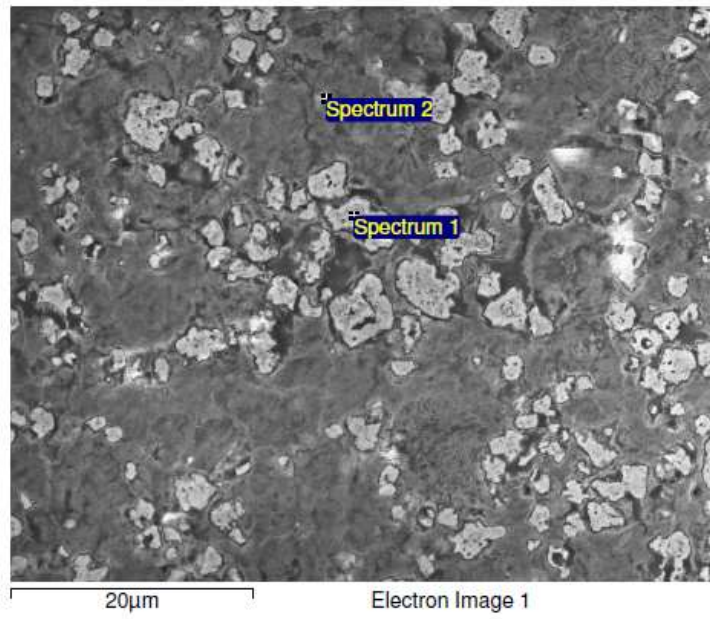


Figura G.33 Campione HT2 600°C 3 bar cross old_01

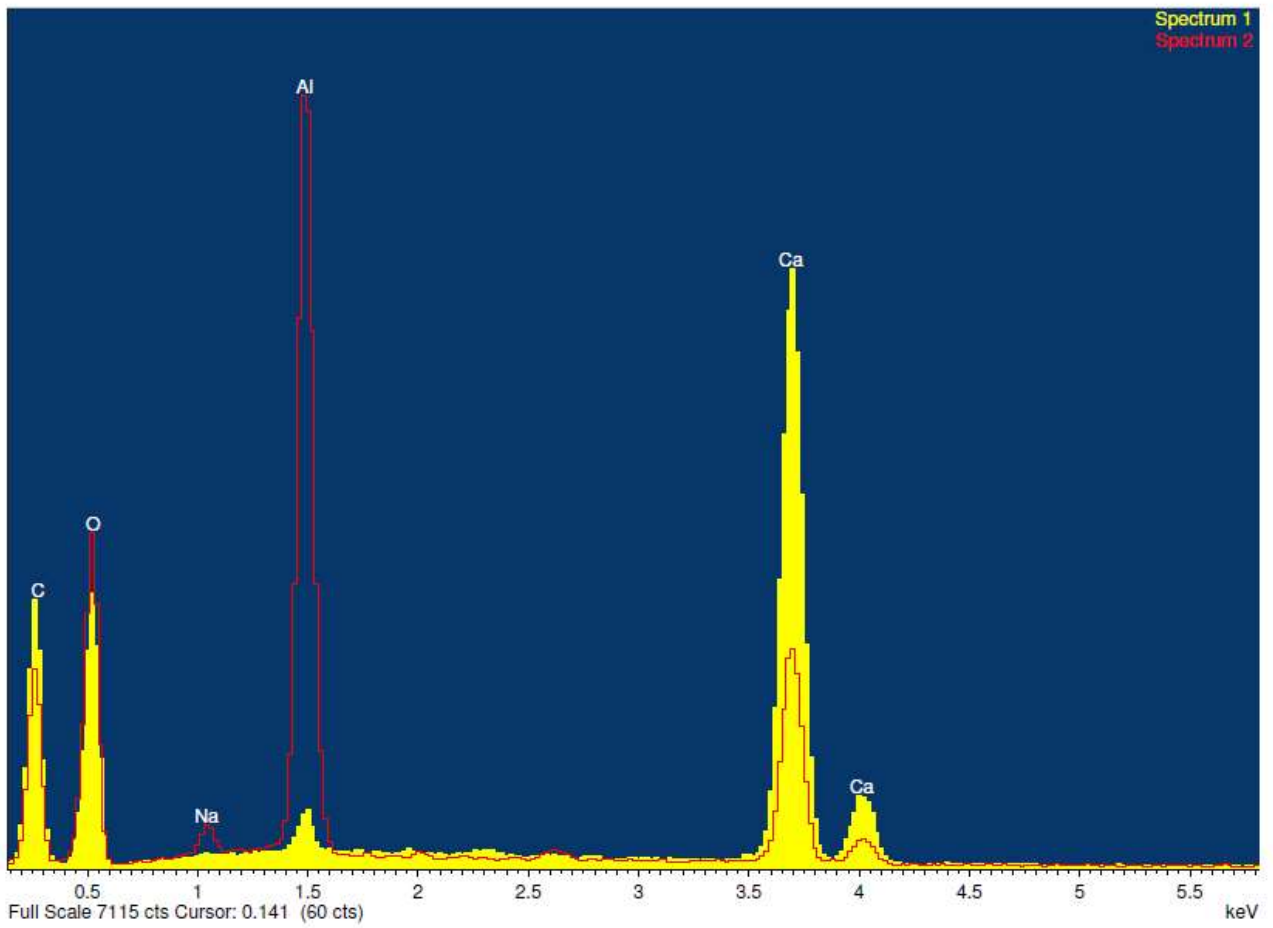
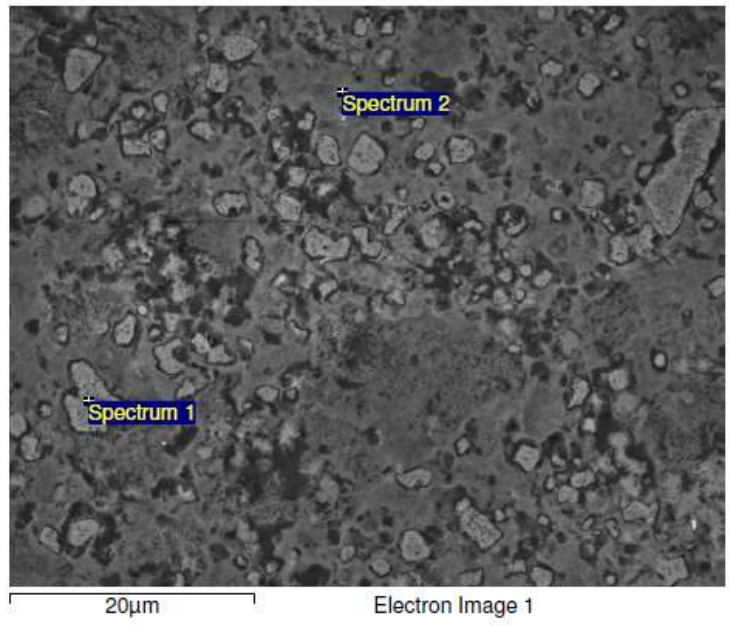


Figura G.34 Campione HT2 600°C 3 bar cross old_02

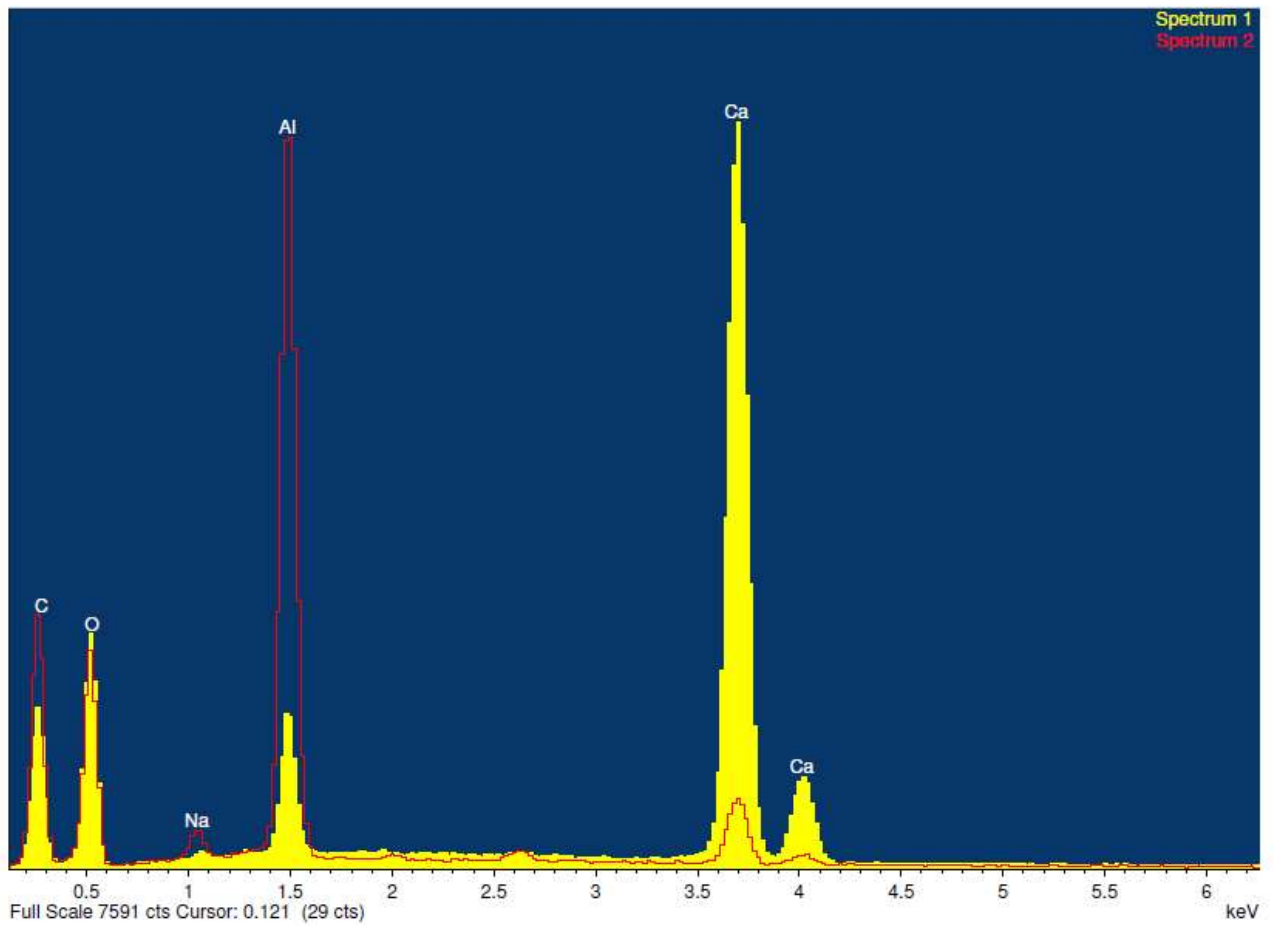
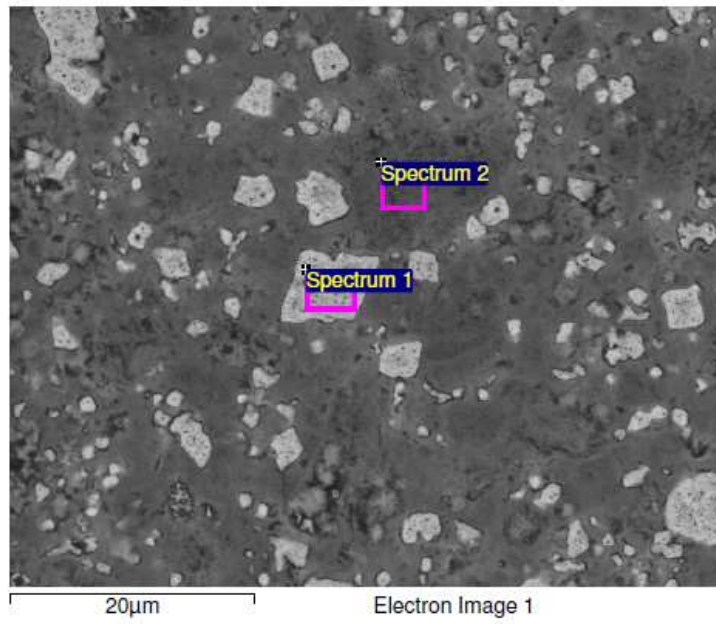


Figura G.35 Campione HT2 600°C 3 bar cross_03

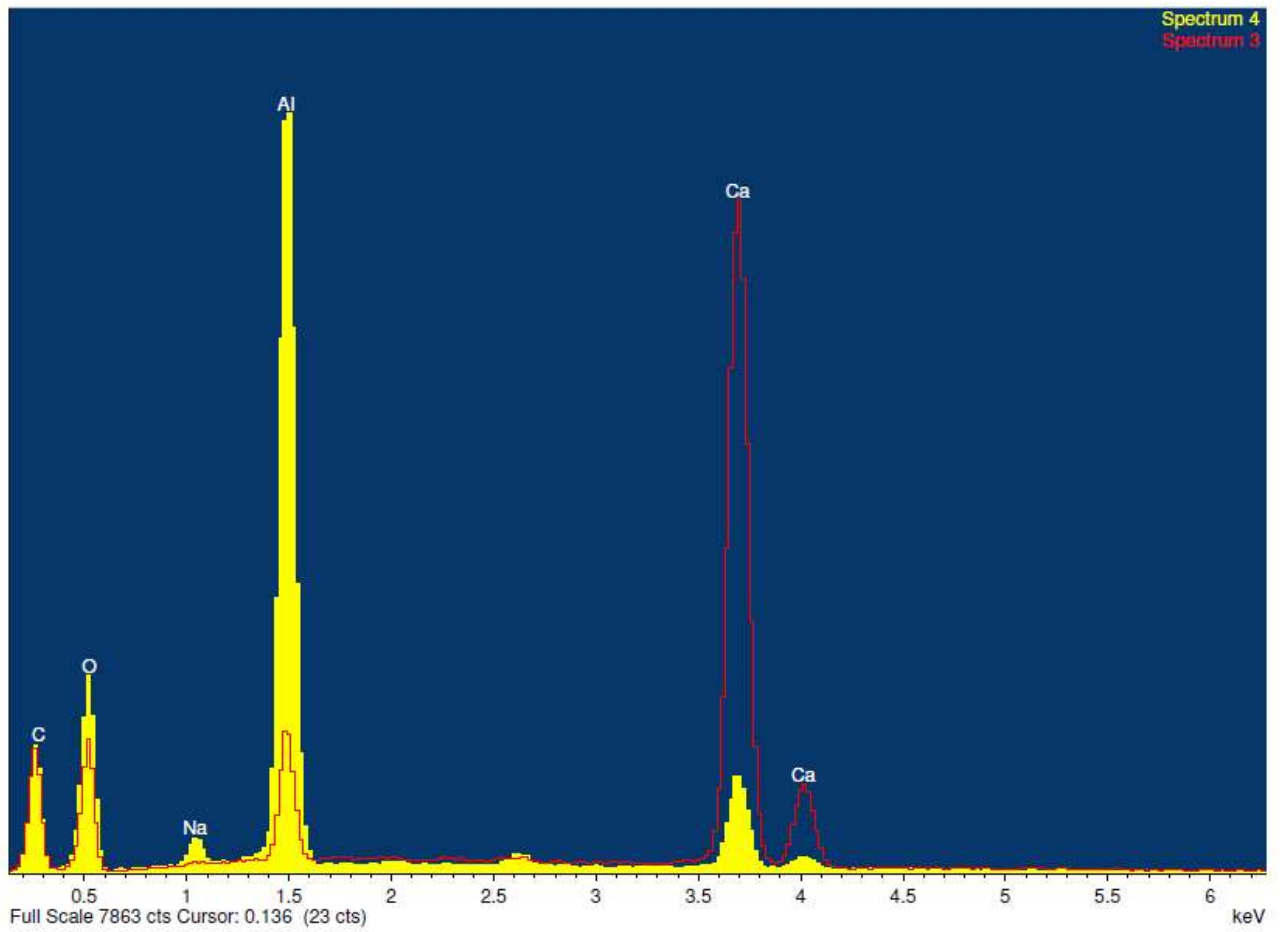
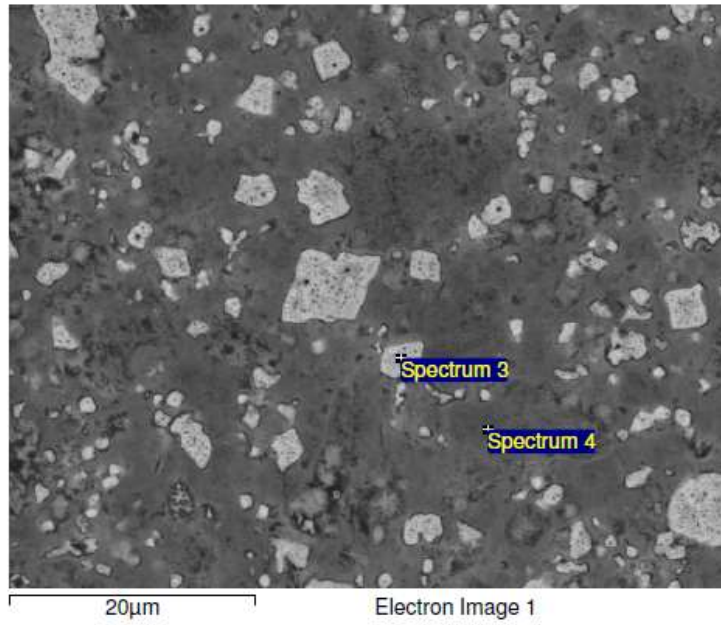


Figura G.36 Campione HT2 600°C 3 bar cross_04

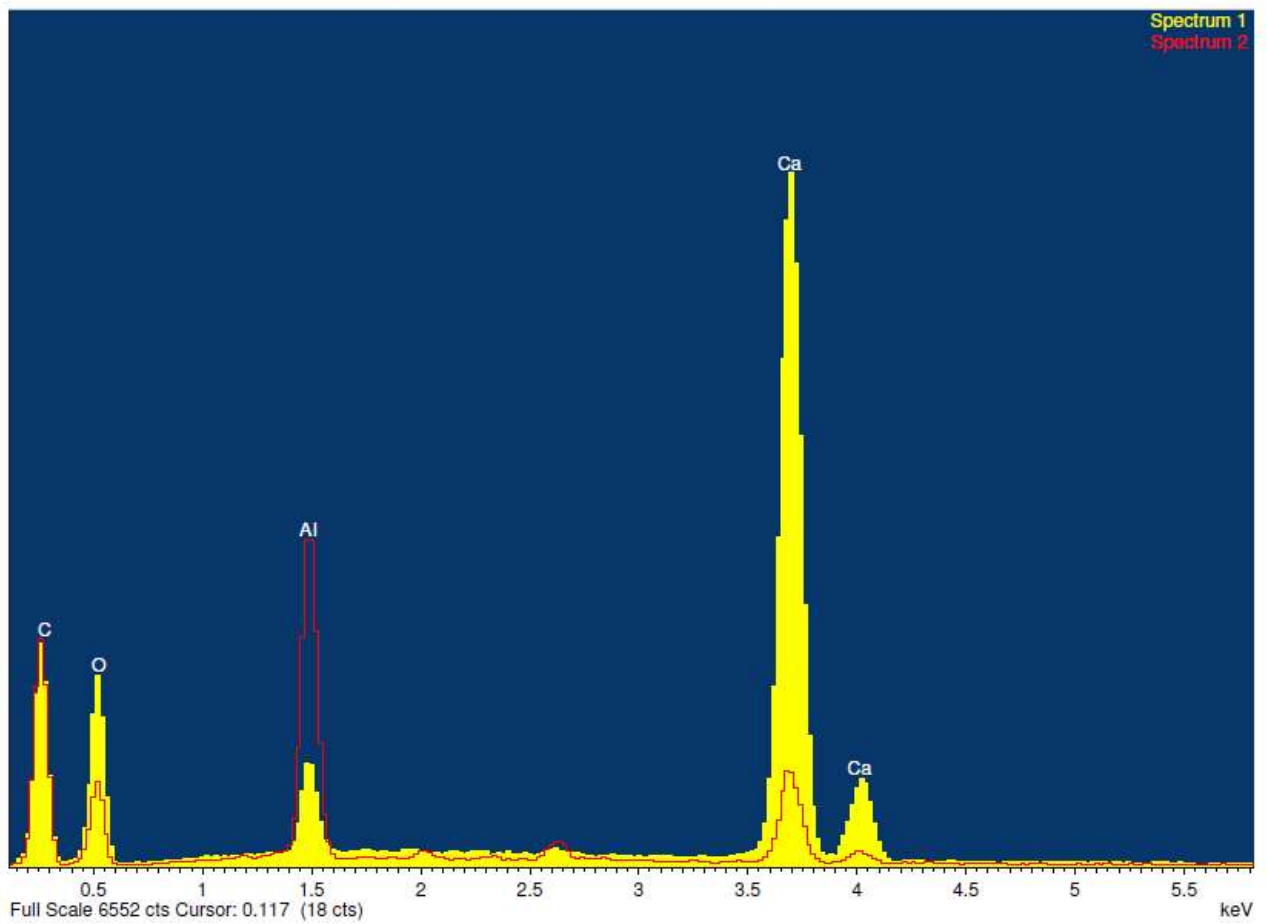
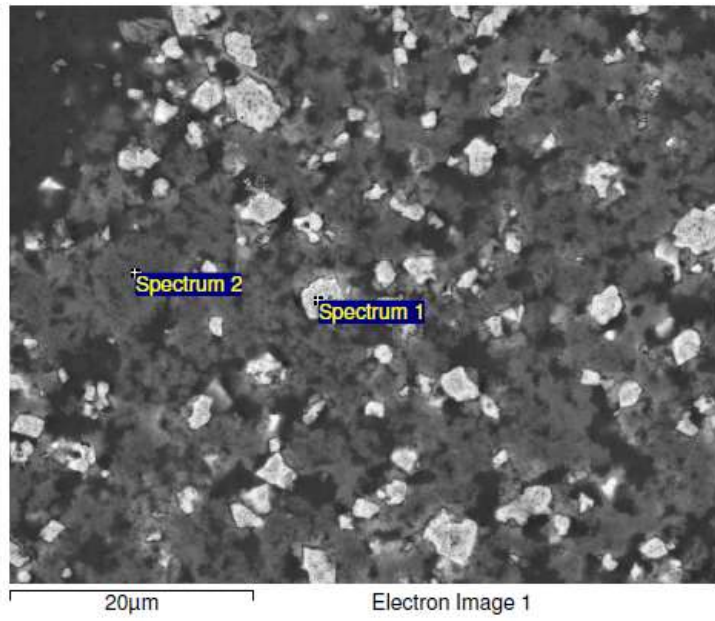


Figura G.37 Campione HT2 600°C 3 bar cross_05

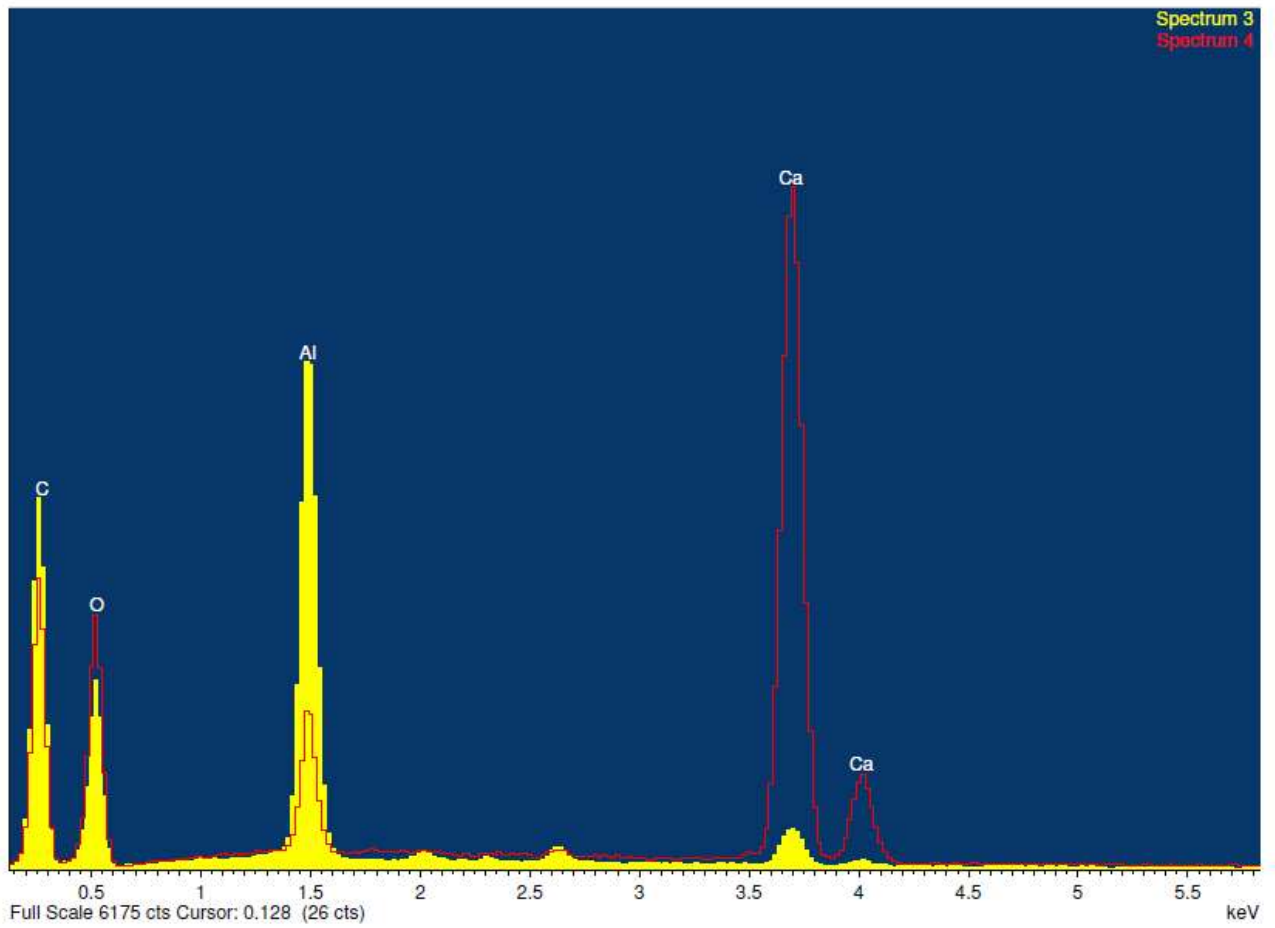
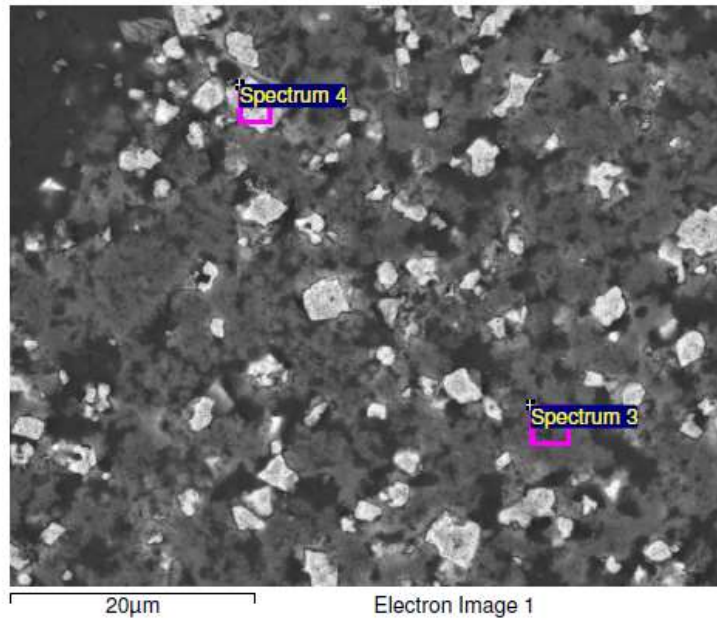


Figura G.38 Campione HT2 600°C 3 bar cross_06

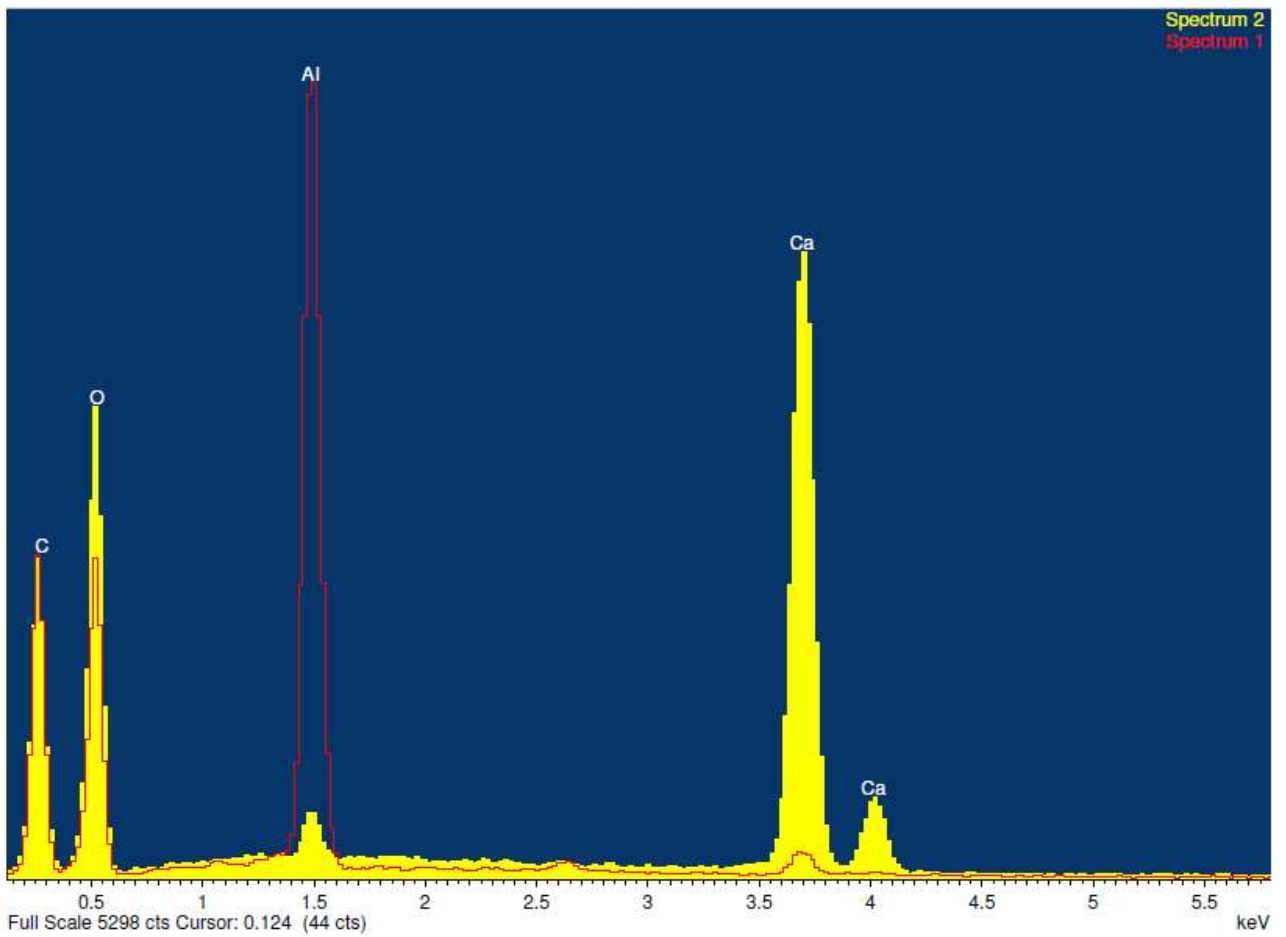
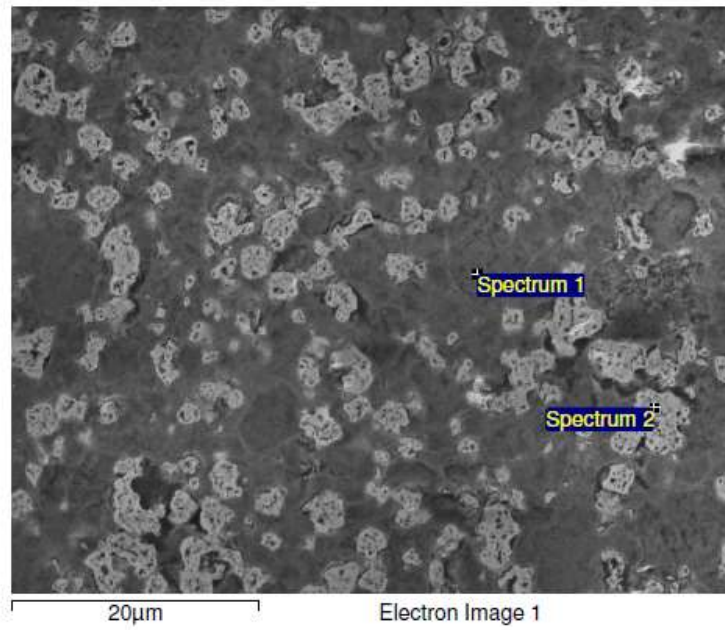


Figura G.39 Campione HT2 600°C 6 bar cross old_01

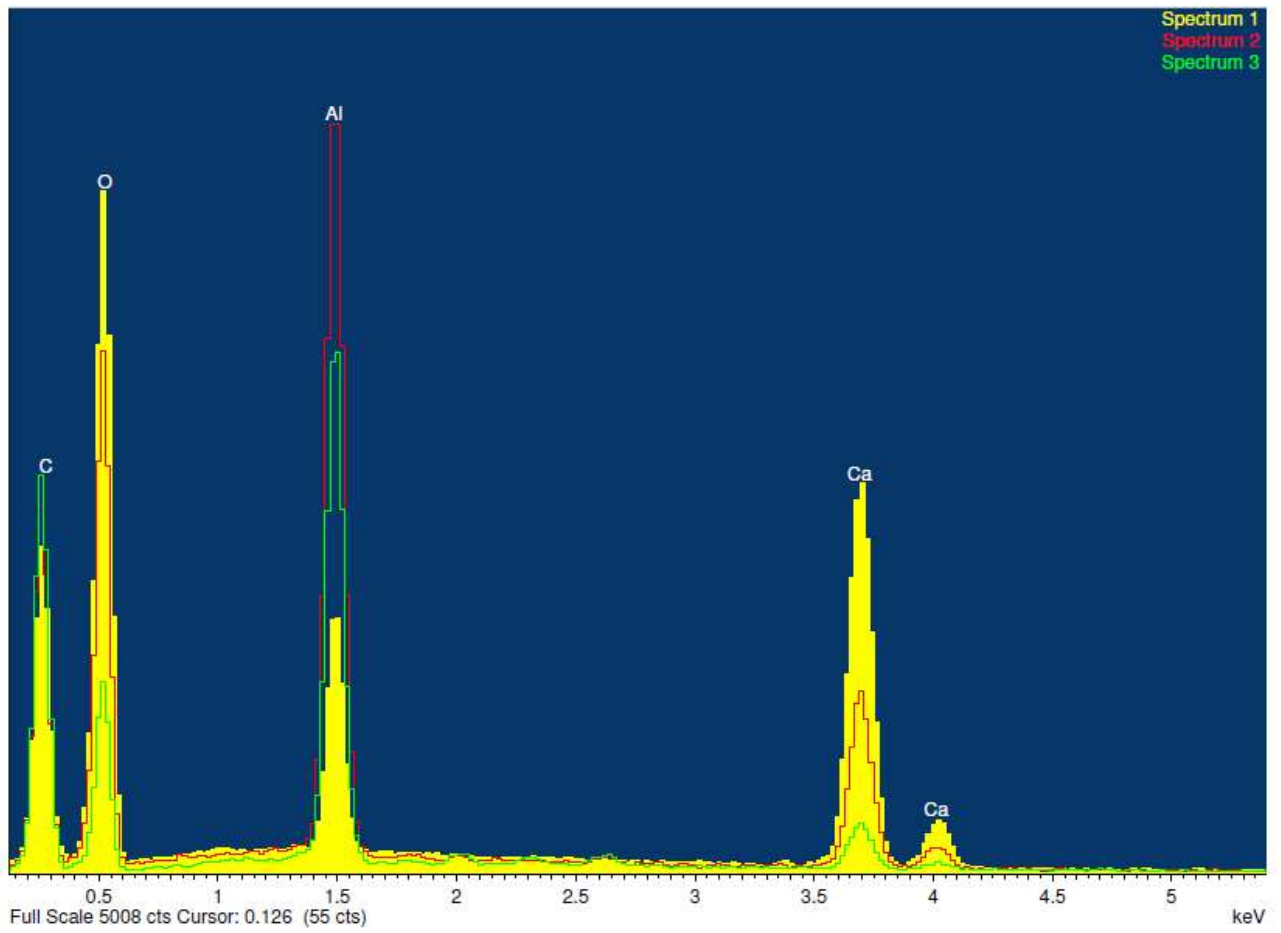
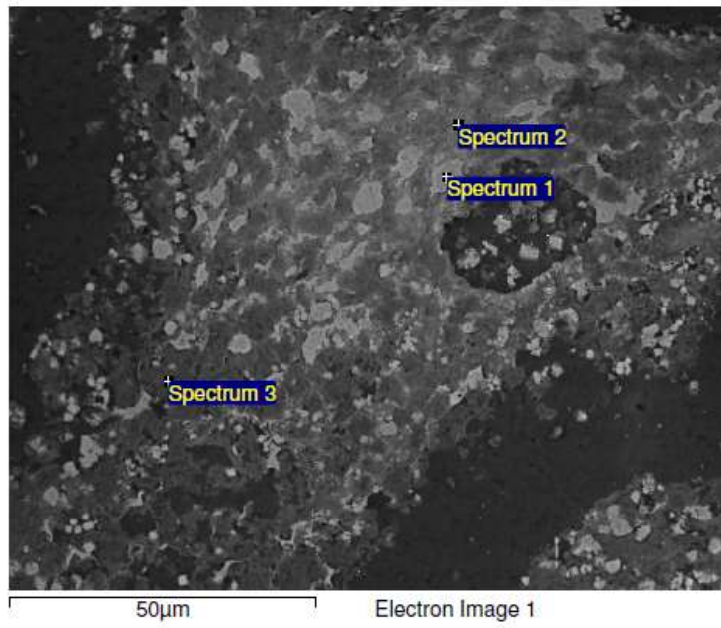


Figura G.40 Campione HT2 600°C 6 bar cross old_02

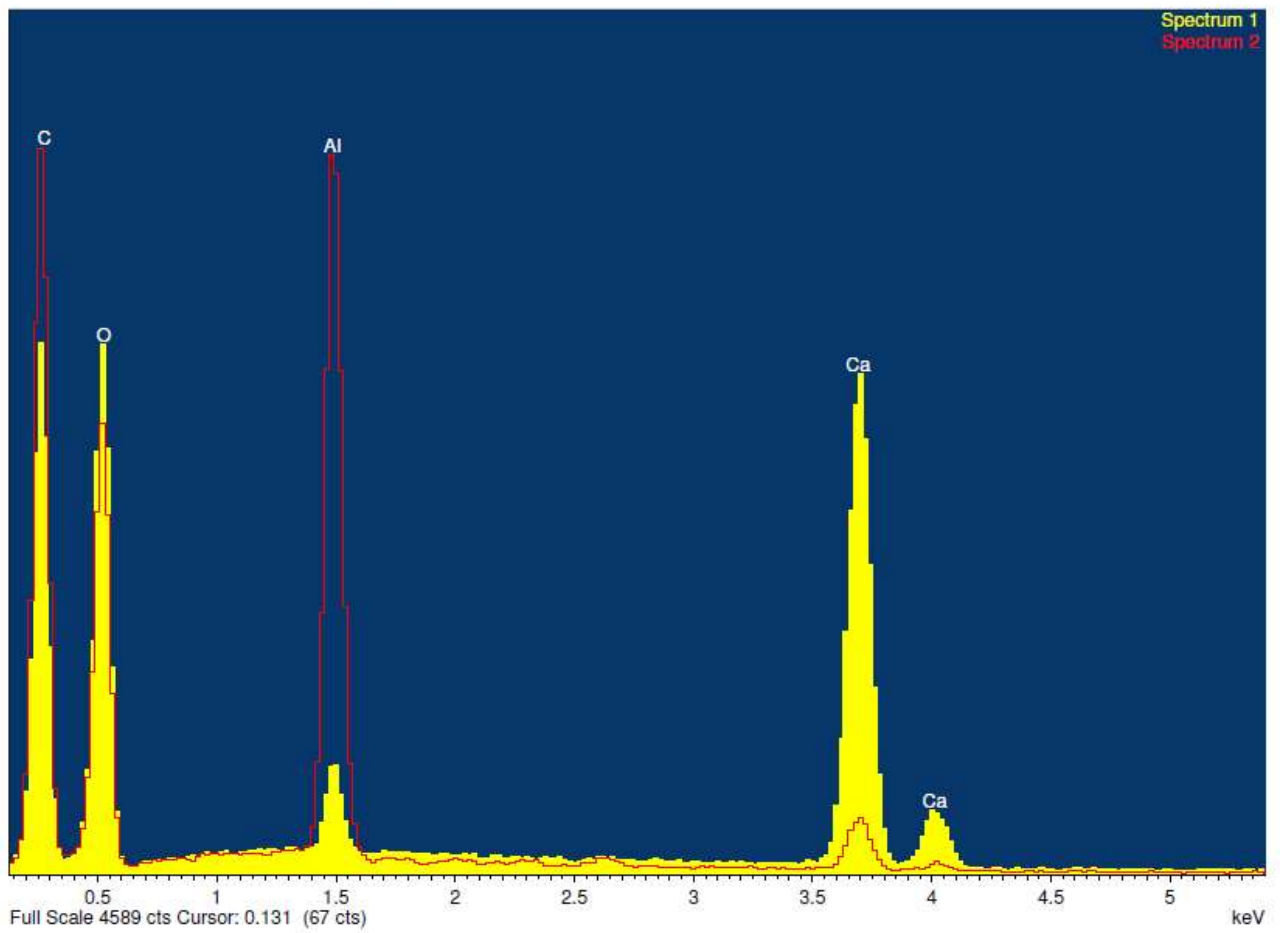
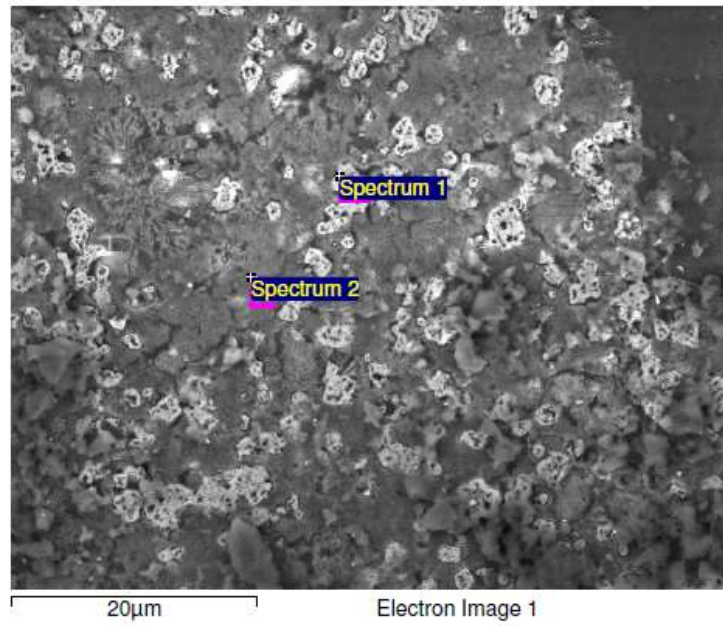


Figura G.41 Campione HT2 600°C 6 bar cross_03

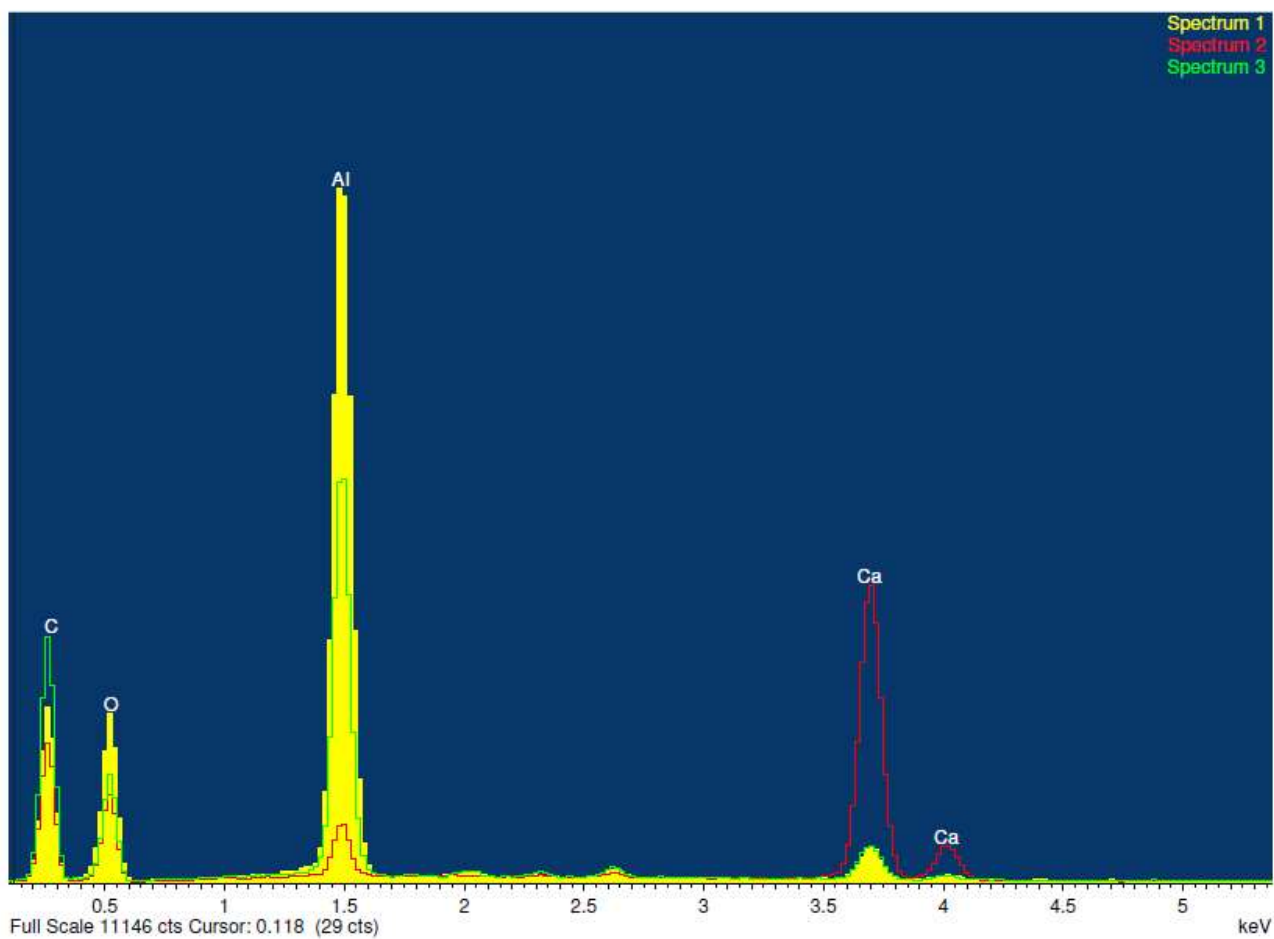
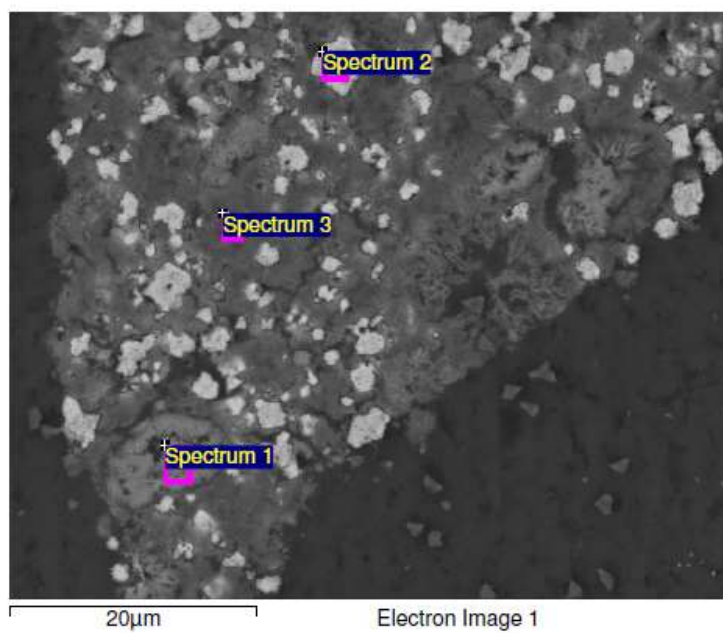


Figura G.42 Campione HT2 600°C 6 bar cross_04

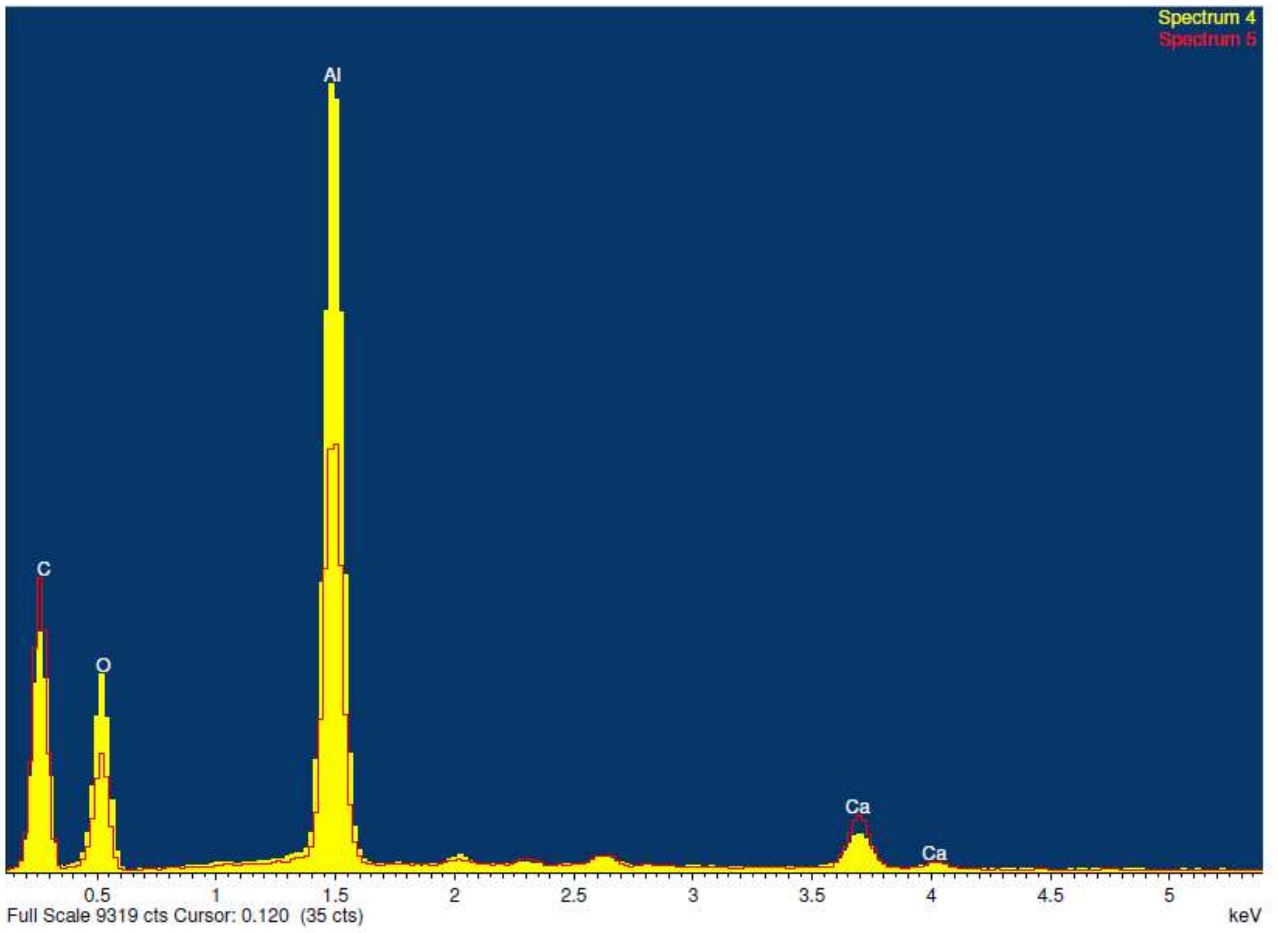
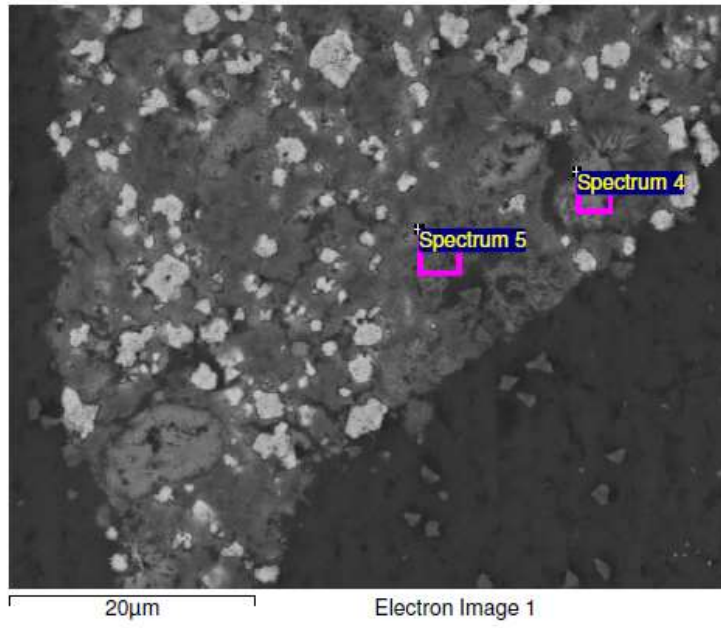


Figura G.43 Campione HT2 600°C 6 bar cross_05

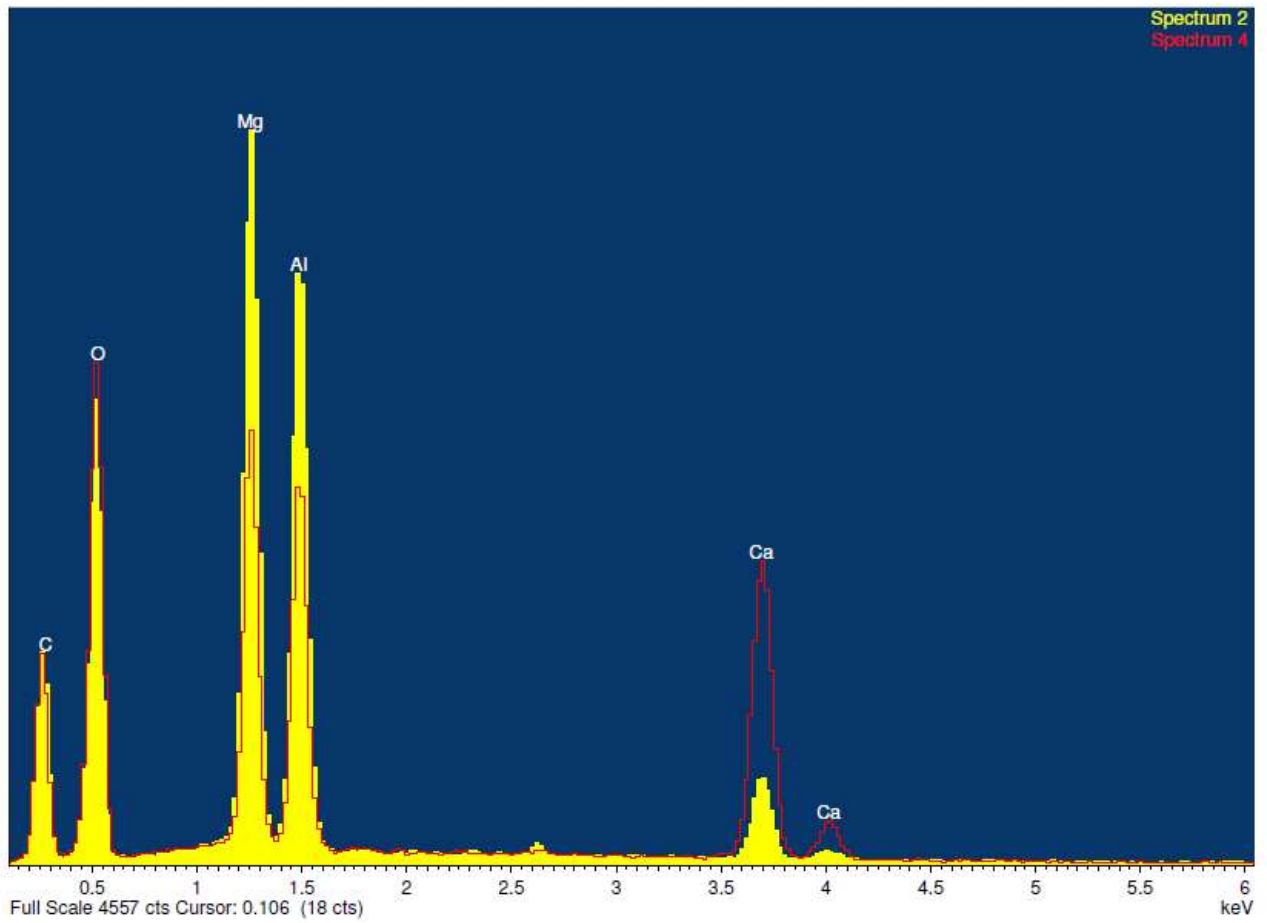
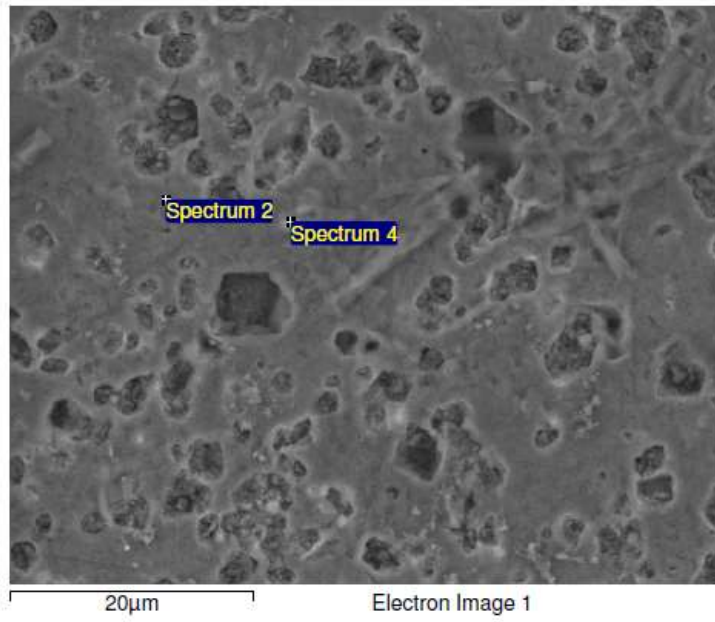


Figura G.44 Campione HT3 800°C cross old_01

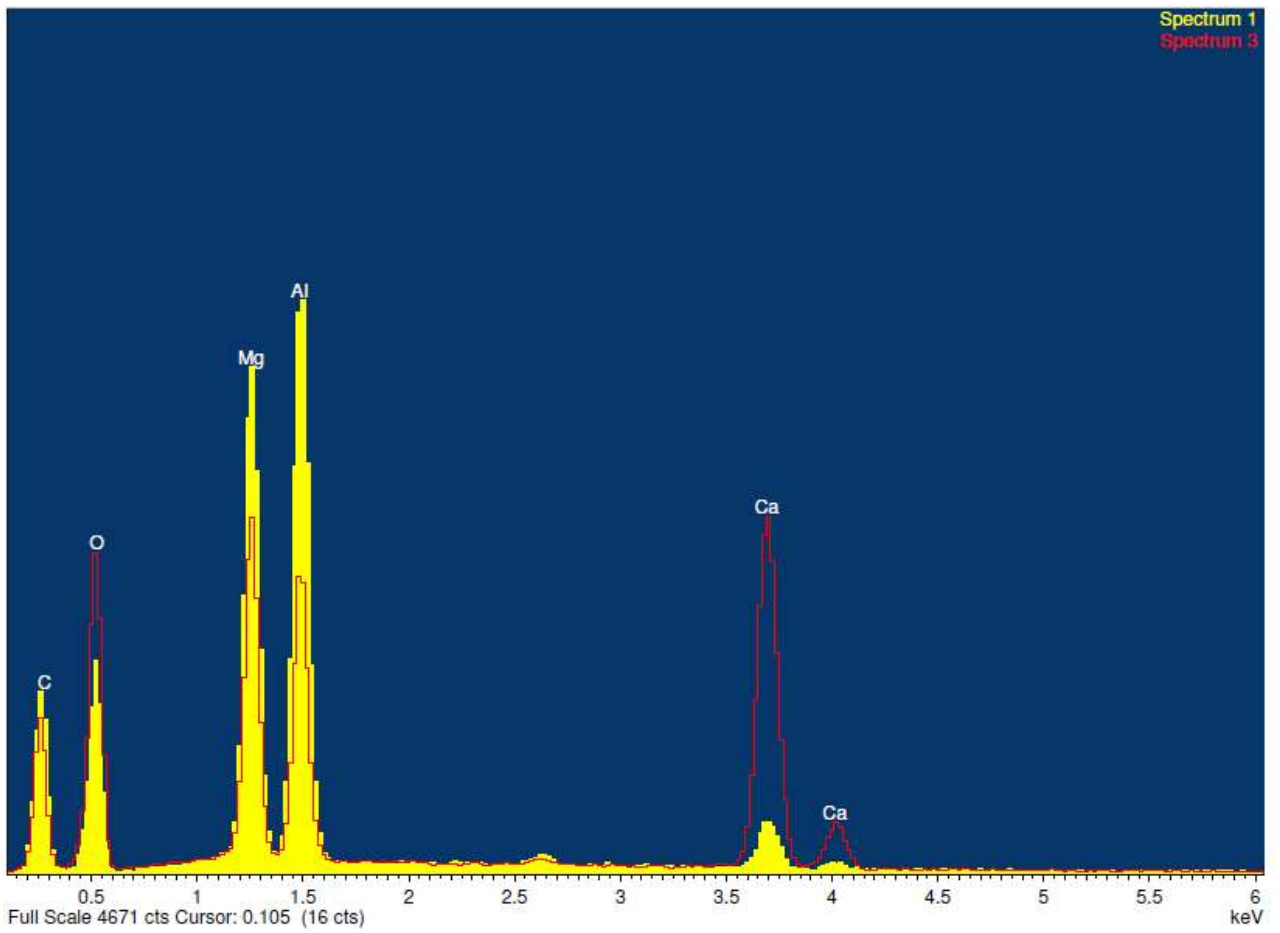
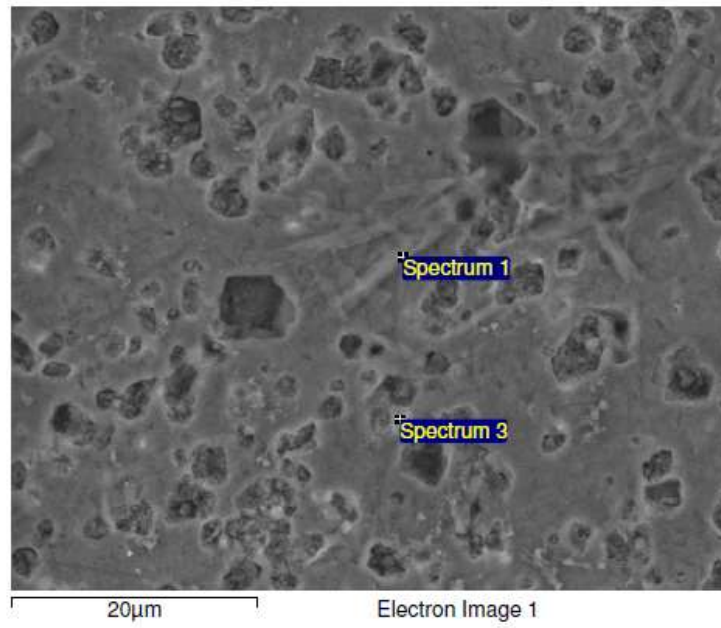


Figura G.45 Campione HT3 800°C cross old_02

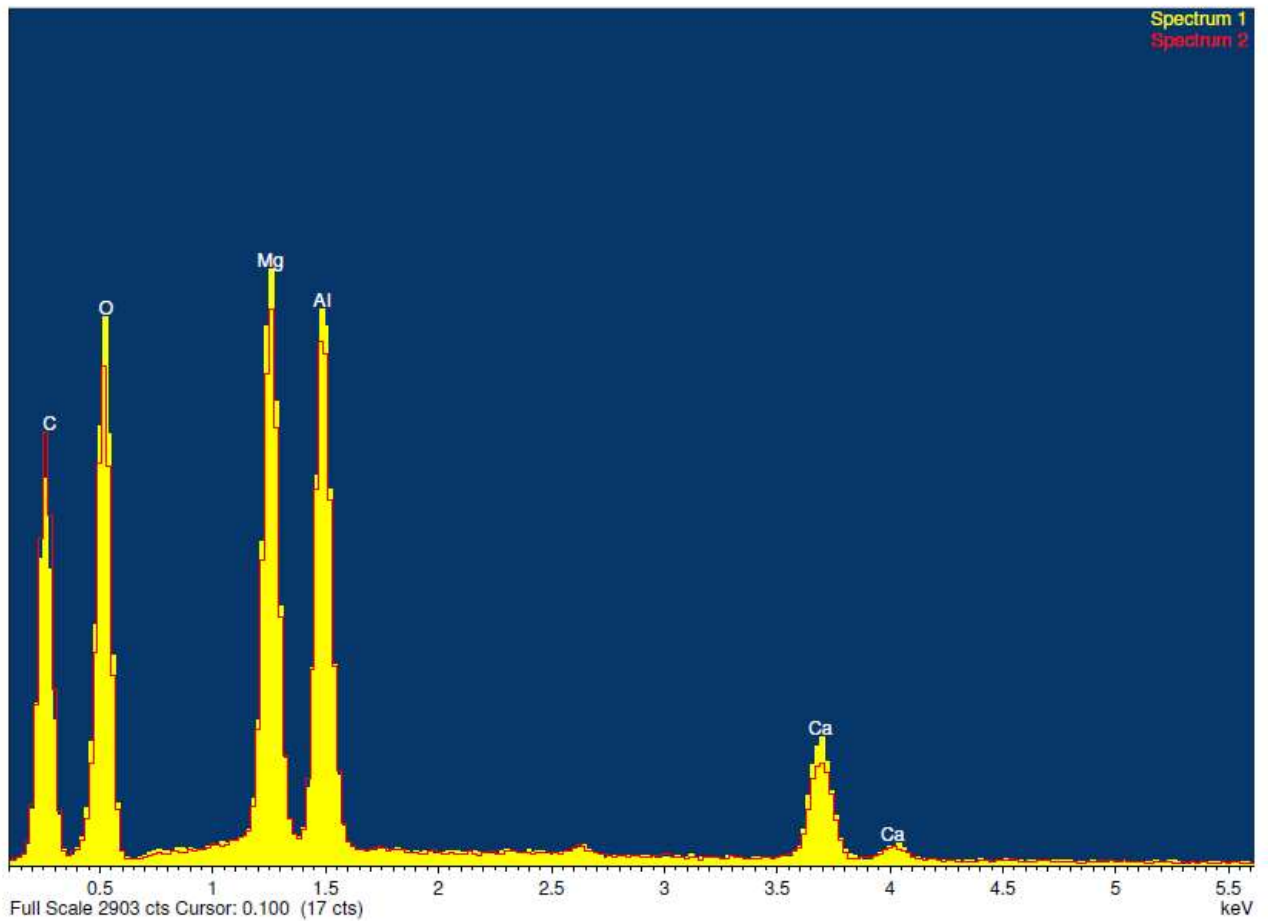
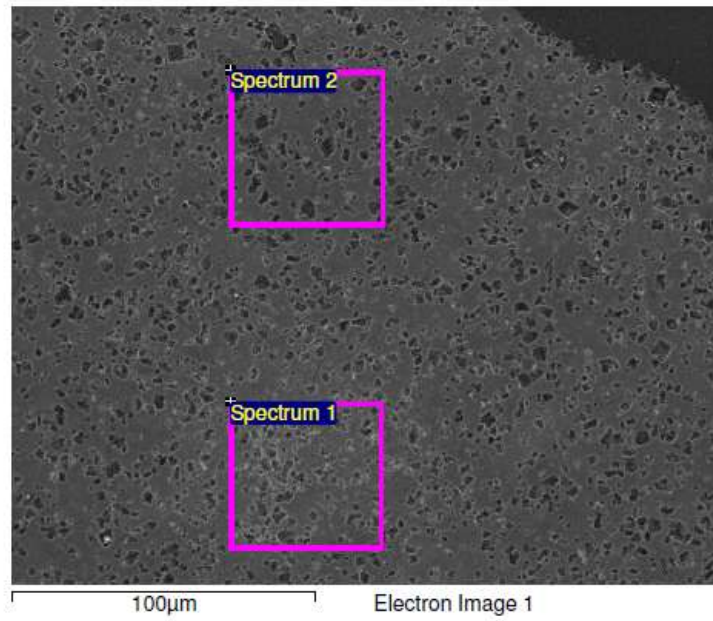


Figura G.46 Campione HT3 800°C cross old_03

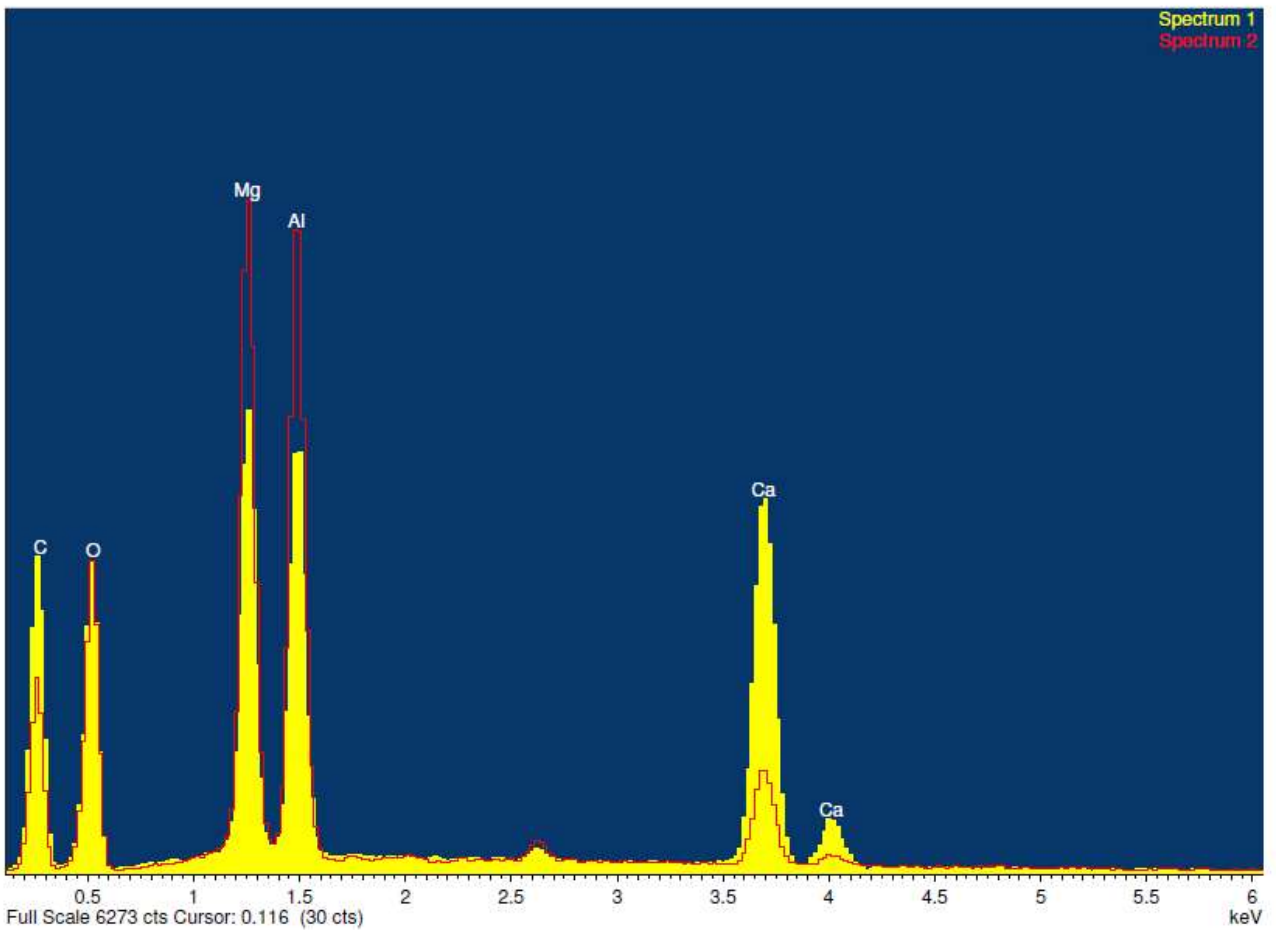
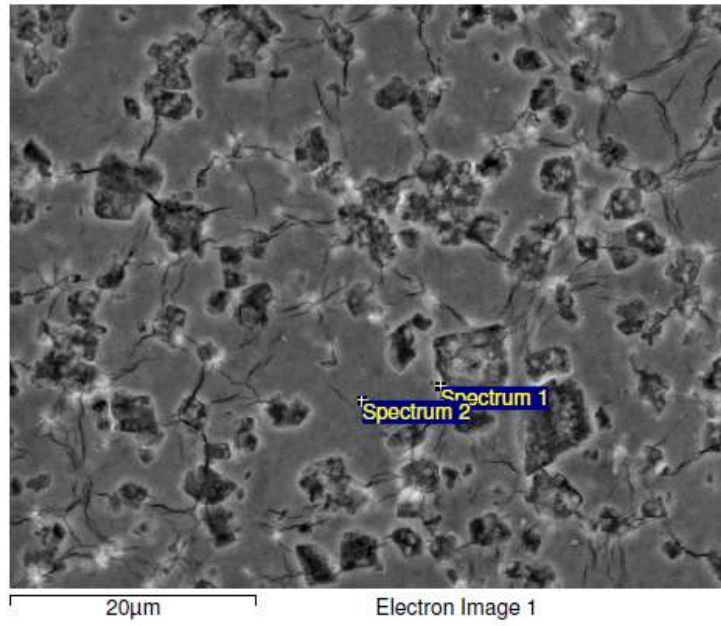


Figura G.47 Campione HT3 800°C cross_04

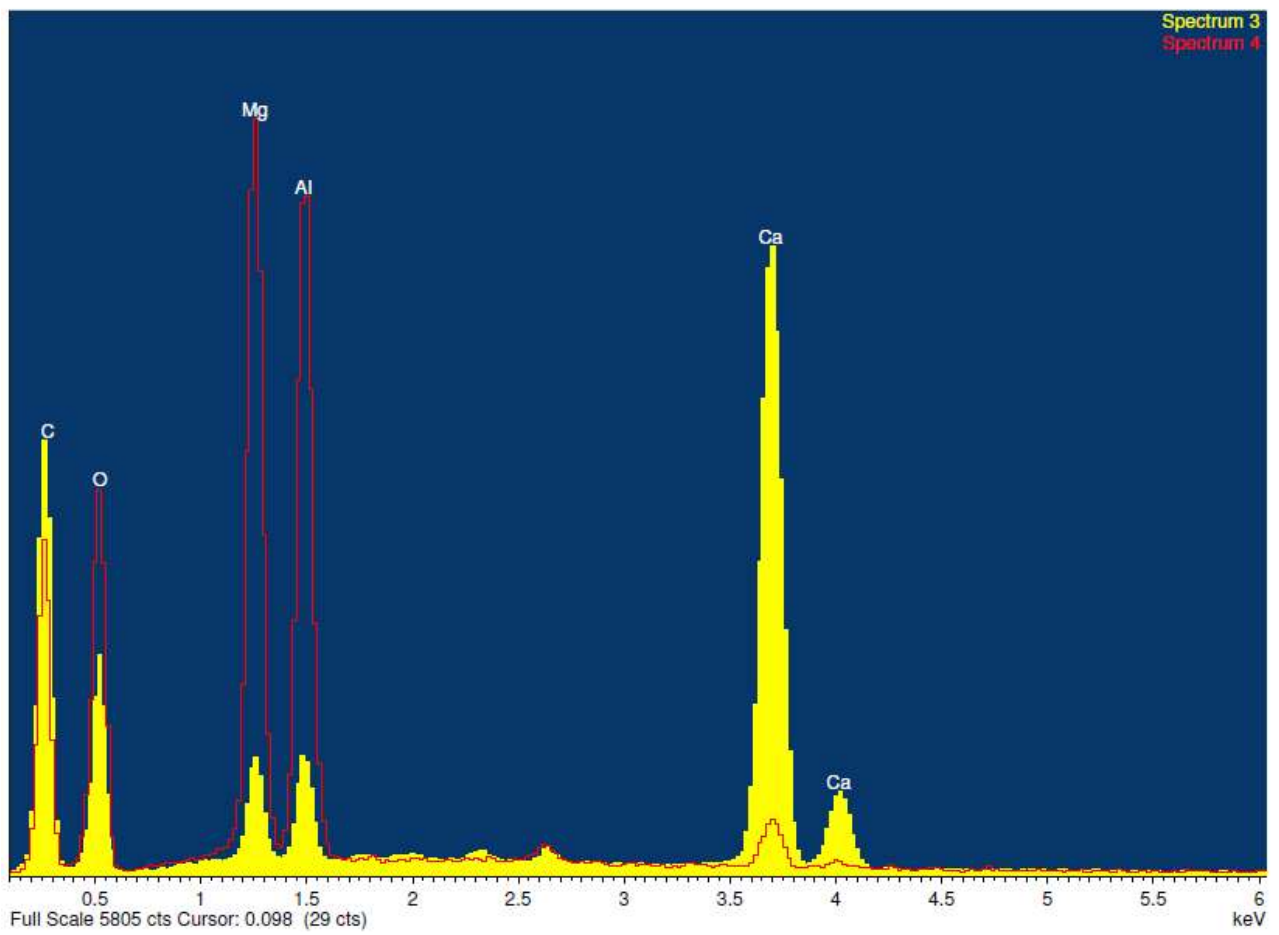
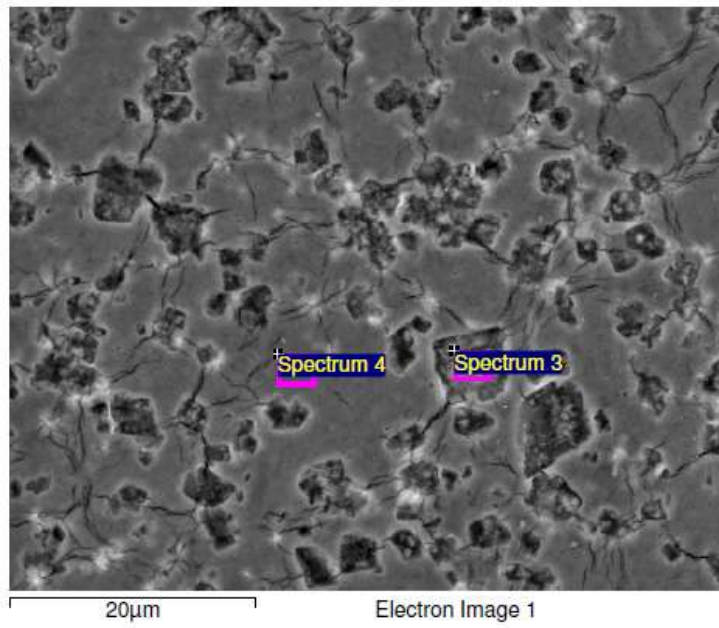


Figura G.48 Campione HT3 800°C cross_05

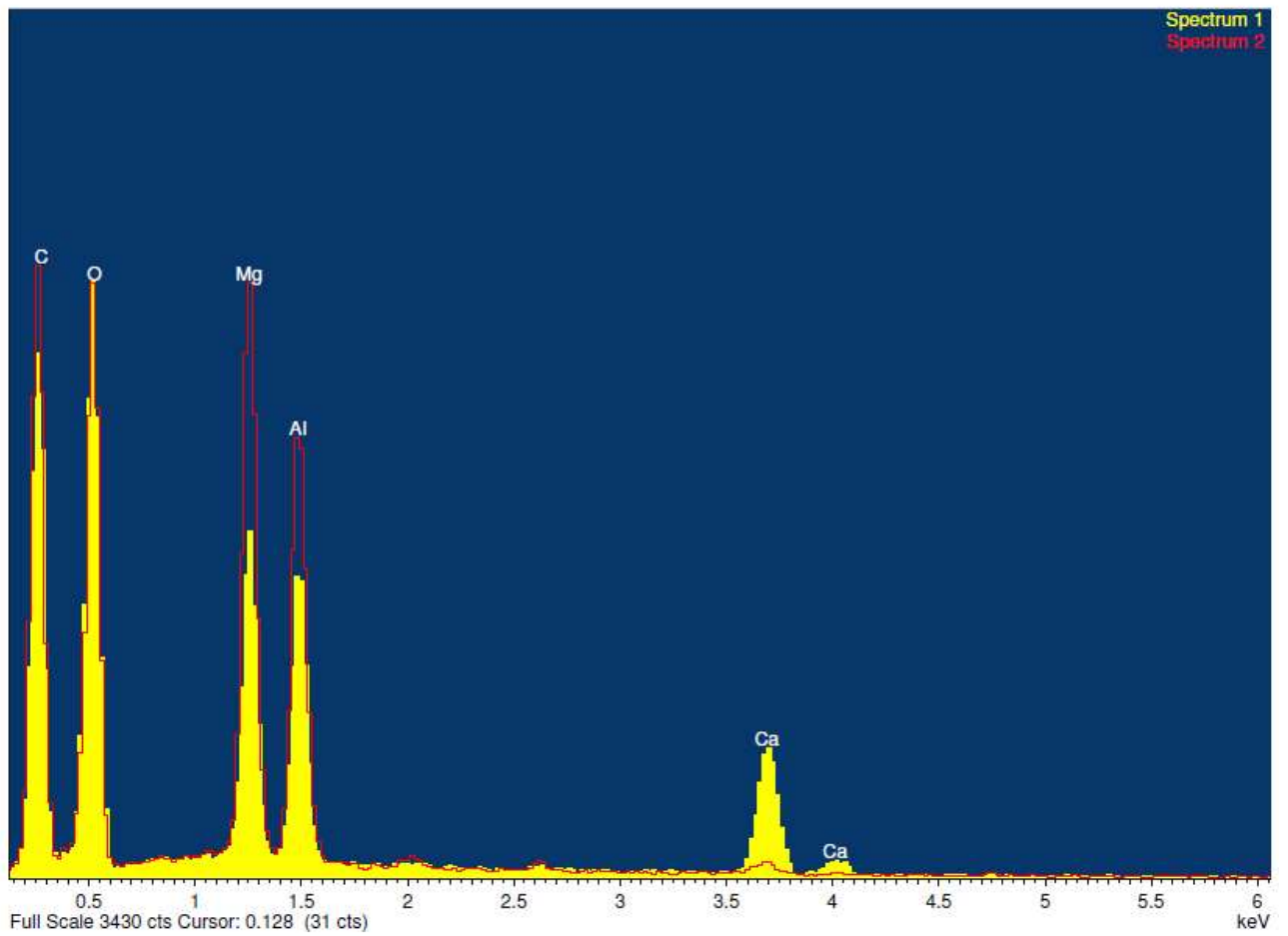
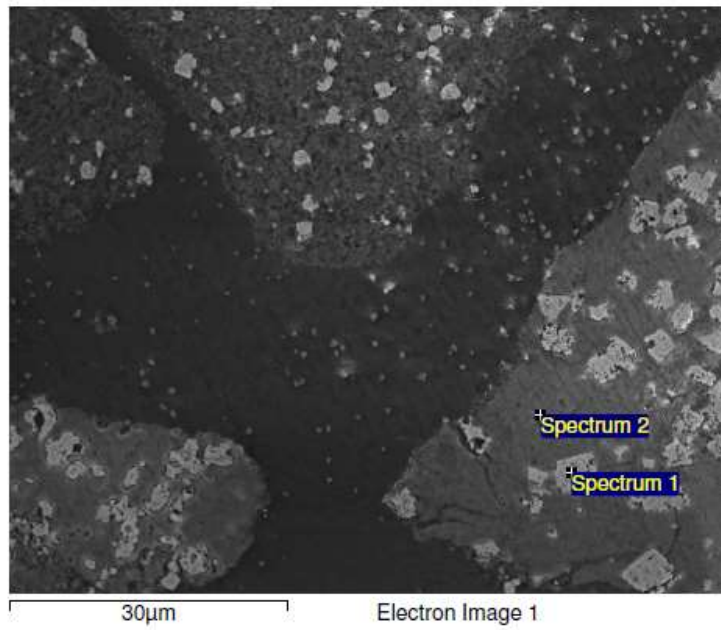


Figura G.49 Campione HT3 600°C 3 bar cross old_01

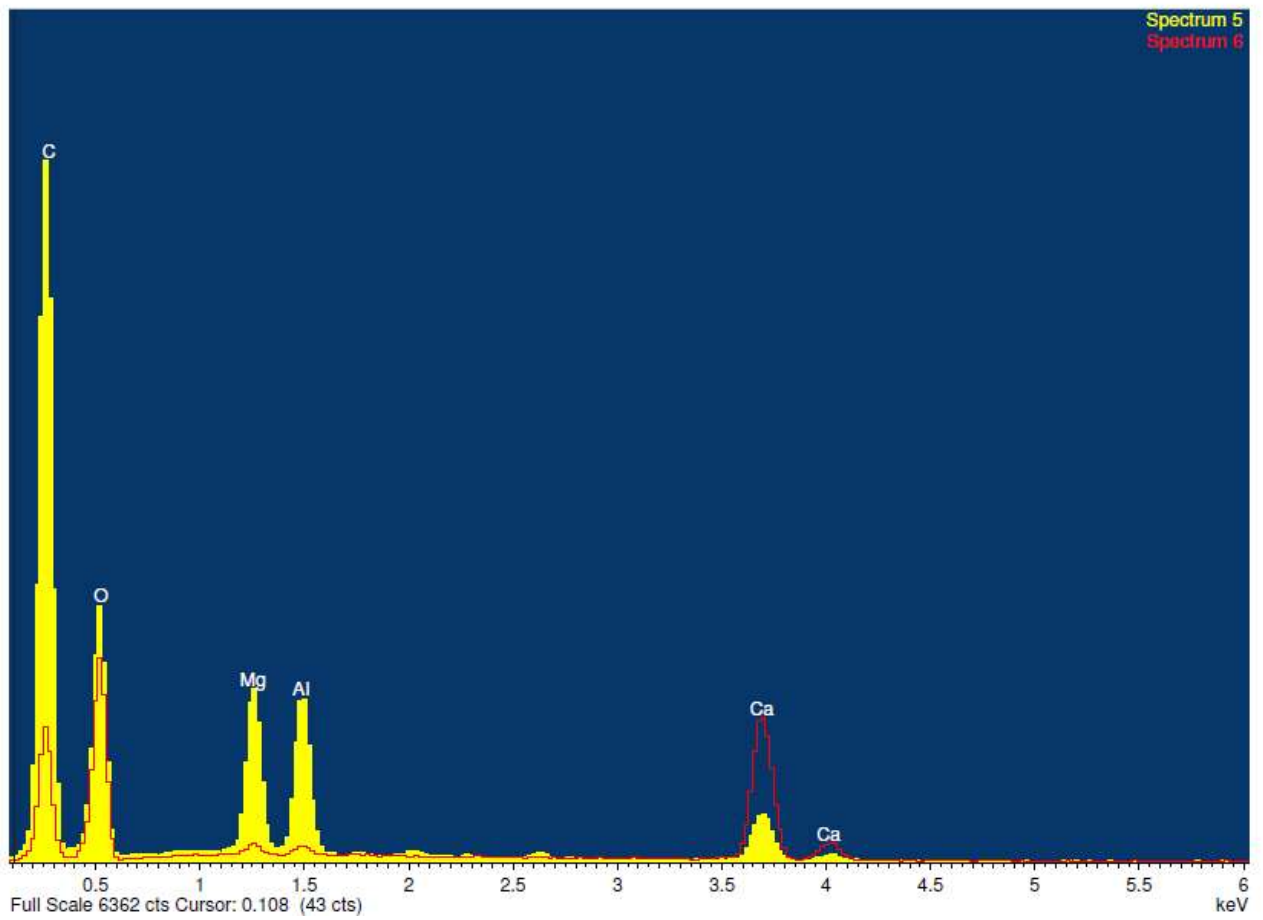
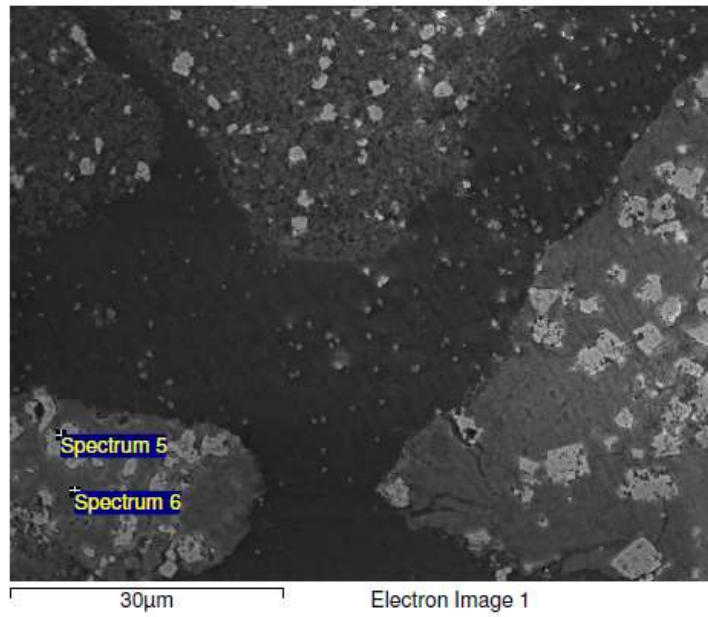


Figura G.50 Campione HT3 600°C 3 bar cross old_02

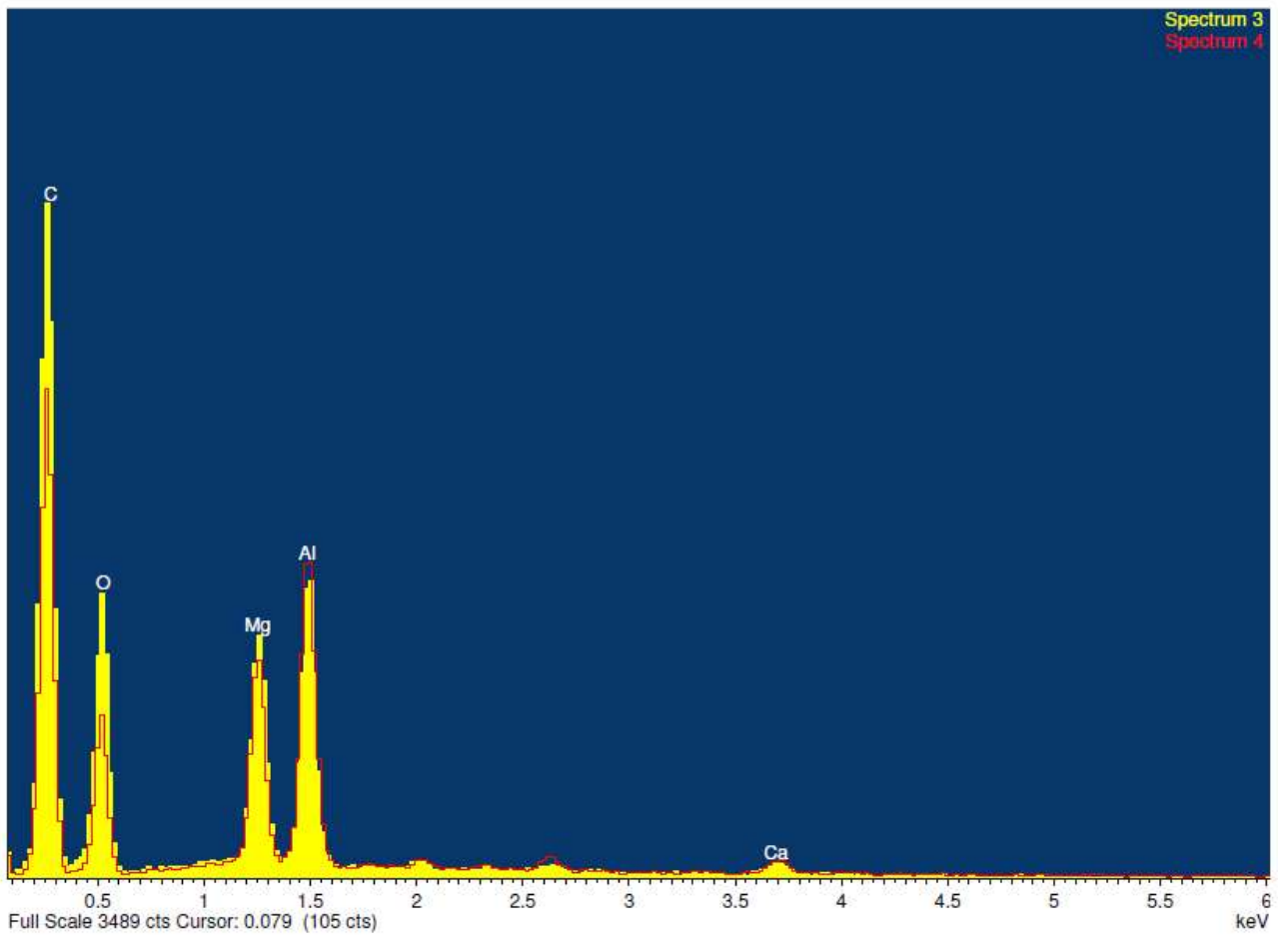
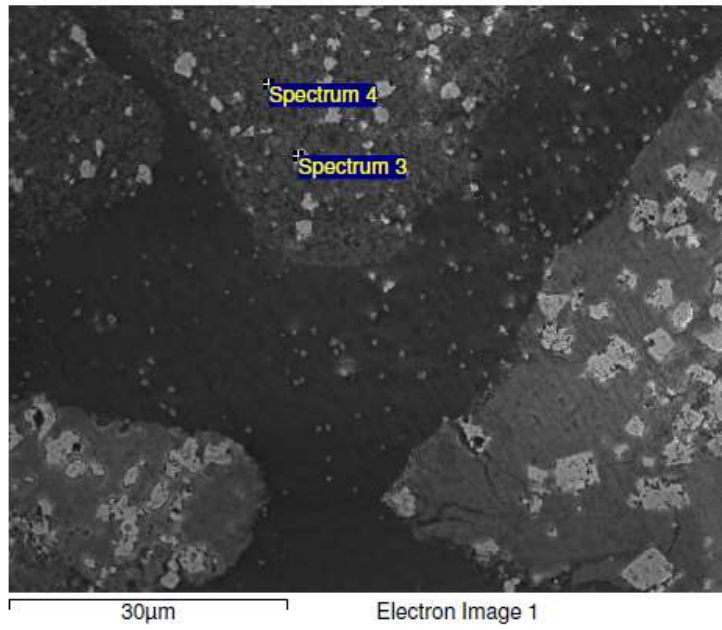


Figura G.51 Campione HT3 600°C 3 bar cross old_03

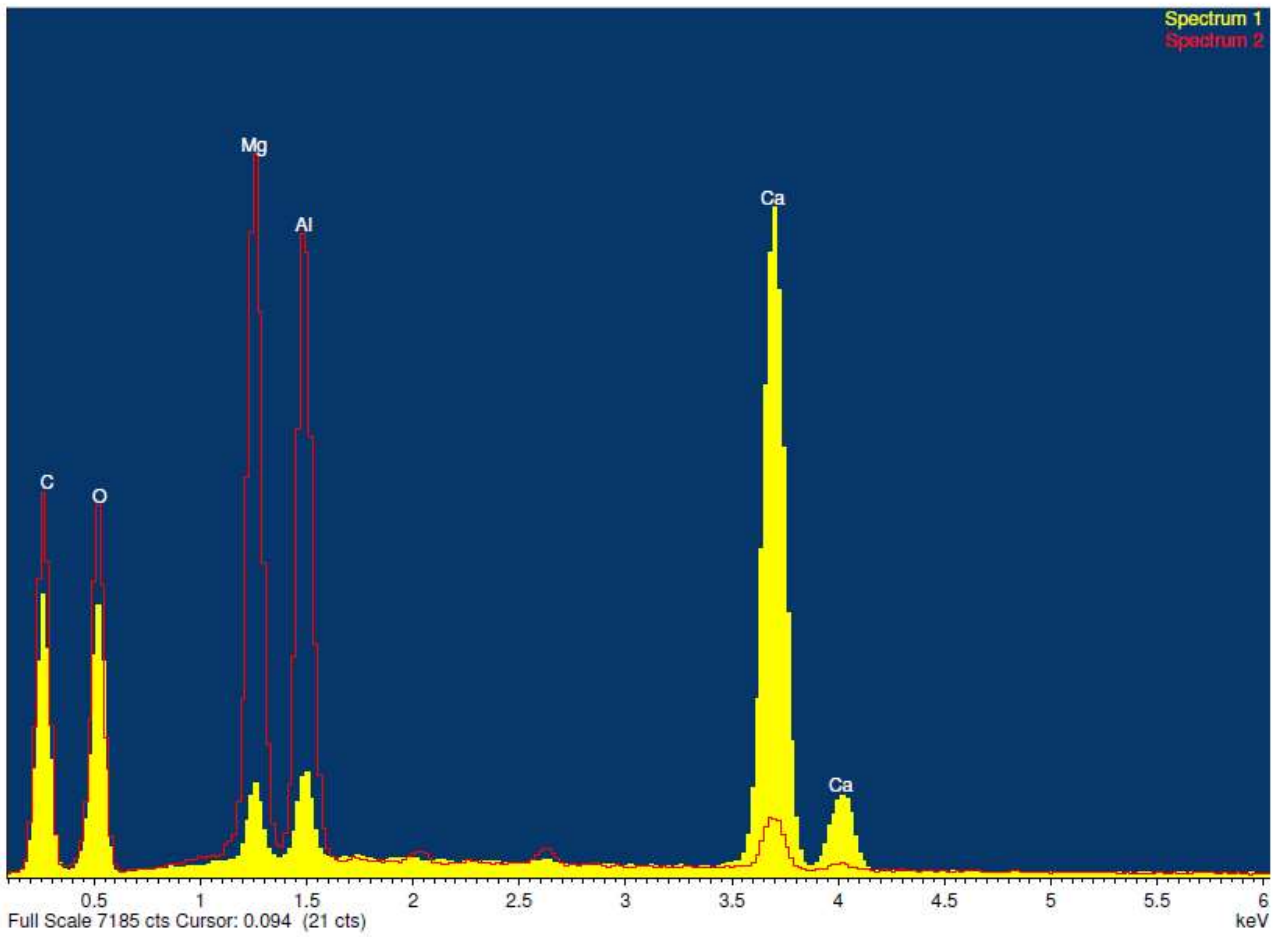
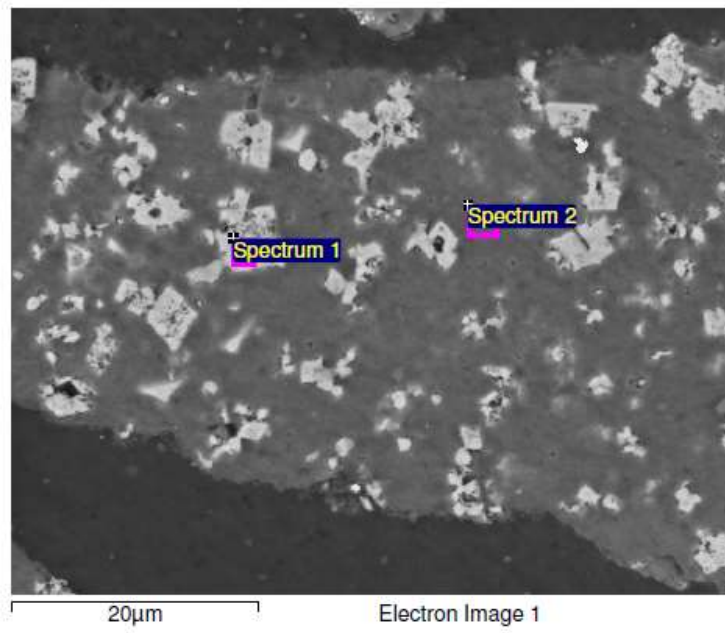


Figura G.52 Campione HT3 600°C 3 bar cross_04

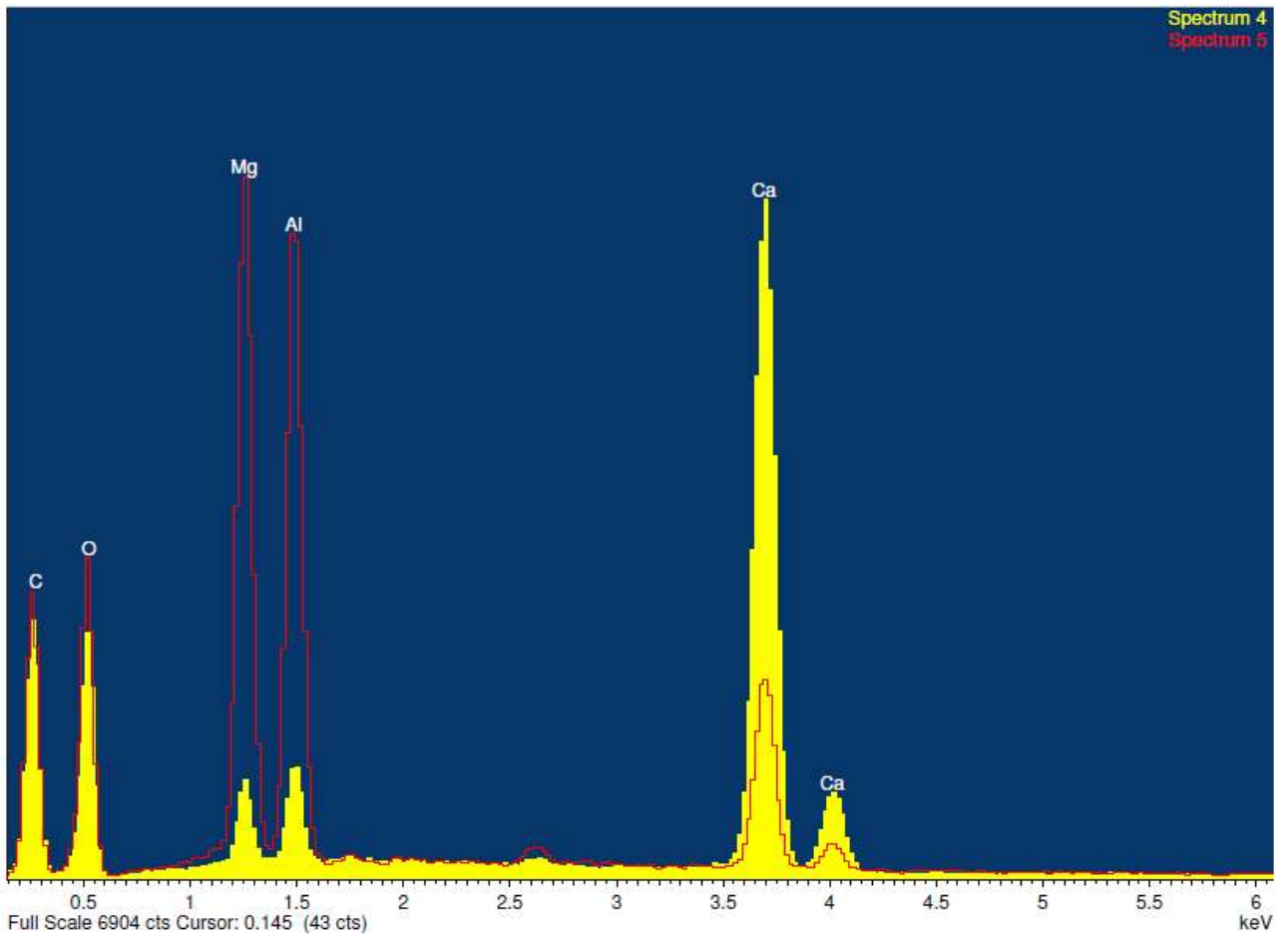
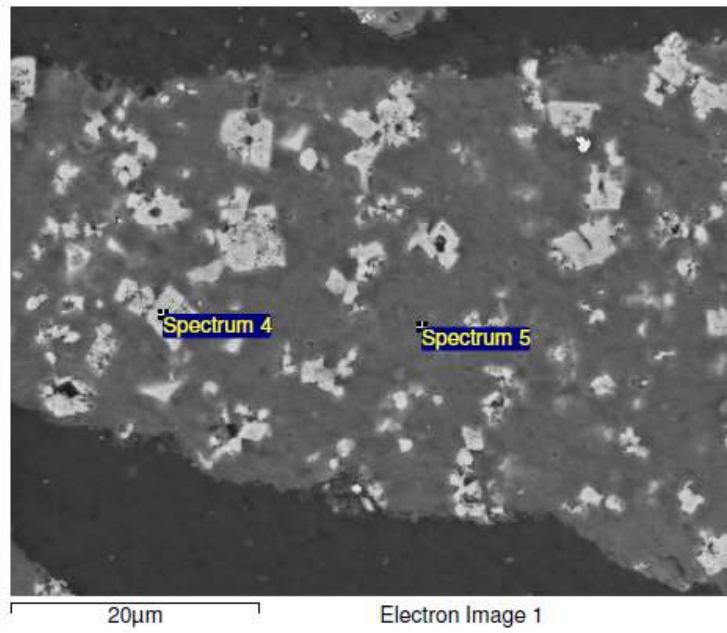


Figura G.53 Campione HT3 600°C 3 bar cross_05

