

## DAFTAR PUSTAKA

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# Lampiran 1 Data Pengamatan

## 1. Data Pengamatan CT Scan

No.	Jenis Pemeriksaan	Tabel 1																																								
		Pre Implant				Bata 1				Bata 2				Bata 3																												
		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal																										
M	D	A	B	L	P	A	B	L	P	A	B	L	P	A	B	L	P																									
1	Implan (Keramik)	789,4	398,6	470,4	414,1	445	318,5	408,8	<b>577</b>	515,3	493,8	511,6	563,6	585	599,6	642	630	587,6	597,5	635	621,6	614,5	658,4	683,7	686,3	683,5	687,3	652	640,2	663	645,3	715,8	788	719,3	744,2	737	713,7	774,3	712	727,5	729	
2	Implan (Keramik)	782	410,7	447,4	485,6	479,6	434,7	485,4	485,4	462,8	485,4	427,2	549,3	539,4	582,7	557,2	570,2	588,7	598,4	588	554,4	577,5	643,5	674,3	643	621,6	600,1	688	653,3	667	659,7	699,2	706	709,5	706,2	706,2	706,2	706,2	706,2	706,2	706,2	706,2

No.	Jenis Pemeriksaan	Tabel 2																																									
		Pre Implant				Bata 1				Bata 2				Bata 3																													
		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal																											
M	D	A	B	L	P	A	B	L	P	A	B	L	P	A	B	L	P																										
1	Implan (Keramik)	809,7	<b>643</b>	497,8	479	397	<b>536</b>	536	445,5	436,8	388,7	467,3	591	533,2	513,7	443,1	500,3	466,5	540	522,8	514,4	514,6	670	687,7	623,9	617,6	654,8	443,1	625,5	615,8	678,6	617,3	714,6	733,2	701,3	678,7	678,7	678,7	678,7	678,7	678,7	678,7	678,7
2	Implan (Keramik)	881,7	359,4	474,6	394,7	0,6	<b>543</b>	435,2	448,6	494	469,2	<b>505</b>	538,8	508,3	508,9	497,6	463,2	421,5	516,1	542,1	542,1	425	632,9	632,9	632,9	689,1	689,1	689,1	689,1	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8	634,8

No.	Jenis Pemeriksaan	Tabel 3																																							
		Pre Implant				Bata 1				Bata 2				Bata 3																											
		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal		Sajjal		Atal																									
M	D	A	B	L	P	A	B	L	P	A	B	L	P	A	B	L	P																								
1	Implan (Keramik)	811,2	<b>579</b>	<b>566</b>	<b>652</b>	<b>634</b>	<b>624</b>	<b>646</b>	<b>646</b>	<b>592</b>	<b>640</b>	393,3	578,8	599,8	592,2	547,4	558,6	592,1	575,8	549,8	556,9	596,1	602,2	515,6	507	503,2	573,2	527	523	556,8	501,4	709,6	778	744	744	744	744	744	744	744	744
2	Implan (Keramik)	857,1	<b>574</b>	<b>546</b>	<b>674</b>	<b>555</b>	<b>545</b>	<b>639</b>	<b>579</b>	<b>548</b>	<b>673</b>	<b>547</b>	555,8	565,3	533,6	544,8	539,4	539,8	536,3	523,9	540,1	576,6	591	510	515,6	508,9	661,4	557	583,6	573	566	557,3	715	712,6	746,8	785,3	844,5	710,8	727,6	726,8	796,8



R	No.	Kategori	RAB1												RAB2												RAB3																	
			Pre Implant						Post Implant						Pre Implant						Post Implant						Pre Implant						Post Implant											
			Survei		Ayat		Cena		Survei		Ayat		Cena		Survei		Ayat		Cena		Survei		Ayat		Cena		Survei		Ayat		Cena		Survei		Ayat		Cena							
M	D	A	B	L.P	A	M	D	A	B	L.P	A	M	D	A	B	L.P	A	M	D	A	B	L.P	A	M	D	A	B	L.P	A	M	D	A	B	L.P										
R	1	1 (Kor)	805	753	694	438	471	4	663	699	438	446	47	4638	5336	548	5966	642	630	5736	3975	435	4214	6145	6584	6837	6863	6653	673	653	6462	6865	687	6852	7154	708	7183	7442	737	7337	7743	712	7215	726
R	2	2	8728	4162	4493	4879	4836	4864	6039	4729	4974	4883	4713	5403	5316	5827	5575	5792	5887	5964	588	5544	5755	6435	6743	648	6326	6867	6873	6883	687	6592	706	716	716	7065	7065	7065	7062	7062	7062	7062	7062	7062
R	1	1 (Kor)	805	753	694	438	471	4	663	699	438	446	47	4638	5336	548	5966	642	630	5736	3975	435	4214	6145	6584	6837	6863	6653	673	653	6462	6865	687	6852	7154	708	7183	7442	737	7337	7743	712	7215	726
R	2	2	8728	4162	4493	4879	4836	4864	6039	4729	4974	4883	4713	5403	5316	5827	5575	5792	5887	5964	588	5544	5755	6435	6743	648	6326	6867	6873	6883	687	6592	706	716	716	7065	7065	7065	7062	7062	7062	7062	7062	7062
R	1	1 (Kor)	805	753	694	438	471	4	663	699	438	446	47	4638	5336	548	5966	642	630	5736	3975	435	4214	6145	6584	6837	6863	6653	673	653	6462	6865	687	6852	7154	708	7183	7442	737	7337	7743	712	7215	726
R	2	2	8728	4162	4493	4879	4836	4864	6039	4729	4974	4883	4713	5403	5316	5827	5575	5792	5887	5964	588	5544	5755	6435	6743	648	6326	6867	6873	6883	687	6592	706	716	716	7065	7065	7065	7062	7062	7062	7062	7062	7062



## 2 Data Pengamatan EDX

### Spectrum details

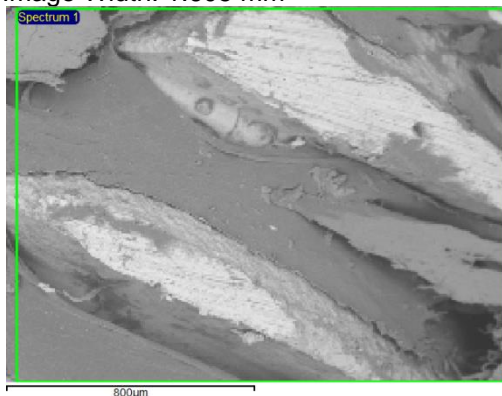
Project

New project

Spectrum name Spectrum 1

### Electron Image

Image Width: 1.605 mm



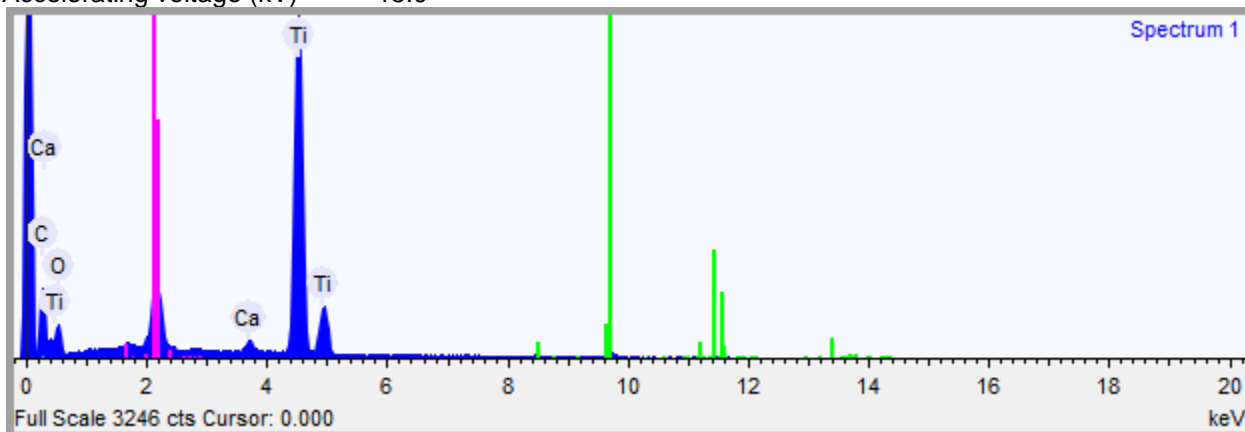
### Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	18.374	0.501	36.348
Oxygen	23.326	0.985	34.642
Calcium	0.939	0.084	0.557
Titanium	57.361	0.812	28.454

## Spectrum details

Project

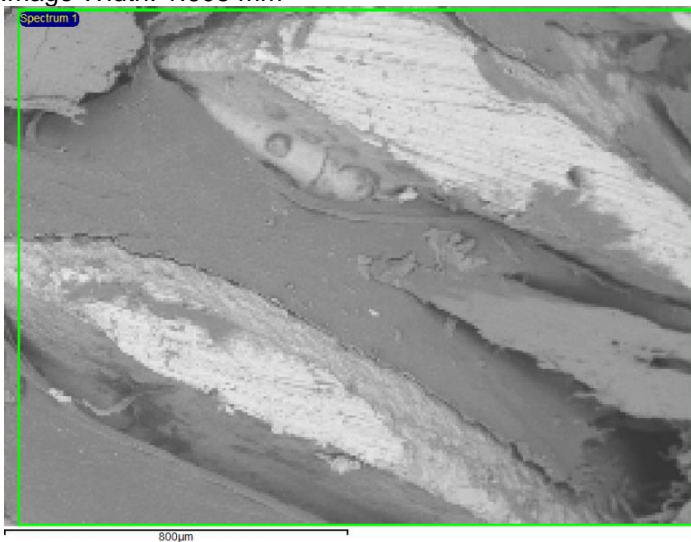
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



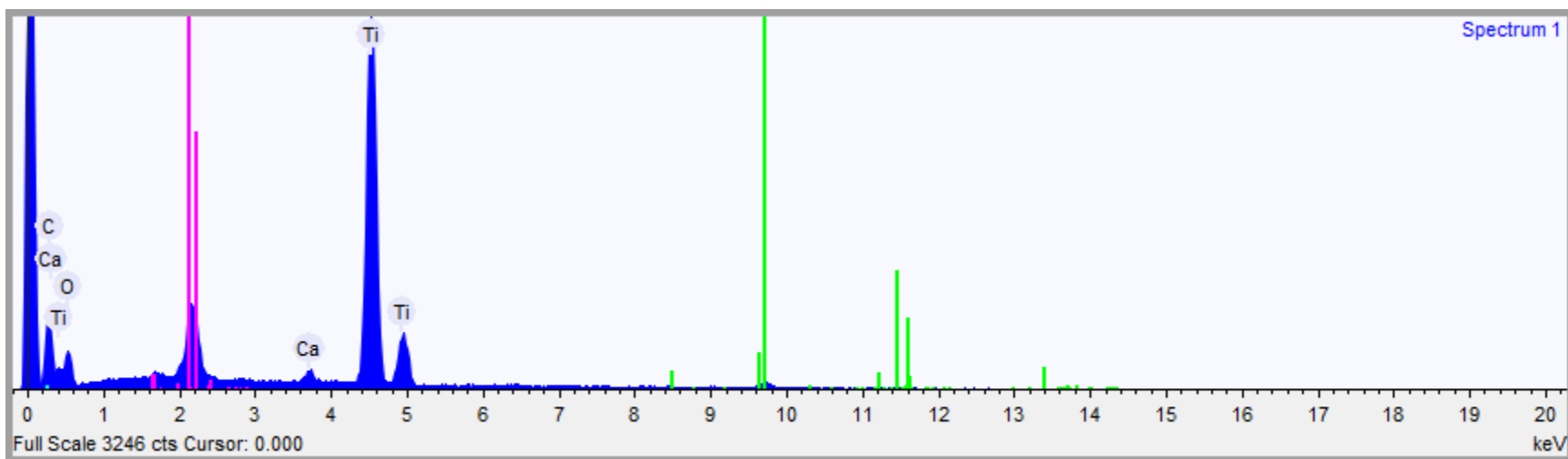
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method      All elements (normalised)      Coating element      None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	5754	15.425	0.071	0.930	18.374	0.501	36.348
Oxygen	k_series	2626	6.021	0.022	0.286	23.326	0.985	34.642
Calcium	k_series	1352	1.020	0.009	1.203	0.939	0.084	0.557
Titanium	k_series	50523	46.411	0.464	0.896	57.361	0.812	28.454

## Spectrum details

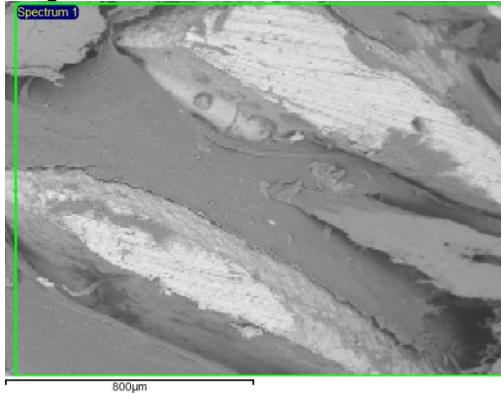
Project

New project

Spectrum name Spectrum 1

## Electron Image

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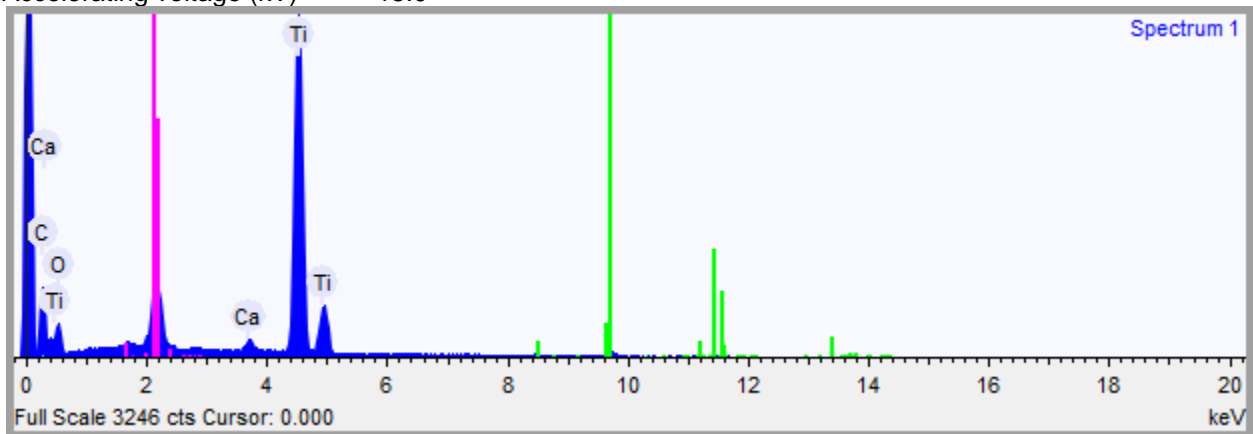
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



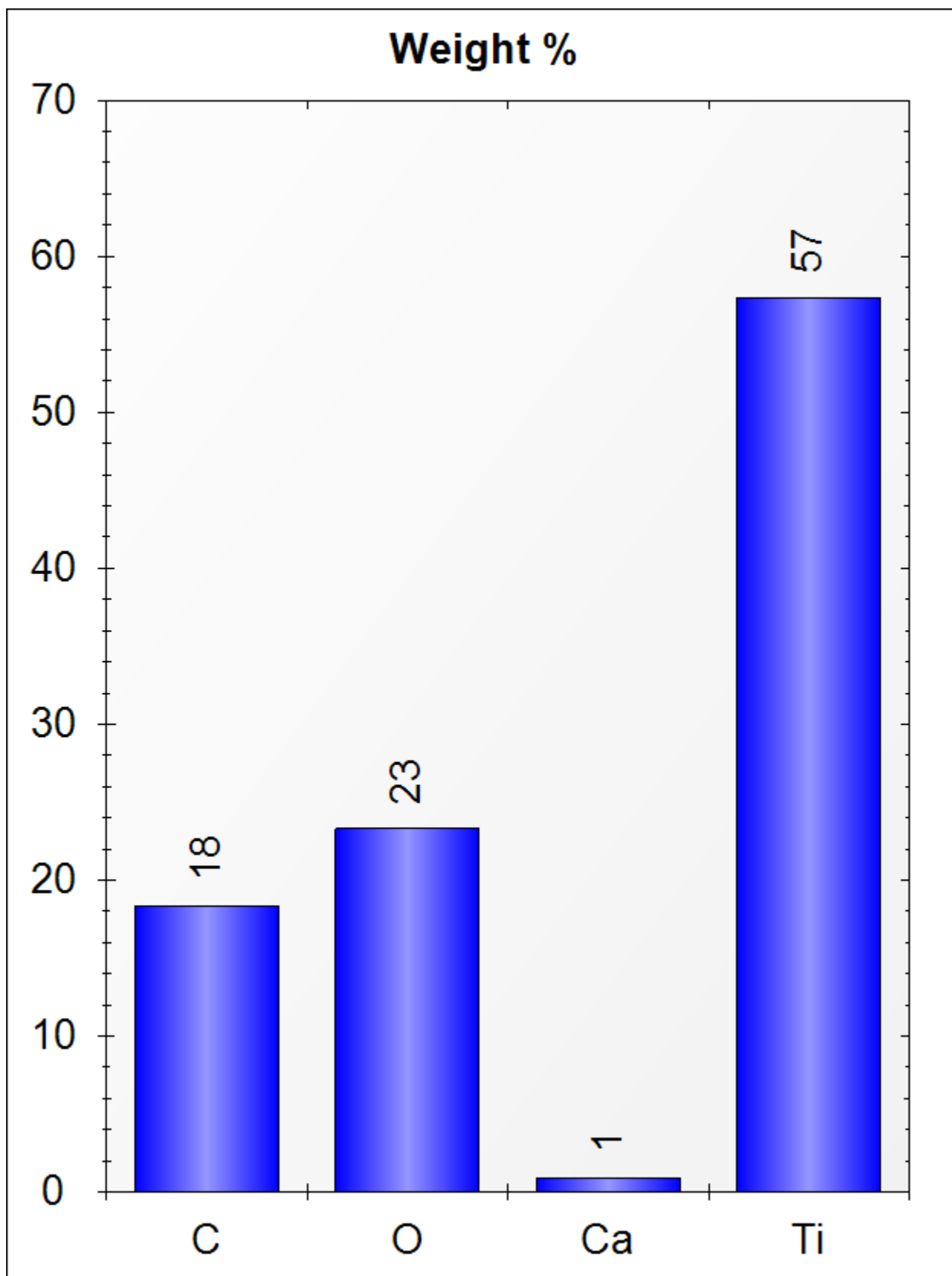
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

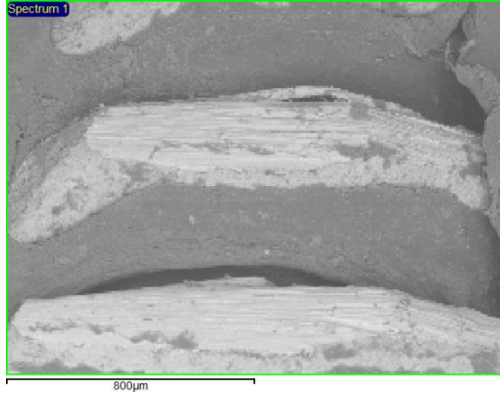
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



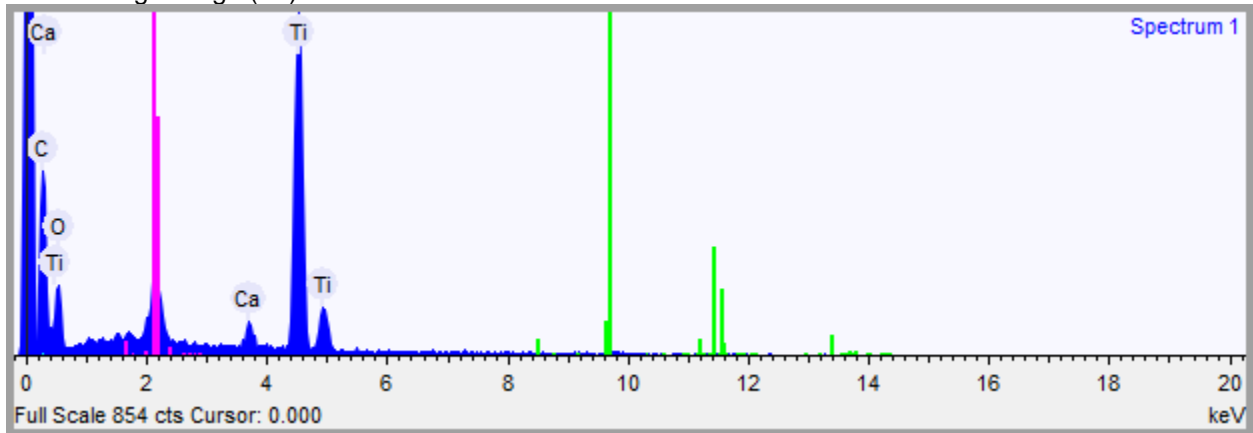
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	30.238	0.914	48.424
Oxygen	29.281	1.390	35.204
Calcium	1.483	0.141	0.712
Titanium	38.998	0.908	15.660

## Spectrum details

Project

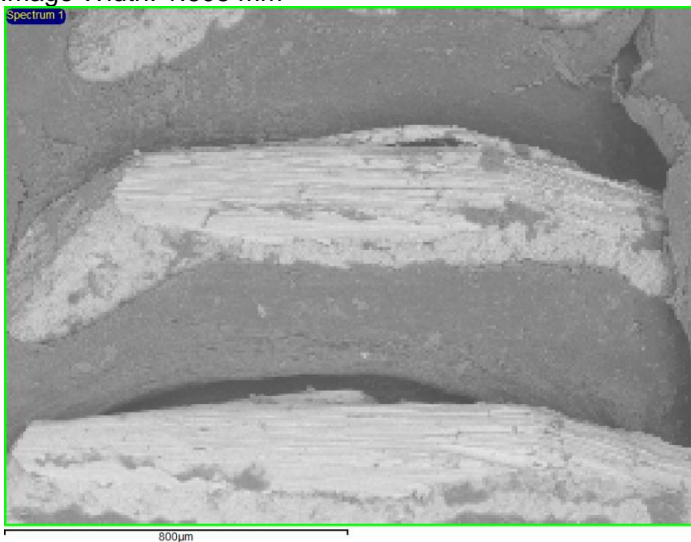
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



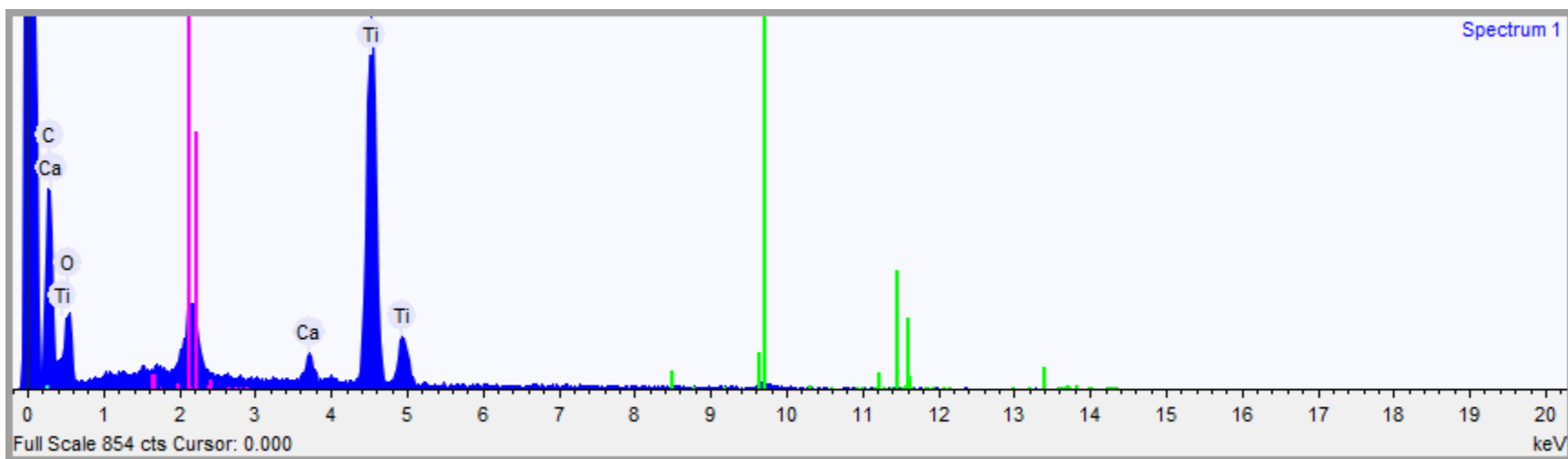
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	4178	36.202	0.167	1.031	30.238	0.914	48.424
Oxygen	k_series	1534	11.367	0.041	0.334	29.281	1.390	35.204
Calcium	k_series	798	1.945	0.017	1.129	1.483	0.141	0.712
Titanium	k_series	13050	38.752	0.388	0.855	38.998	0.908	15.660



## Spectrum details

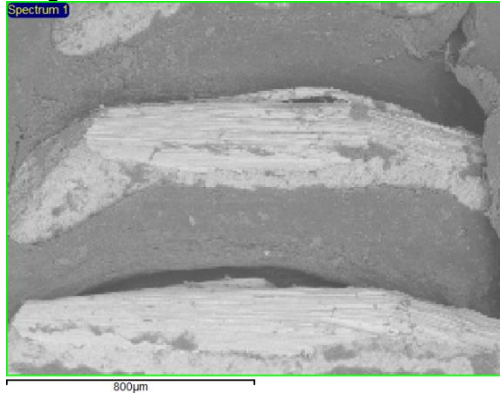
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



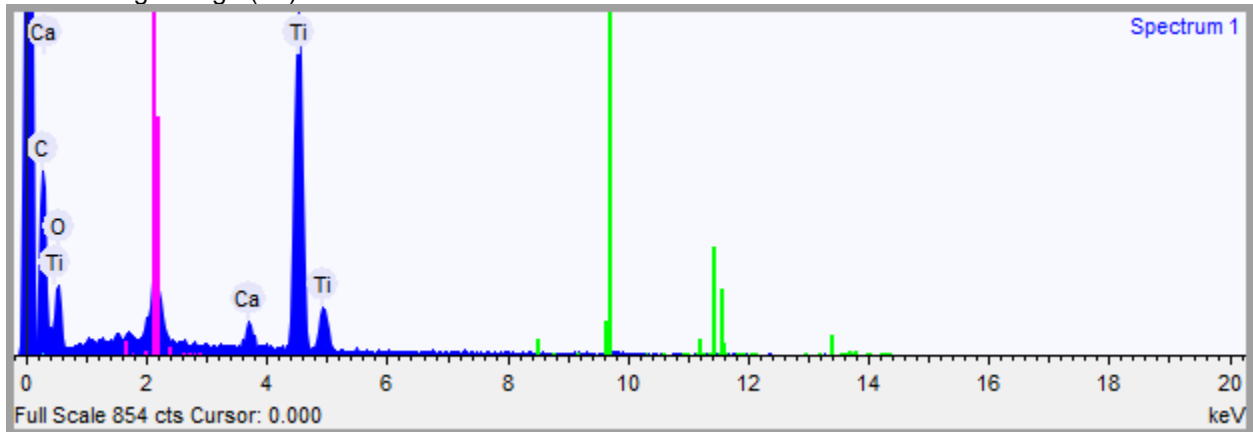
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



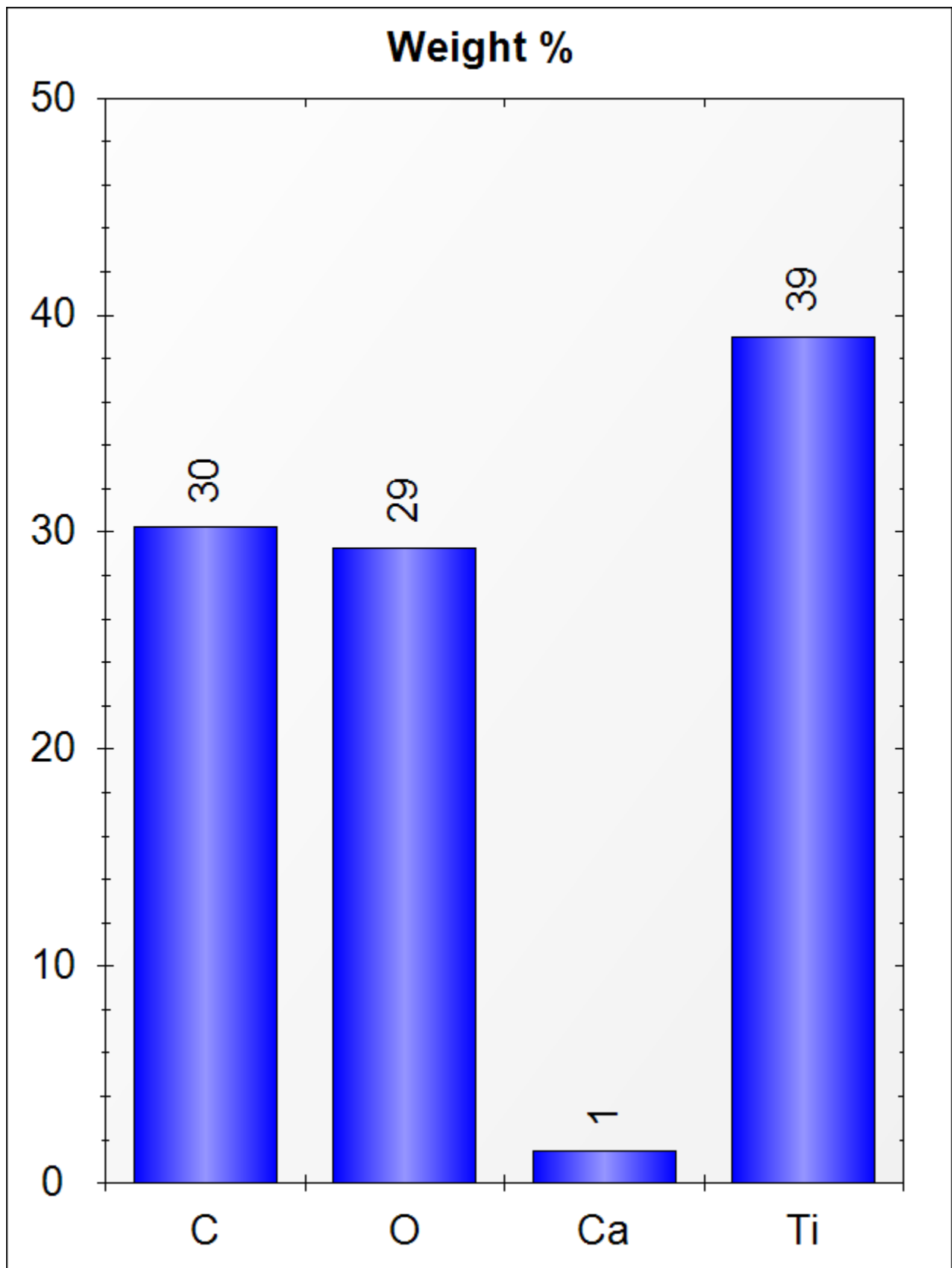
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



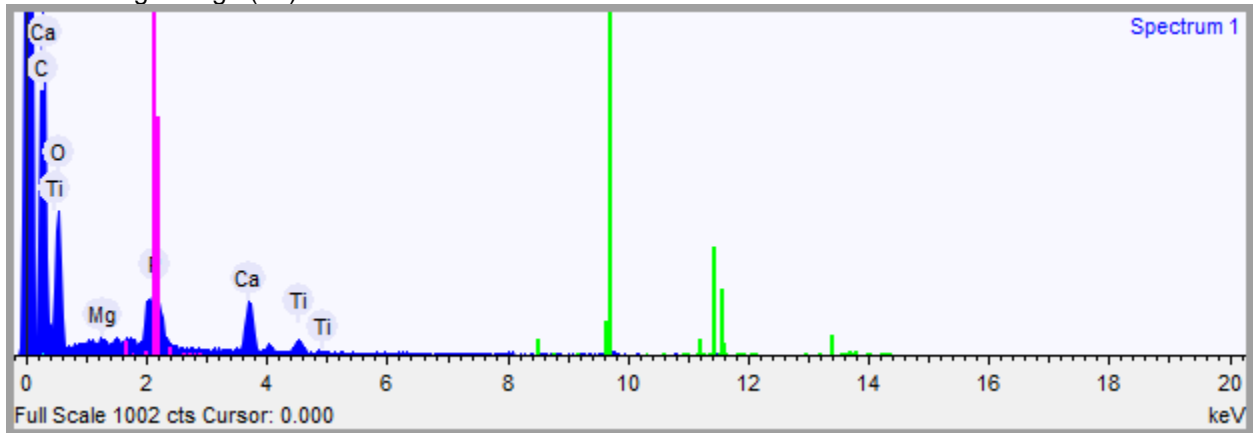
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	51.282	1.011	60.596
Oxygen	41.375	1.067	36.703
Magnesium	0.408	0.099	0.238
Phosphorus	0.972	0.173	0.445
Calcium	4.339	0.195	1.536
Titanium	1.624	0.174	0.481

## Spectrum details

Project

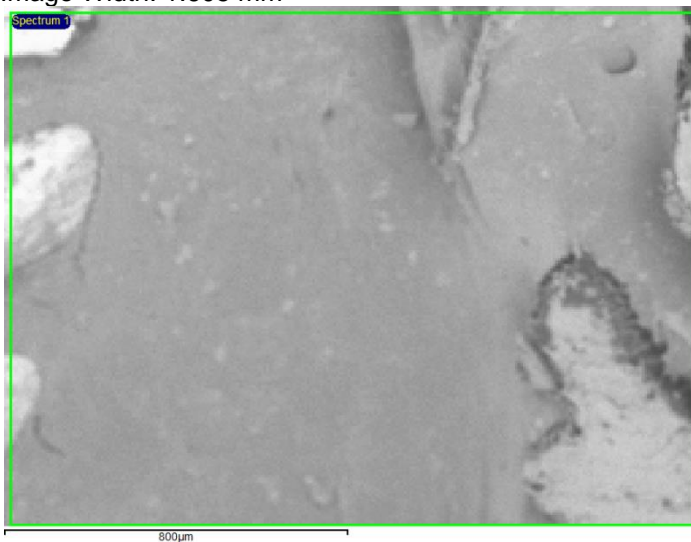
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



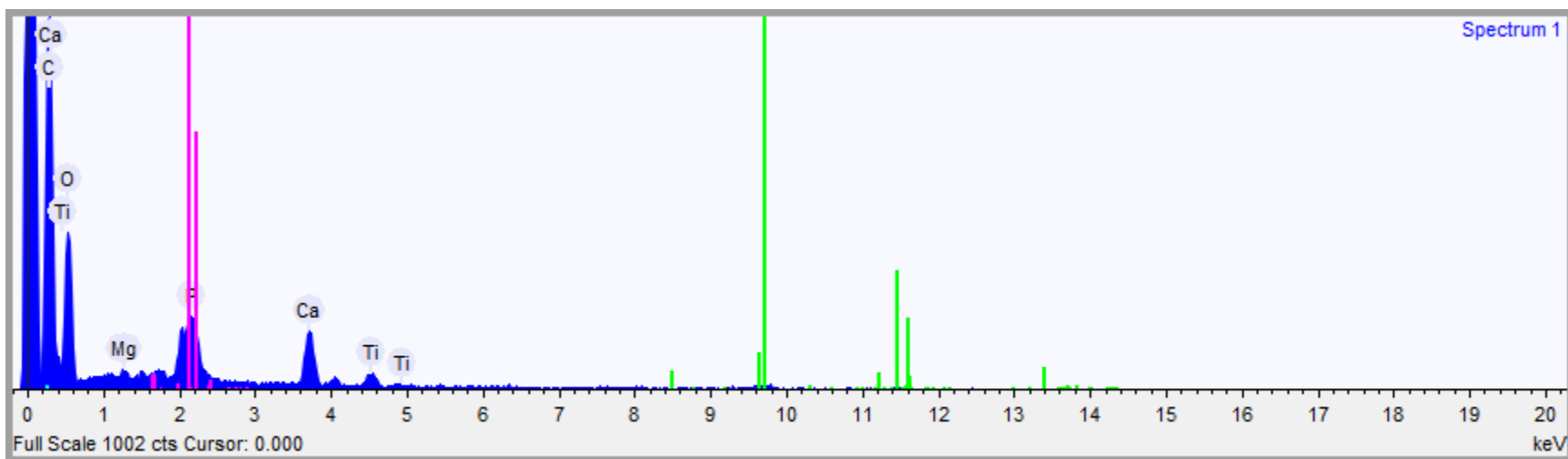
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method      All elements (normalised)      Coating element      None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	8616	89.054	0.412	1.179	51.282	1.011	60.596
Oxygen	k_series	3680	32.531	0.117	0.534	41.375	1.067	36.703
Magnesium	k_series	239	0.474	0.003	0.789	0.408	0.099	0.238
Phosphorus	k_series	694	1.902	0.011	1.328	0.972	0.173	0.445
Calcium	k_series	2132	6.200	0.056	0.970	4.339	0.195	1.536
Titanium	k_series	526	1.862	0.019	0.778	1.624	0.174	0.481

## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



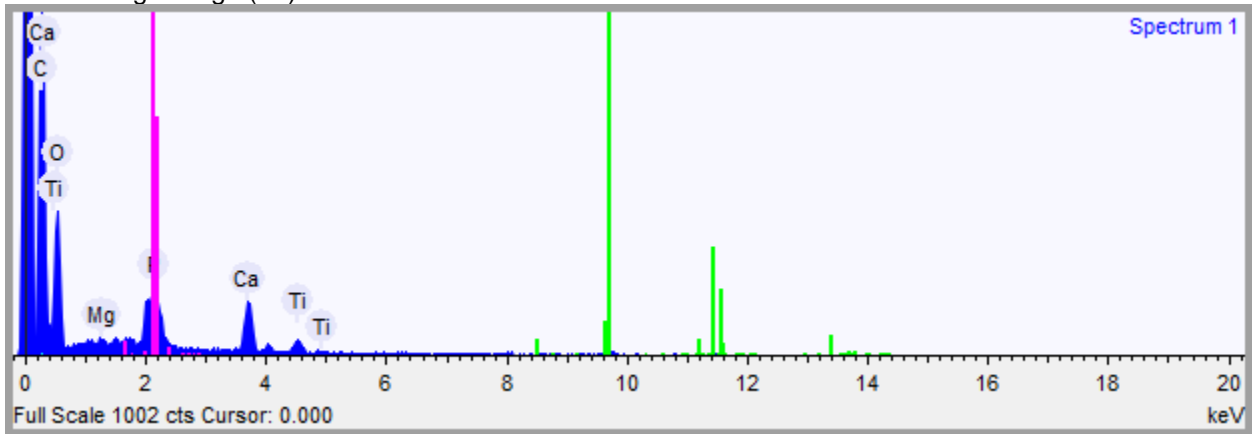
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



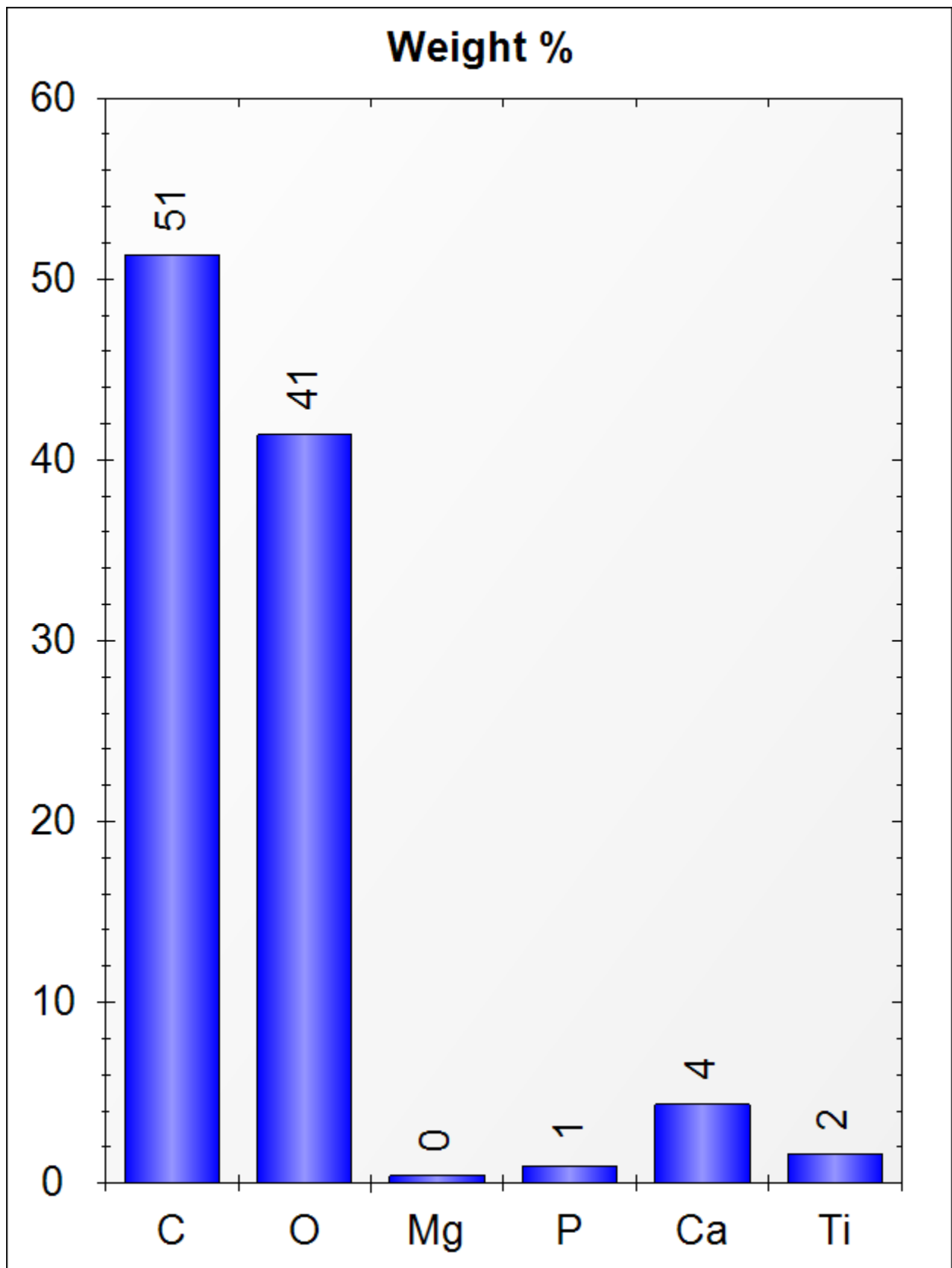
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 3.210 mm



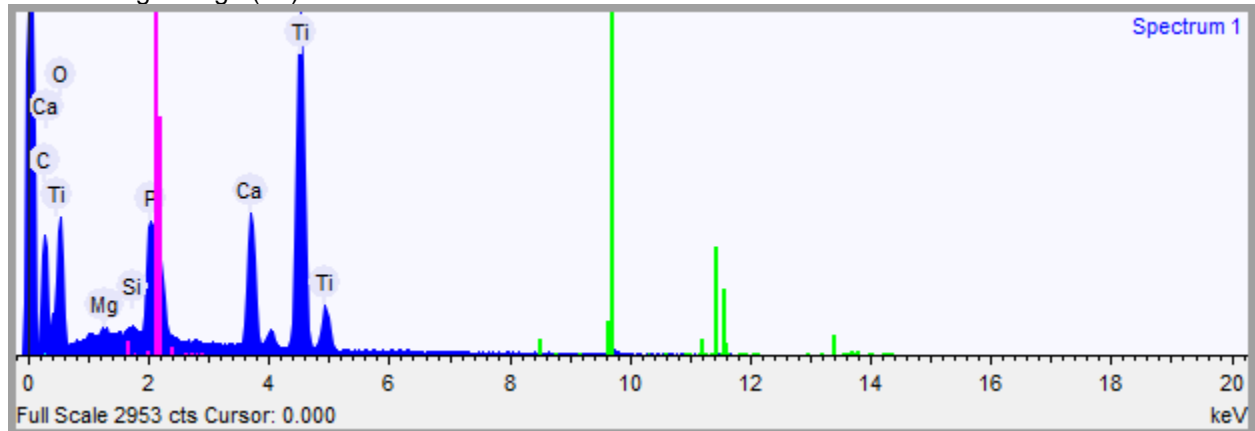
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	19.048	0.417	31.853
Oxygen	39.240	0.622	49.262
Magnesium	0.295	0.060	0.243
Silicon	0.267	0.051	0.191
Phosphorus	2.579	0.110	1.672
Calcium	7.384	0.130	3.700
Titanium	31.188	0.378	13.078



## Spectrum details

Project

New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 3.210 mm



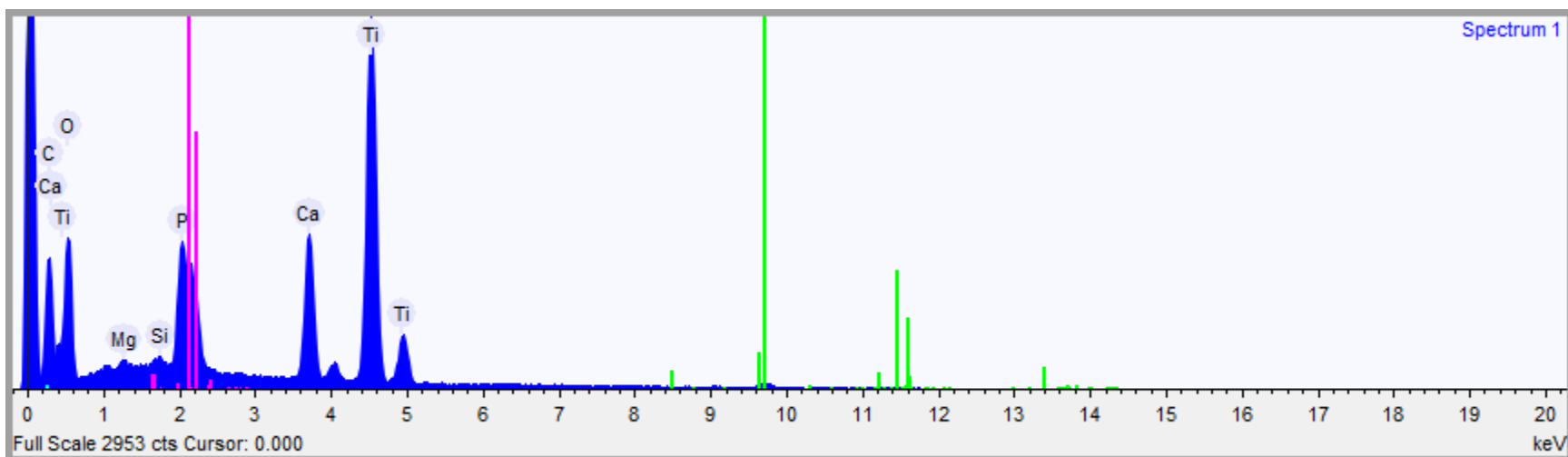
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corrn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	9119	17.283	0.080	0.817	19.048	0.417	31.853
Oxygen	k_series	10309	16.711	0.060	0.384	39.240	0.622	49.262
Magnesium	k_series	639	0.233	0.002	0.711	0.295	0.060	0.243
Silicon	k_series	780	0.272	0.002	0.916	0.267	0.051	0.191
Phosphorus	k_series	7650	3.844	0.023	1.342	2.579	0.110	1.672
Calcium	k_series	16701	8.905	0.080	1.086	7.384	0.130	3.700
Titanium	k_series	44676	29.013	0.290	0.837	31.188	0.378	13.078

## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 3.210 mm



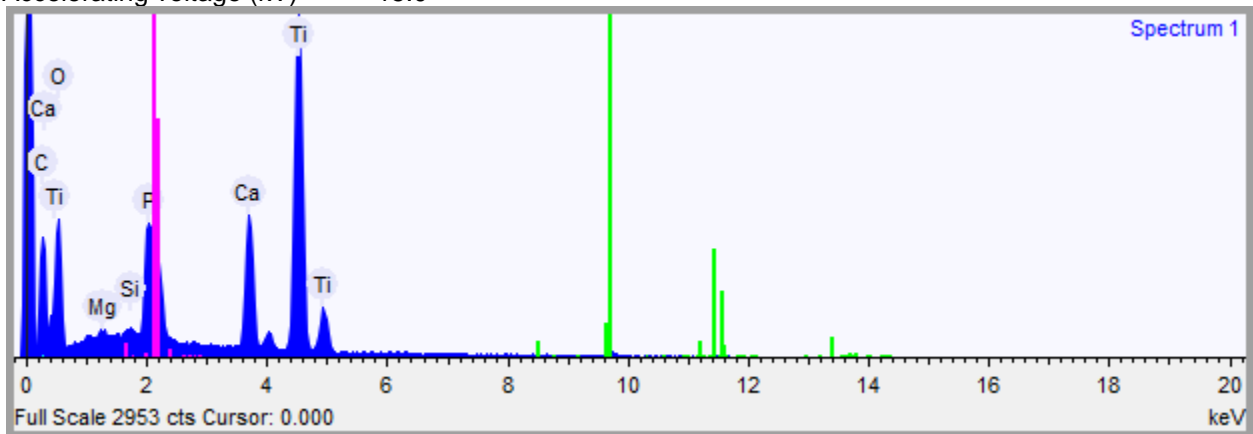
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



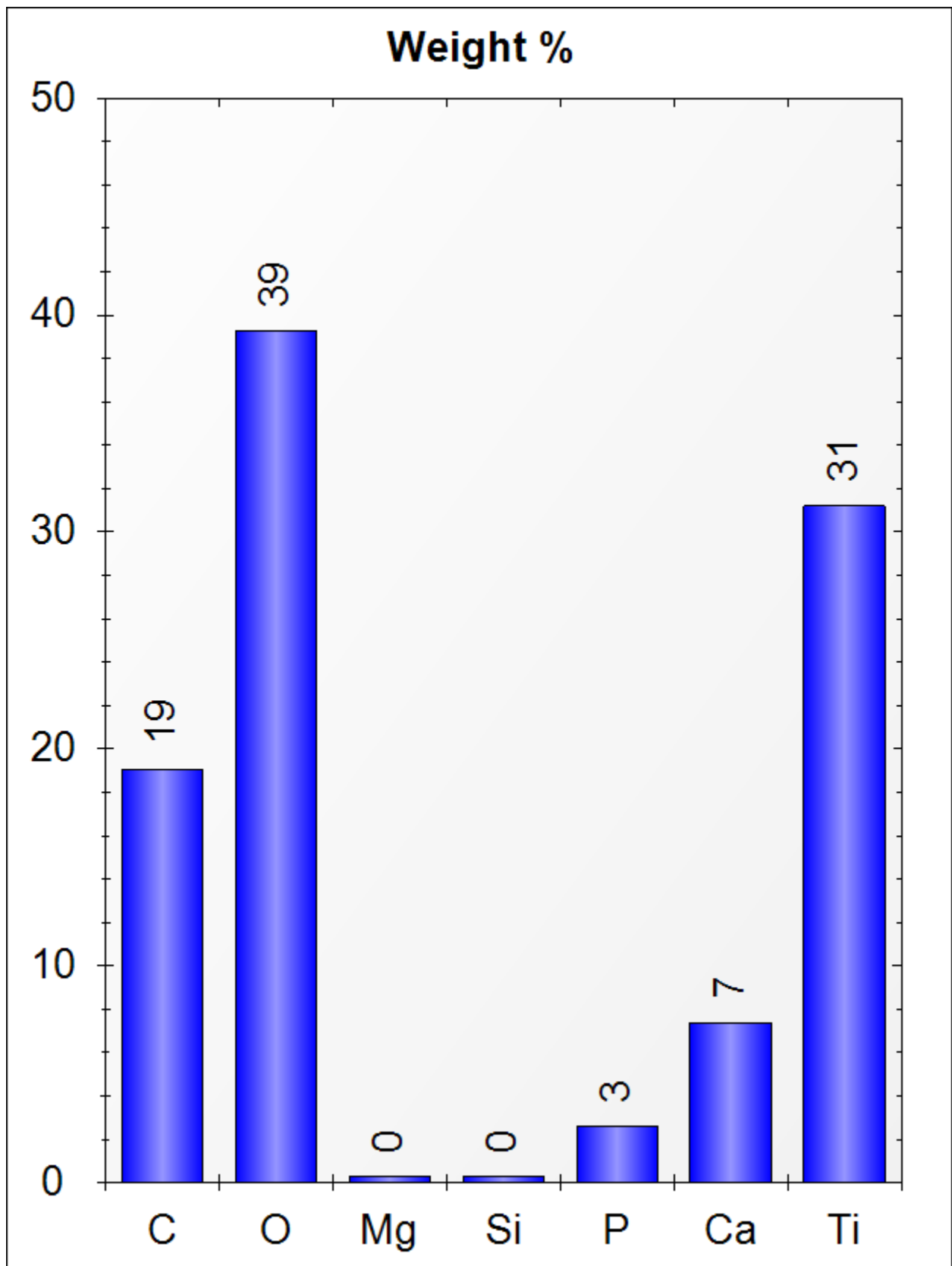
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

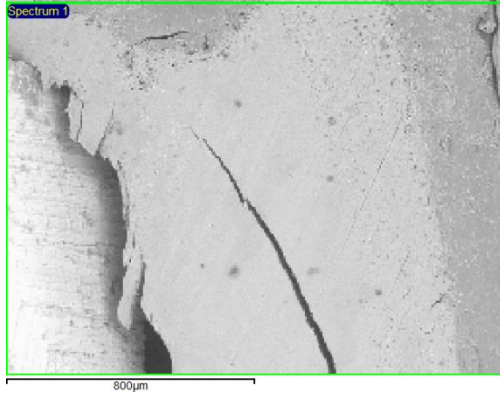
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



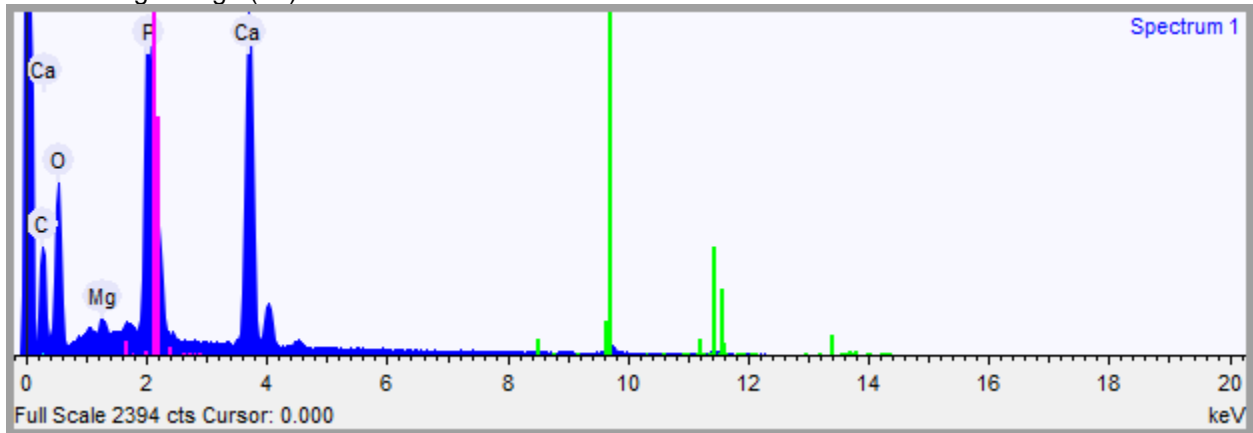
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	24.761	0.560	36.704
Oxygen	42.469	0.580	47.260
Magnesium	0.625	0.074	0.458
Phosphorus	9.944	0.199	5.716
Calcium	22.202	0.297	9.862

## Spectrum details

Project

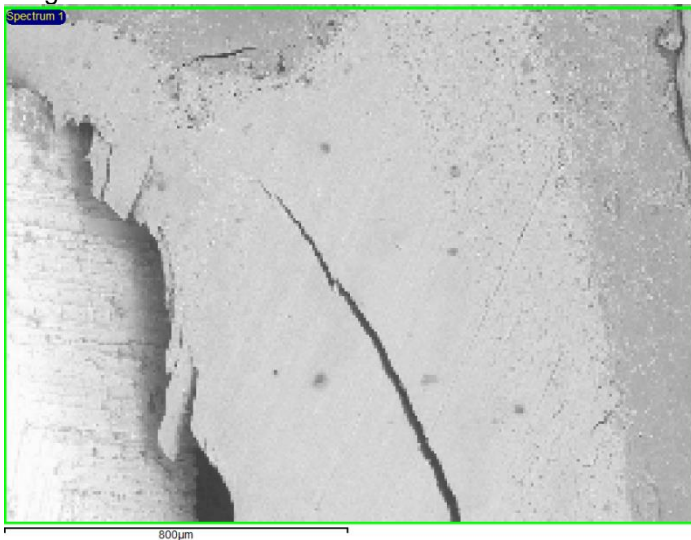
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



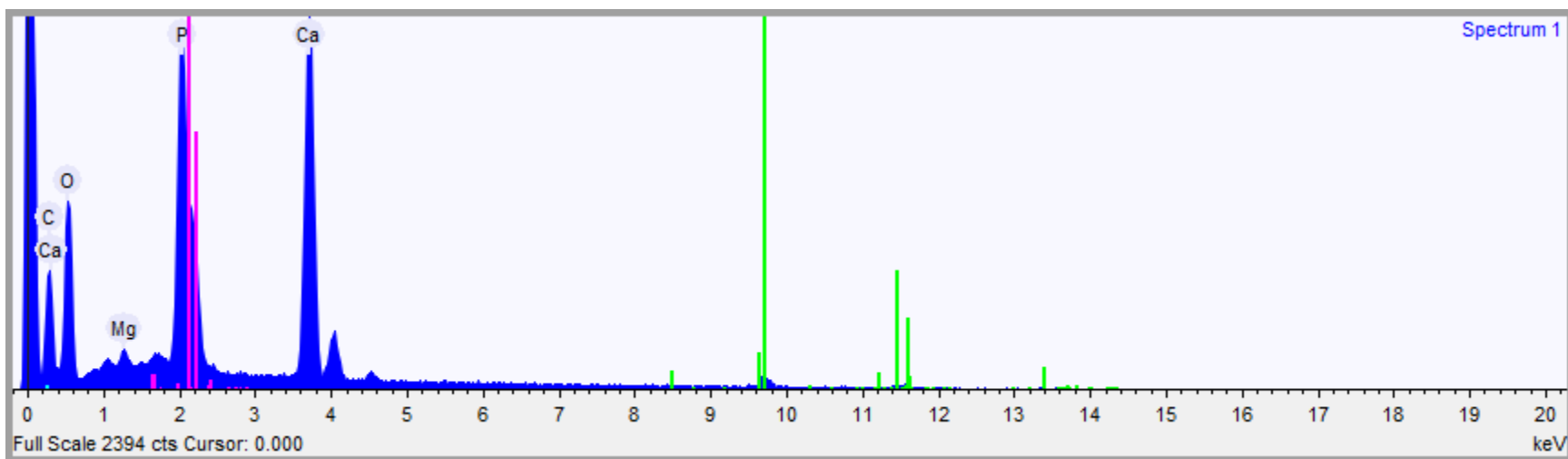
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	6340	13.674	0.063	0.599	24.761	0.560	36.704
Oxygen	k_series	10138	18.704	0.067	0.477	42.469	0.580	47.260
Magnesium	k_series	1082	0.448	0.003	0.777	0.625	0.074	0.458
Phosphorus	k_series	21793	12.461	0.074	1.359	9.944	0.199	5.716
Calcium	k_series	33282	20.197	0.181	0.986	22.202	0.297	9.862

## Spectrum details

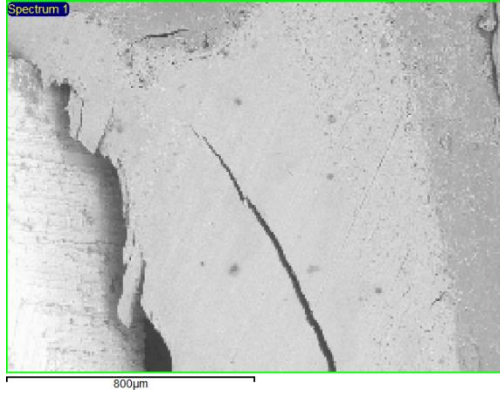
Project

New project

Spectrum name Spectrum 1

## Electron Image

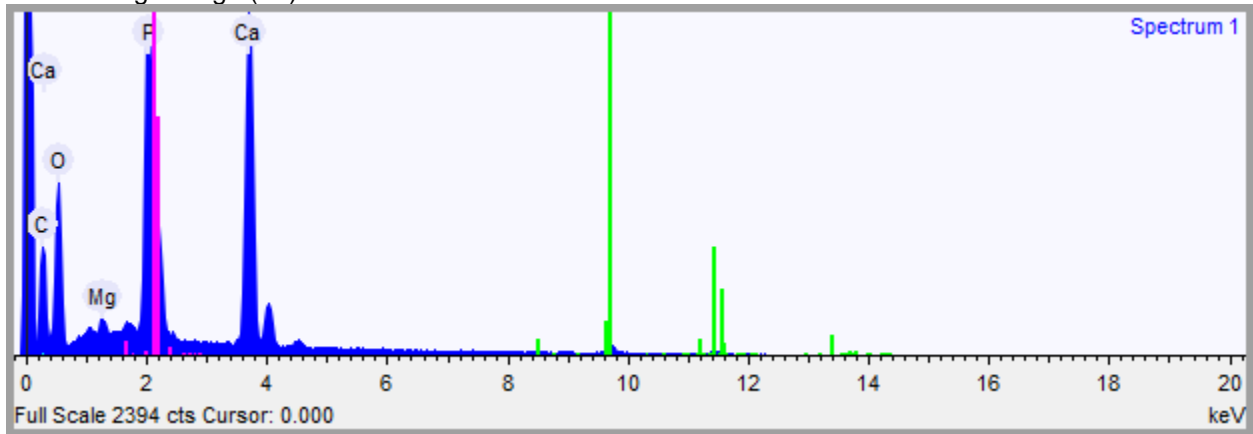
Image Width: 1.605 mm



## Acquisition conditions

Acquisition time (s) 100.0 Process time 5

Accelerating voltage (kV) 15.0



## Quantification Settings

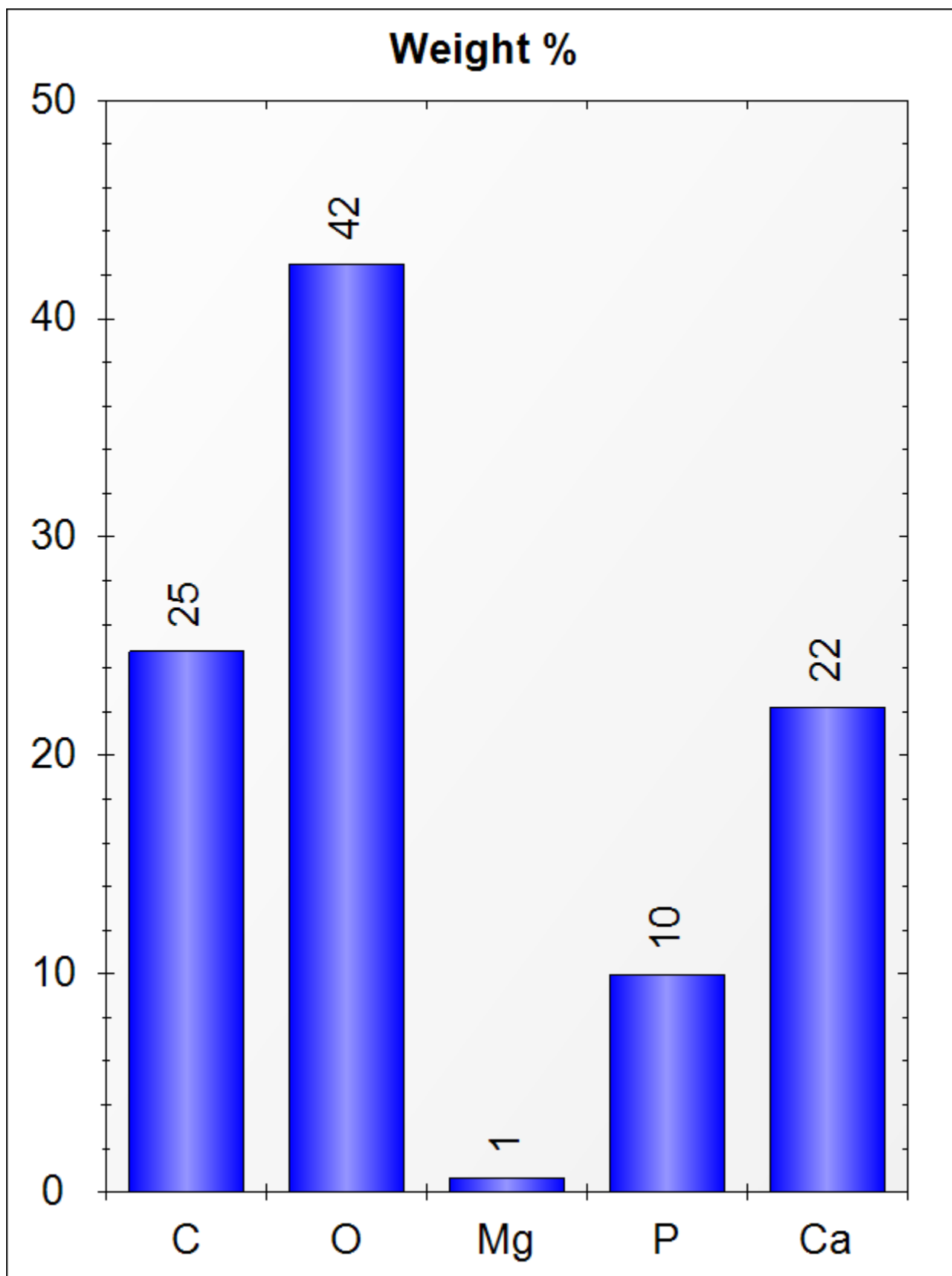
Quantification method

All elements (normalised)

Coating element

None





## Spectrum details

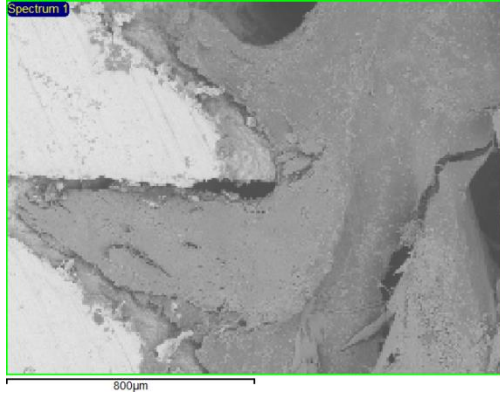
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



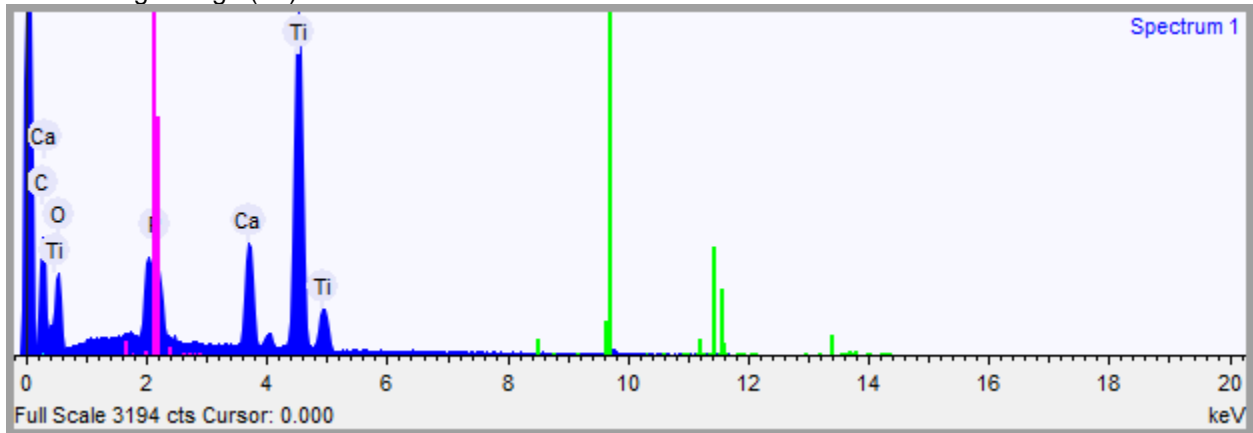
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	20.734	0.437	36.126
Oxygen	32.410	0.707	42.393
Phosphorus	1.723	0.112	1.164
Calcium	7.026	0.134	3.669
Titanium	38.106	0.466	16.648

## Spectrum details

Project

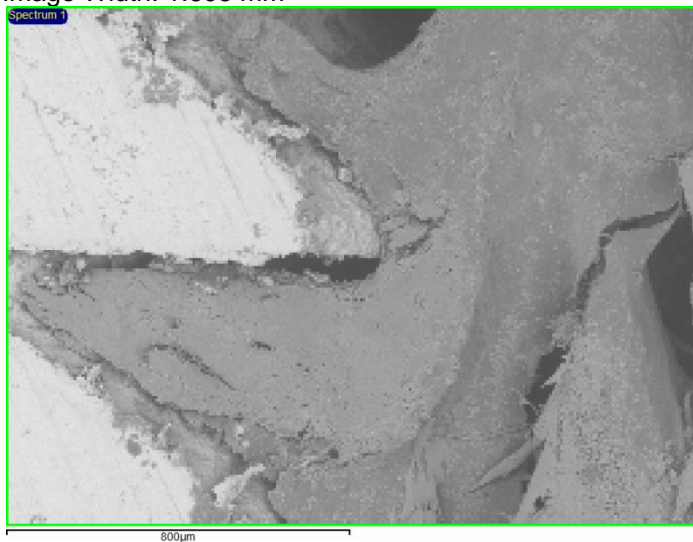
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



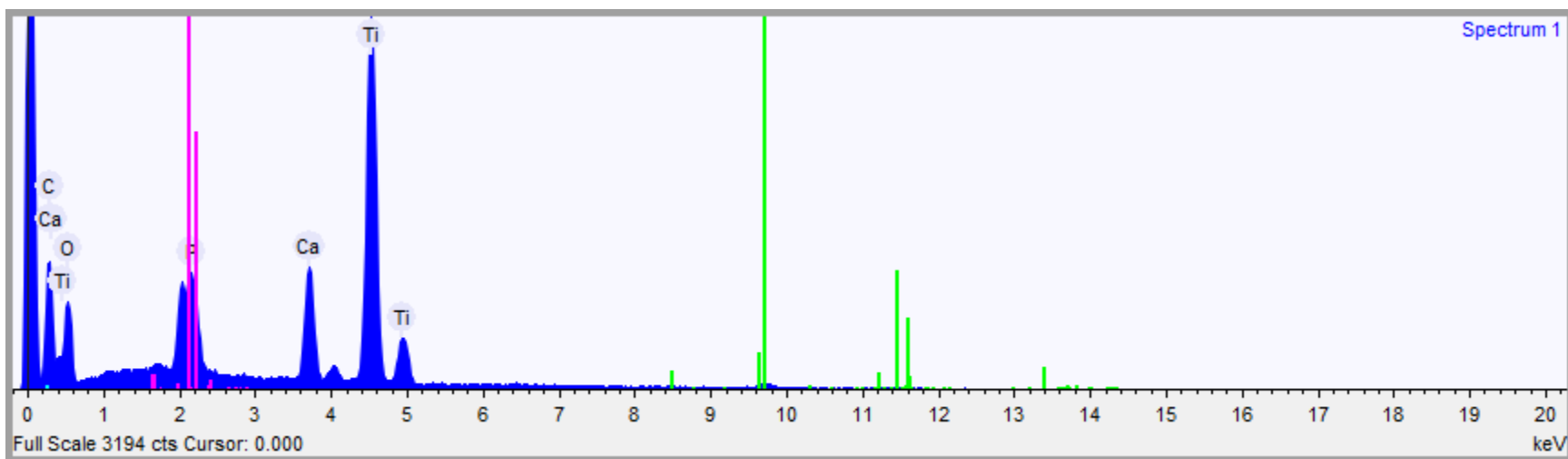
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corrn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	9367	18.463	0.085	0.879	20.734	0.437	36.126
Oxygen	k_series	6569	11.074	0.040	0.337	32.410	0.707	42.393
Phosphorus	k_series	4529	2.367	0.014	1.356	1.723	0.112	1.164
Calcium	k_series	14286	7.922	0.071	1.114	7.026	0.134	3.669
Titanium	k_series	48583	32.814	0.328	0.850	38.106	0.466	16.648

## Spectrum details

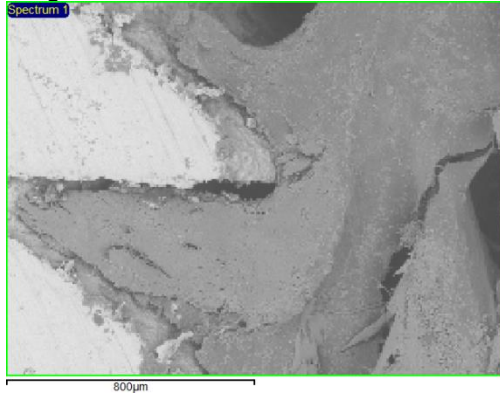
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



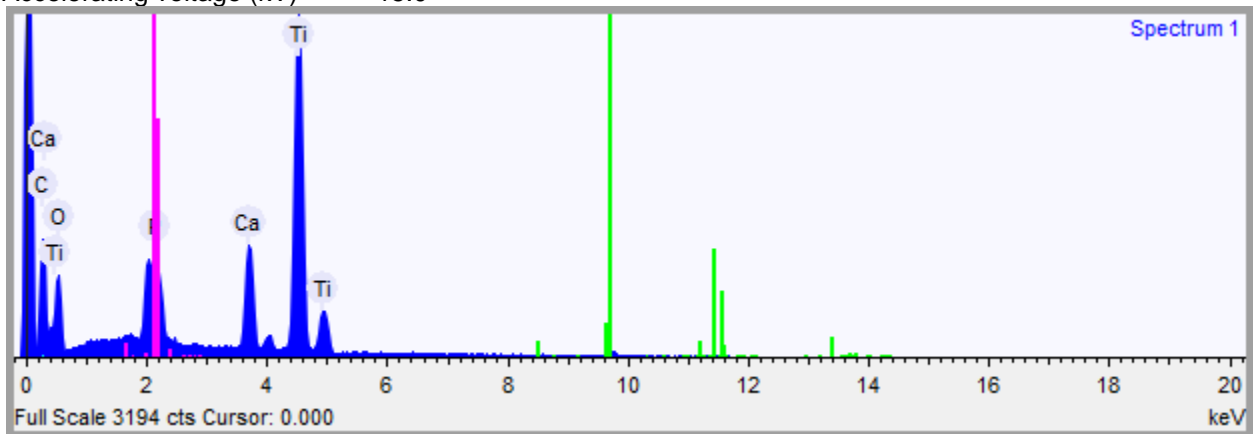
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



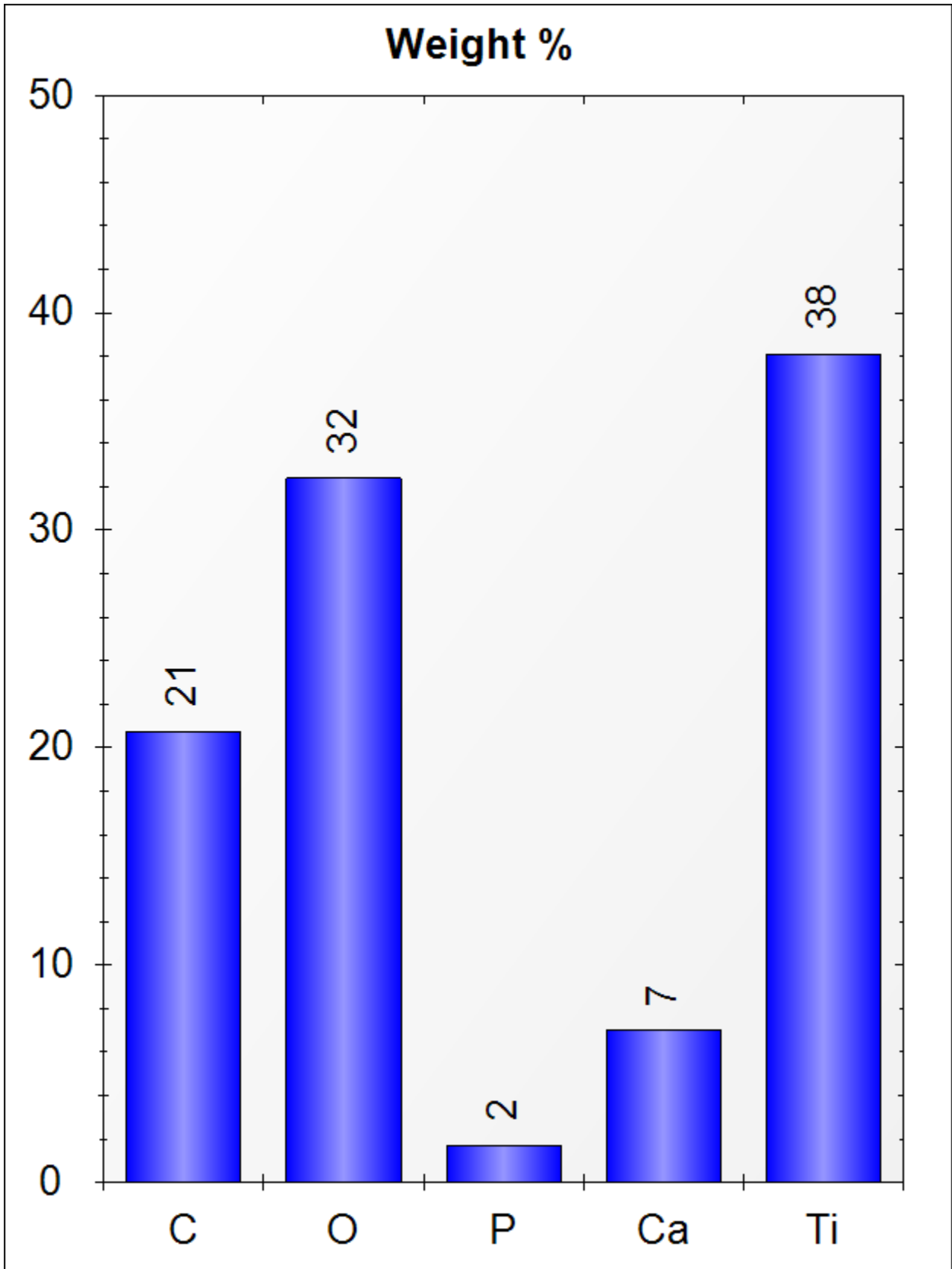
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

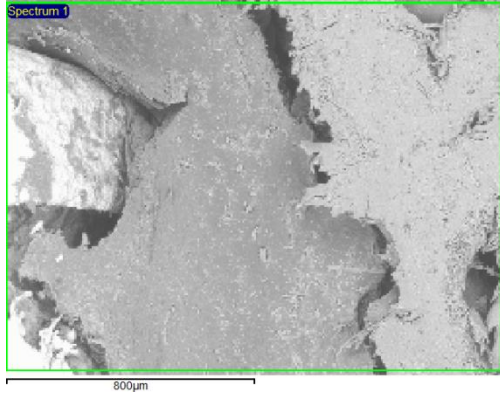
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



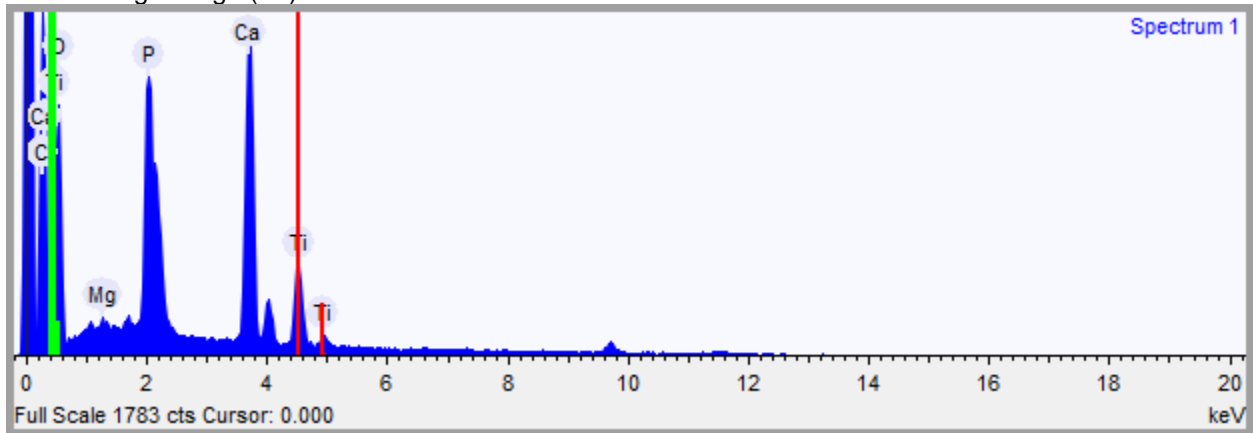
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	34.544	0.514	47.277
Oxygen	41.508	0.592	42.648
Magnesium	0.193	0.057	0.131
Phosphorus	4.742	0.136	2.517
Calcium	13.481	0.201	5.529
Titanium	5.531	0.149	1.898

## Spectrum details

Project

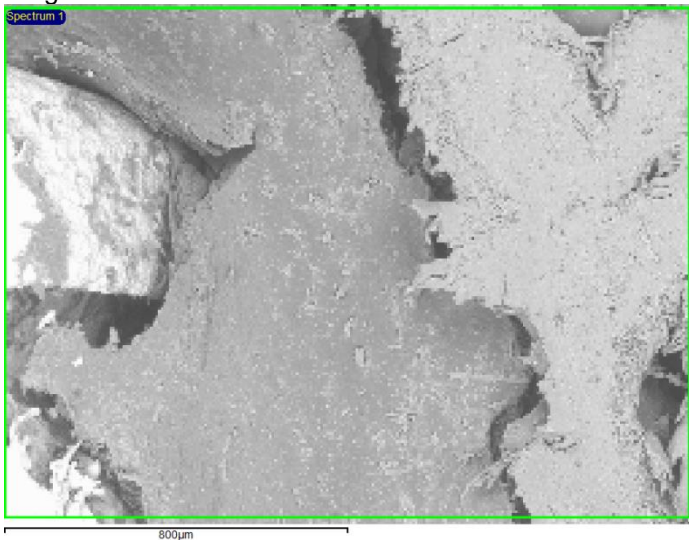
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



## Acquisition conditions

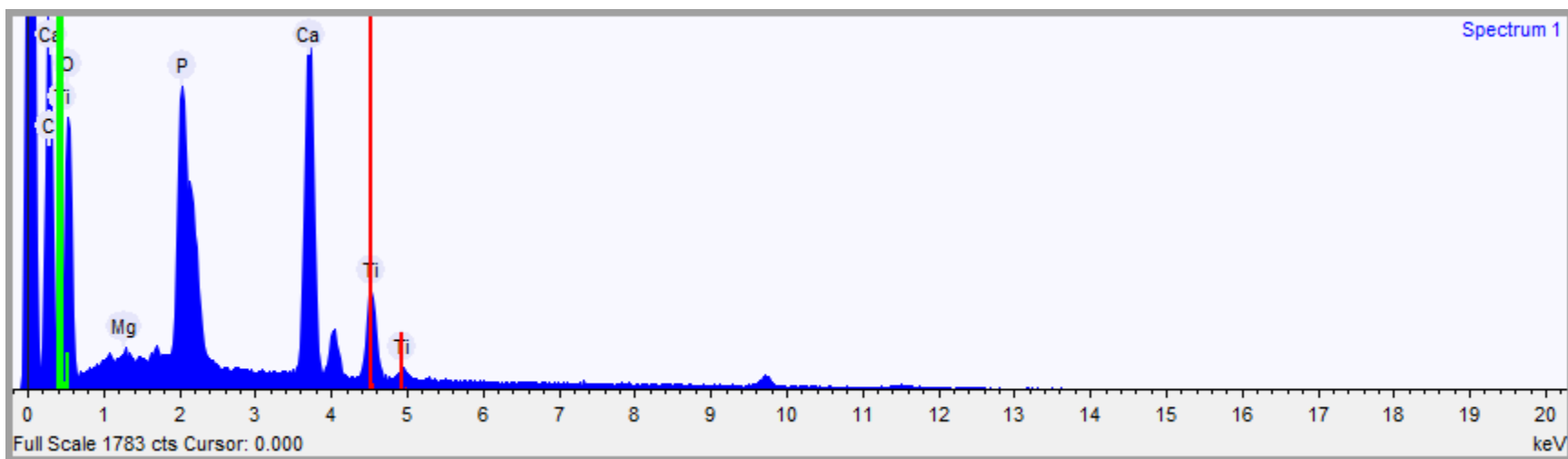
Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0





### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	14258	33.570	0.155	0.824	34.544	0.514	47.277
Oxygen	k_series	11470	23.099	0.083	0.472	41.508	0.592	42.648
Magnesium	k_series	387	0.175	0.001	0.768	0.193	0.057	0.131
Phosphorus	k_series	12066	7.531	0.045	1.346	4.742	0.136	2.517
Calcium	k_series	23890	15.825	0.142	0.995	13.481	0.201	5.529
Titanium	k_series	6310	5.091	0.051	0.780	5.531	0.149	1.898

## Spectrum details

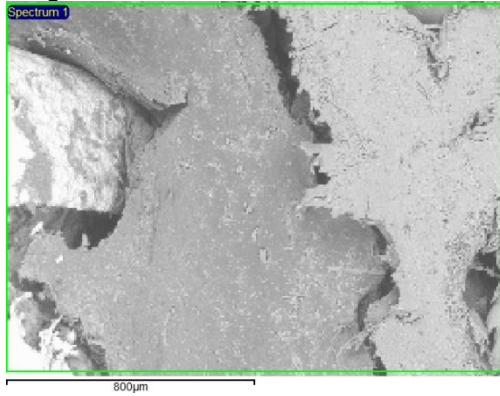
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



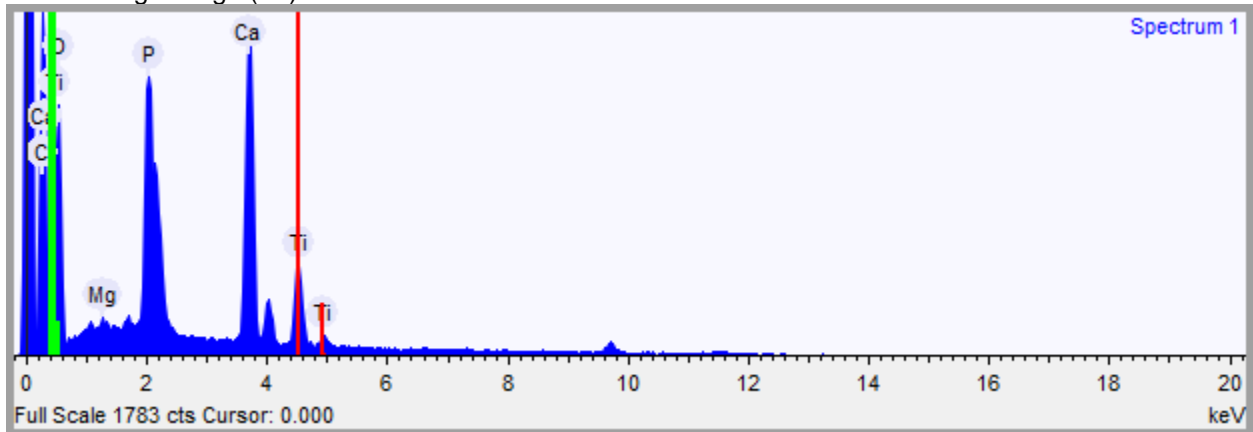
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



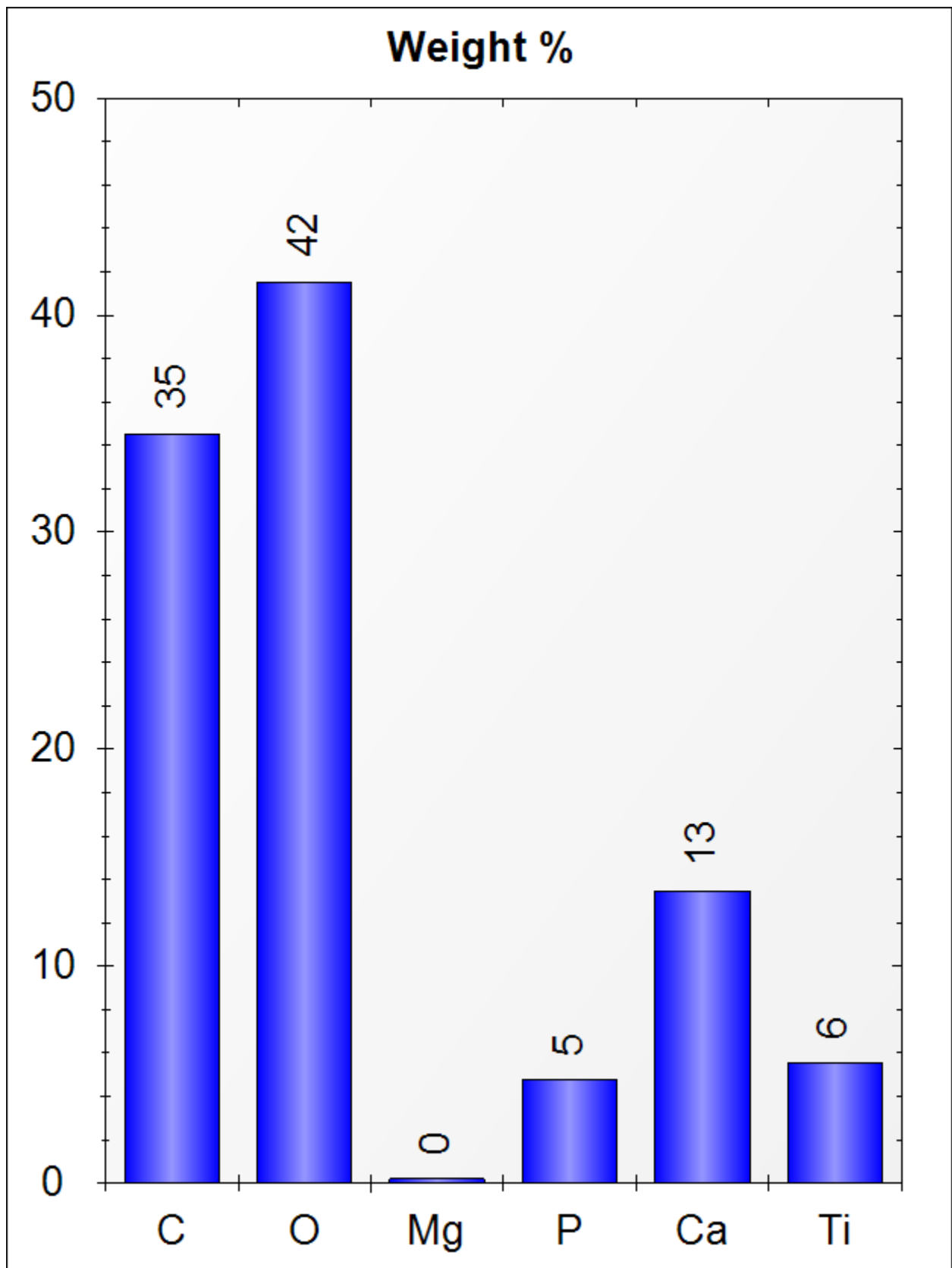
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



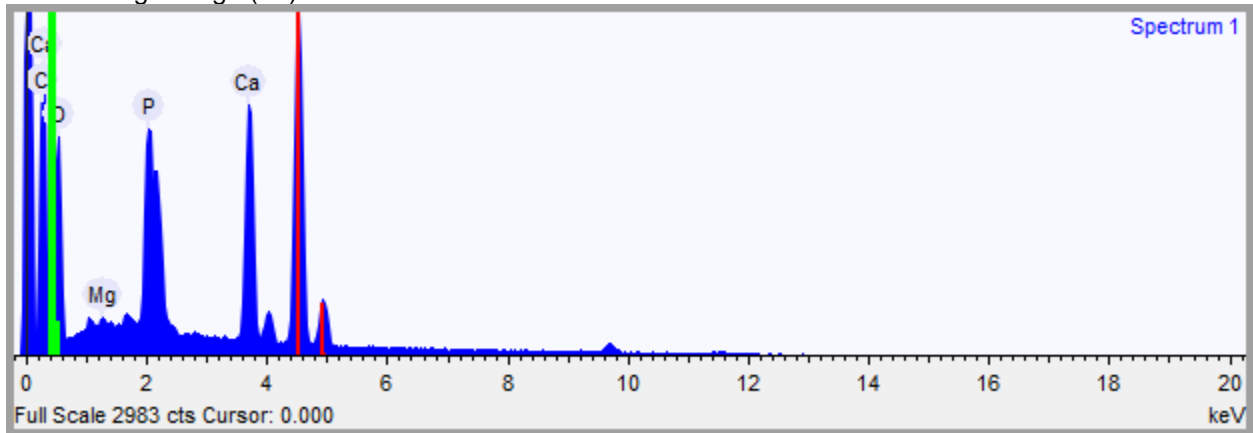
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	39.190	0.465	51.063
Oxygen	41.842	0.499	40.928
Magnesium	0.310	0.062	0.199
Phosphorus	4.567	0.132	2.307
Calcium	14.092	0.187	5.502

## Spectrum details

Project

New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



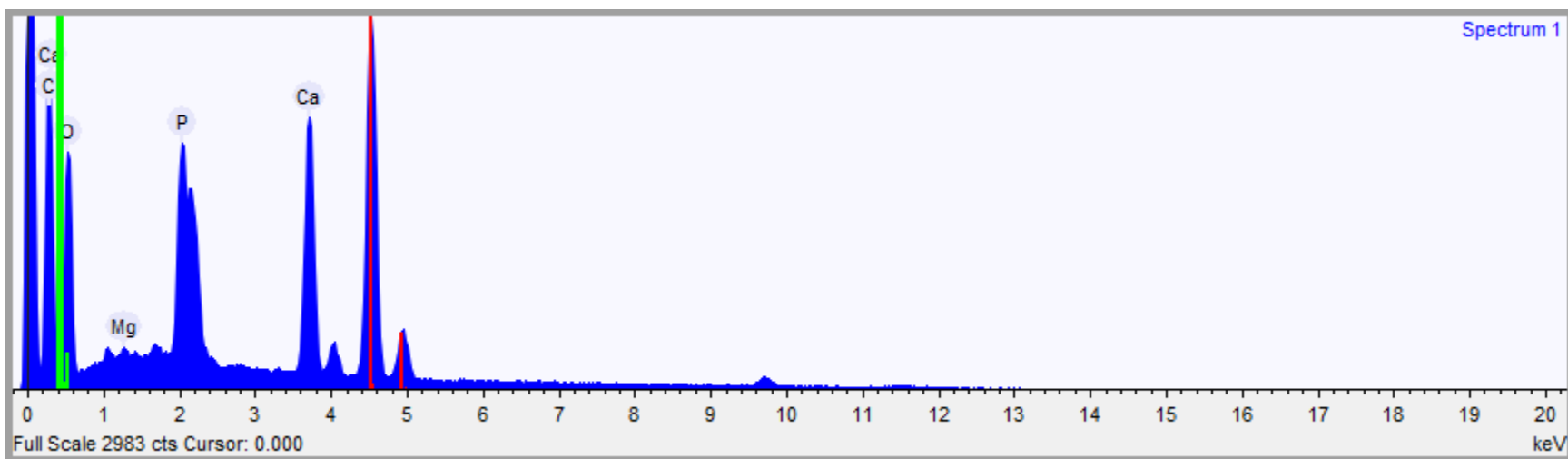
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	20692	26.169	0.121	0.858	39.190	0.465	51.063
Oxygen	k_series	15026	16.253	0.058	0.499	41.842	0.499	40.928
Magnesium	k_series	776	0.188	0.001	0.782	0.310	0.062	0.199
Phosphorus	k_series	14243	4.775	0.028	1.344	4.567	0.132	2.307
Calcium	k_series	30090	10.706	0.096	0.976	14.092	0.187	5.502

## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



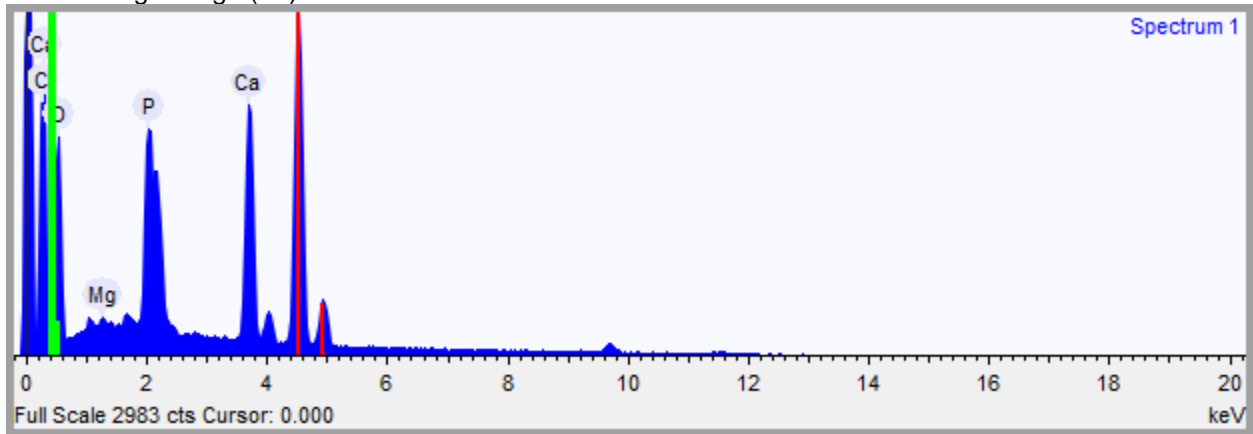
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



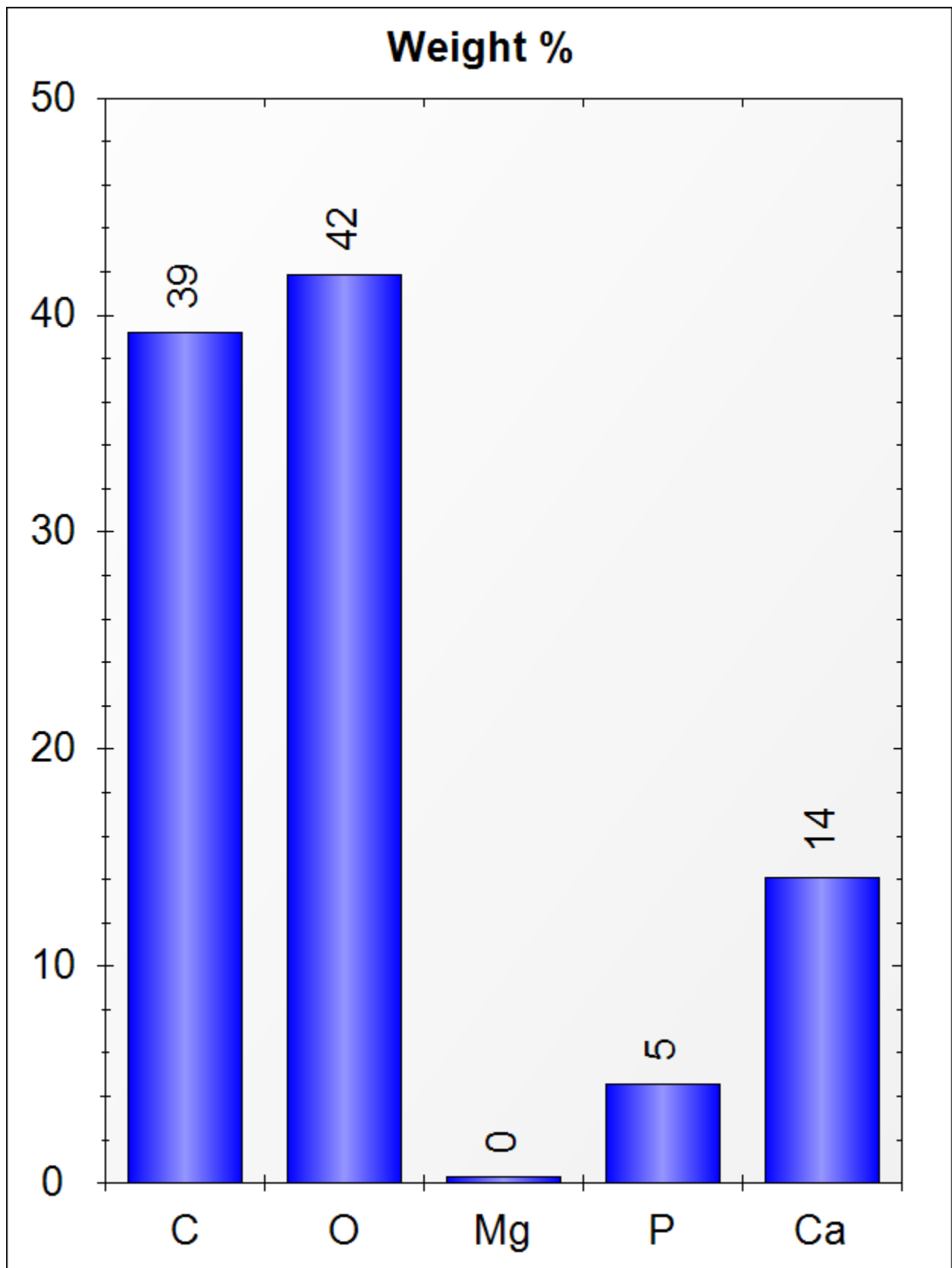
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None





## Spectrum details

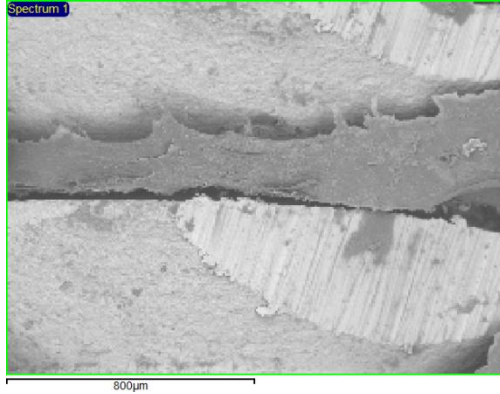
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



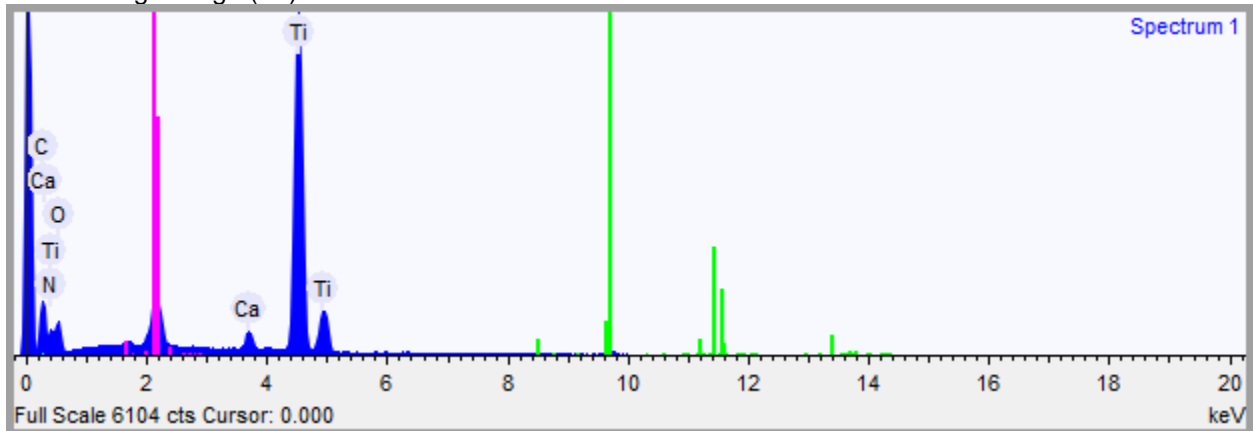
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	14.979	0.403	30.517
Nitrogen	2.296	0.938	4.012
Oxygen	22.619	0.806	34.594
Calcium	1.744	0.071	1.065
Titanium	58.362	0.850	29.814

## Spectrum details

Project

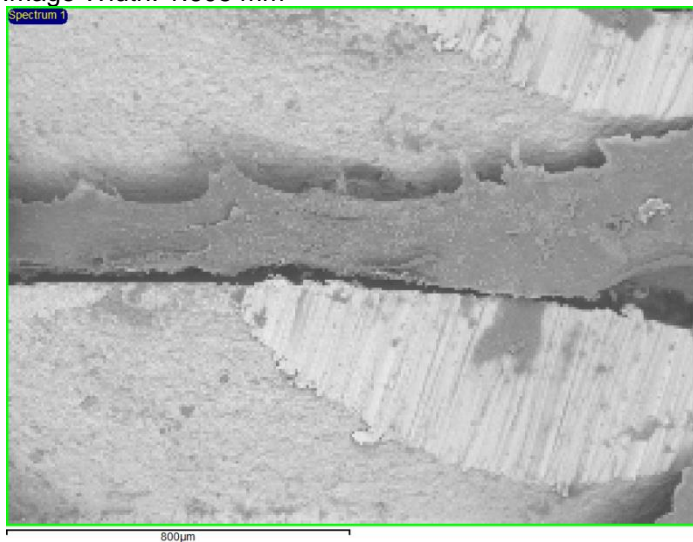
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



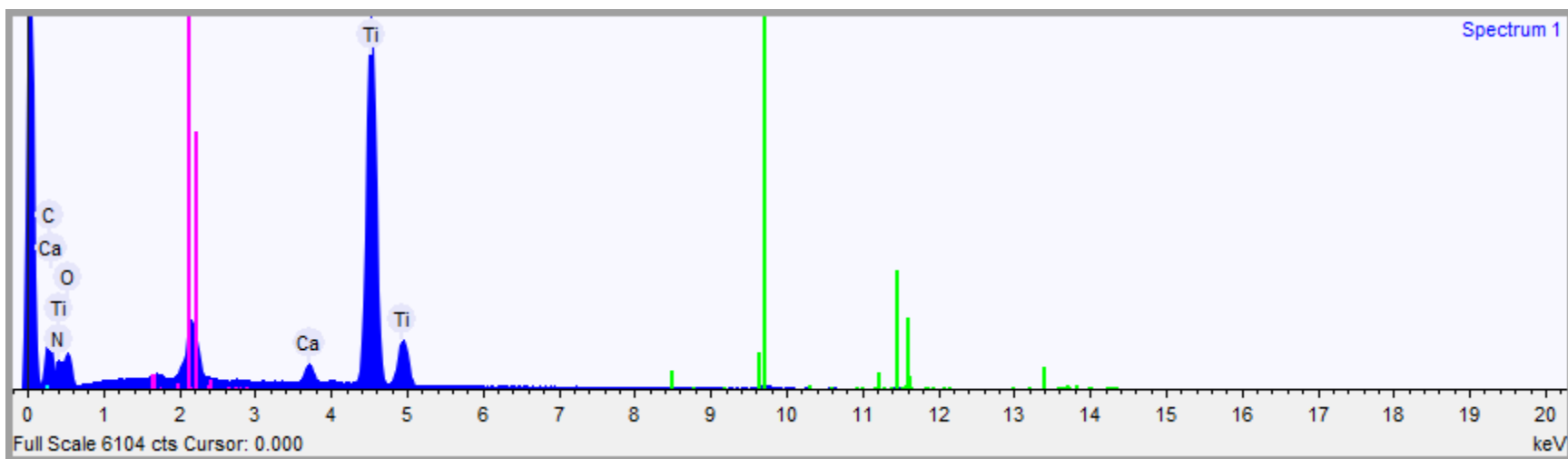
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	8355	13.007	0.060	0.919	14.979	0.403	30.517
Nitrogen	k_series	700	0.657	0.007	0.303	2.296	0.938	4.012
Oxygen	k_series	4489	5.978	0.021	0.280	22.619	0.806	34.594
Calcium	k_series	4532	1.985	0.018	1.204	1.744	0.071	1.065
Titanium	k_series	92893	49.552	0.496	0.898	58.362	0.850	29.814

## Spectrum details

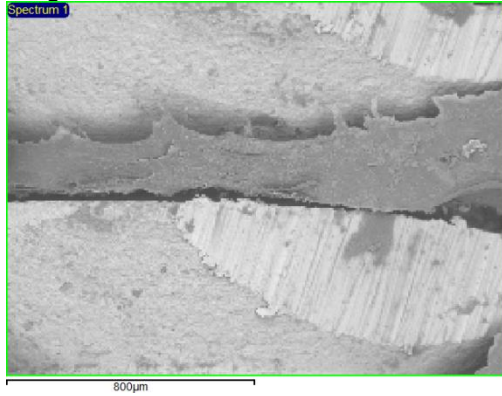
Project

New project

Spectrum name Spectrum 1

## Electron Image

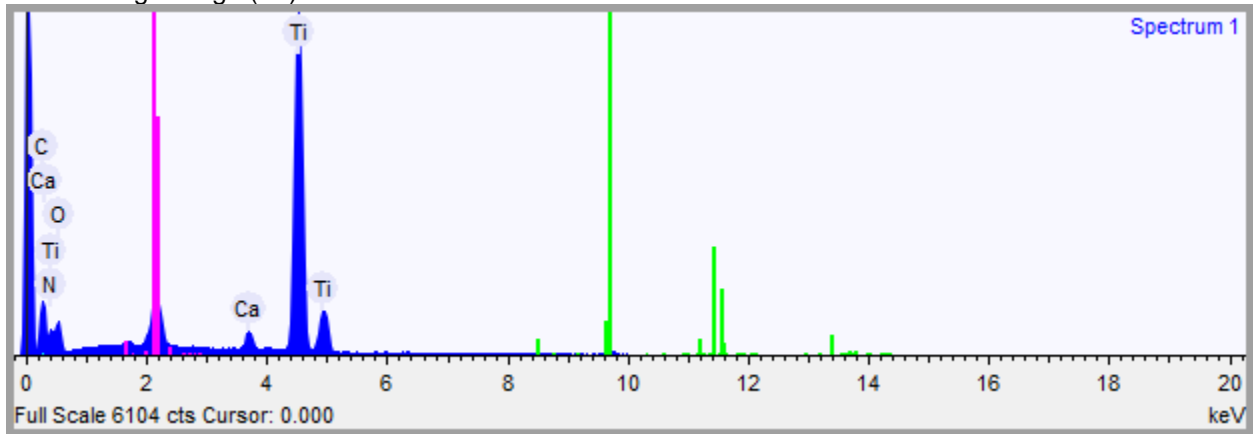
Image Width: 1.605 mm



## Acquisition conditions

Acquisition time (s) 100.0 Process time 5

Accelerating voltage (kV) 15.0



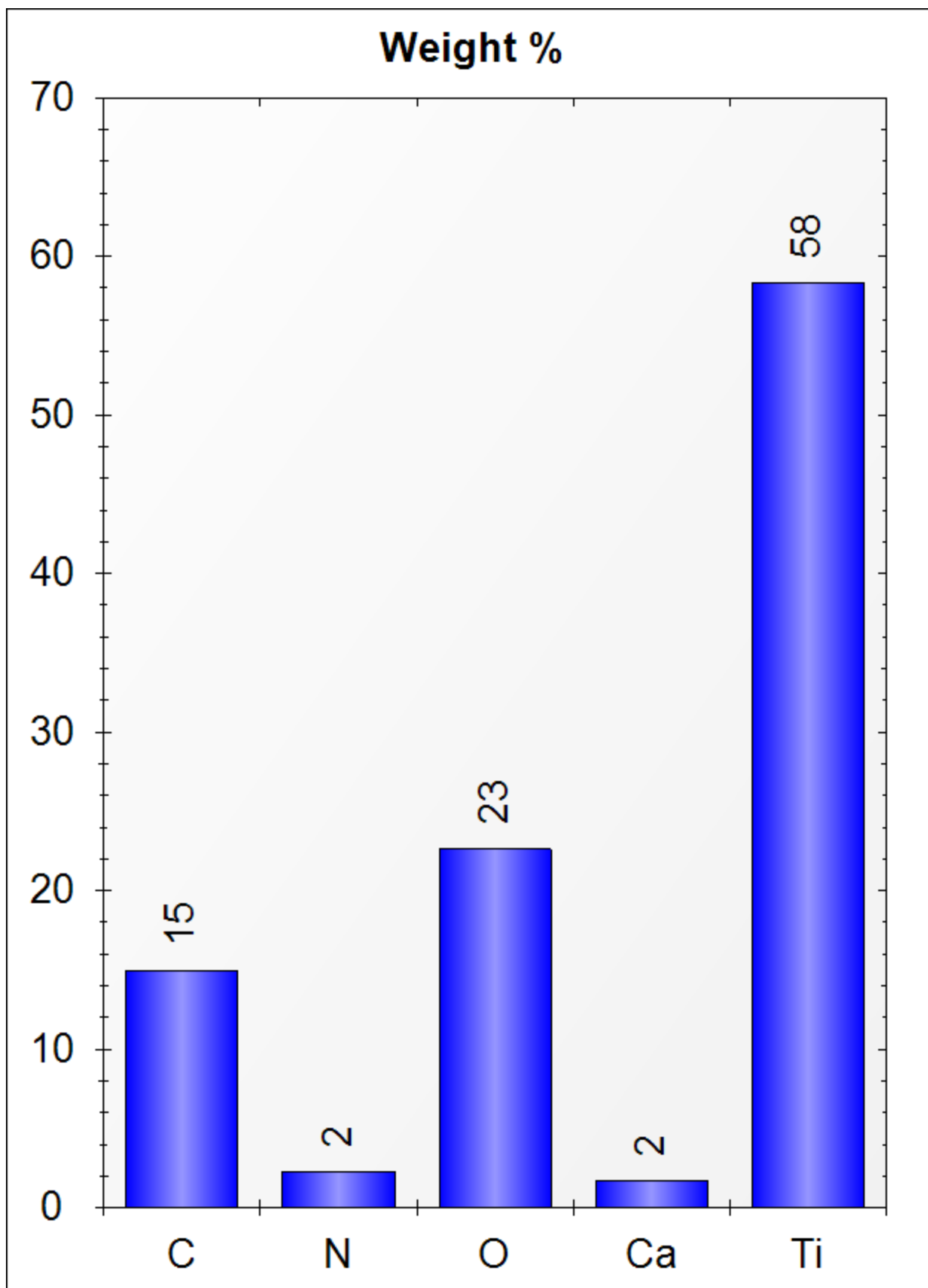
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

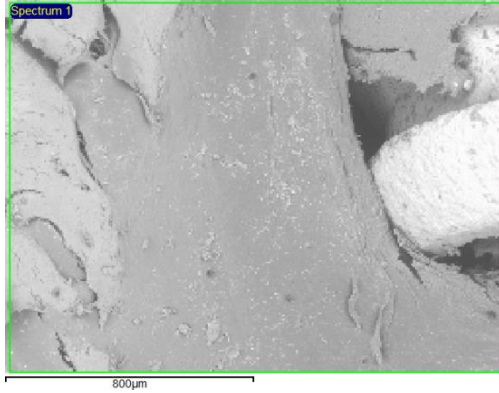
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



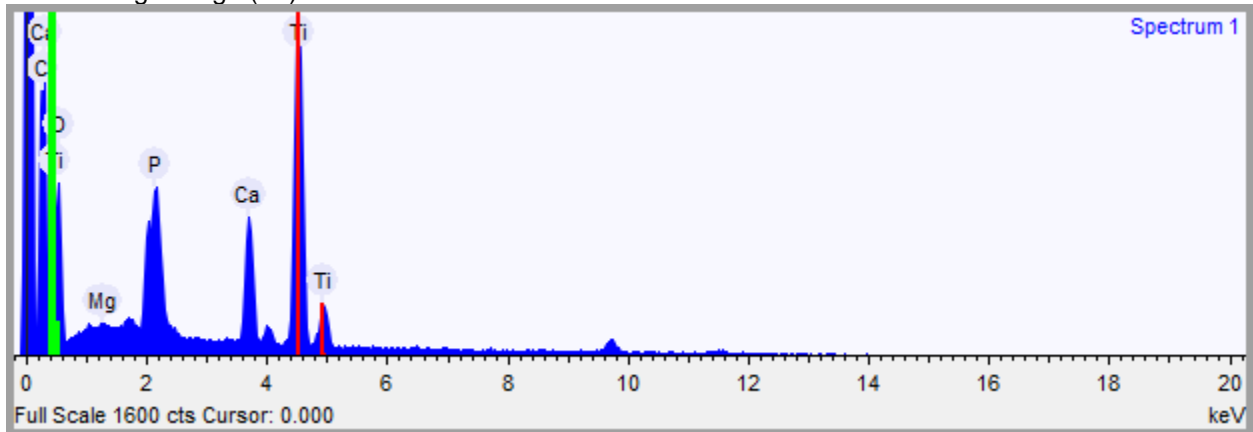
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	31.141	0.565	46.344
Oxygen	36.649	0.773	40.945
Magnesium	0.110	0.070	0.081
Phosphorus	1.206	0.122	0.696
Calcium	5.575	0.138	2.486
Titanium	25.319	0.396	9.448

## Spectrum details

Project

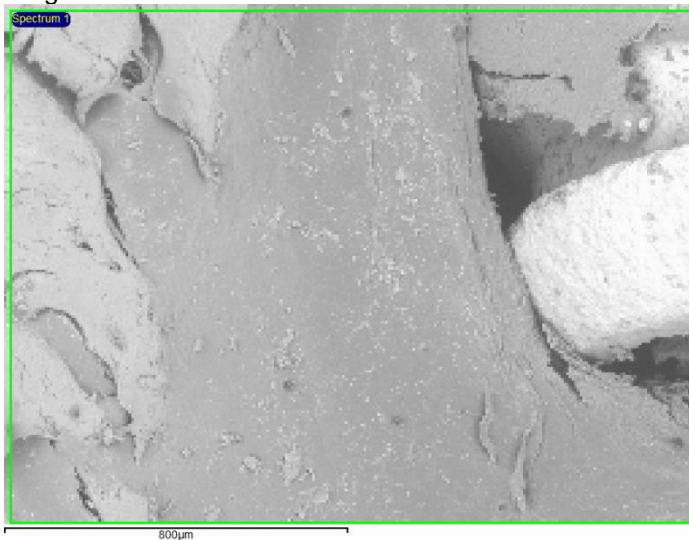
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



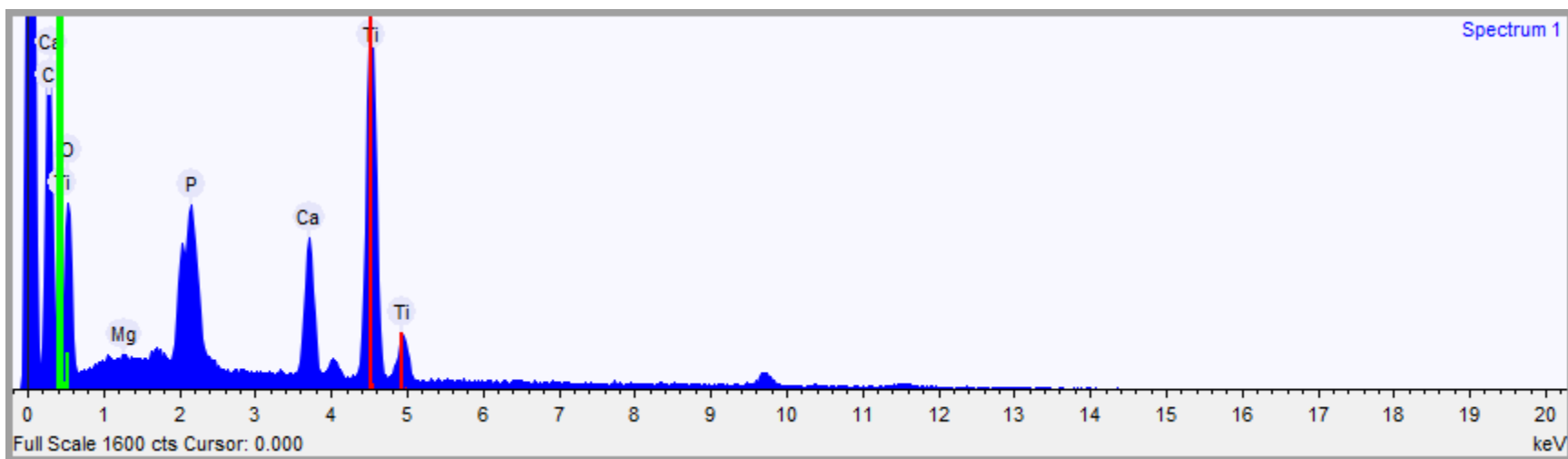
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	12071	32.519	0.150	0.978	31.141	0.565	46.344
Oxygen	k_series	6639	15.298	0.055	0.391	36.649	0.773	40.945
Magnesium	k_series	166	0.086	0.001	0.732	0.110	0.070	0.081
Phosphorus	k_series	2424	1.731	0.010	1.345	1.206	0.122	0.696
Calcium	k_series	8376	6.349	0.057	1.067	5.575	0.138	2.486
Titanium	k_series	24148	22.290	0.223	0.825	25.319	0.396	9.448



## Spectrum details

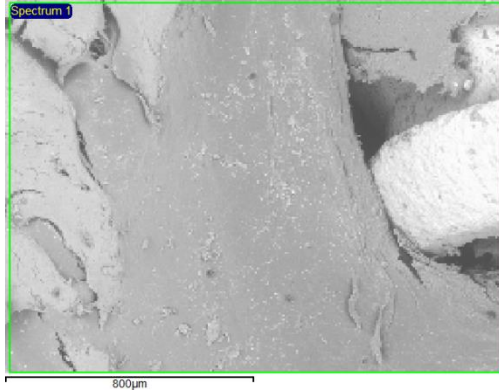
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



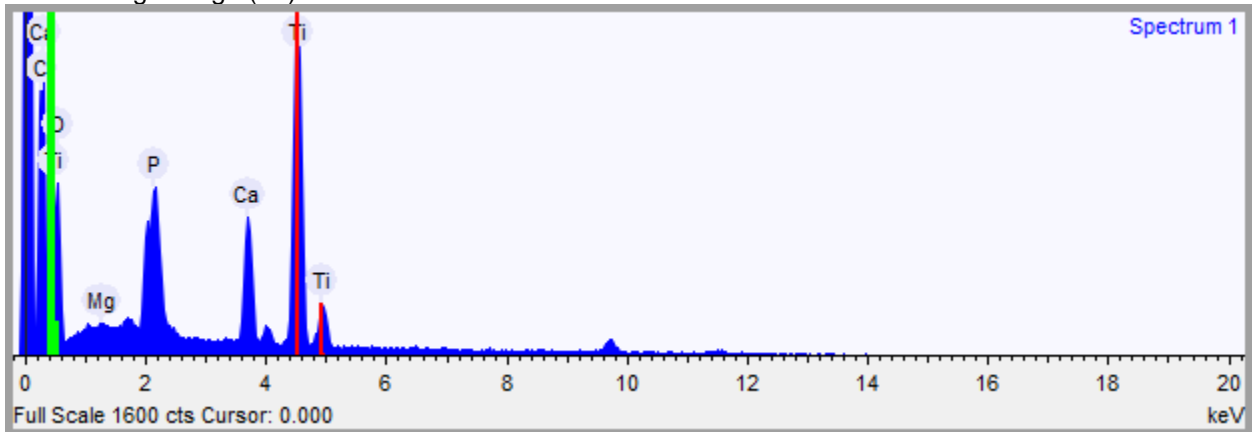
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



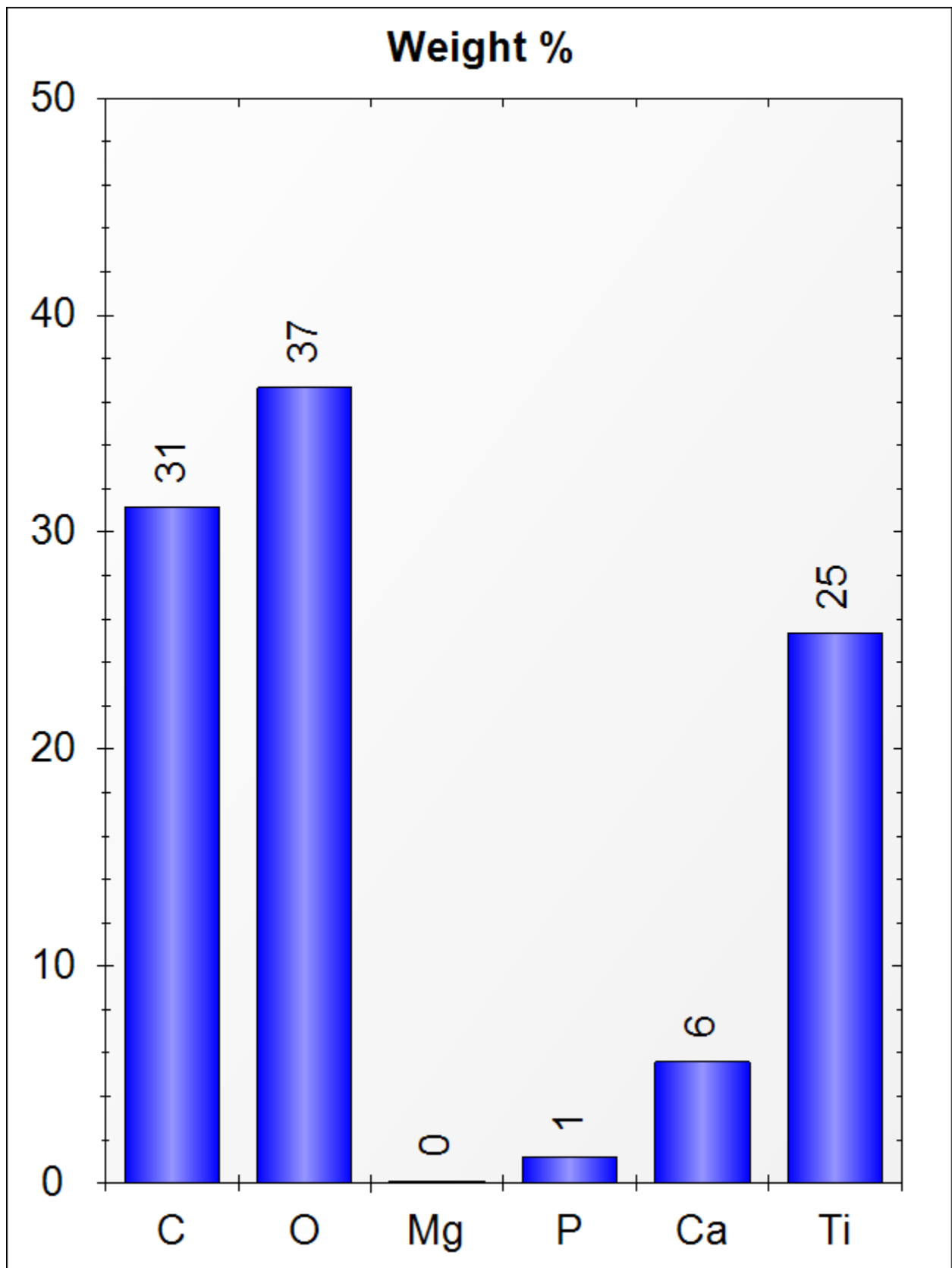
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

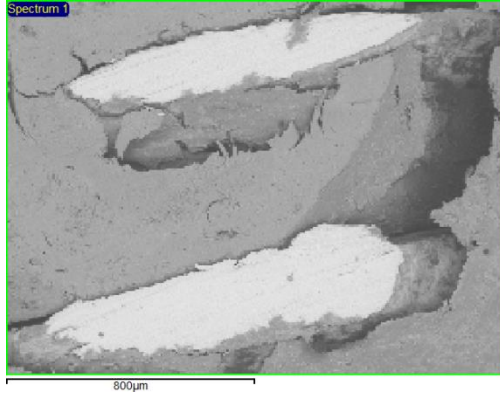
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



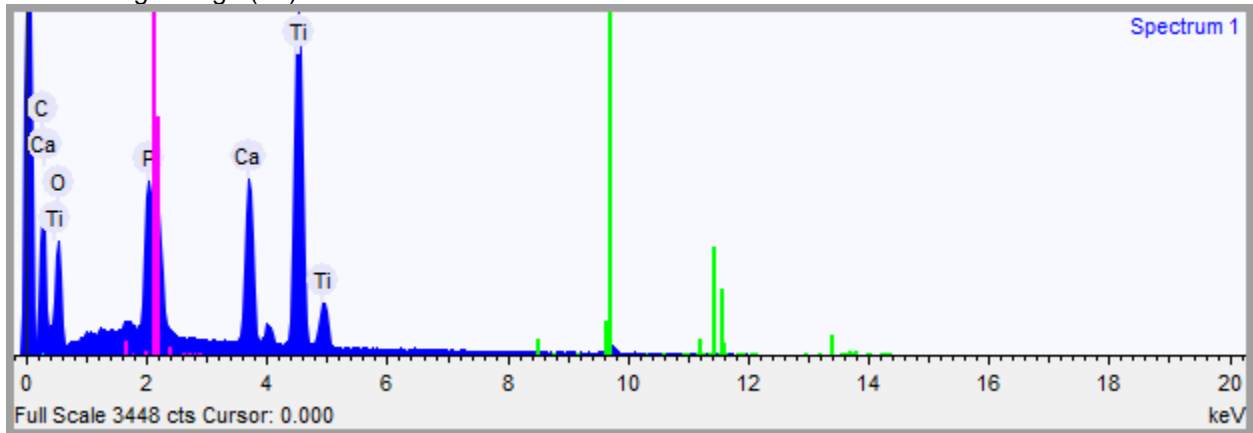
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	21.344	0.394	36.115
Oxygen	34.331	0.607	43.610
Phosphorus	3.066	0.115	2.012
Calcium	9.153	0.139	4.641
Titanium	32.106	0.360	13.622

## Spectrum details

Project

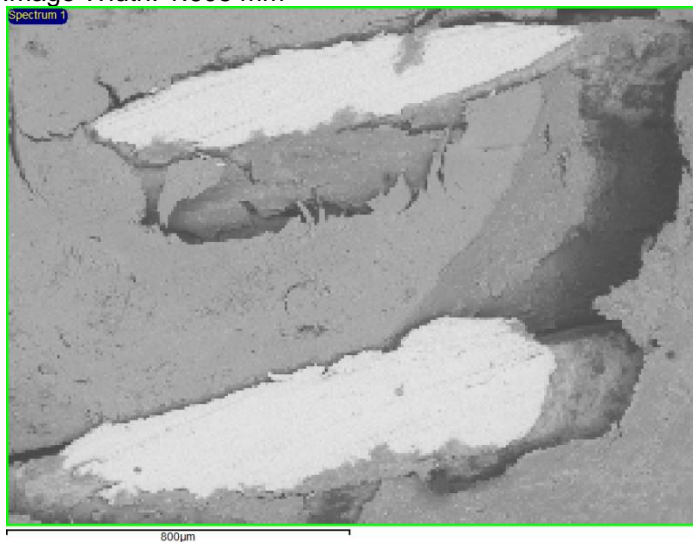
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.605 mm



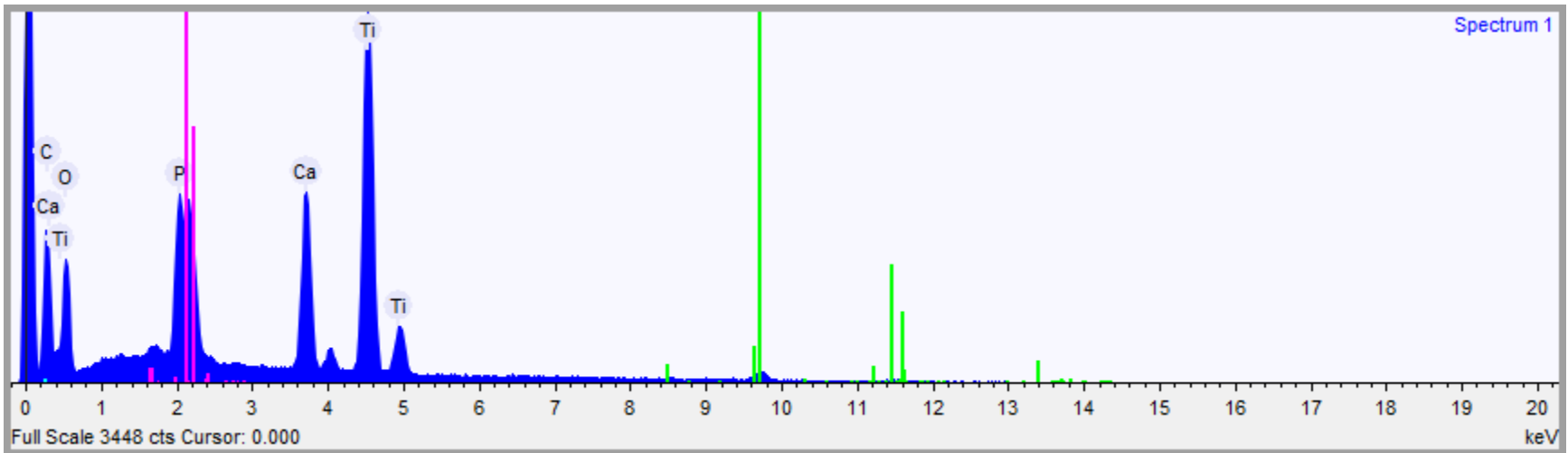
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	11853	16.472	0.076	0.824	21.344	0.394	36.115
Oxygen	k_series	9611	11.424	0.041	0.355	34.331	0.607	43.610
Phosphorus	k_series	10577	3.896	0.023	1.356	3.066	0.115	2.012
Calcium	k_series	23880	9.337	0.084	1.089	9.153	0.139	4.641
Titanium	k_series	52829	25.156	0.252	0.836	32.106	0.360	13.622

## Spectrum details

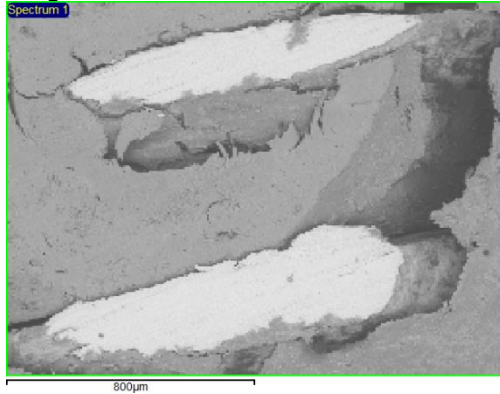
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.605 mm



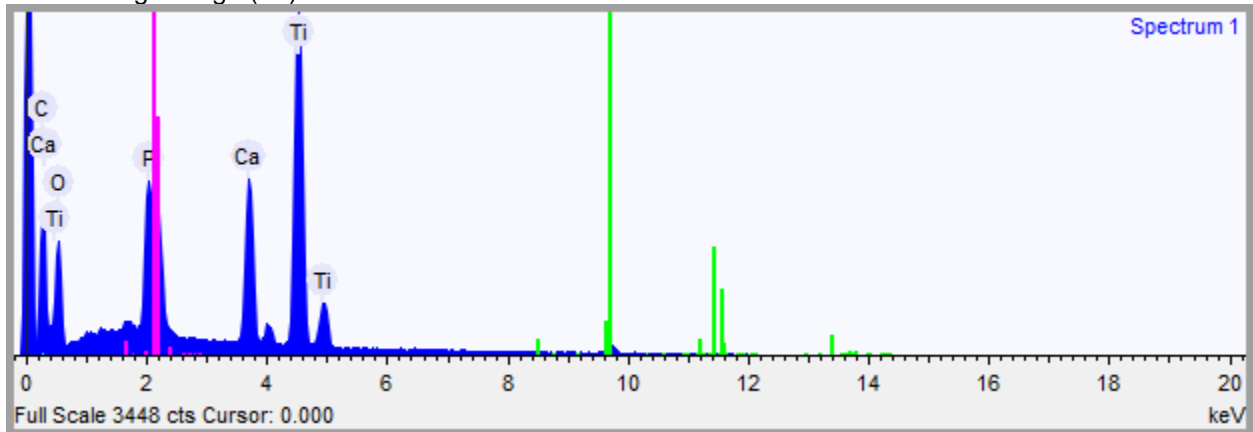
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



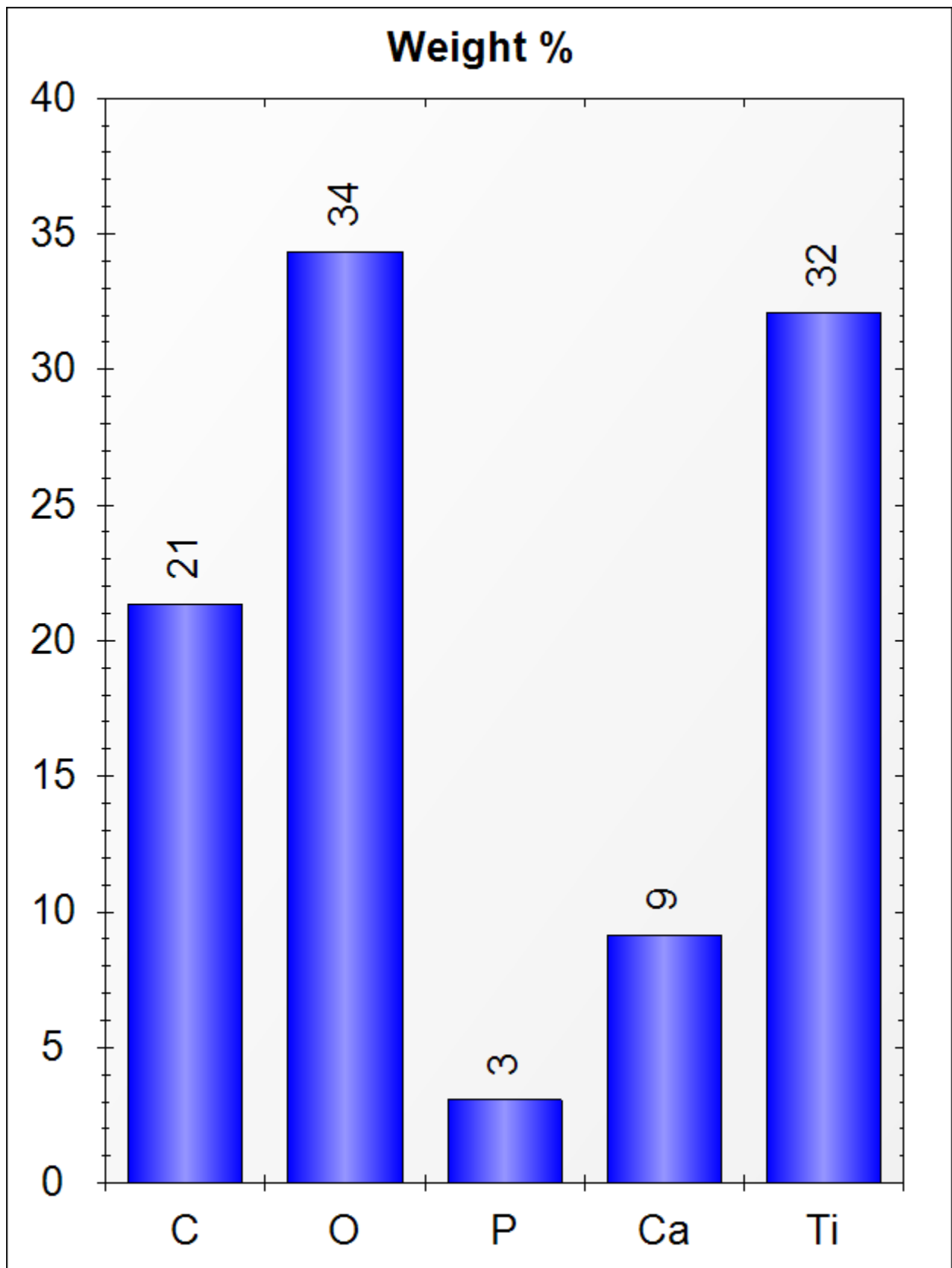
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

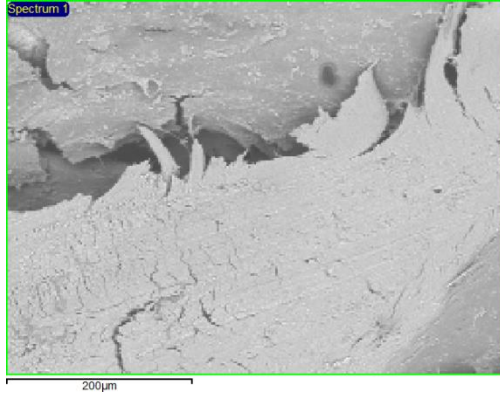
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 535.0  $\mu\text{m}$



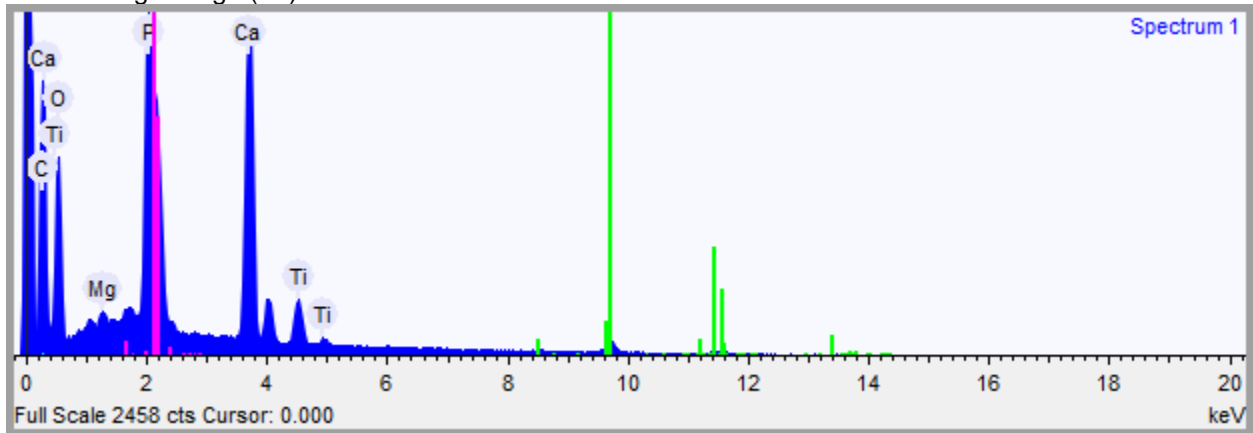
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	35.589	0.483	49.076
Oxygen	38.120	0.571	39.463
Magnesium	0.452	0.060	0.308
Phosphorus	5.849	0.147	3.128
Calcium	16.507	0.216	6.821
Titanium	3.483	0.122	1.204



## Spectrum details

Project

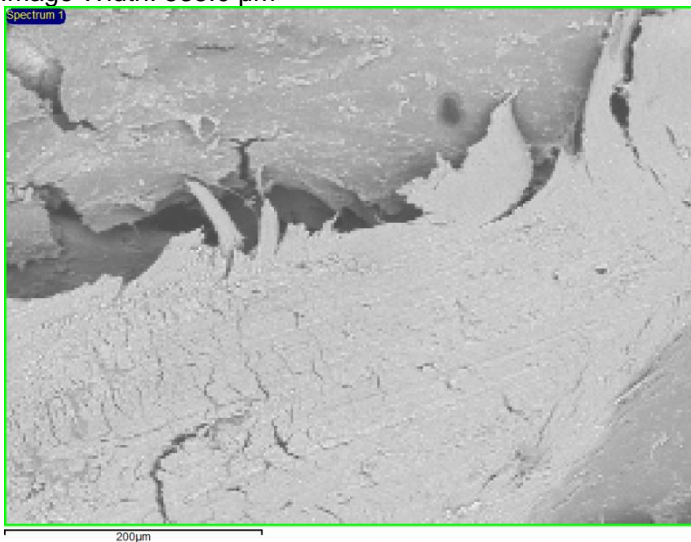
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 535.0  $\mu\text{m}$



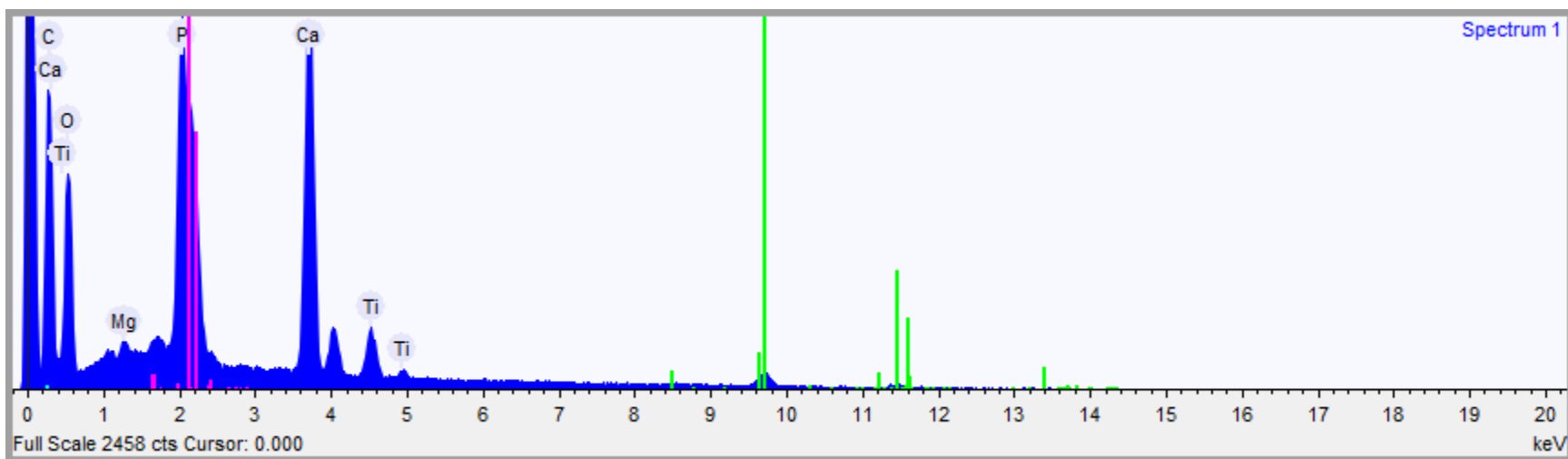
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	16799	26.339	0.122	0.777	35.589	0.483	49.076
Oxygen	k_series	12157	16.303	0.059	0.449	38.120	0.571	39.463
Magnesium	k_series	1117	0.336	0.002	0.781	0.452	0.060	0.308
Phosphorus	k_series	18141	7.540	0.045	1.353	5.849	0.147	3.128
Calcium	k_series	35307	15.575	0.140	0.991	16.507	0.216	6.821
Titanium	k_series	4776	2.566	0.026	0.773	3.483	0.122	1.204

## Spectrum details

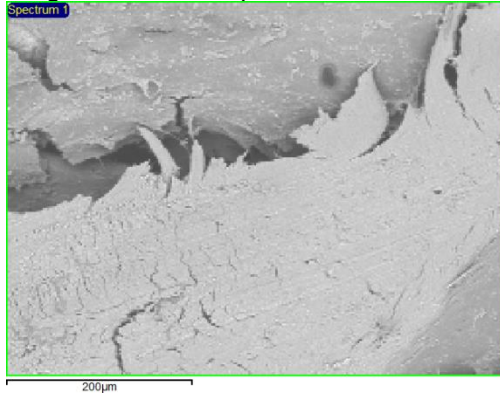
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 535.0  $\mu\text{m}$



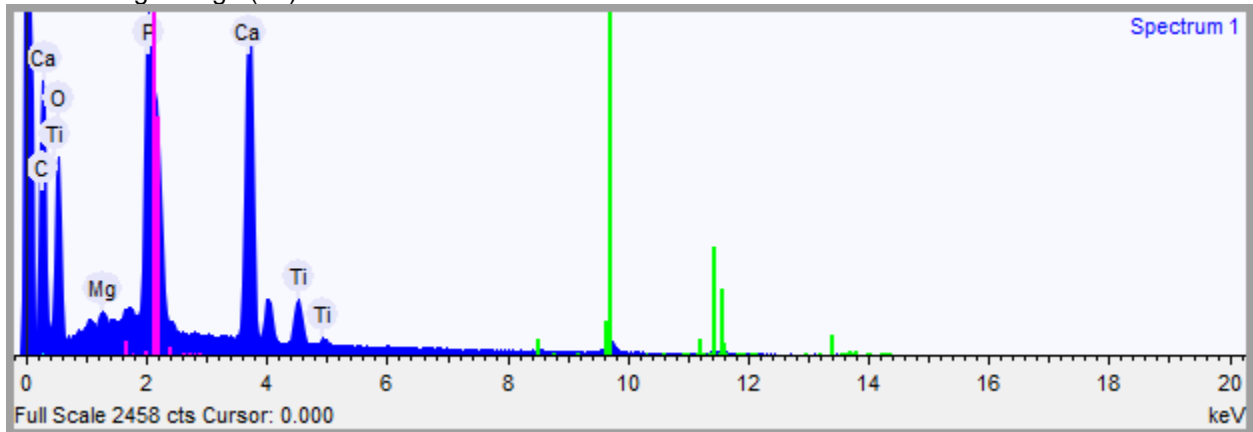
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



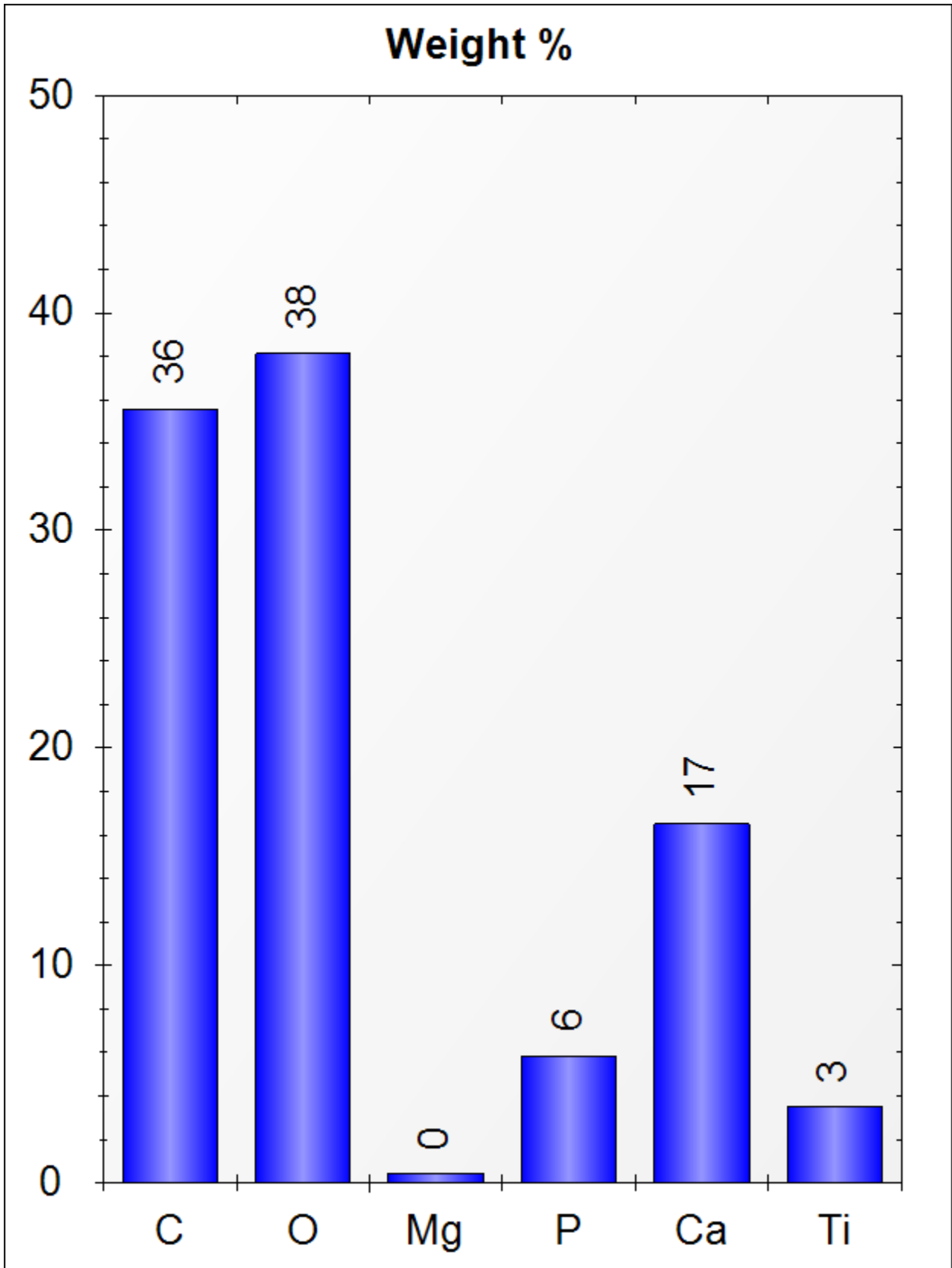
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.070 mm



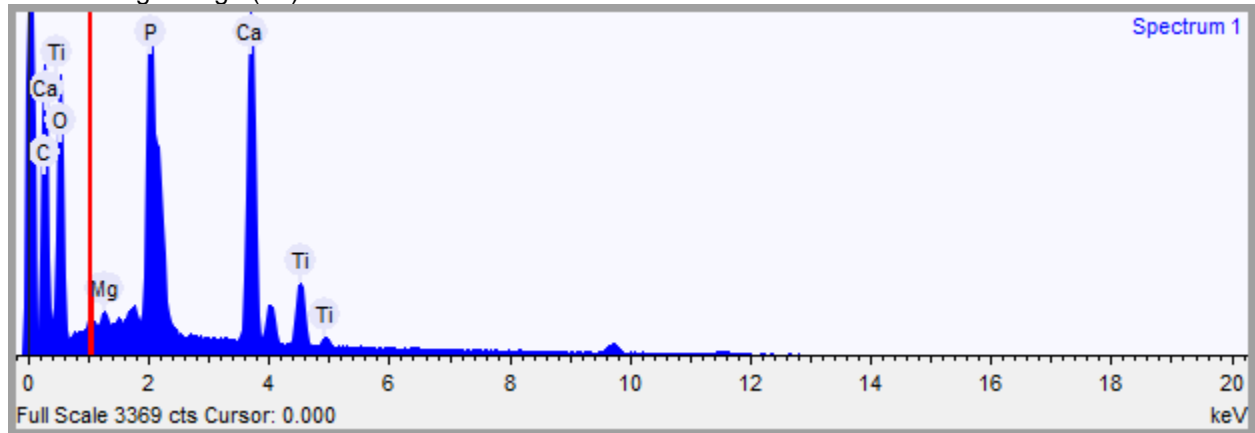
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	32.387	0.372	44.618
Oxygen	43.405	0.420	44.891
Magnesium	0.431	0.044	0.293
Phosphorus	5.647	0.104	3.017
Calcium	13.620	0.146	5.623
Titanium	4.510	0.097	1.558

## Spectrum details

Project

New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 1.070 mm



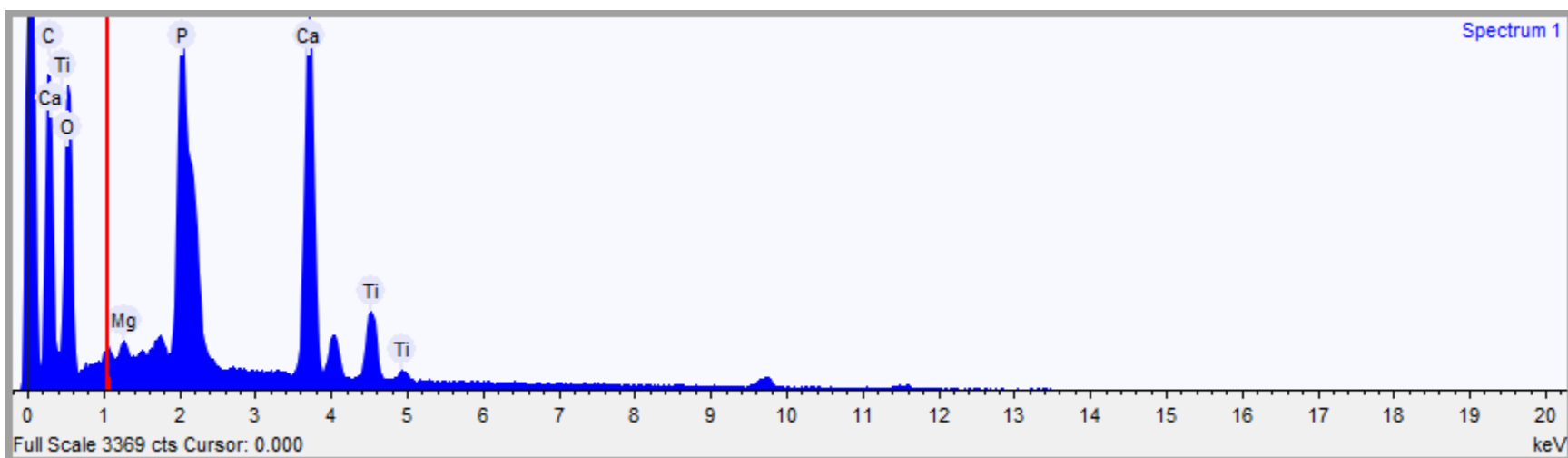
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	24571	28.456	0.132	0.766	32.387	0.372	44.618
Oxygen	k_series	24764	24.531	0.088	0.493	43.405	0.420	44.891
Magnesium	k_series	1703	0.379	0.003	0.767	0.431	0.044	0.293
Phosphorus	k_series	28332	8.698	0.052	1.344	5.647	0.104	3.017
Calcium	k_series	47496	15.476	0.139	0.991	13.620	0.146	5.623
Titanium	k_series	10150	4.028	0.040	0.779	4.510	0.097	1.558

## Spectrum details

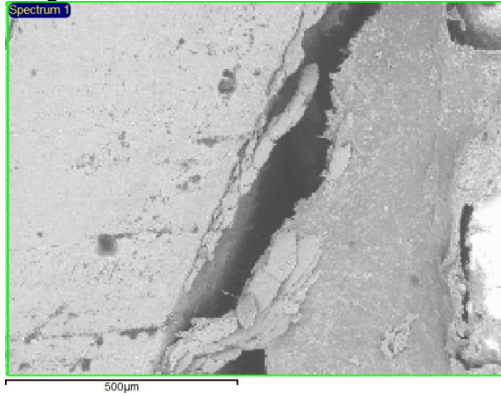
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 1.070 mm



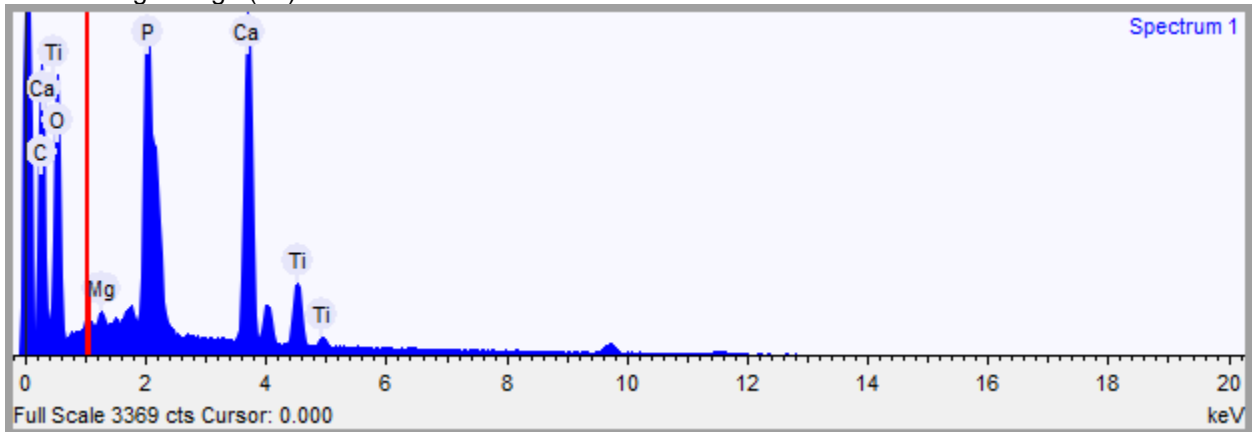
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

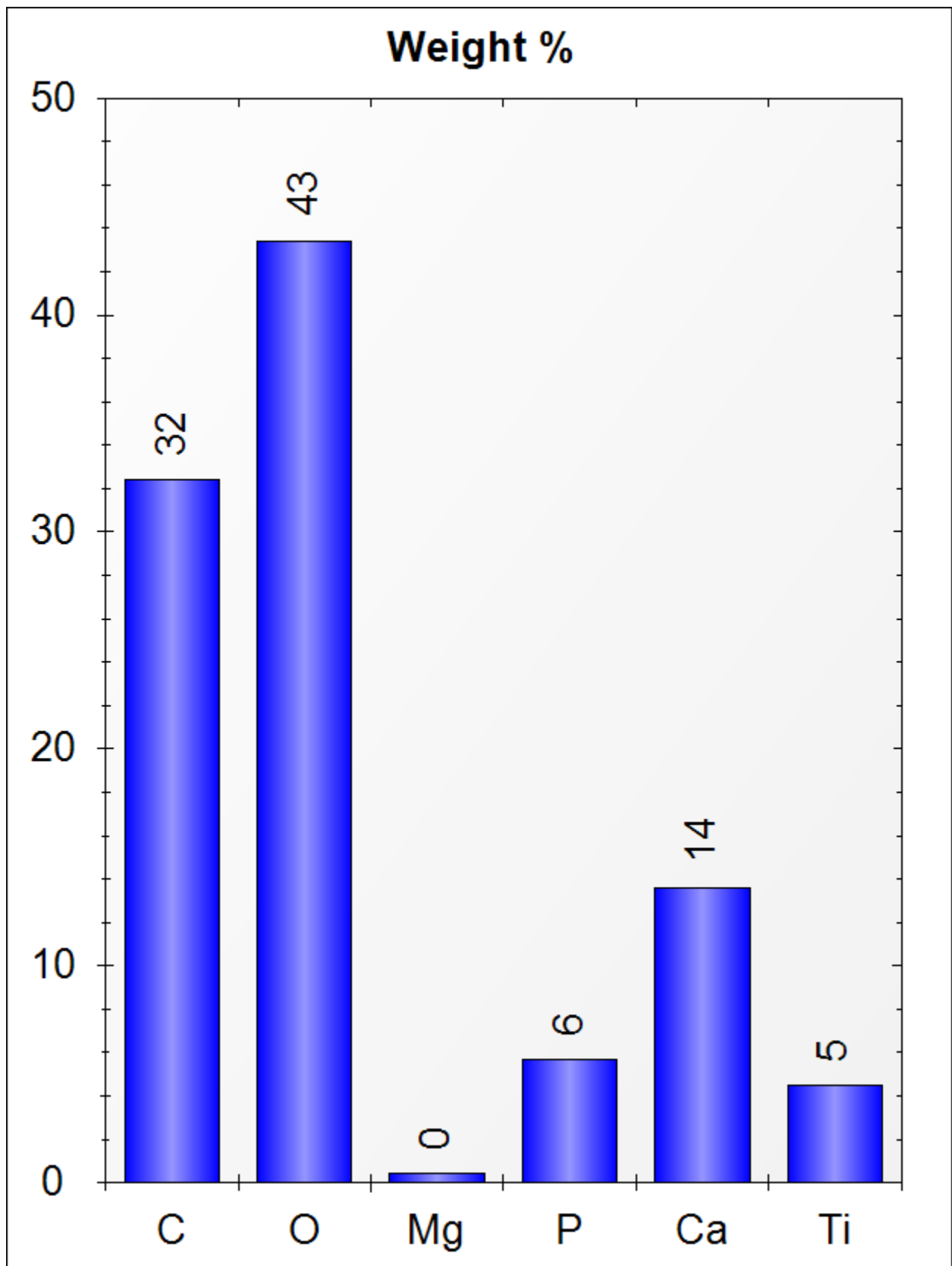
Quantification method

All elements (normalised)

Coating element

None





## Spectrum details

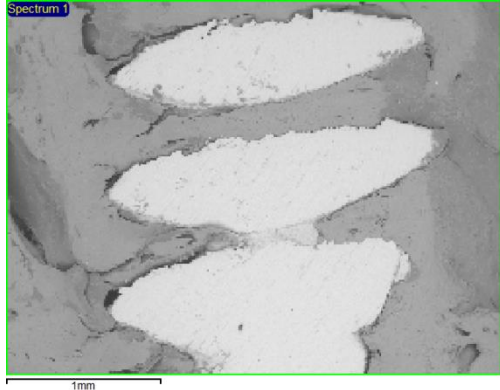
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 3.210 mm



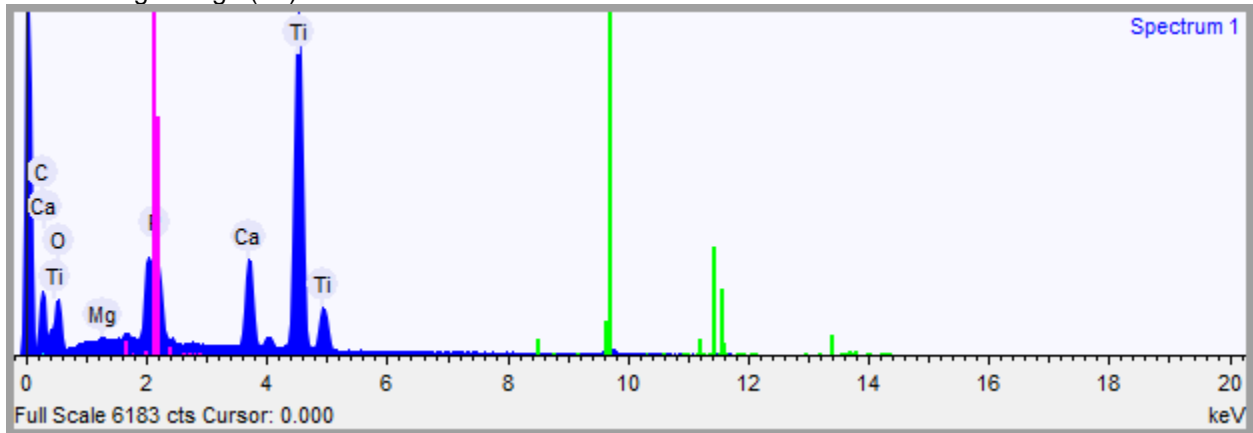
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	14.632	0.326	28.454
Oxygen	29.349	0.618	42.849
Magnesium	0.281	0.054	0.270
Phosphorus	2.106	0.100	1.588
Calcium	7.214	0.111	4.204
Titanium	46.418	0.455	22.635

## Spectrum details

Project

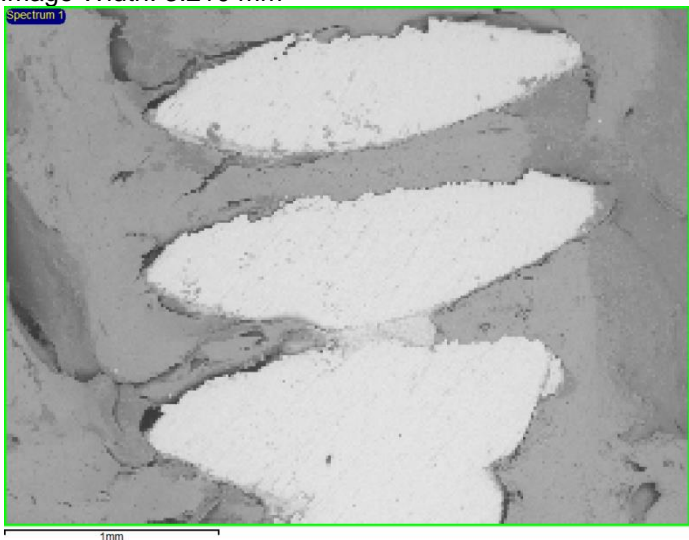
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 3.210 mm



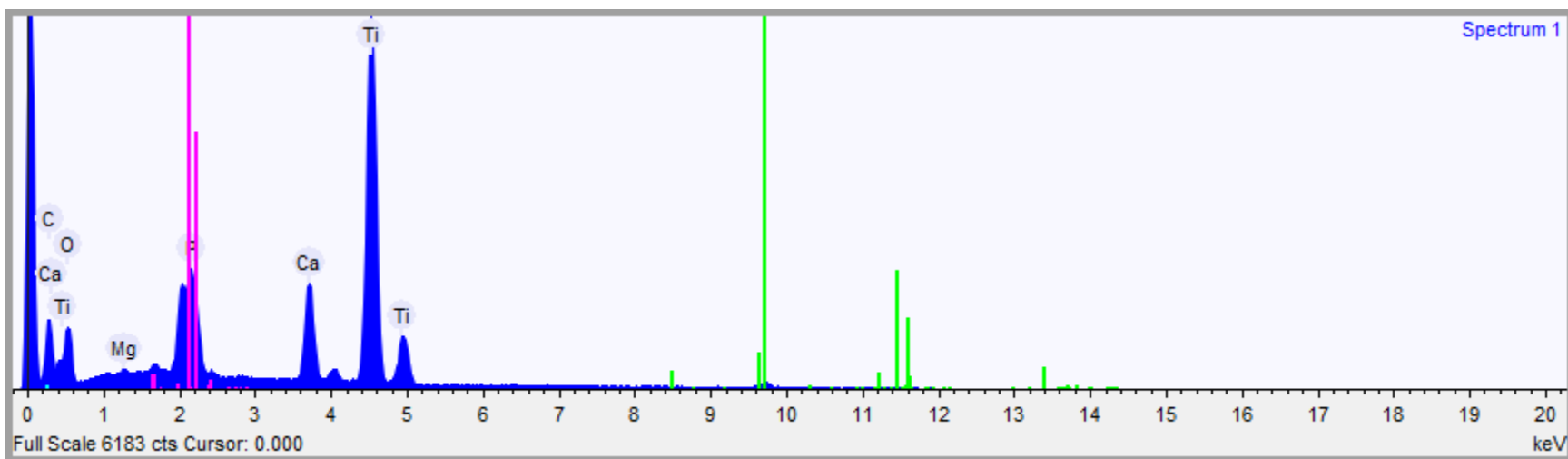
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



### Quantification Settings

Quantification method      All elements (normalised)      Coating element      None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corr.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	9569	10.413	0.048	0.818	14.632	0.326	28.454
Oxygen	k_series	8565	7.972	0.029	0.312	29.349	0.618	42.849
Magnesium	k_series	815	0.170	0.001	0.697	0.281	0.054	0.270
Phosphorus	k_series	8641	2.493	0.015	1.361	2.106	0.100	1.588
Calcium	k_series	23440	7.177	0.064	1.144	7.214	0.111	4.204
Titanium	k_series	93998	35.052	0.351	0.868	46.418	0.455	22.635

## Spectrum details

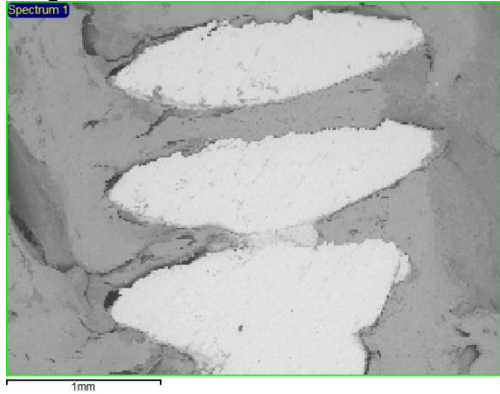
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 3.210 mm



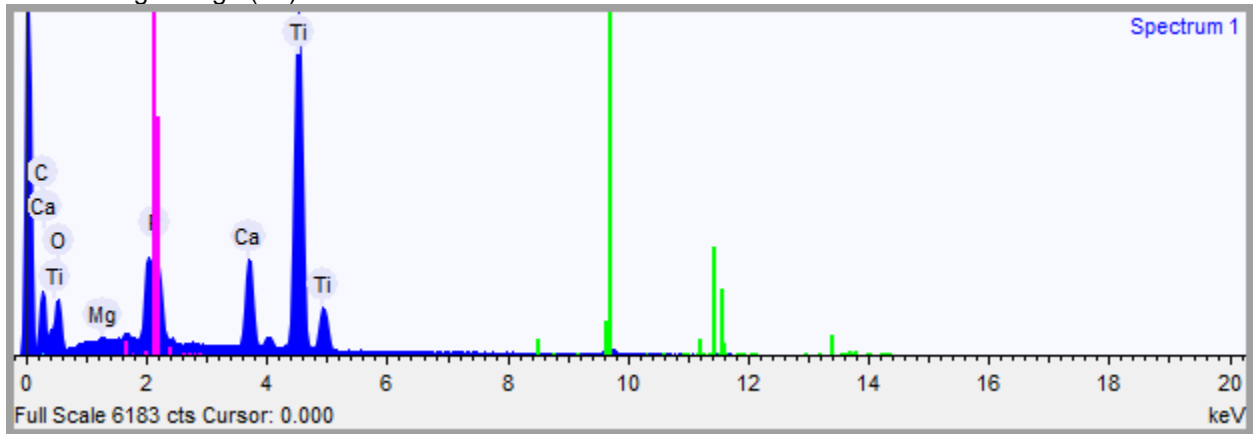
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



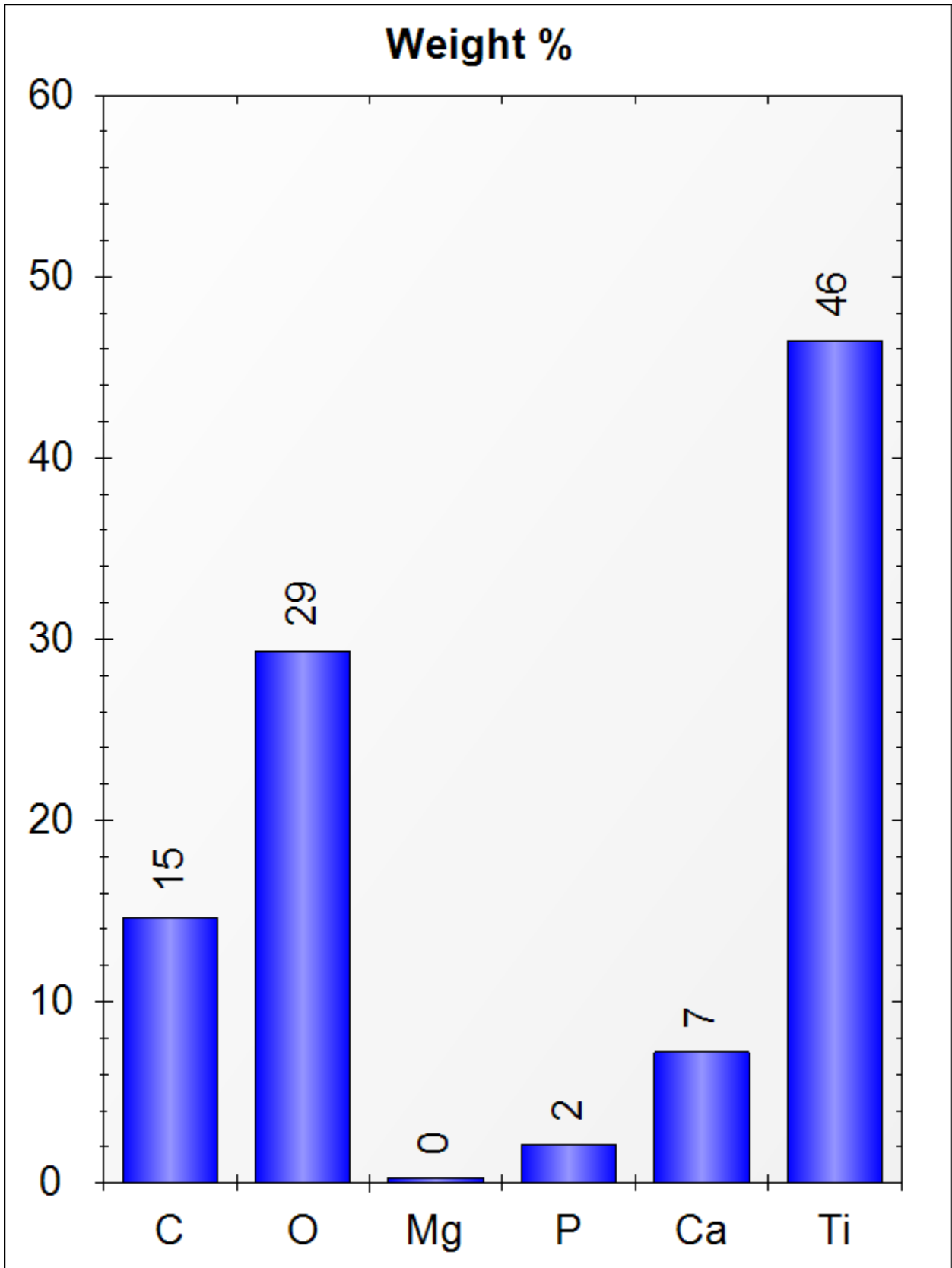
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Spectrum details

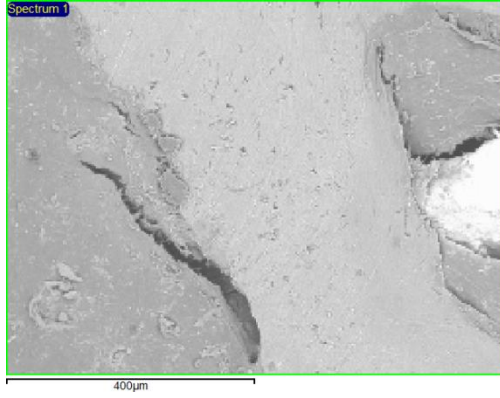
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 802.5  $\mu\text{m}$



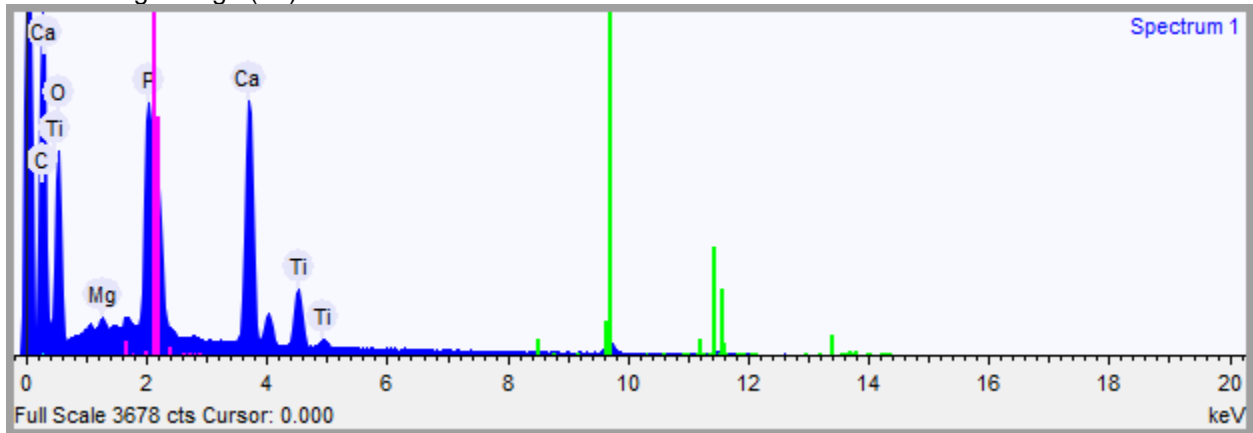
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None

## Summary results

Element	Weight %	Weight % $\sigma$	Atomic %
Carbon	39.694	0.399	52.439
Oxygen	39.246	0.458	38.924
Magnesium	0.382	0.046	0.249
Phosphorus	4.240	0.104	2.172
Calcium	11.924	0.141	4.721
Titanium	4.513	0.104	1.495

## Spectrum details

Project

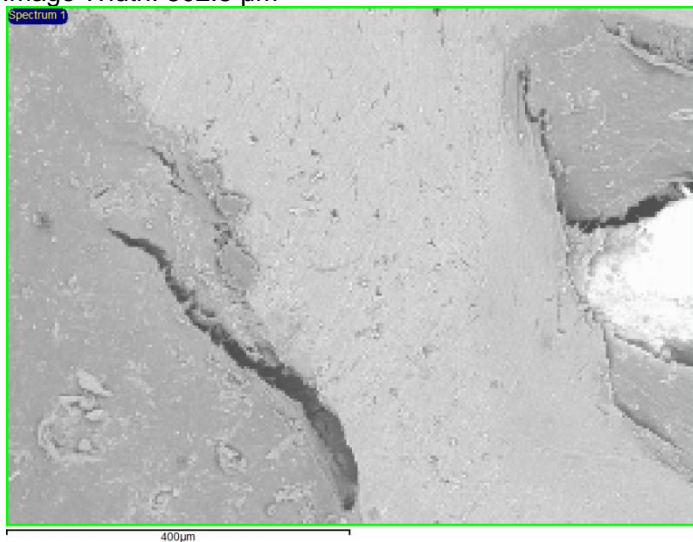
New project

Spectrum name

Spectrum 1

## Electron Image

Image Width: 802.5  $\mu\text{m}$



## Acquisition conditions

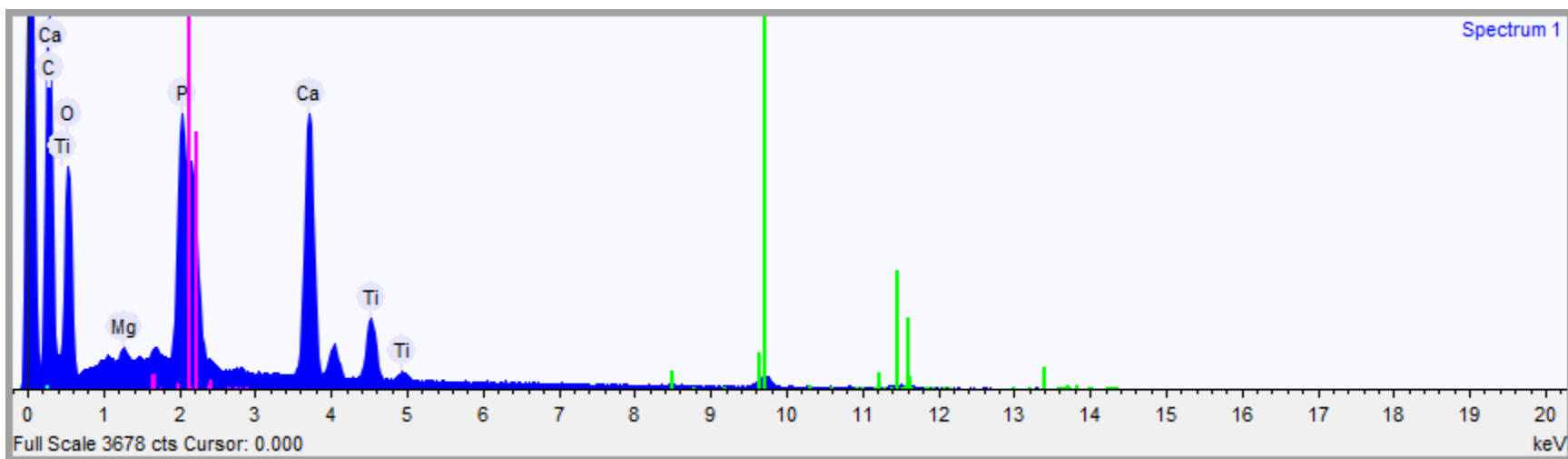
Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0





### Quantification Settings

Quantification method: All elements (normalised)      Coating element: None

### Full results

Element	Line	Area (counts)	App. conc.	k ratio	Int. corrn.	Weight %	Weight % $\sigma$	Atomic %
Carbon	k_series	31186	38.321	0.177	0.870	39.694	0.399	52.439
Oxygen	k_series	19399	20.388	0.073	0.468	39.246	0.458	38.924
Magnesium	k_series	1400	0.330	0.002	0.780	0.382	0.046	0.249
Phosphorus	k_series	19428	6.329	0.037	1.346	4.240	0.104	2.172
Calcium	k_series	37833	13.079	0.117	0.989	11.924	0.141	4.721
Titanium	k_series	9254	3.896	0.039	0.779	4.513	0.104	1.495

## Spectrum details

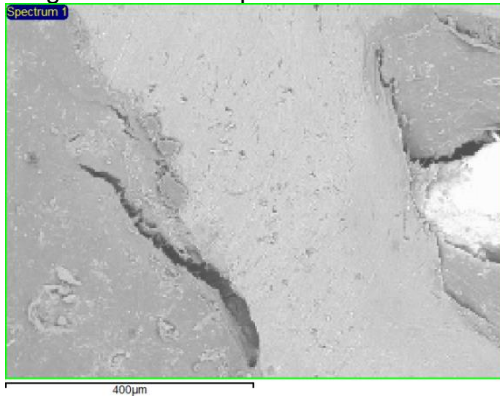
Project

New project

Spectrum name Spectrum 1

## Electron Image

Image Width: 802.5  $\mu\text{m}$



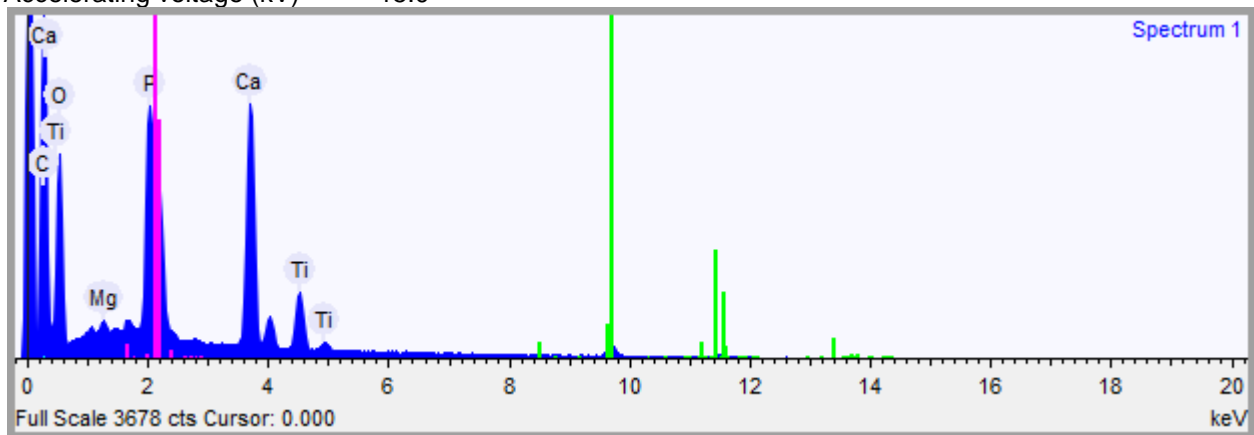
## Acquisition conditions

Acquisition time (s) 100.0

Process time 5

Accelerating voltage (kV)

15.0



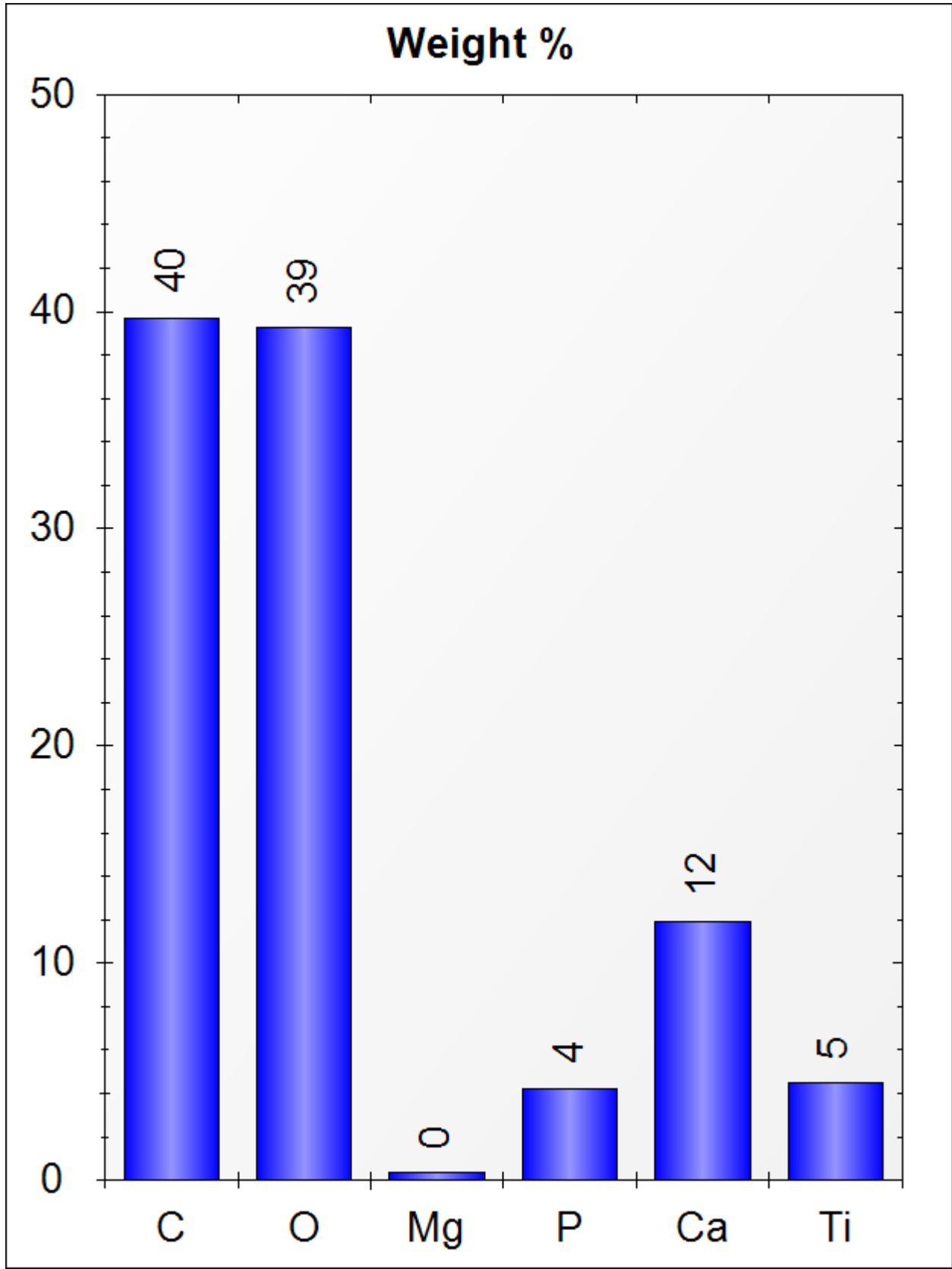
## Quantification Settings

Quantification method

All elements (normalised)

Coating element

None



## Lampiran 2

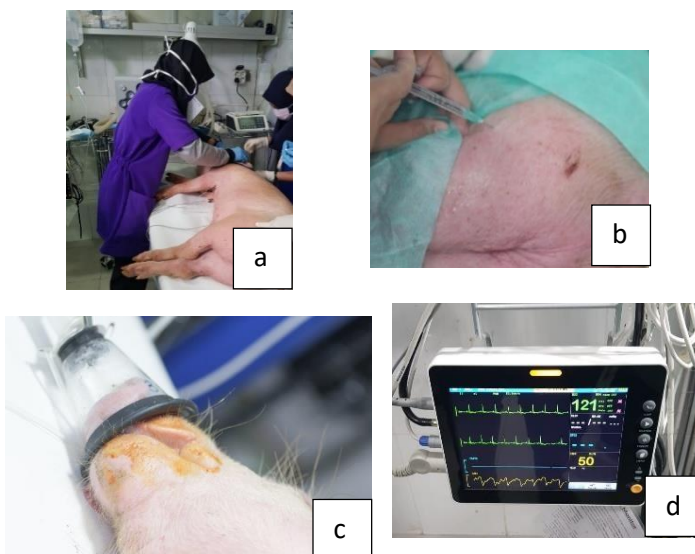
### Pembuatan Sampel Penelitian

- Prosedur CT Scan dilakukan sebelum prosedur pembedahan



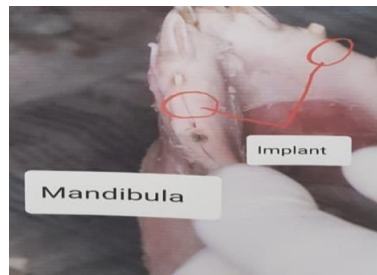
Gambar 4.3 Proses CT Scan pada Hewan Uji  
(Sumber: Dokumentasi Pribadi)

- Babi Landrace Sedasi diinduksi menggunakan zoletil 2-5 mg/kg BB melalui injeksi *intramuscular* dan *intravena* diikuti dengan induksi gas dan pemeliharaan menggunakan isoflurane (2-3%) dan O<sub>2</sub> (3L/menit) serta Cairan diberikan secara intravena dan di monitor secara berkala oleh tim dokter hewan klinik sahabat satwa makassar.



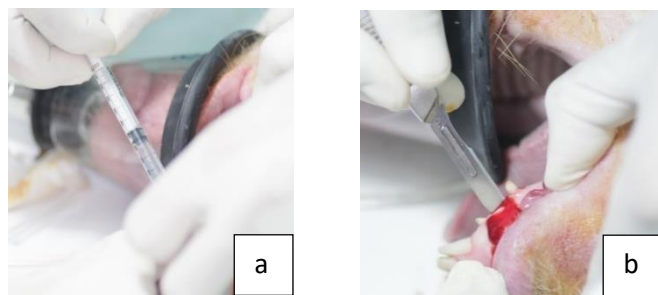
Gambar 4.4 a-b Prosedur Anestesi pada hewan uji, c. Inhalasi, d. Monitor secara berkala  
(Sumber : Dokumentasi pribadi)

- Desinfeksi daerah operasi dengan menggunakan Betadine



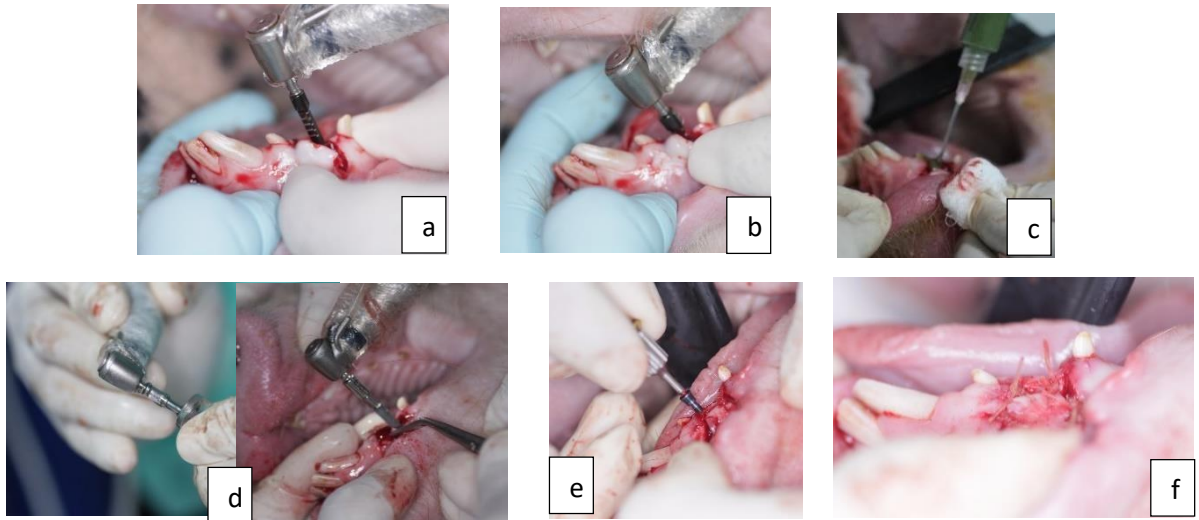
Gambar 4.5 Lokasi implantasi pada rahang hewan uji  
Sumber : Dokumentasi pribadi)

- Anestesi local dengan pehacain, desain flap dan insisi.



Gambar 4.6 a Prosedur anestesi lokal dan b.desain dan insisi flap  
Sumber : Dokumentasi pribadi)


- Dilakukan *Initialdrill* pada regio Anterior kiri Rahang Bawah dengan *finaldrill* sesuai diameter implan yang akan dipasang, dilakukan kuret dengan instrument kuret, kedalaman soket diukur kedalamannya dengan alat *tool depth gauge*, implan dipilih dengan ukuran 1 mm lebih panjang dari kedalaman soket. Irigasi dengan menggunakan larutan saline, Selanjutnya diinjeksikan gel *Chlorella vulgaris* 15% sebanyak 2 ml dan dilakukan pemasangan implan, pemasangan *cover screw*, Penutupan *flap* dan Penjahitan.




Gambar 4.7 Prosedur implantasi: a-b Drilling soket implan, c. Injeksi gel *Chlorella vulgaris*, d. prosedur Inseri implan, e. Pemasangan *cover screw* dan f. Hecting. ( Sumber : Dokumentasi pribadi)

# Lampiran 4

## Rekomendasi Persetujuan Etik



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI  
UNIVERSITAS HASANUDDIN  
FAKULTAS KEDOKTERAN GIGI  
RUMAH SAKIT GIGI DAN MULUT  
KOMITE ETIK PENELITIAN KESEHATAN  
Sekretariat : Lantai 2, Gedung Lama RSGM Unhas  
Jl. Kandeo No. 5 Makassar  
Contact Person: drg. Muhammad Iqbal, Sp.Prost/Ayu Trynawati TELP. 081342971011/085394448438




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**REKOMENDASI PERSETUJUAN ETIK**  
Nomor: 0132/PL.09/KEPK FKG-RSGM UNHAS/2019

Tanggal: 01 April 2019

Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:

No. Protokol	UH 17120137	No Protokol Sponsor	
Peneliti Utama	1. drg. Rustan Ambo Asse 2. drg. Andi Ajmal 3. drg. Edwina Lesal 4. drg. Riezky Rhamdani 5. drg. Sutiyo 6. drg. Yonathan Goan 7. drg. Irsal Wahyudi	Sponsor	Pribadi
Judul Peneliti	Pengaruh Penambahan Ekstrak Sediaan Clorella Vulgaris Gel, Krim dan Salep terhadap Bone Remodelling Pasca Implantasi		
No. Versi Protokol	1	Tanggal Versi	19 Maret 2019
No. Versi Protokol		Tanggal Versi	
Tempat Penelitian	Laboratorium Farmasetika Unhas, Laboratorium Kesehatan Hewan Unhas, Balai Besar Veteriner, Laboratorium Fisika UNM		
Dokumen Lain			
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard	Masa Berlaku 01 April 2019	Frekuensi Review Lanjutan
Ketua Komisi Etik Penelitian	Nama: Dr. drg. Marhamah, M.Kes	Tanda Tangan	Tanggal
Sekretaris Komisi Etik Penelitian	Nama: drg. Muhammad Iqbal, Sp.Prost	Tanda Tangan	Tanggal



**Kewajiban peneliti utama:**

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum diimplementasikan
- Menyerahkan laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan lapor SUSAR dalam 72 jam setelah peneliti utama menerima laporan.
- Menyerahkan laporan kemajuan (*progress report*) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah.
- Menyerahkan laporan akhir setelah penelitian berakhir.