

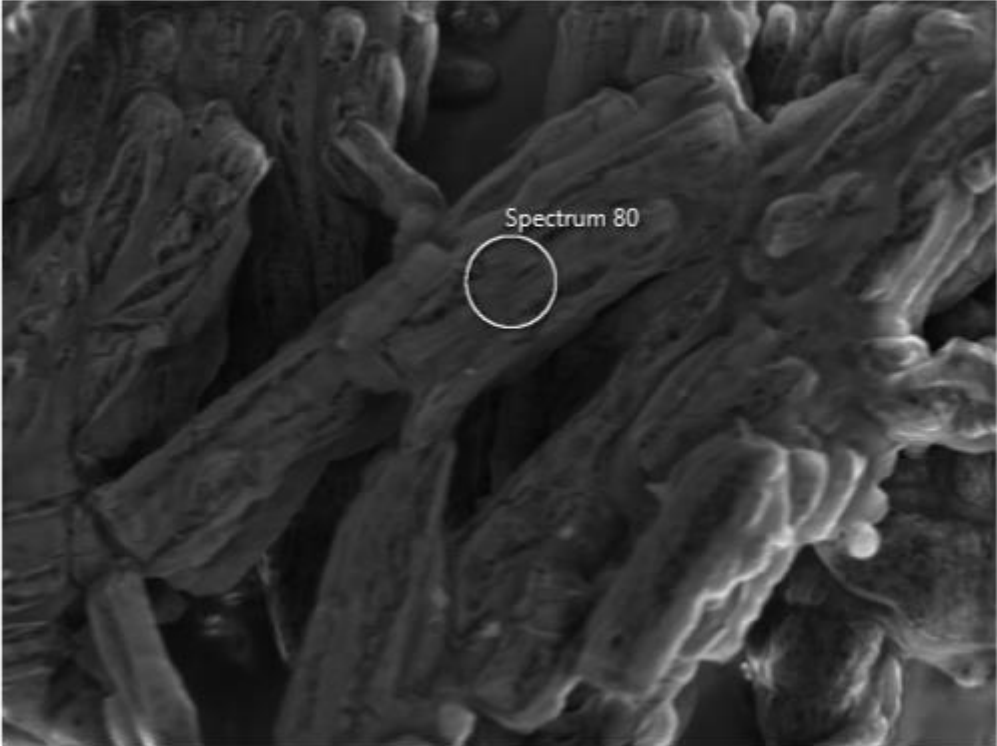
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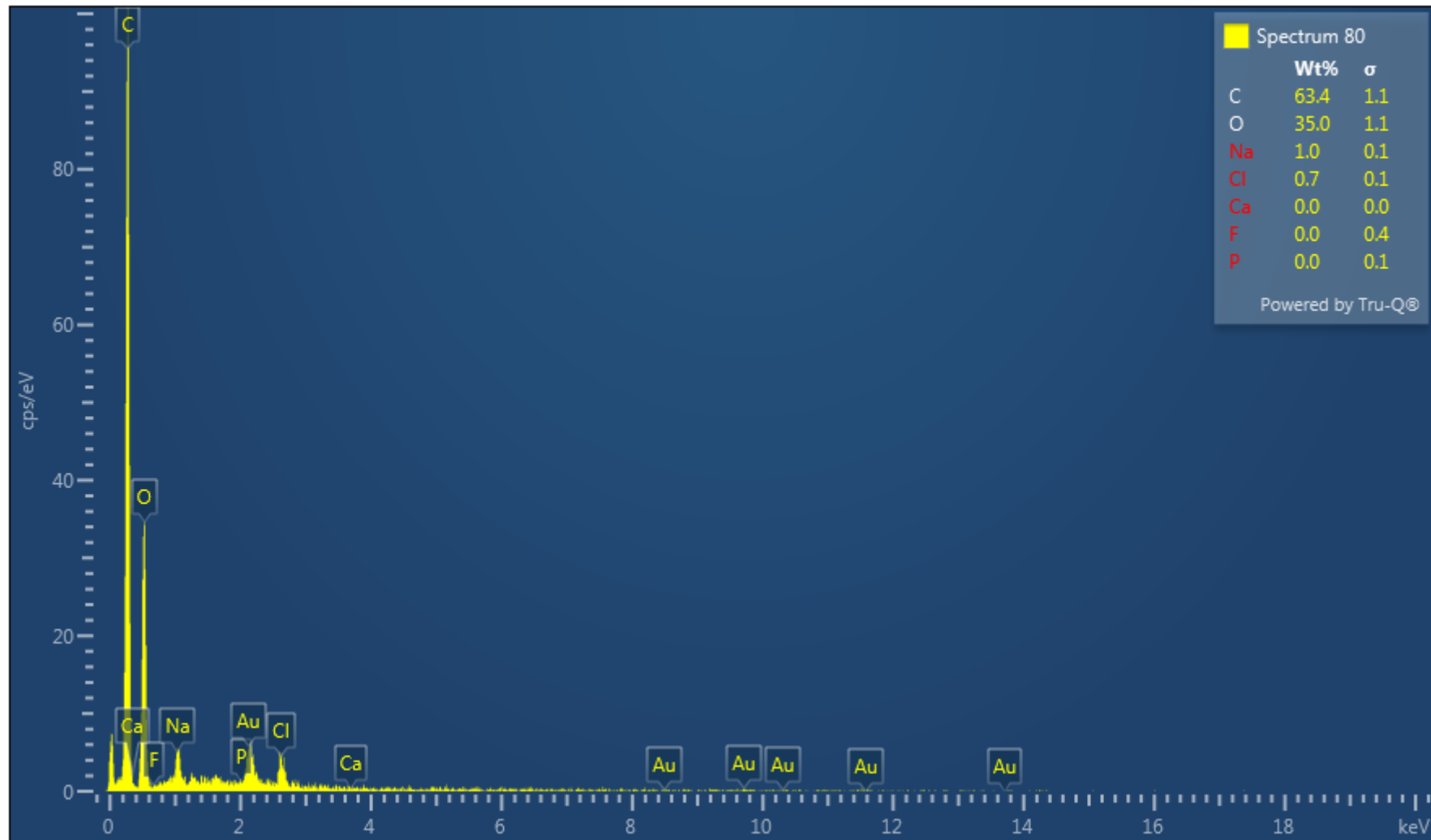
[Project Notes](#)

[Specimen Notes](#)

Electron Image 22



50µm



Spectrum 80								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	6.43	0.06429	63.39	1.11	C Vit	Yes	
O	K series	3.50	0.01177	34.95	1.11	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.41	CaF2	Yes	
Na	K series	0.22	0.00094	0.97	0.15	Albite	Yes	
P	K series	0.00	0.00000	0.00	0.08	GaP	Yes	
Cl	K series	0.18	0.00160	0.67	0.08	NaCl	Yes	
Ca	K series	0.00	0.00004	0.02	0.05	Wollastonite	Yes	
Total:				100.00				

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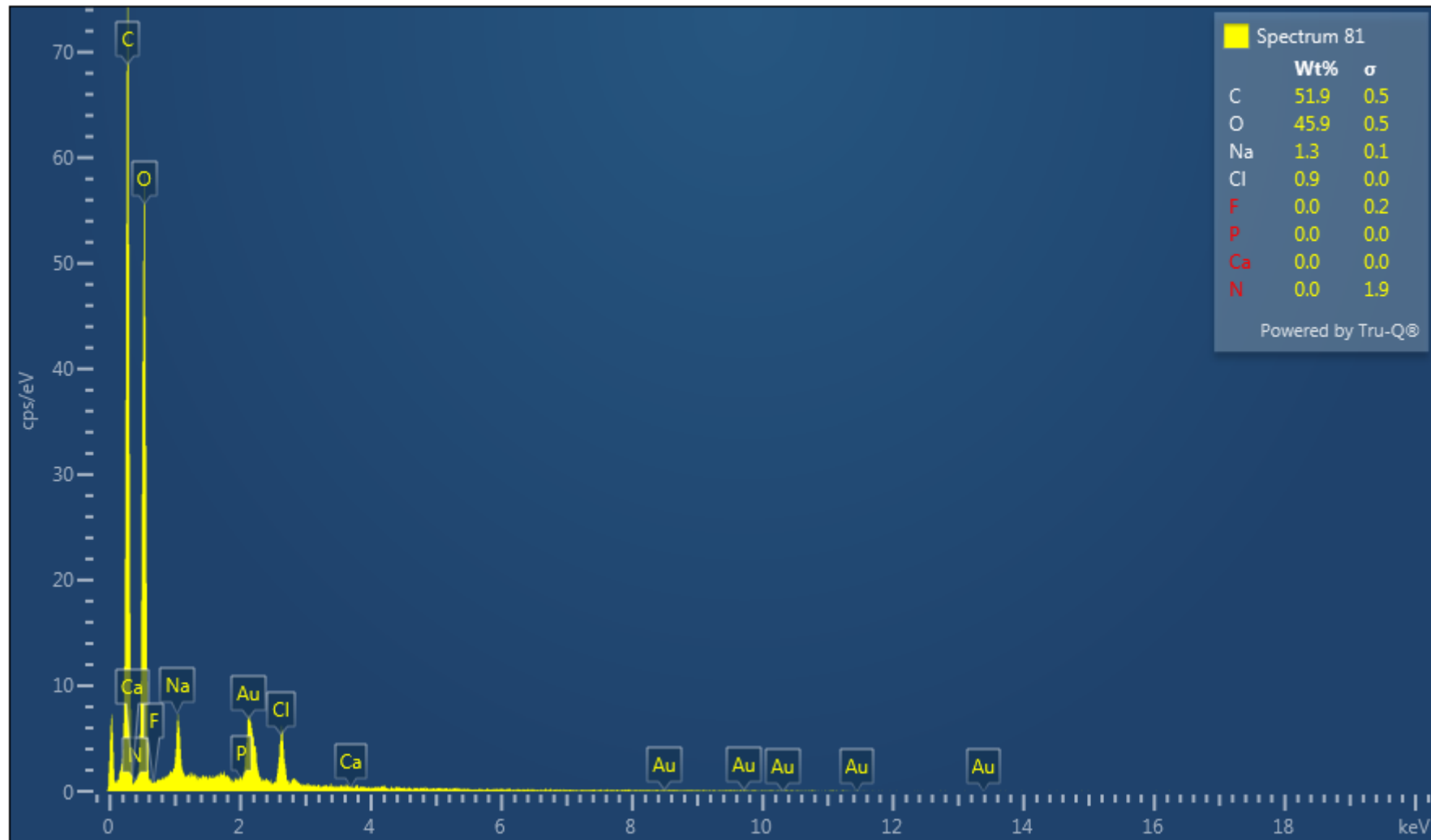
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[Specimen Notes](#)

Electron Image 23





Spectrum 81								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	4.53	0.04525	51.90	0.49	C Vit	Yes	
N	K series	0.00	0.00000	0.00	1.92	BN	Yes	
O	K series	5.61	0.01886	45.89	0.49	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.20	CaF2	Yes	
Na	K series	0.28	0.00120	1.32	0.07	Albite	Yes	
P	K series	0.00	0.00000	0.00	0.03	GaP	Yes	
Cl	K series	0.24	0.00208	0.89	0.04	NaCl	Yes	
Ca	K series	0.00	0.00000	0.00	0.02	Wollastonite	Yes	
Total:				100.00				





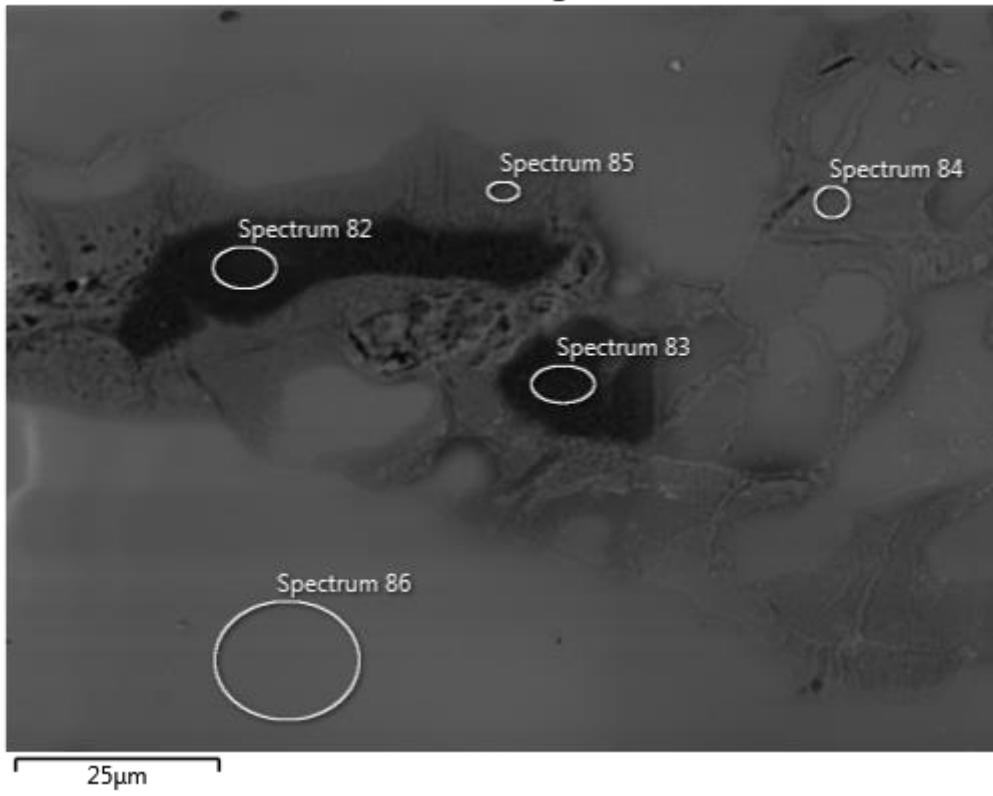
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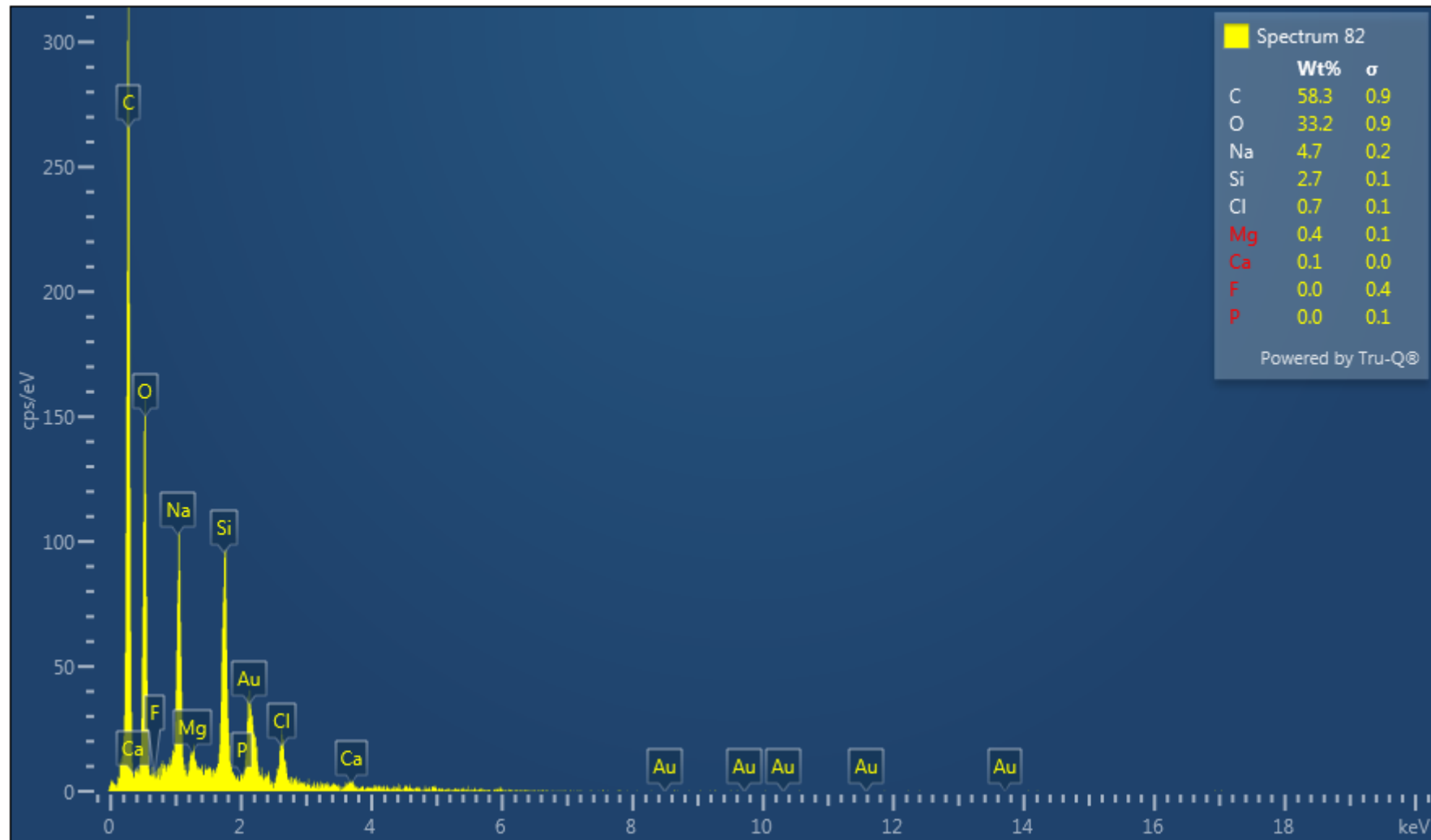
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Project Notes

Specimen Notes

Electron Image 24



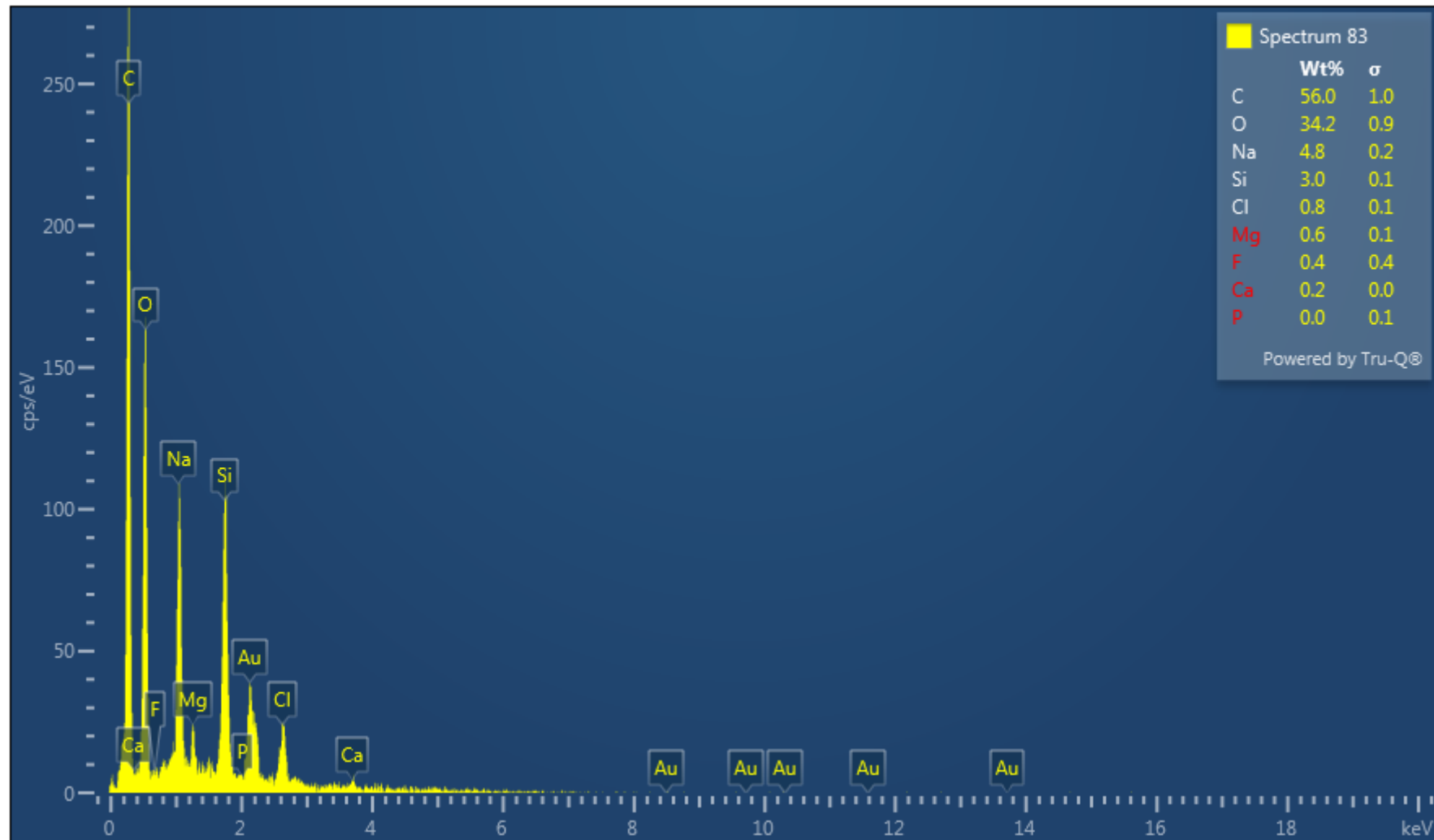


# VACUNAS

8/19/2022

<b>Spectrum 82</b>
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Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	18.05	0.18050	58.27	0.90	C Vit	Yes	
O	K series	14.90	0.05015	33.16	0.88	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.42	CaF2	Yes	
Na	K series	4.85	0.02046	4.66	0.21	Albite	Yes	
Mg	K series	0.33	0.00216	0.36	0.08	MgO	Yes	
Si	K series	3.09	0.02446	2.68	0.11	SiO2	Yes	
P	K series	0.00	0.00000	0.00	0.07	GaP	Yes	
Cl	K series	0.83	0.00728	0.73	0.07	NaCl	Yes	
Ca	K series	0.17	0.00148	0.14	0.04	Wollastonite	Yes	
Total:				100.00				

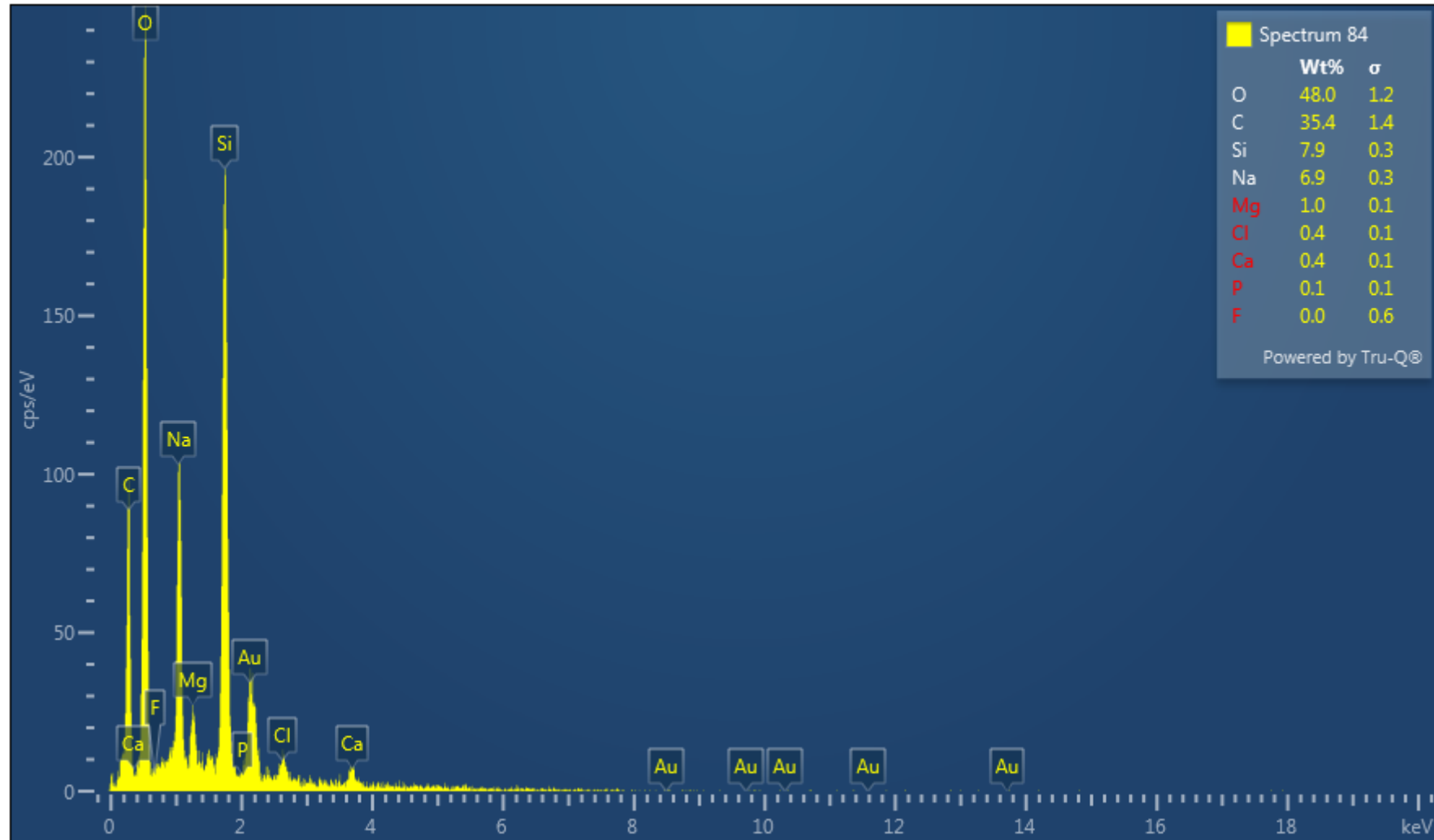


# VACUNAS

8/19/2022

<b>Spectrum 83</b>
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Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	16.51	0.16511	55.99	0.97	C Vit	Yes	
O	K series	16.01	0.05386	34.22	0.92	SiO2	Yes	
F	K series	0.31	0.00060	0.45	0.42	CaF2	Yes	
Na	K series	5.02	0.02121	4.84	0.22	Albite	Yes	
Mg	K series	0.51	0.00337	0.57	0.09	MgO	Yes	
Si	K series	3.43	0.02721	2.98	0.12	SiO2	Yes	
P	K series	0.00	0.00000	0.00	0.07	GaP	Yes	
Cl	K series	0.92	0.00805	0.81	0.07	NaCl	Yes	
Ca	K series	0.20	0.00175	0.16	0.04	Wollastonite	Yes	
Total:				100.00				



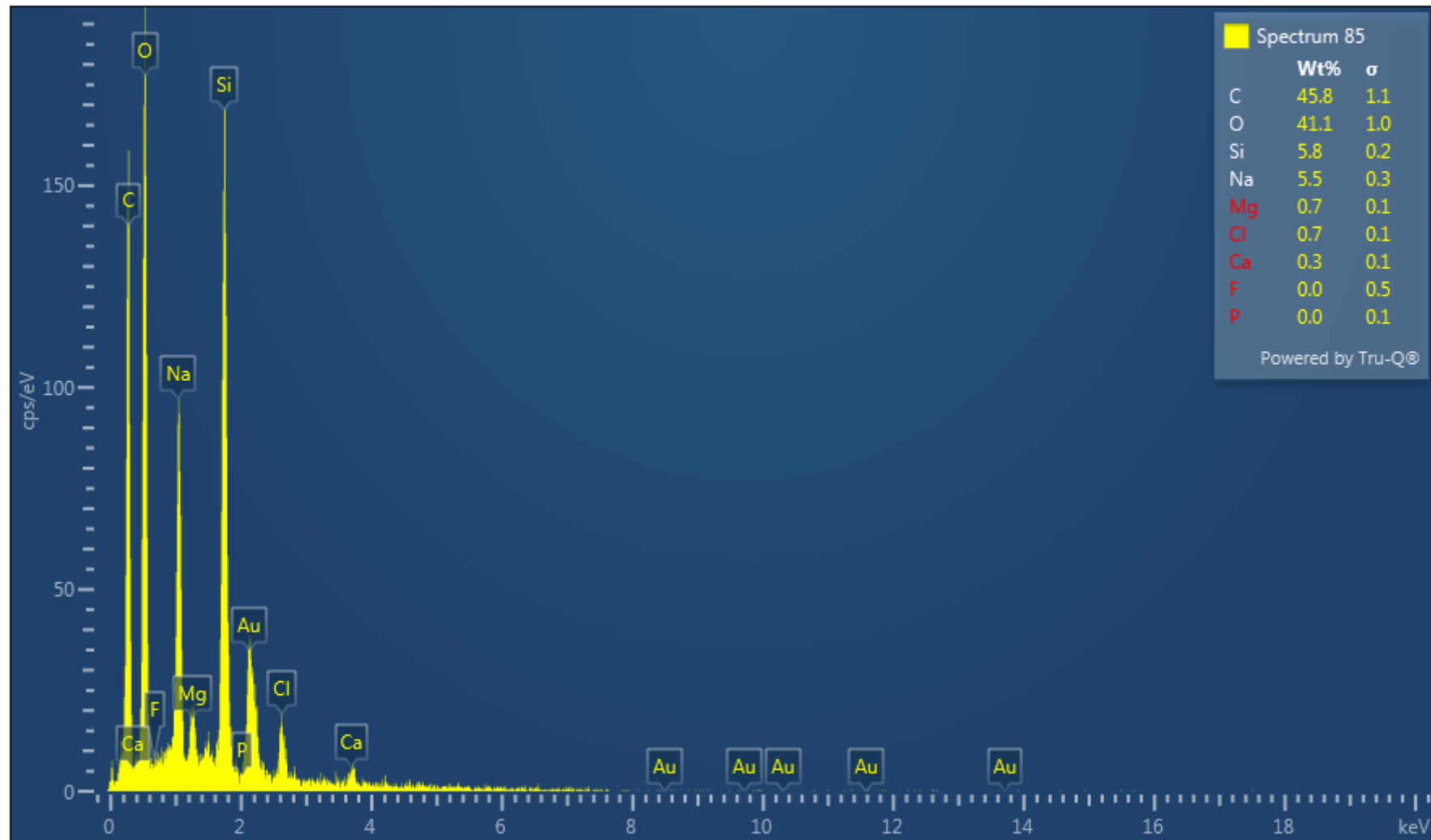
# VACUNAS

8/19/2022

<b>Spectrum 84</b>
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Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	5.42	0.05420	35.42	1.39	C Vit	Yes	
O	K series	24.03	0.08087	48.02	1.21	SiO2	Yes	
F	K series	0.01	0.00001	0.01	0.61	CaF2	Yes	
Na	K series	5.21	0.02200	6.93	0.32	Albite	Yes	
Mg	K series	0.61	0.00402	0.95	0.13	MgO	Yes	
Si	K series	6.64	0.05261	7.86	0.27	SiO2	Yes	
P	K series	0.10	0.00059	0.09	0.10	GaP	Yes	
Cl	K series	0.31	0.00271	0.37	0.08	NaCl	Yes	
Ca	K series	0.34	0.00300	0.36	0.07	Wollastonite	Yes	
Total:				100.00				



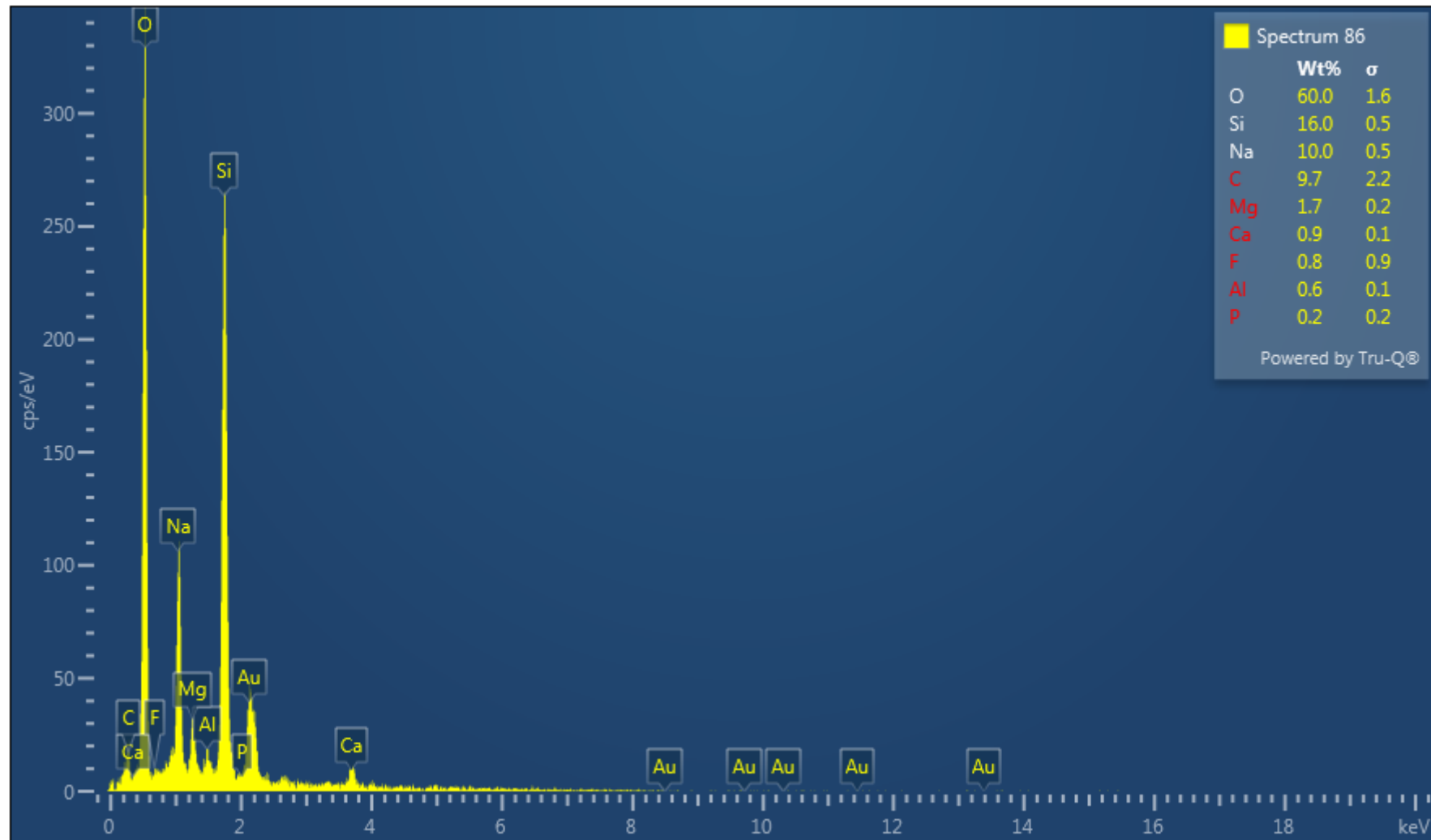


# VACUNAS

8/19/2022

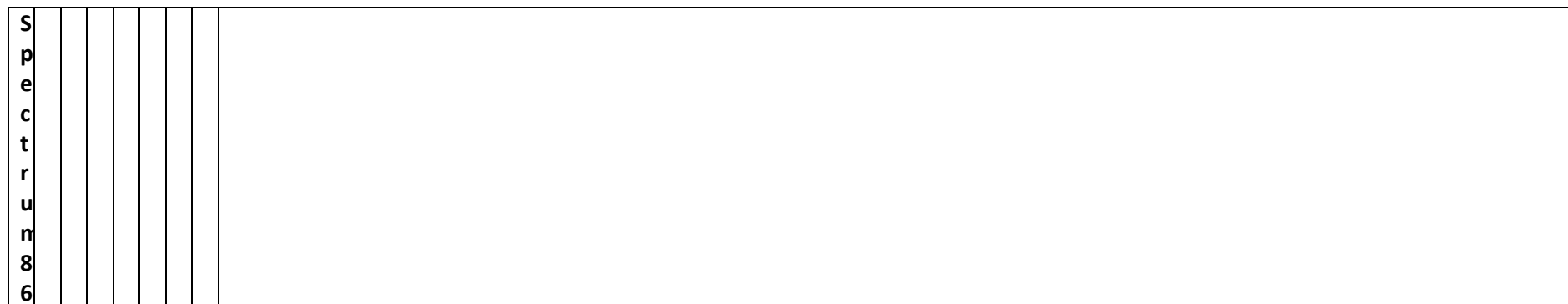
<b>Spectrum 85</b>								
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Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	8.77	0.08774	45.83	1.15	C Vit	Yes	
O	K series	18.23	0.06135	41.07	1.04	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.53	CaF2	Yes	
Na	K series	4.58	0.01932	5.54	0.26	Albite	Yes	
Mg	K series	0.52	0.00344	0.73	0.11	MgO	Yes	
Si	K series	5.40	0.04279	5.84	0.20	SiO2	Yes	
P	K series	0.00	0.00000	0.00	0.09	GaP	Yes	
Cl	K series	0.64	0.00560	0.70	0.08	NaCl	Yes	
Ca	K series	0.28	0.00252	0.28	0.06	Wollastonite	Yes	
Total:				100.00				



# VACUNAS

8/19/2022



Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	0.66	0.00664	9.74	2.15	C Vit	Yes	
O	K series	33.30	0.11207	60.03	1.64	SiO2	Yes	
F	K series	0.28	0.00054	0.82	0.88	CaF2	Yes	
Na	K series	5.09	0.02150	9.99	0.46	Albite	Yes	
Mg	K series	0.71	0.00472	1.72	0.20	MgO	Yes	
Al	K series	0.30	0.00214	0.61	0.14	Al2O3	Yes	
Si	K series	9.00	0.07129	16.04	0.53	SiO2	Yes	
P	K series	0.12	0.00068	0.17	0.17	GaP	Yes	
Ca	K series	0.57	0.00511	0.88	0.12	Wollastonite	Yes	
Total:				100.00				



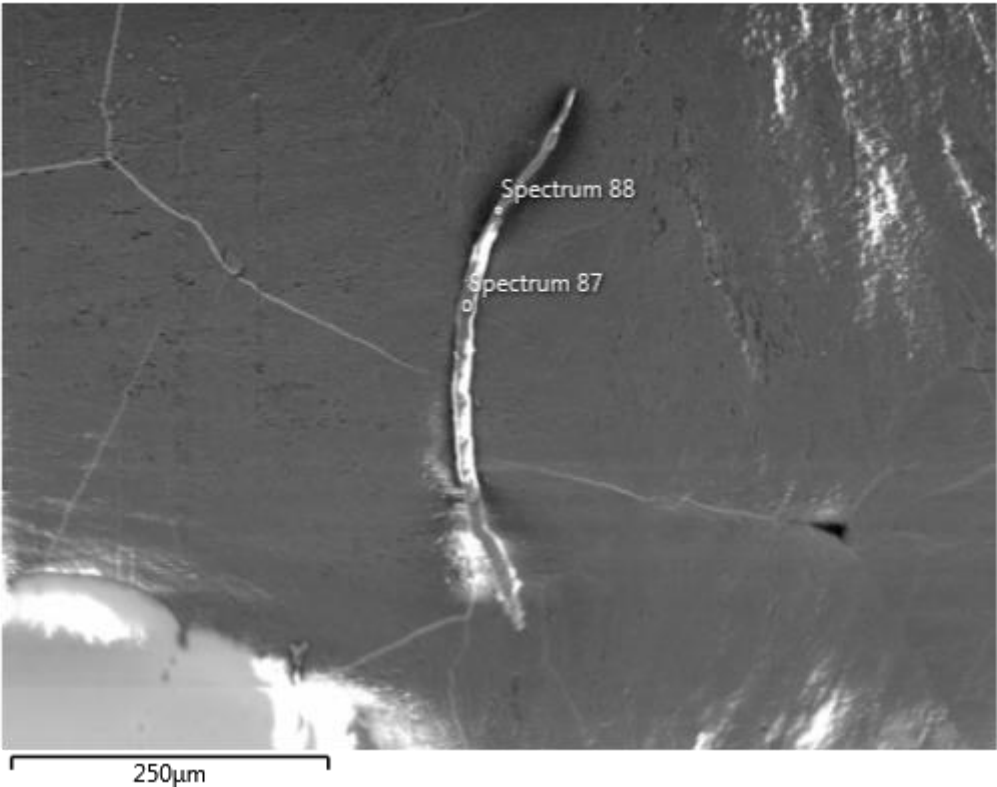
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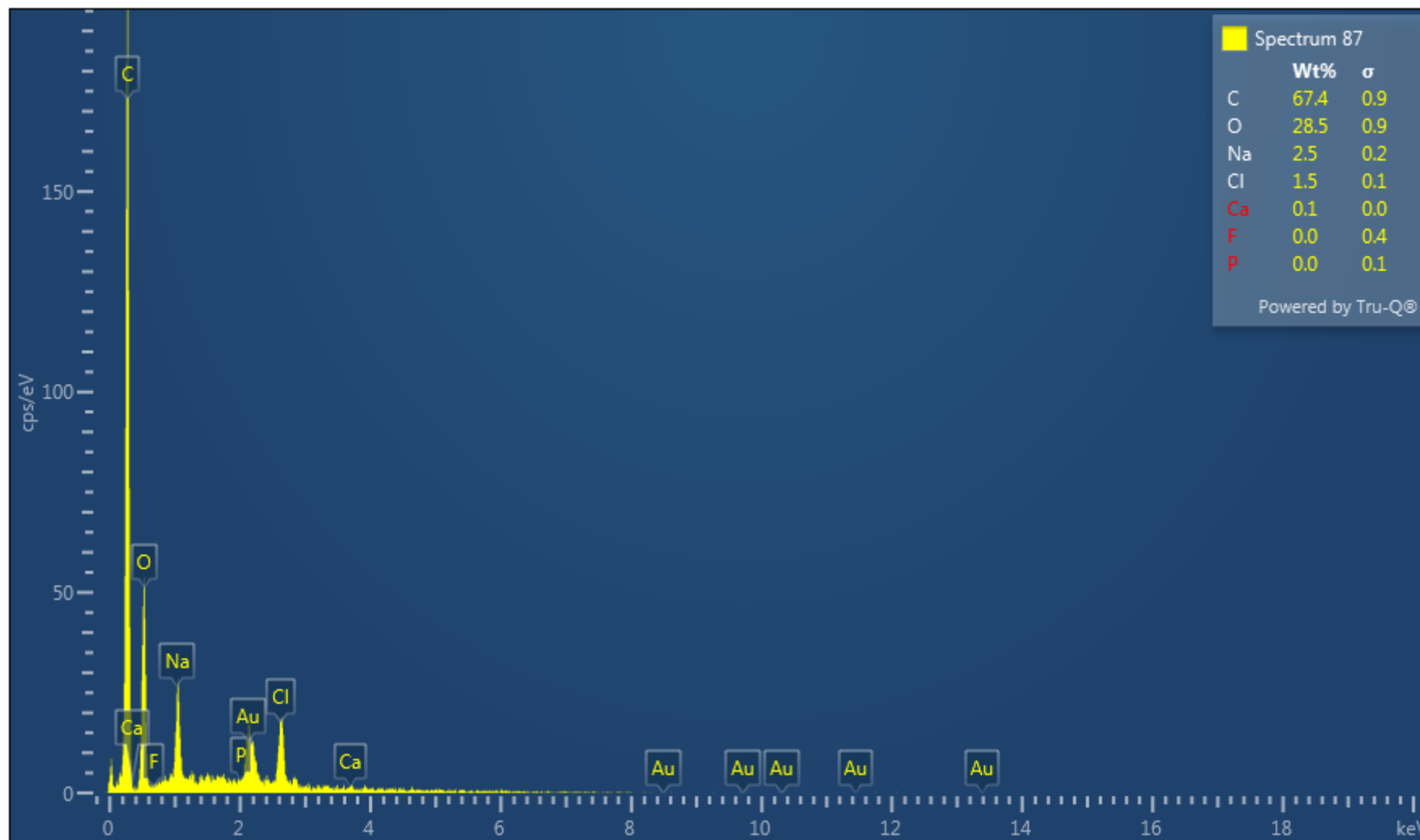
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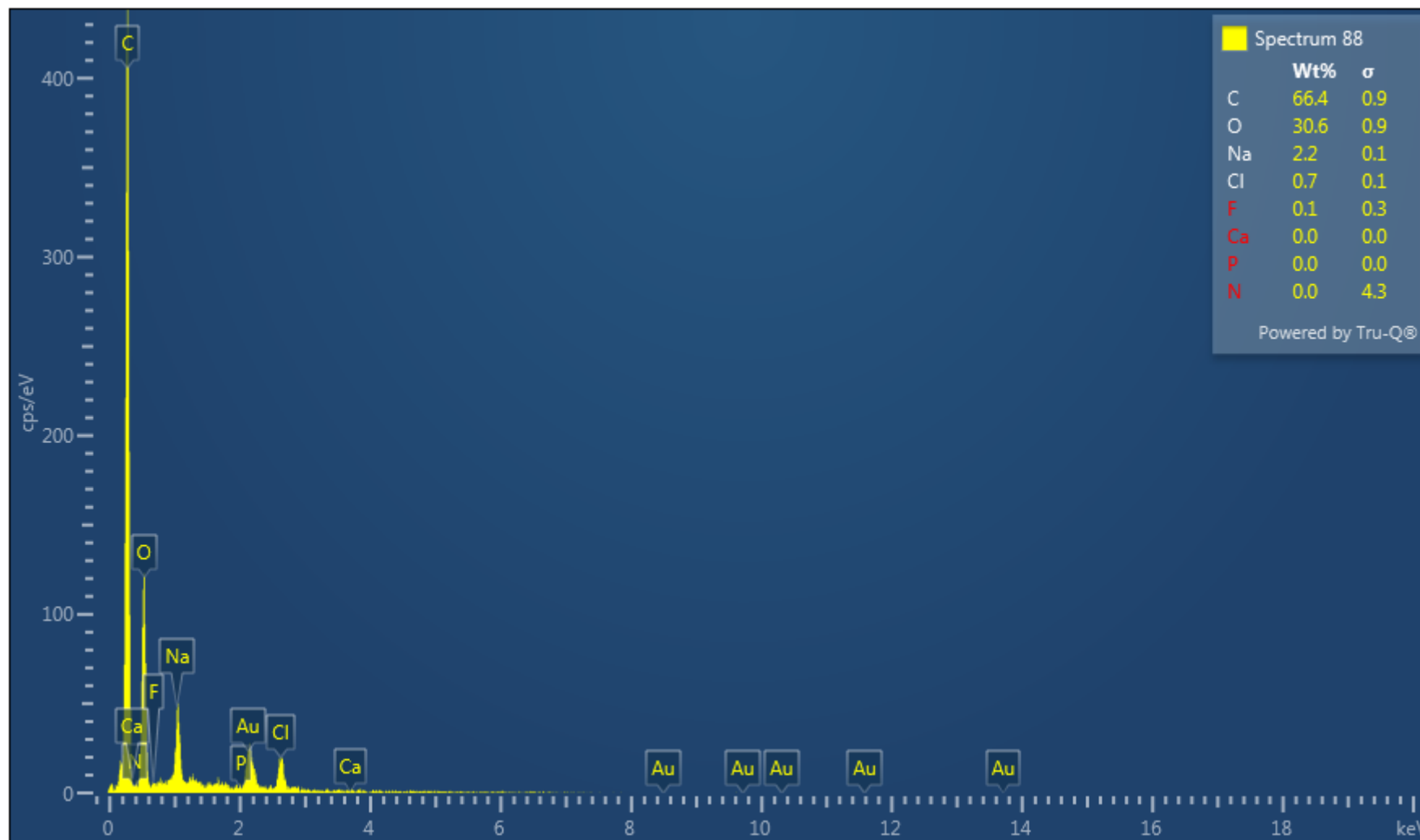
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Spectrum 87								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	11.83	0.11832	67.40	0.93	C Vit	Yes	
O	K series	5.08	0.01709	28.49	0.93	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.36	CaF2	Yes	
Na	K series	1.19	0.00502	2.52	0.17	Albite	Yes	
P	K series	0.00	0.00000	0.00	0.07	GaP	Yes	
Cl	K series	0.80	0.00695	1.50	0.09	NaCl	Yes	
Ca	K series	0.05	0.00046	0.09	0.05	Wollastonite	Yes	
Total:				100.00				



Spectrum 88								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	27.38	0.27381	66.39	0.87	C Vit	Yes	
N	K series	0.00	0.00000	0.00	4.26	BN	Yes	
O	K series	11.97	0.04027	30.55	0.85	SiO2	Yes	
F	K series	0.07	0.00014	0.11	0.34	CaF2	Yes	
Na	K series	2.18	0.00919	2.20	0.14	Albite	Yes	
P	K series	0.00	0.00000	0.00	0.05	GaP	Yes	
Cl	K series	0.83	0.00730	0.74	0.06	NaCl	Yes	
Ca	K series	0.01	0.00007	0.01	0.03	Wollastonite	Yes	
Total:				100.00				

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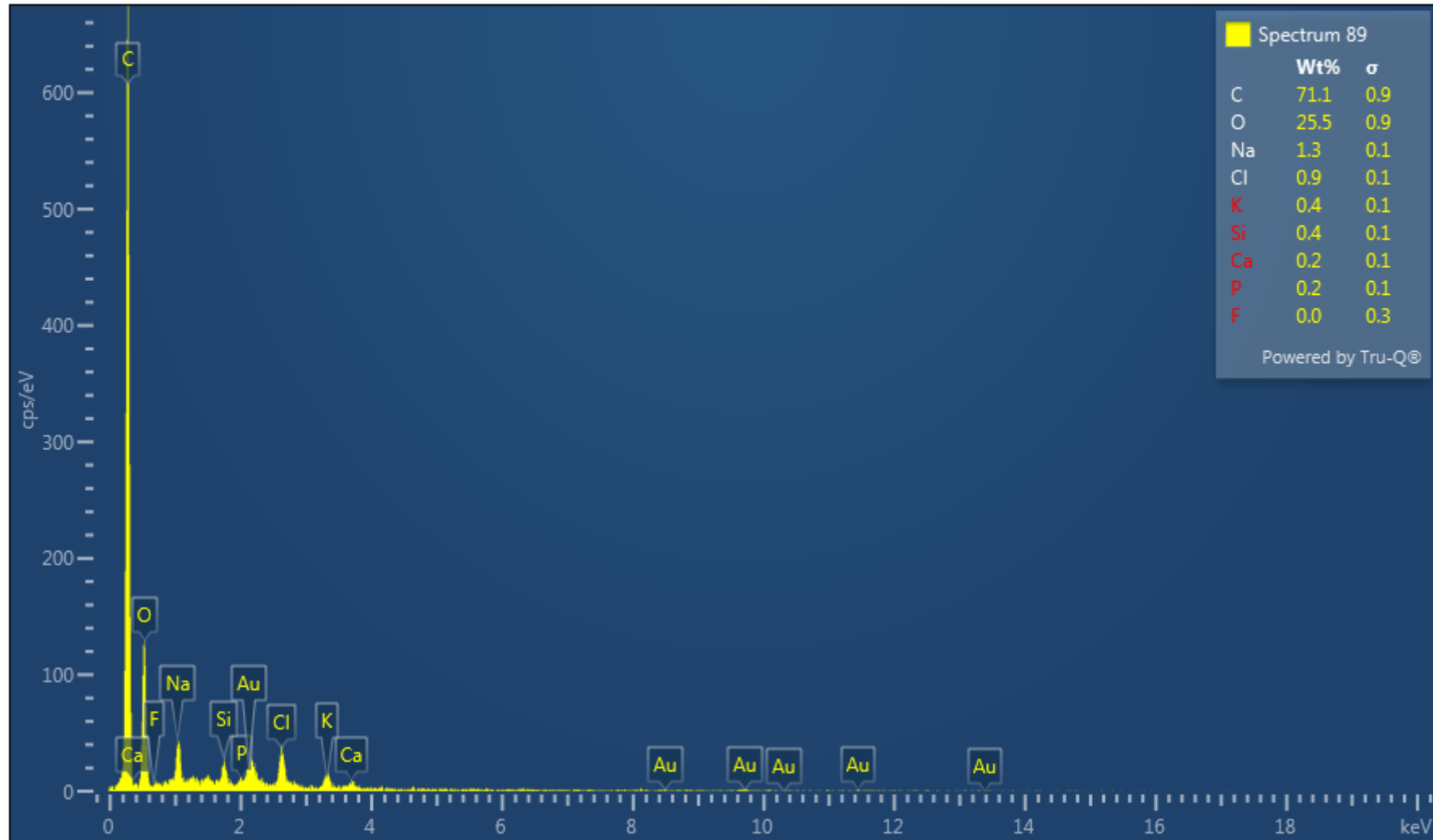
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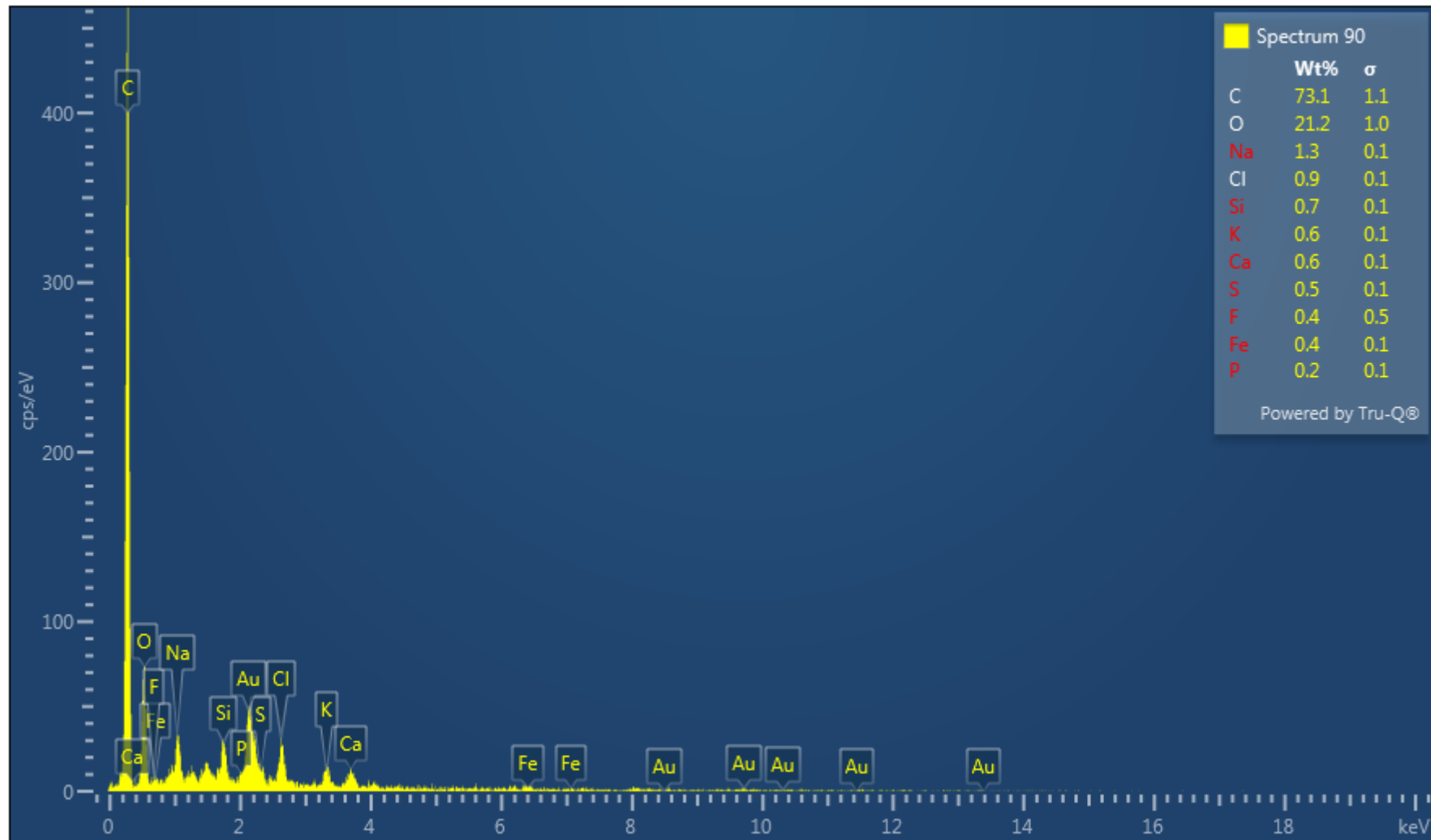
[Specimen Notes](#)

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Spectrum 89								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	42.28	0.42278	71.10	0.92	C Vit	Yes	
O	K series	12.97	0.04365	25.51	0.91	SiO2	Yes	
F	K series	0.00	0.00000	0.00	0.32	CaF2	Yes	
Na	K series	1.95	0.00825	1.34	0.12	Albite	Yes	
Si	K series	0.63	0.00500	0.38	0.05	SiO2	Yes	
P	K series	0.37	0.00209	0.15	0.06	GaP	Yes	
Cl	K series	1.42	0.01243	0.88	0.07	NaCl	Yes	
K	K series	0.74	0.00625	0.43	0.06	KBr	Yes	
Ca	K series	0.36	0.00318	0.21	0.05	Wollastonite	Yes	
Total:				100.00				





Spectrum 90								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	27.31	0.27314	73.12	1.12	C Vit	Yes	
O	K series	6.94	0.02336	21.24	1.05	SiO2	Yes	
F	K series	0.30	0.00058	0.43	0.45	CaF2	Yes	
Na	K series	1.33	0.00560	1.32	0.15	Albite	Yes	
Si	K series	0.79	0.00625	0.70	0.08	SiO2	Yes	
P	K series	0.28	0.00154	0.16	0.09	GaP	Yes	
S	K series	0.52	0.00452	0.48	0.09	FeS2	Yes	
Cl	K series	1.02	0.00894	0.94	0.09	NaCl	Yes	
K	K series	0.73	0.00615	0.62	0.08	KBr	Yes	
Ca	K series	0.67	0.00597	0.58	0.08	Wollastonite	Yes	
Fe	K series	0.38	0.00380	0.40	0.11	Fe	Yes	
Total:				100.00				

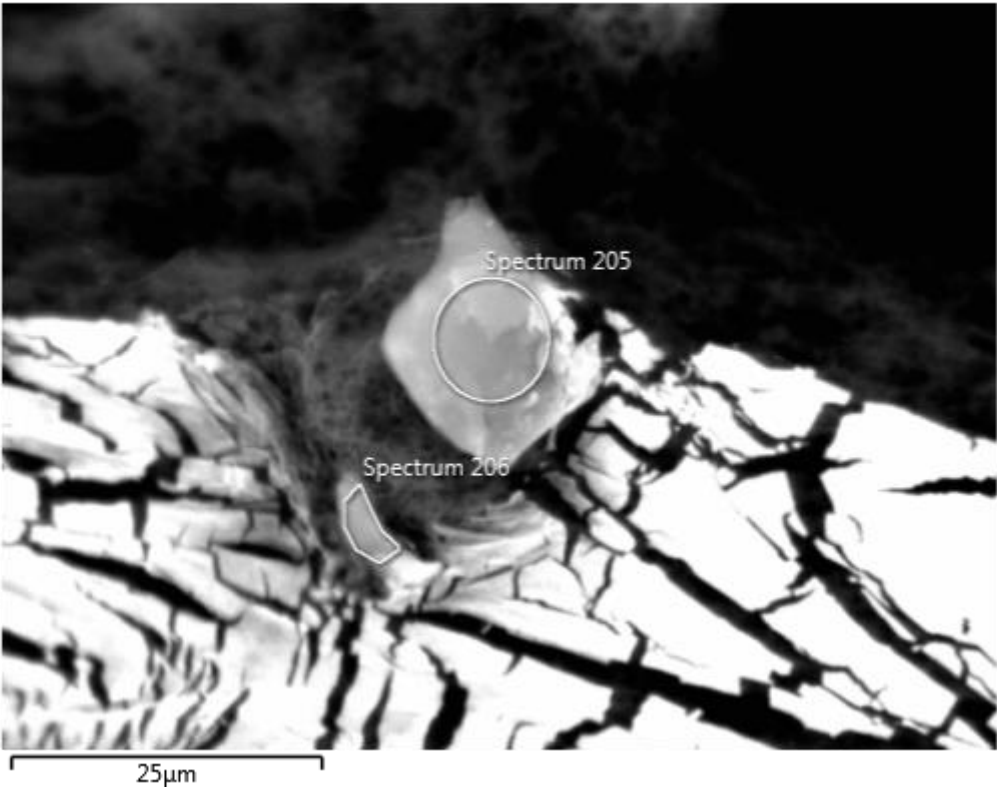
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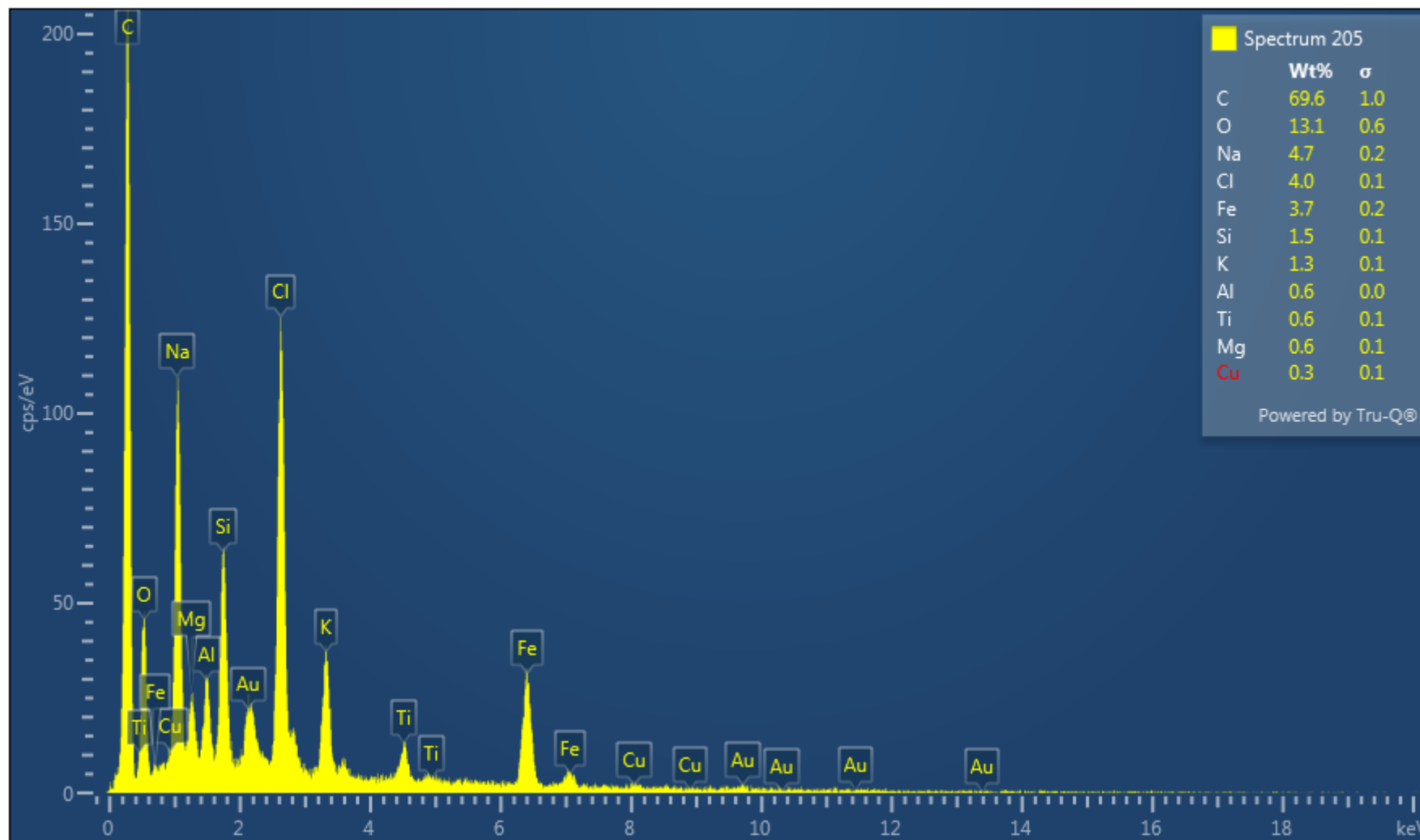
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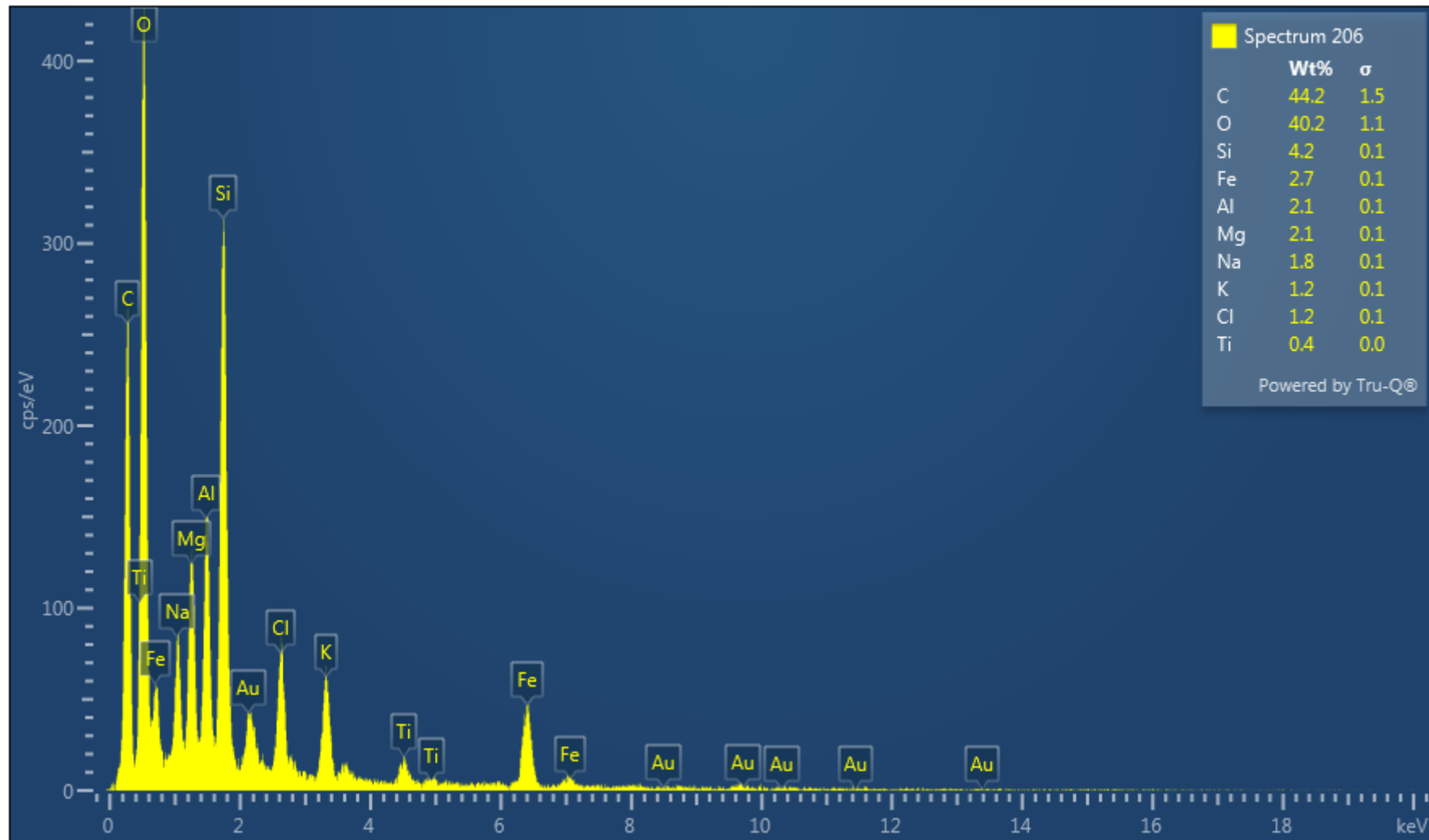
[Specimen Notes](#)

Electron Image 64





Spectrum 205								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	19.65	0.19645	69.57	0.98	C Vit	Yes	
O	K series	5.31	0.01786	13.08	0.64	SiO2	Yes	
Na	K series	5.99	0.02530	4.66	0.18	Albite	Yes	
Mg	K series	0.62	0.00413	0.57	0.05	MgO	Yes	
Al	K series	0.81	0.00584	0.65	0.05	Al2O3	Yes	
Si	K series	2.06	0.01631	1.51	0.06	SiO2	Yes	
Cl	K series	5.44	0.04750	3.99	0.14	NaCl	Yes	
K	K series	1.96	0.01663	1.35	0.06	KBr	Yes	
Ti	K series	0.74	0.00742	0.61	0.05	Ti	Yes	
Fe	K series	4.52	0.04522	3.74	0.15	Fe	Yes	
Cu	K series	0.31	0.00310	0.27	0.08	Cu	Yes	
Total:				100.00				



Spectrum 206								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	23.50	0.23505	44.19	1.47	C Vit	Yes	
O	K series	50.77	0.17085	40.16	1.12	SiO2	Yes	
Na	K series	3.97	0.01677	1.77	0.09	Albite	Yes	
Mg	K series	4.34	0.02878	2.07	0.09	MgO	Yes	
Al	K series	4.98	0.03579	2.10	0.08	Al2O3	Yes	
Si	K series	10.75	0.08518	4.15	0.13	SiO2	Yes	
Cl	K series	3.15	0.02755	1.19	0.05	NaCl	Yes	
K	K series	3.58	0.03031	1.22	0.05	KBr	Yes	
Ti	K series	1.03	0.01034	0.42	0.04	Ti	Yes	
Fe	K series	6.69	0.06688	2.73	0.11	Fe	Yes	
Total:				100.00				

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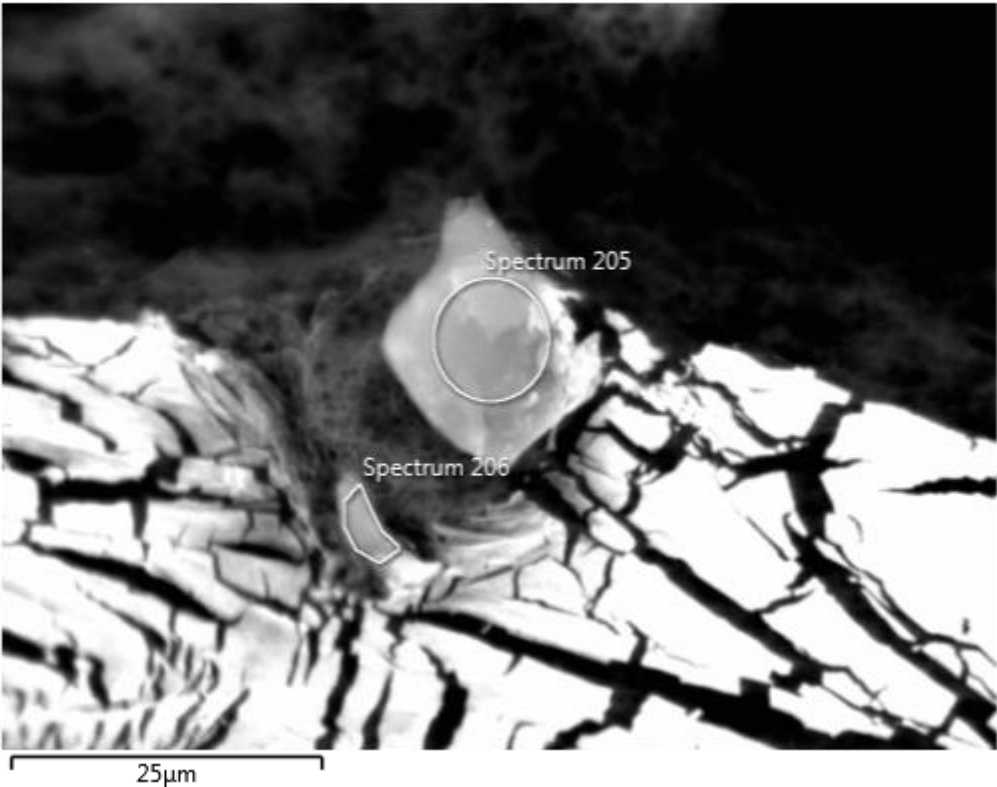
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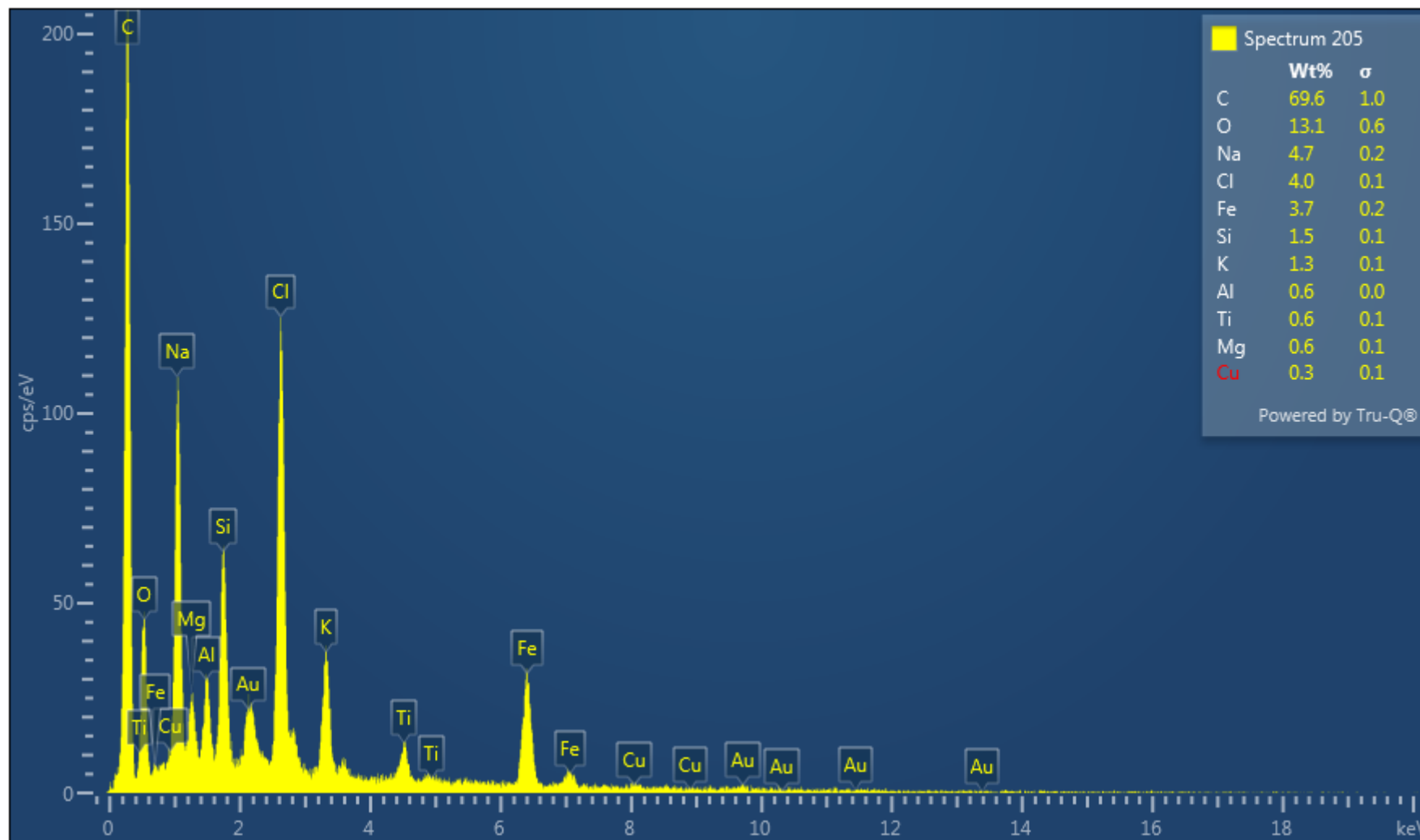
[Project Notes](#)

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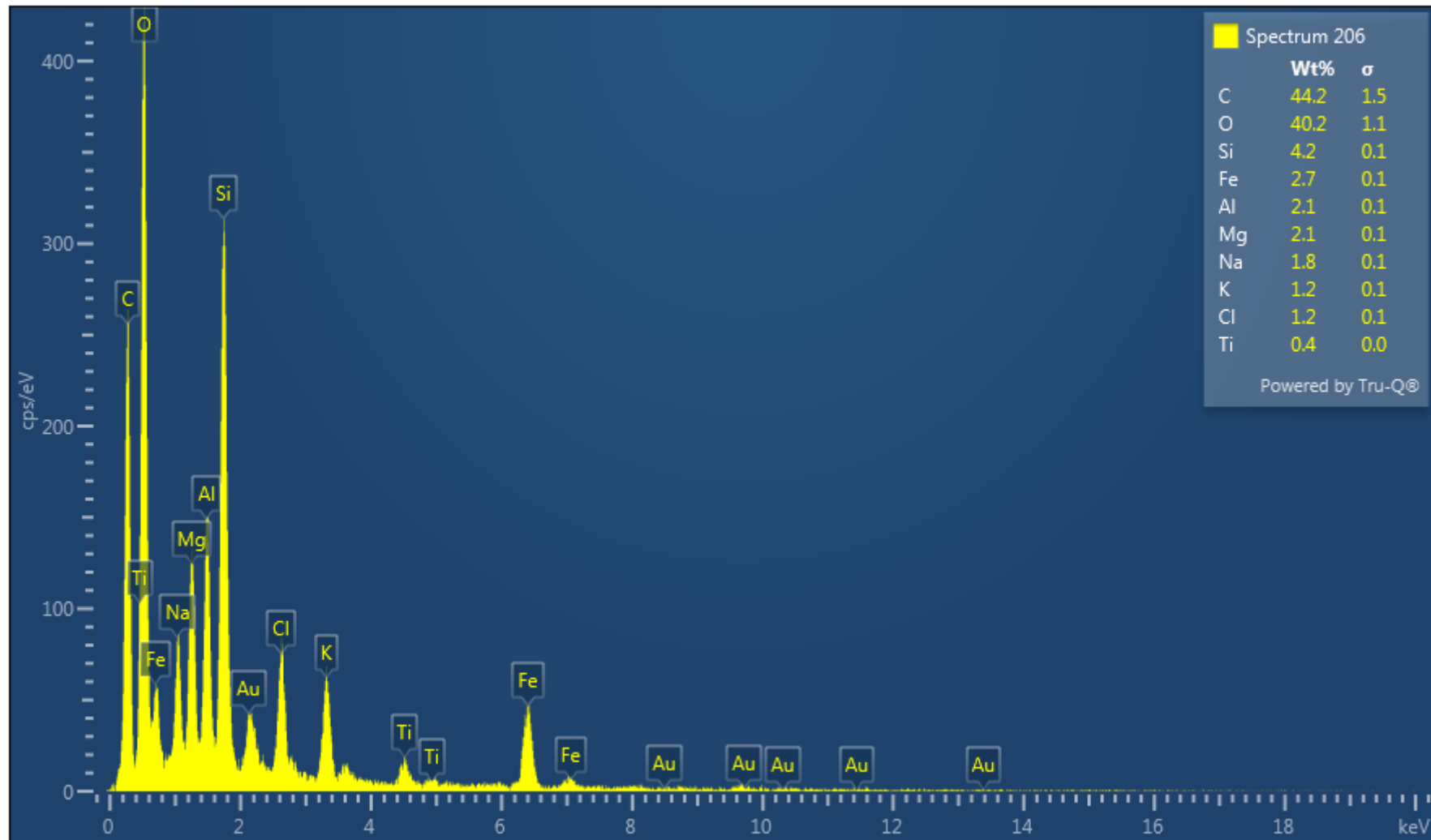


Electron Image 64





Spectrum 205								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	19.65	0.19645	69.57	0.98	C Vit	Yes	
O	K series	5.31	0.01786	13.08	0.64	SiO2	Yes	
Na	K series	5.99	0.02530	4.66	0.18	Albite	Yes	
Mg	K series	0.62	0.00413	0.57	0.05	MgO	Yes	
Al	K series	0.81	0.00584	0.65	0.05	Al2O3	Yes	
Si	K series	2.06	0.01631	1.51	0.06	SiO2	Yes	
Cl	K series	5.44	0.04750	3.99	0.14	NaCl	Yes	
K	K series	1.96	0.01663	1.35	0.06	KBr	Yes	
Ti	K series	0.74	0.00742	0.61	0.05	Ti	Yes	
Fe	K series	4.52	0.04522	3.74	0.15	Fe	Yes	
Cu	K series	0.31	0.00310	0.27	0.08	Cu	Yes	
Total:				100.00				



Spectrum 206								
Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma	Standard Label	Factory Standard	Standard Calibration Date
C	K series	23.50	0.23505	44.19	1.47	C Vit	Yes	
O	K series	50.77	0.17085	40.16	1.12	SiO2	Yes	
Na	K series	3.97	0.01677	1.77	0.09	Albite	Yes	
Mg	K series	4.34	0.02878	2.07	0.09	MgO	Yes	
Al	K series	4.98	0.03579	2.10	0.08	Al2O3	Yes	
Si	K series	10.75	0.08518	4.15	0.13	SiO2	Yes	
Cl	K series	3.15	0.02755	1.19	0.05	NaCl	Yes	
K	K series	3.58	0.03031	1.22	0.05	KBr	Yes	
Ti	K series	1.03	0.01034	0.42	0.04	Ti	Yes	
Fe	K series	6.69	0.06688	2.73	0.11	Fe	Yes	
Total:				100.00				