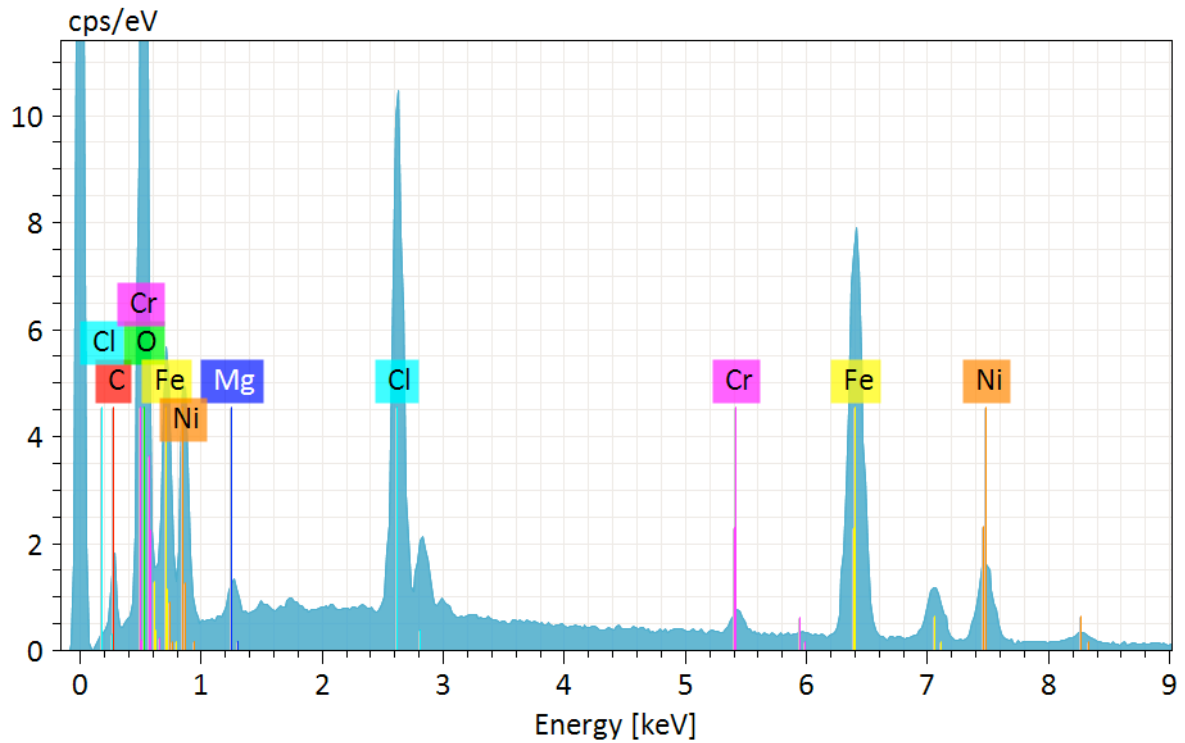


Atomic concentration [%]

Spectrum	C	N	O	Mg	Cl	Ca	Cr	Fe	Ni	Rh	Pd
Omasa Vibrator Pd MgCl <sub>2</sub> 995	19.15		52.84	0.74	6.11		0.50	15.68	4.99		
Omasa Vibrator Pd MgCl <sub>2</sub> 996	21.76		49.11	1.23	8.77		0.44	8.70	10.00		
Omasa Vibrator Pd MgCl <sub>2</sub> 997	9.39	16.68	41.20	2.40	9.63	0.44	0.51	9.00	9.60	0.81	0.34
Omasa Vibrator Pd MgCl <sub>2</sub> 998		20.08	39.34	1.61	9.70		0.70	19.22	8.11	0.76	0.48
Omasa Vibrator Pd MgCl <sub>2</sub> 999	19.61		40.61	4.02	14.26		0.40	3.84	17.27		
Omasa Vibrator Pd MgCl <sub>2</sub> 1000	53.79		31.76	0.88	4.97	0.39	0.21	2.76	5.24		
Omasa Vibrator Pd MgCl <sub>2</sub> 1001	19.32		39.77	0.79	8.64		0.47	23.22	7.78		
Omasa Vibrator Pd MgCl <sub>2</sub> 1002	8.26	12.91	40.53	2.41	9.76	0.36	0.63	13.04	10.97	0.78	0.36
Omasa Vibrator Pd MgCl <sub>2</sub> 1003	15.46		45.53	1.80	8.48		0.66	17.29	10.17		0.61
Mean	<b>20.84</b>	<b>16.56</b>	<b>42.30</b>	<b>1.76</b>	<b>8.93</b>	<b>0.40</b>	<b>0.50</b>	<b>12.53</b>	<b>9.35</b>	<b>0.78</b>	<b>0.45</b>
Sigma	<b>14.20</b>	<b>3.59</b>	<b>6.14</b>	<b>1.06</b>	<b>2.60</b>	<b>0.04</b>	<b>0.15</b>	<b>6.98</b>	<b>3.65</b>	<b>0.03</b>	<b>0.12</b>
SigmaMean	<b>4.73</b>	<b>1.20</b>	<b>2.05</b>	<b>0.35</b>	<b>0.87</b>	<b>0.01</b>	<b>0.05</b>	<b>2.33</b>	<b>1.22</b>	<b>0.01</b>	<b>0.04</b>

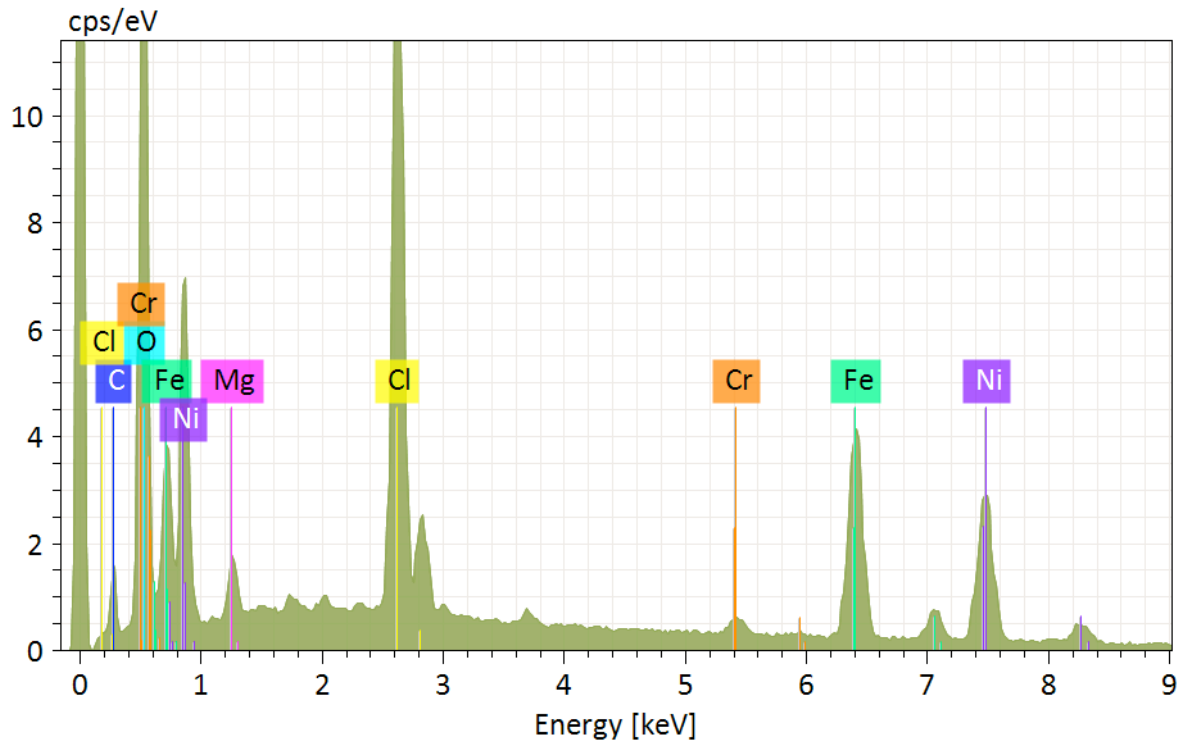
Normalized mass concentration [%]

Spectrum	C	N	O	Mg	Cl	Ca	Cr	Fe	Ni	Rh	Pd
Omasa Vibrator Pd MgCl <sub>2</sub> 995	9.18		33.76	0.72	8.65		1.03	34.97	11.69		
Omasa Vibrator Pd MgCl <sub>2</sub> 996	10.52		31.64	1.20	12.52		0.93	19.55	23.63		
Omasa Vibrator Pd MgCl <sub>2</sub> 997	4.28	8.87	25.02	2.21	12.96	0.68	1.00	19.08	21.38	3.16	1.37
Omasa Vibrator Pd MgCl <sub>2</sub> 998		9.35	20.93	1.30	11.43		1.20	35.68	15.83	2.59	1.68
Omasa Vibrator Pd MgCl <sub>2</sub> 999	8.61		23.74	3.57	18.46		0.76	7.83	37.04		
Omasa Vibrator Pd MgCl <sub>2</sub> 1000	35.12		27.62	1.16	9.58	0.84	0.59	8.37	16.72		
Omasa Vibrator Pd MgCl <sub>2</sub> 1001	7.81		21.41	0.65	10.31		0.82	43.64	15.36		
Omasa Vibrator Pd MgCl <sub>2</sub> 1002	3.45	6.30	22.59	2.04	12.05	0.51	1.14	25.37	22.42	2.79	1.33
Omasa Vibrator Pd MgCl <sub>2</sub> 1003	6.36		24.95	1.50	10.29		1.18	33.07	20.43		2.22
Mean	<b>10.67</b>	<b>8.17</b>	<b>25.74</b>	<b>1.59</b>	<b>11.81</b>	<b>0.67</b>	<b>0.96</b>	<b>25.28</b>	<b>20.50</b>	<b>2.85</b>	<b>1.65</b>
Sigma	<b>10.17</b>	<b>1.64</b>	<b>4.47</b>	<b>0.91</b>	<b>2.87</b>	<b>0.17</b>	<b>0.21</b>	<b>12.56</b>	<b>7.31</b>	<b>0.29</b>	<b>0.41</b>
SigmaMean	<b>3.39</b>	<b>0.55</b>	<b>1.49</b>	<b>0.30</b>	<b>0.96</b>	<b>0.06</b>	<b>0.07</b>	<b>4.19</b>	<b>2.44</b>	<b>0.10</b>	<b>0.14</b>



Omasa Vibrator Pd MgCl<sub>2</sub> 995

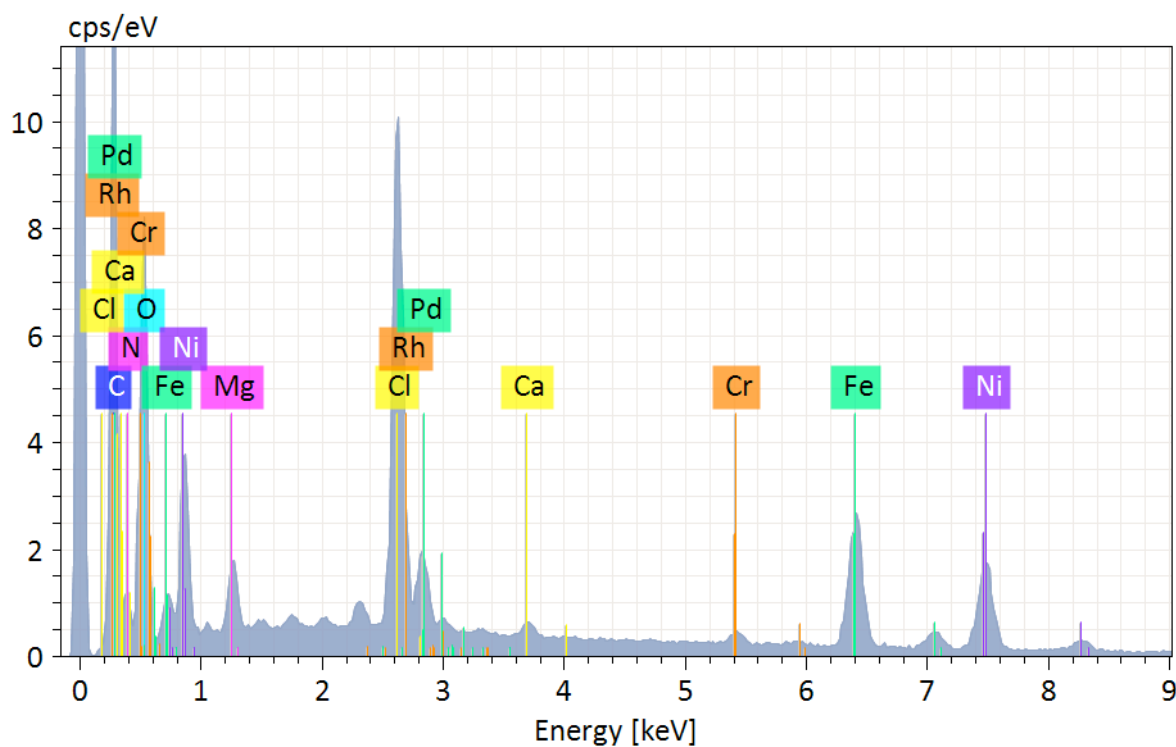
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Serie	2844	8.26	9.18	19.15	1.47	17.80
O	8	K-Serie	36819	30.36	33.76	52.84	3.69	12.17
Mg	12	K-Serie	1378	0.64	0.72	0.74	0.07	10.51
Cl	17	K-Serie	27901	7.78	8.65	6.11	0.29	3.73
Cr	24	K-Serie	1601	0.93	1.03	0.50	0.06	6.75
Fe	26	K-Serie	32434	31.45	34.97	15.68	0.97	3.07
Ni	28	K-Serie	6722	10.51	11.69	4.99	0.38	3.62
			<b>Sum</b>	<b>89.93</b>	<b>100.00</b>	<b>100.00</b>		



Omasa Vibrator Pd MgCl2 996

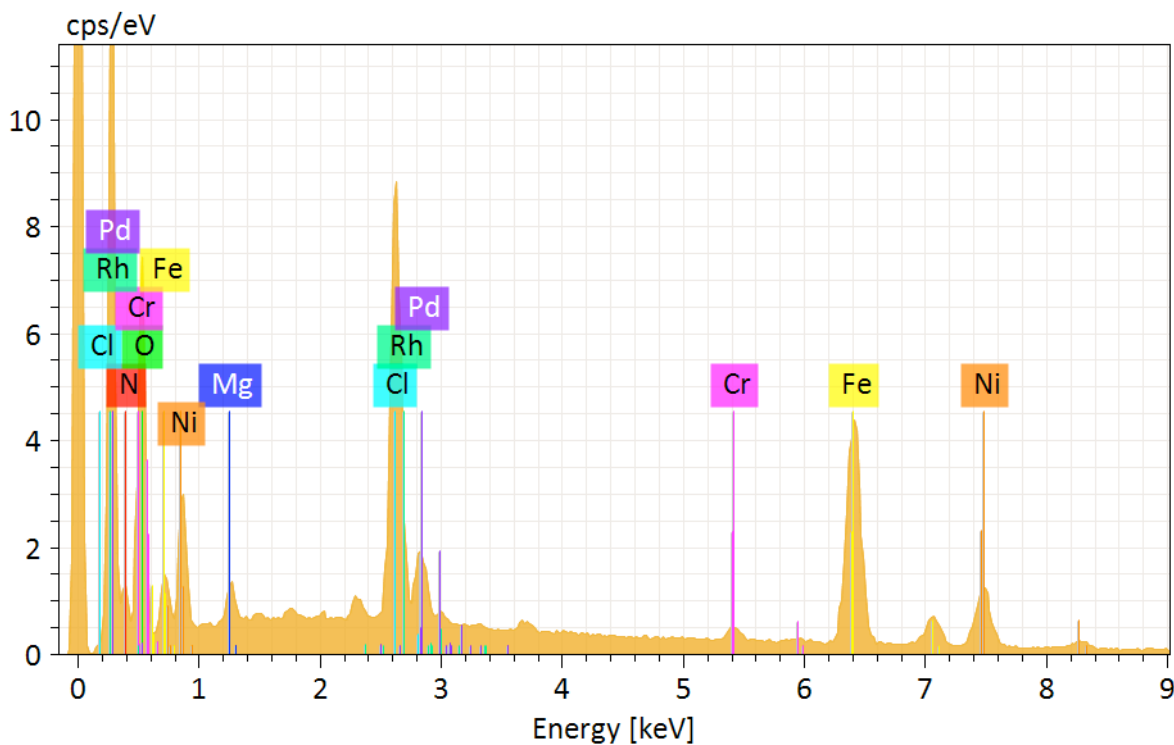
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C		6 K-Serie	2583	9.35	10.52	21.76	1.70	18.14
O		8 K-Serie	28293	28.12	31.64	49.11	3.51	12.47
Mg		12 K-Serie	2400	1.07	1.20	1.23	0.09	8.47
Cl		17 K-Serie	41646	11.13	12.52	8.77	0.40	3.60
Cr		24 K-Serie	1234	0.82	0.93	0.44	0.06	7.37
Fe		26 K-Serie	17097	17.38	19.55	8.70	0.56	3.20
Ni		28 K-Serie	12932	21.01	23.63	10.00	0.70	3.34
			<b>Sum</b>	<b>88.89</b>	<b>100.00</b>	<b>100.00</b>		





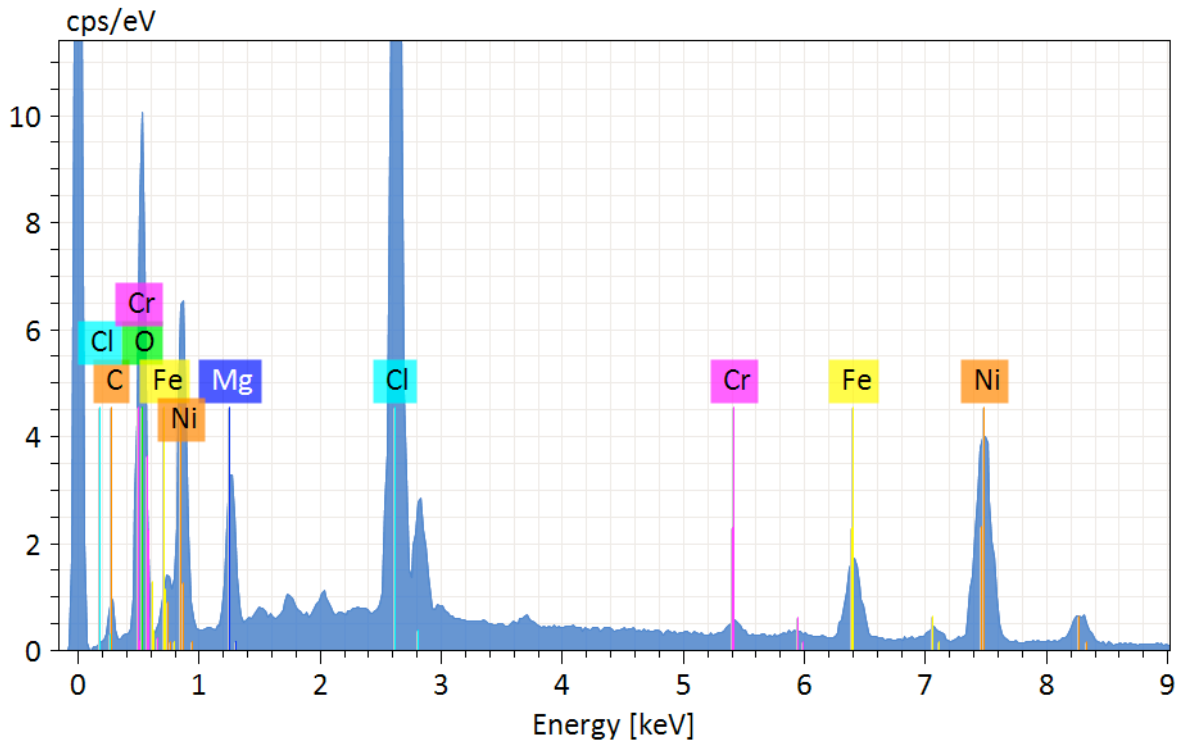
Omasa Vibrator Pd MgCl2 997

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	942	3.33	4.28	9.39	0.79	23.79
N	7	K-Series	2423	6.89	8.87	16.68	1.27	18.49
O	8	K-Series	14788	19.44	25.02	41.20	2.61	13.42
Mg	12	K-Series	3676	1.72	2.21	2.40	0.13	7.32
Cl	17	K-Series	35211	10.07	12.96	9.63	0.37	3.64
Ca	20	K-Series	1217	0.53	0.68	0.44	0.05	9.22
Cr	24	K-Series	1100	0.78	1.00	0.51	0.06	7.71
Fe	26	K-Series	13842	14.83	19.08	9.00	0.48	3.26
Ni	28	K-Series	9725	16.62	21.38	9.60	0.57	3.43
Rh	45	L-Series	5563	2.46	3.16	0.81	0.11	4.66
Pd	46	L-Series	2167	1.06	1.37	0.34	0.07	6.47
			<b>Sum</b>	<b>77.71</b>	<b>100.00</b>	<b>100.00</b>		



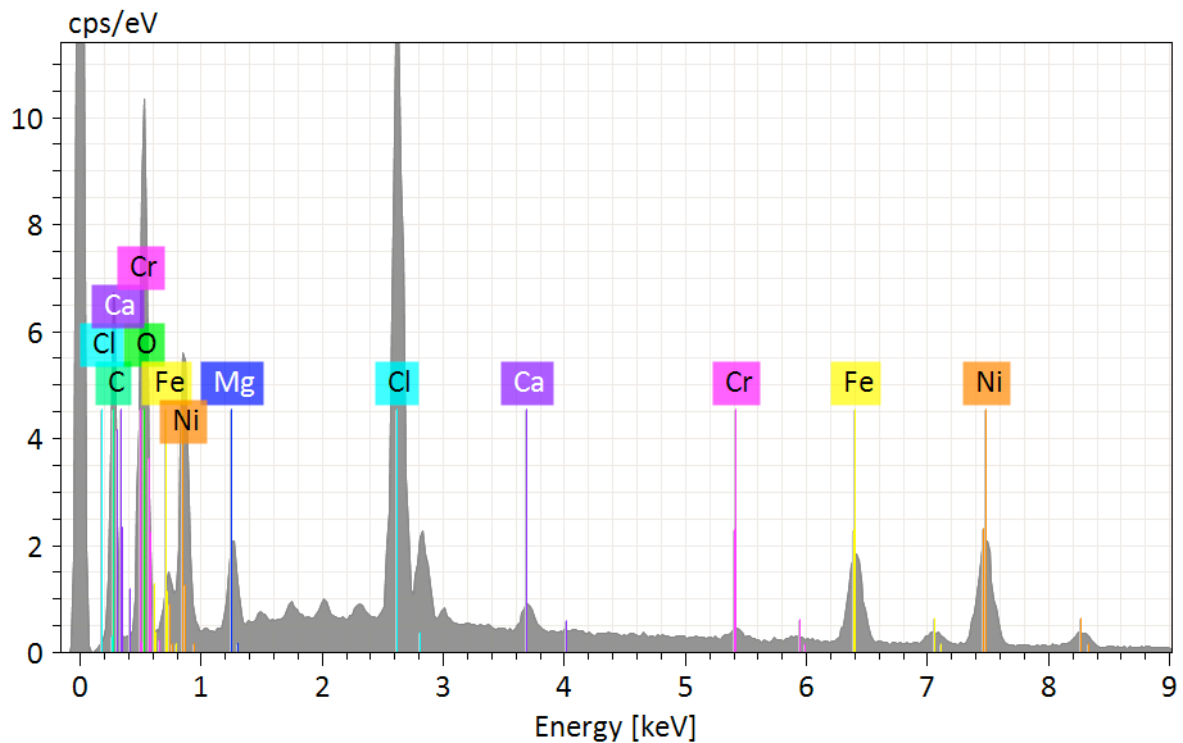
Omasa Vibrator Pd MgCl2 998

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
N	7	K-Series	2708	6.74	9.35	20.08	1.22	18.06
O	8	K-Series	12246	15.08	20.93	39.34	2.08	13.78
Mg	12	K-Series	1923	0.94	1.30	1.61	0.08	8.97
Cl	17	K-Series	29135	8.24	11.43	9.70	0.31	3.71
Cr	24	K-Series	1262	0.87	1.20	0.70	0.06	7.20
Fe	26	K-Series	23310	25.72	35.68	19.22	0.80	3.12
Ni	28	K-Series	6456	11.41	15.83	8.11	0.41	3.62
Rh	45	L-Series	4276	1.87	2.59	0.76	0.10	5.10
Pd	46	L-Series	2543	1.21	1.68	0.48	0.07	6.05
			<b>Sum</b>	<b>72.07</b>	<b>100.00</b>	<b>100.00</b>		



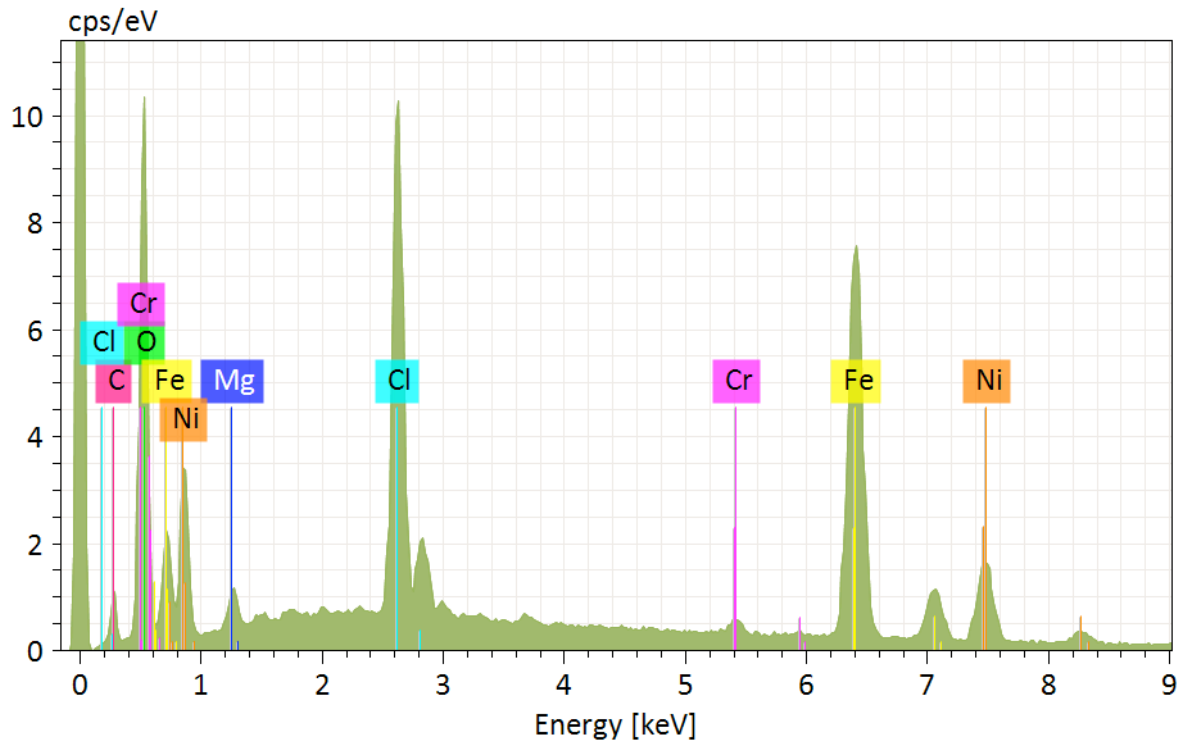
Omasa Vibrator Pd MgCl2 999

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	1755	7.45	8.61	19.61	1.48	19.88
O	8	K-Series	18907	20.54	23.74	40.61	2.68	13.03
Mg	12	K-Series	6737	3.09	3.57	4.02	0.20	6.42
Cl	17	K-Series	58494	15.98	18.46	14.26	0.56	3.52
Cr	24	K-Series	997	0.66	0.76	0.40	0.06	8.41
Fe	26	K-Series	7205	6.77	7.83	3.84	0.24	3.61
Ni	28	K-Series	20709	32.05	37.04	17.27	1.04	3.24
			<b>Sum</b>	<b>86.53</b>	<b>100.00</b>	<b>100.00</b>		



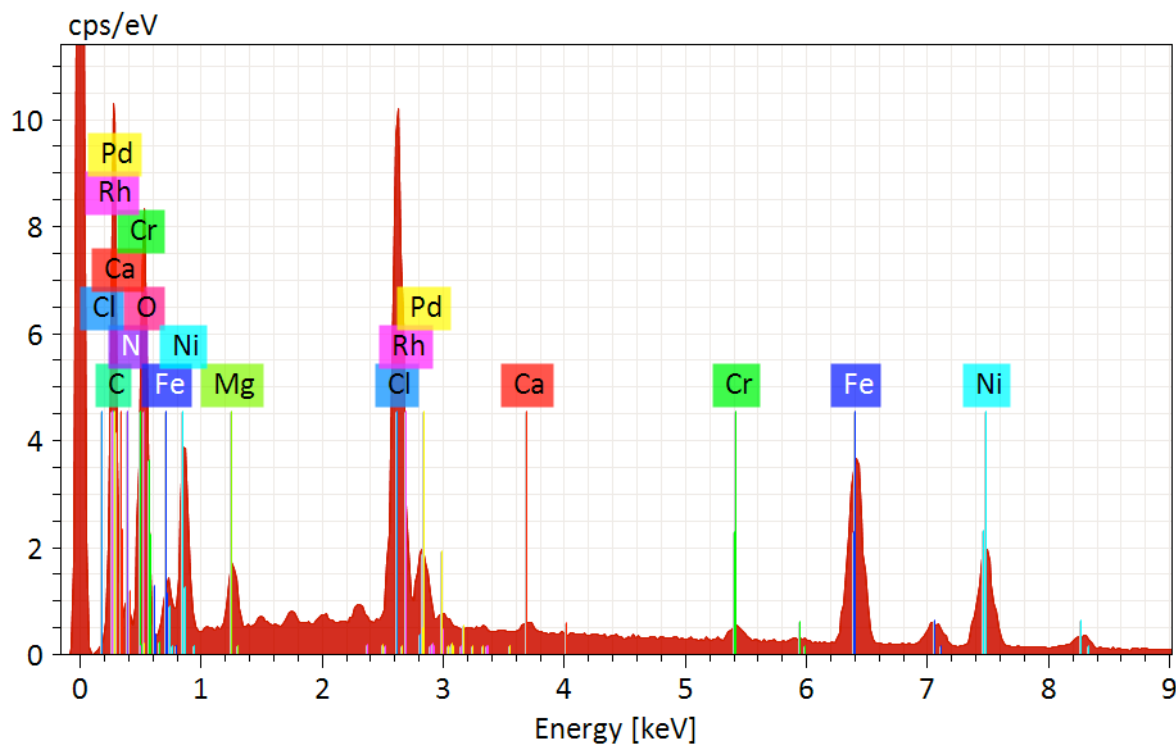
Omasa Vibrator Pd MgCl2 1000

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	14105	29.24	35.12	53.79	3.93	13.45
O	8	K-Series	22400	23.00	27.62	31.76	2.94	12.78
Mg	12	K-Series	3603	0.96	1.16	0.88	0.08	8.47
Cl	17	K-Series	42468	7.98	9.58	4.97	0.29	3.69
Ca	20	K-Series	2257	0.70	0.84	0.39	0.05	7.44
Cr	24	K-Series	971	0.49	0.59	0.21	0.05	9.75
Fe	26	K-Series	9308	6.97	8.37	2.76	0.25	3.53
Ni	28	K-Series	11577	13.93	16.72	5.24	0.48	3.43
			<b>Sum</b>	<b>83.28</b>	<b>100.00</b>	<b>100.00</b>		



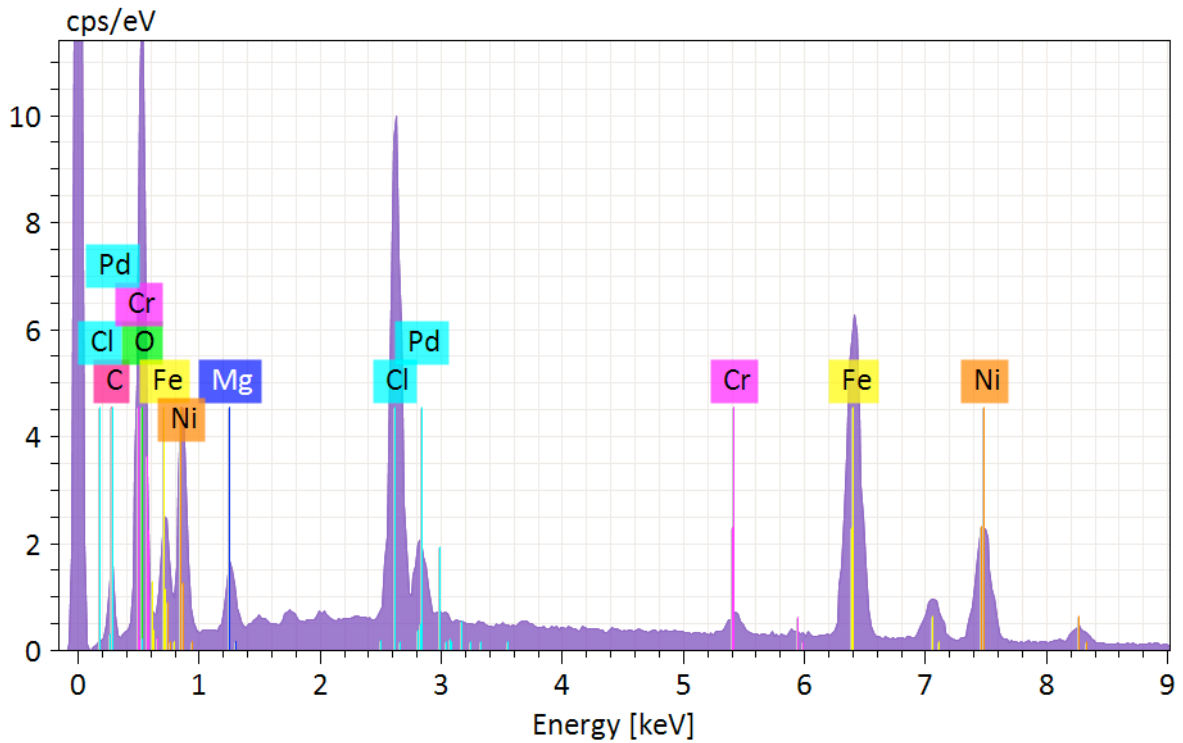
Omasa Vibrator Pd MgCl2 1001

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Serie	2025	6.54	7.81	19.32	1.26	19.27
O	8	K-Serie	20557	17.93	21.41	39.77	2.32	12.93
Mg	12	K-Serie	1189	0.54	0.65	0.79	0.06	11.41
Cl	17	K-Serie	33633	8.63	10.31	8.64	0.32	3.68
Cr	24	K-Serie	1191	0.69	0.82	0.47	0.06	8.00
Fe	26	K-Serie	38274	36.55	43.64	23.22	1.11	3.05
Ni	28	K-Serie	8440	12.86	15.36	7.78	0.45	3.51
			Sum	83.75	100.00	100.00		



Omasa Vibrator Pd MgCl2 1002

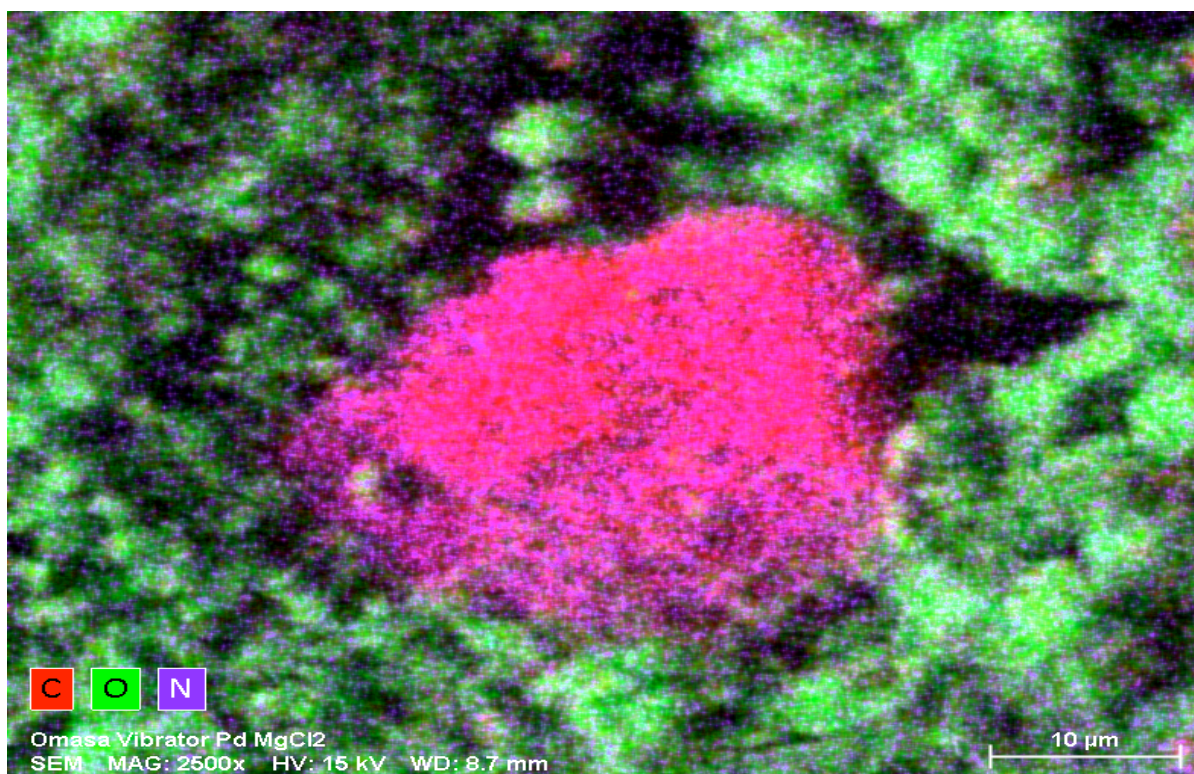
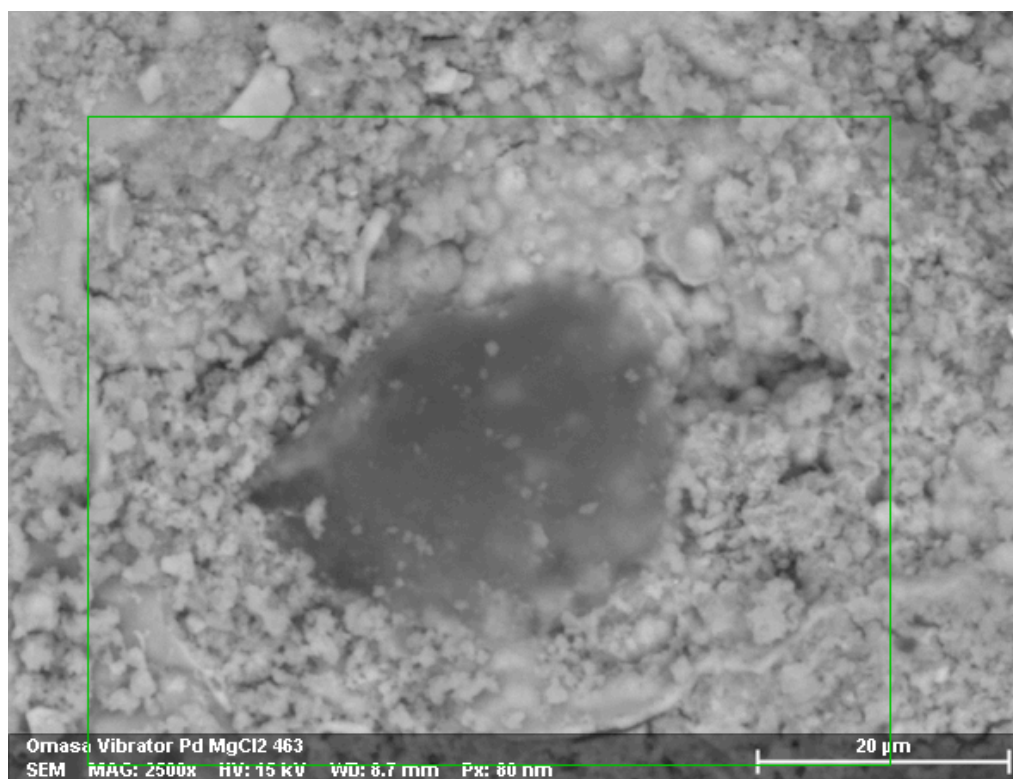
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Serie	810	2.75	3.45	8.26	0.69	24.96
N	7	K-Serie	1877	5.02	6.30	12.91	0.99	19.73
O	8	K-Serie	15370	18.01	22.59	40.53	2.41	13.37
Mg	12	K-Serie	3457	1.63	2.04	2.41	0.12	7.43
Cl	17	K-Serie	34691	9.61	12.05	9.76	0.35	3.65
Ca	20	K-Serie	986	0.40	0.51	0.36	0.04	10.92
Cr	24	K-Serie	1365	0.91	1.14	0.63	0.06	6.97
Fe	26	K-Serie	19640	20.23	25.37	13.04	0.64	3.16
Ni	28	K-Serie	10872	17.88	22.42	10.97	0.61	3.40
Rh	45	L-Serie	5214	2.23	2.79	0.78	0.11	4.79
Pd	46	L-Serie	2264	1.06	1.33	0.36	0.07	6.43
			<b>Sum</b>	<b>79.74</b>	<b>100.00</b>	<b>100.00</b>		



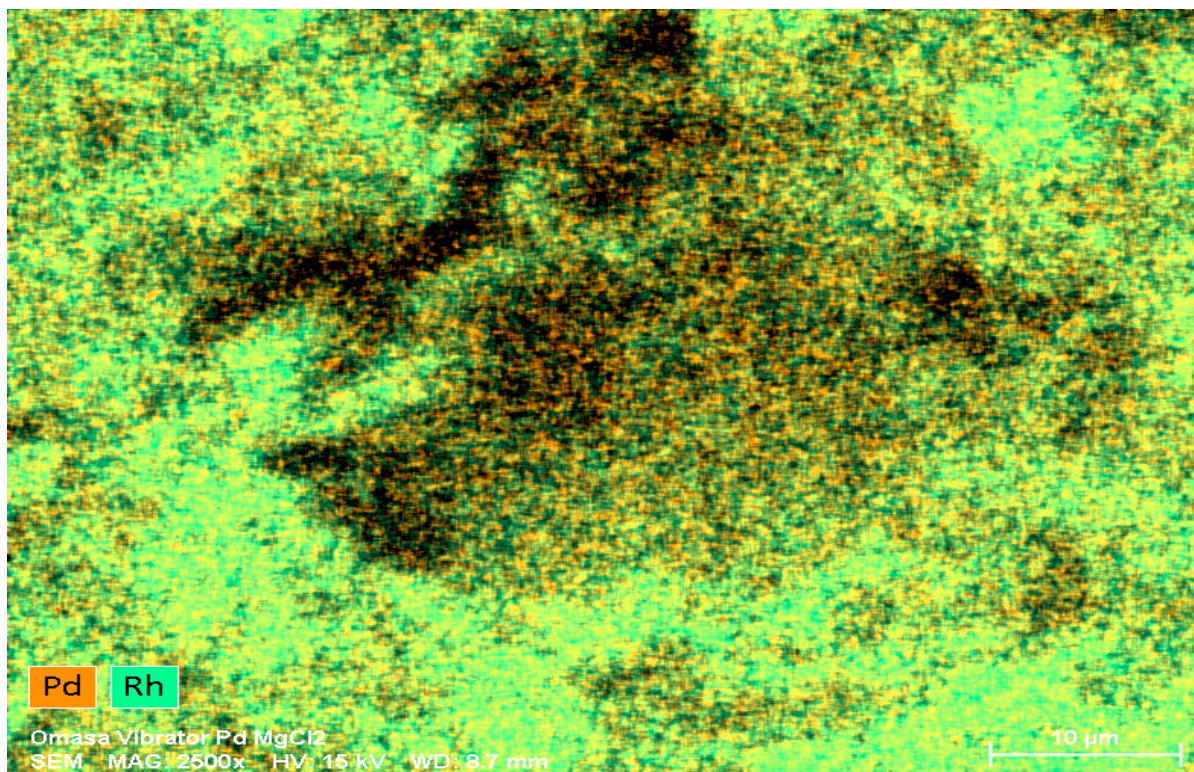
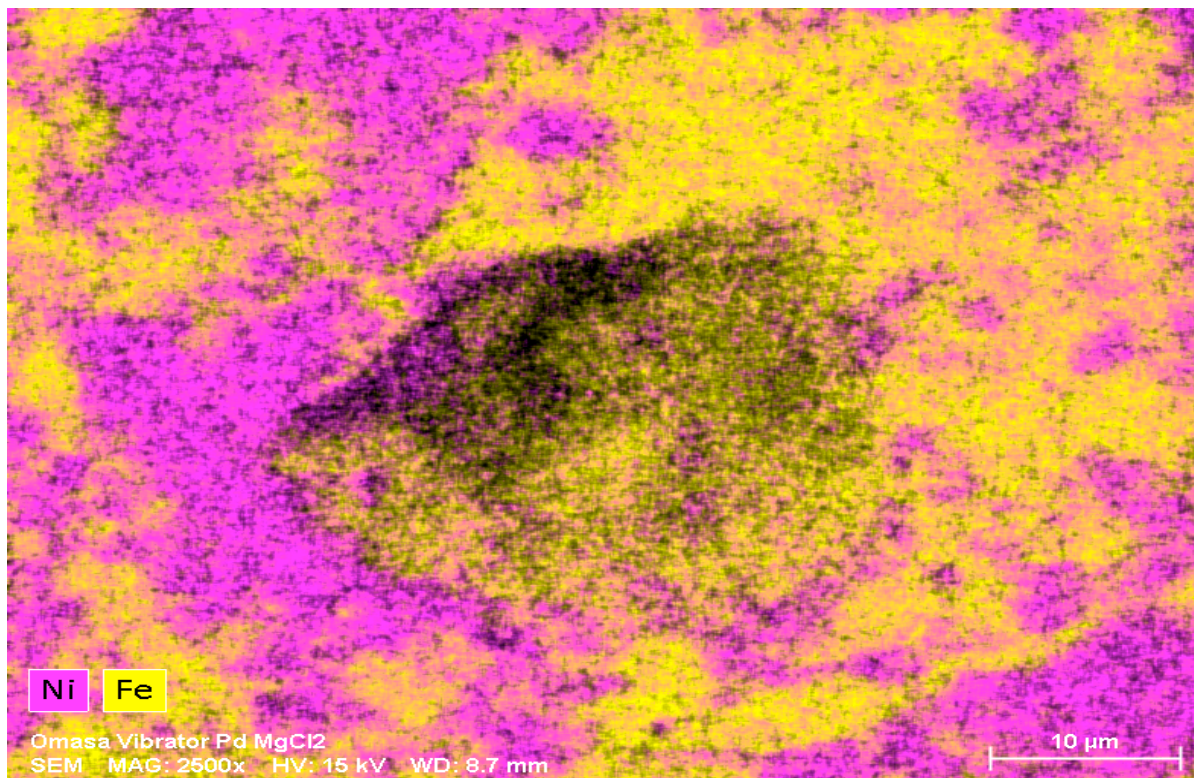
Omasa Vibrator Pd MgCl<sub>2</sub> 1003

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	1880	5.85	6.36	15.46	1.15	19.65
O	8	K-Series	25827	22.96	24.95	45.53	2.89	12.60
Mg	12	K-Series	2785	1.38	1.50	1.80	0.11	7.84
Cl	17	K-Series	33515	9.47	10.29	8.48	0.35	3.66
Cr	24	K-Series	1837	1.09	1.18	0.66	0.07	6.23
Fe	26	K-Series	32117	30.43	33.07	17.29	0.94	3.07
Ni	28	K-Series	12336	18.81	20.43	10.17	0.63	3.37
Pd	46	L-Series	4310	2.04	2.22	0.61	0.10	4.91
			<b>Sum</b>	<b>92.03</b>	<b>100.00</b>	<b>100.00</b>		

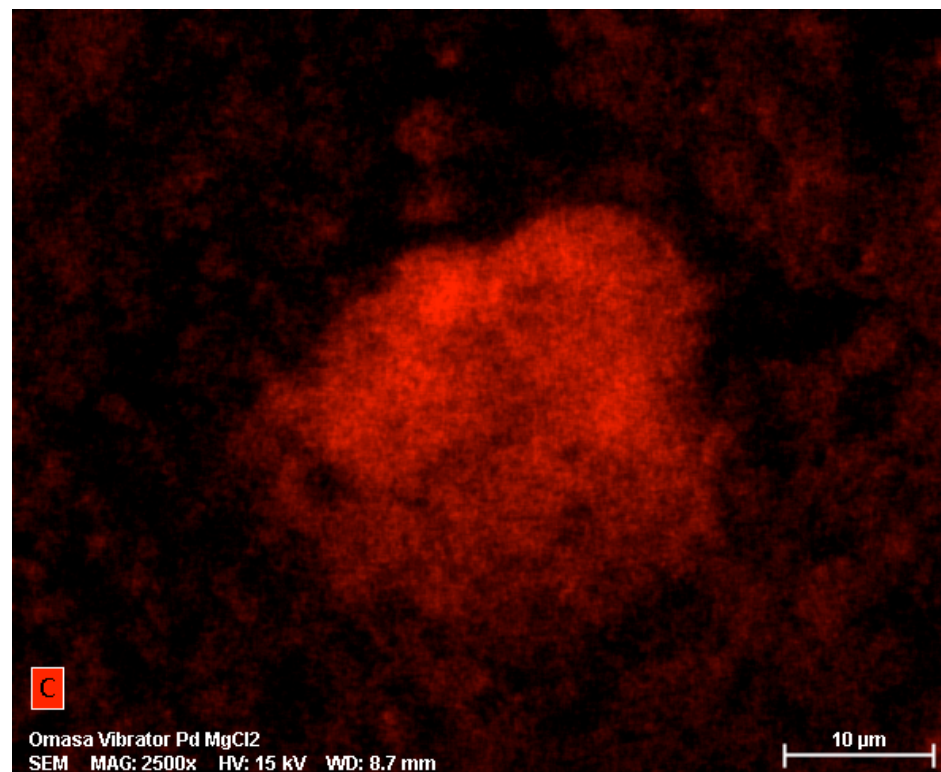
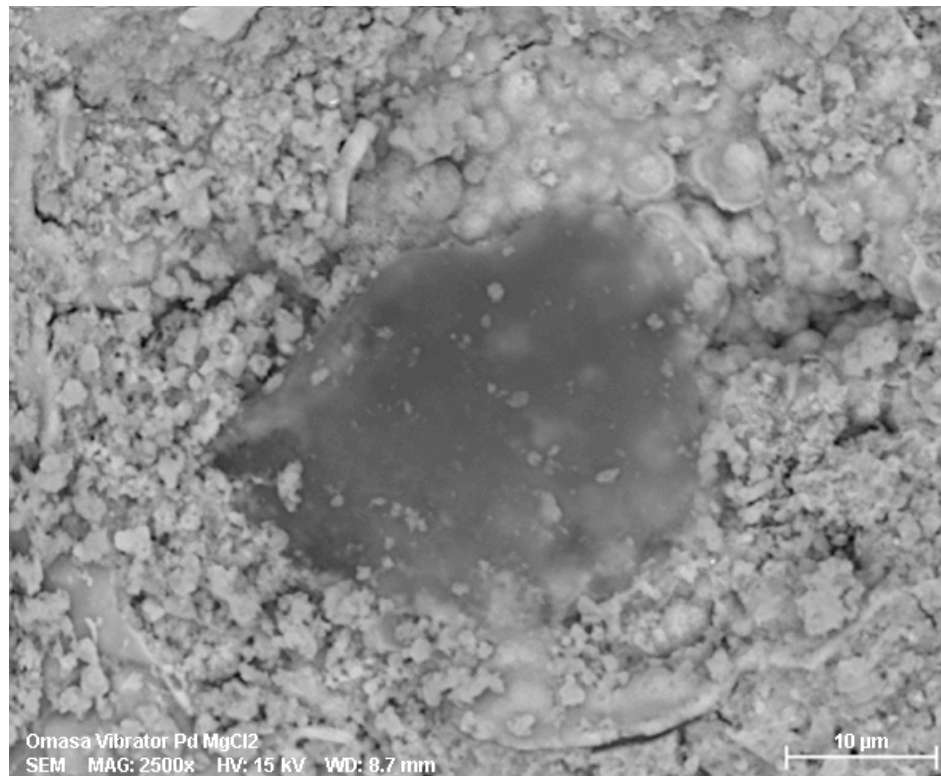


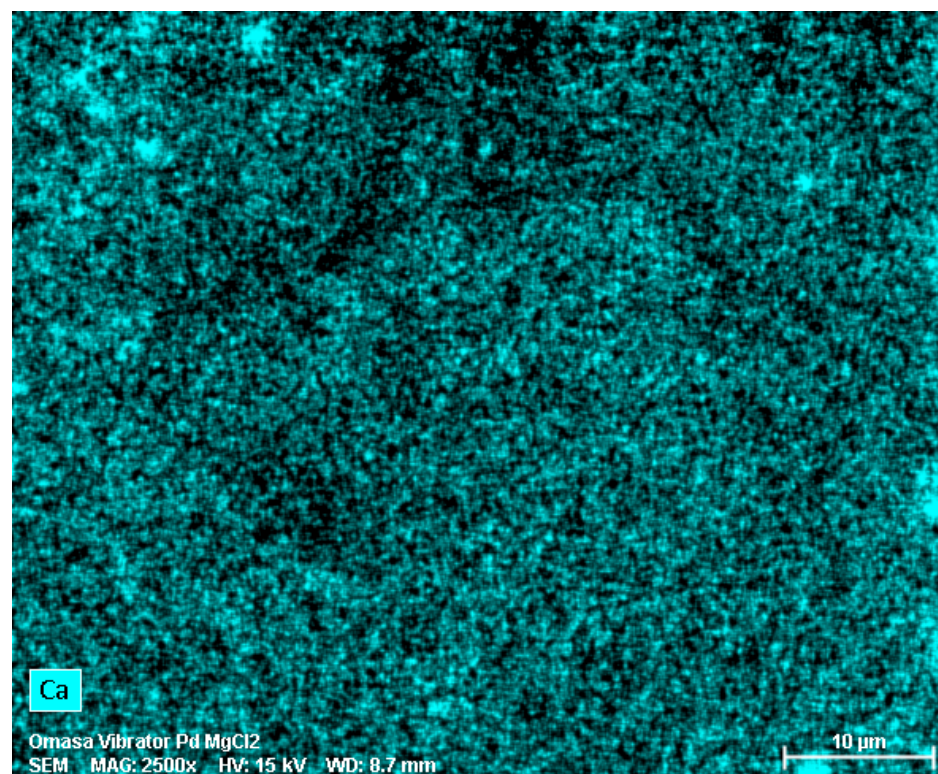
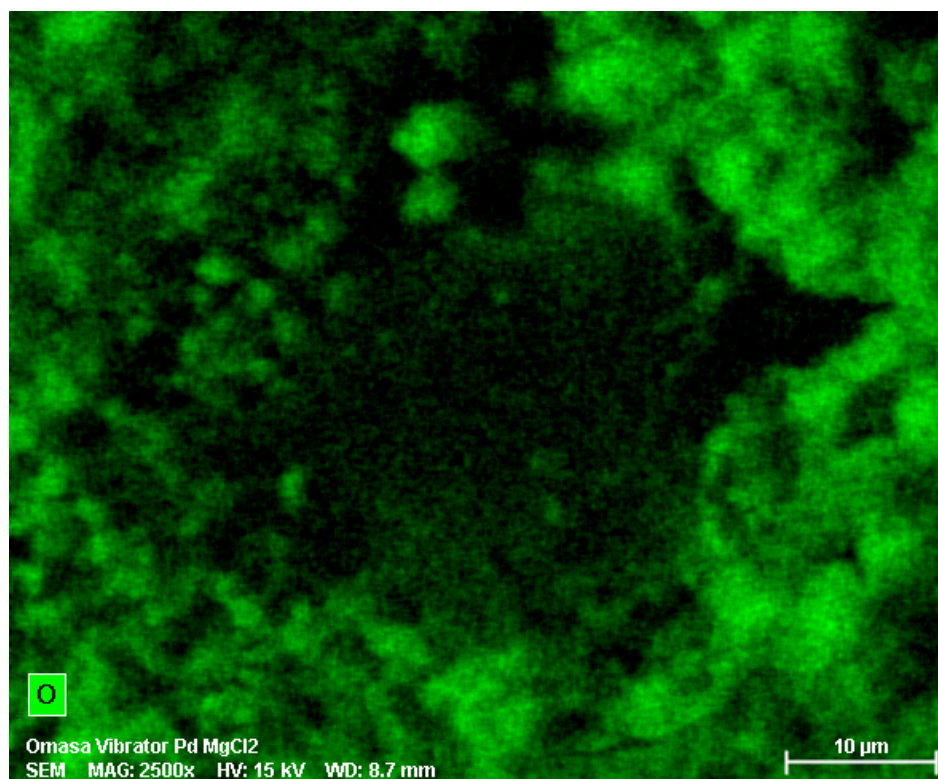




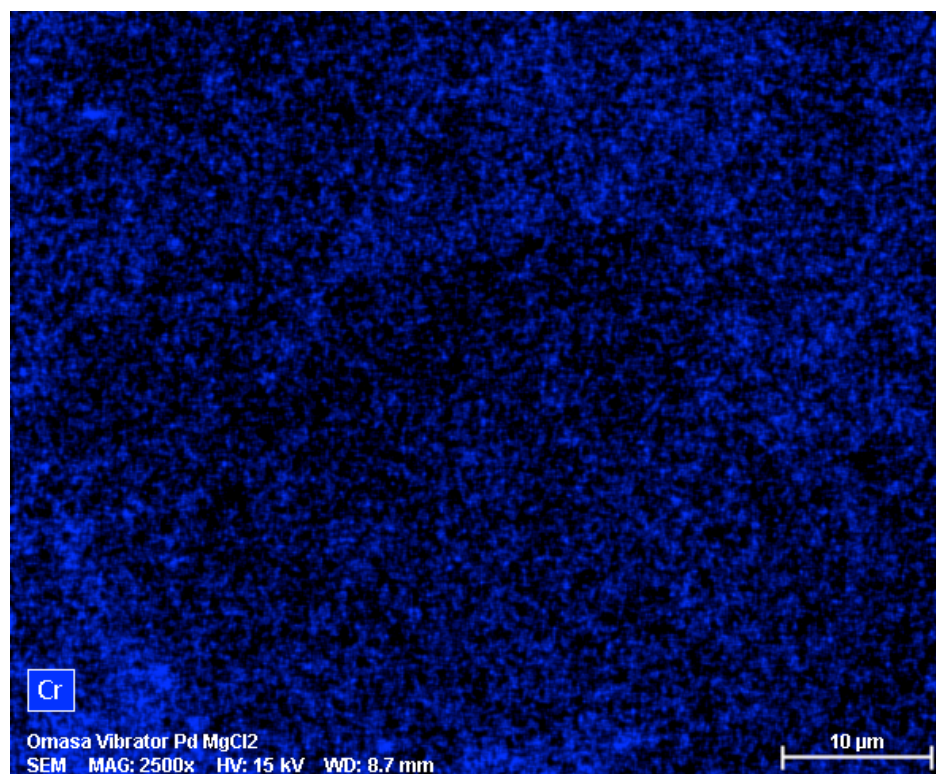
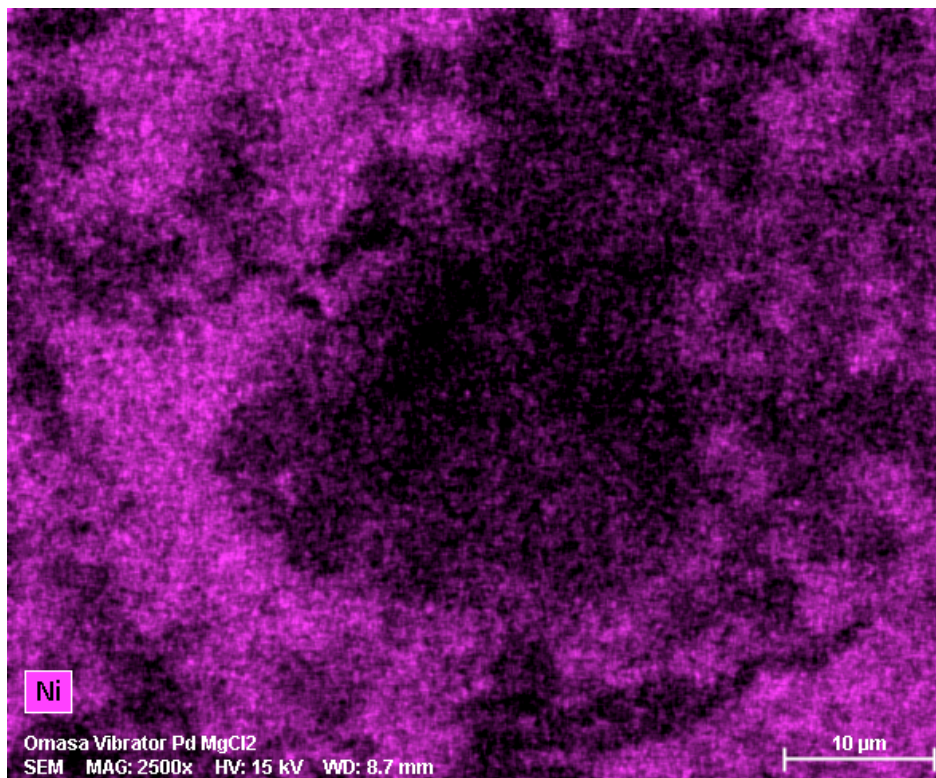


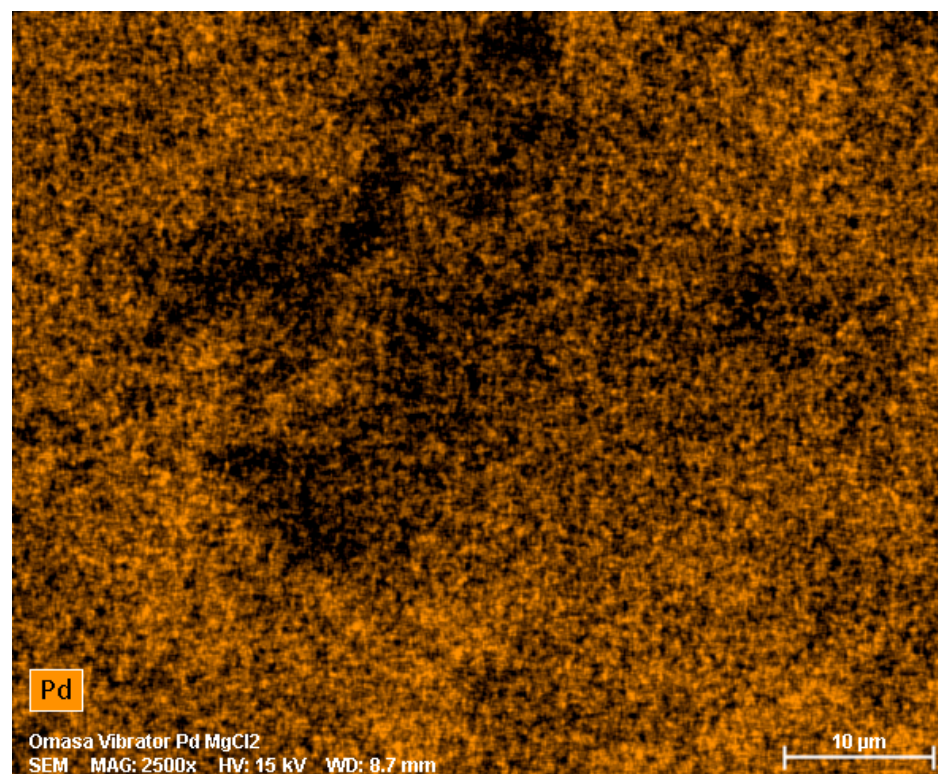
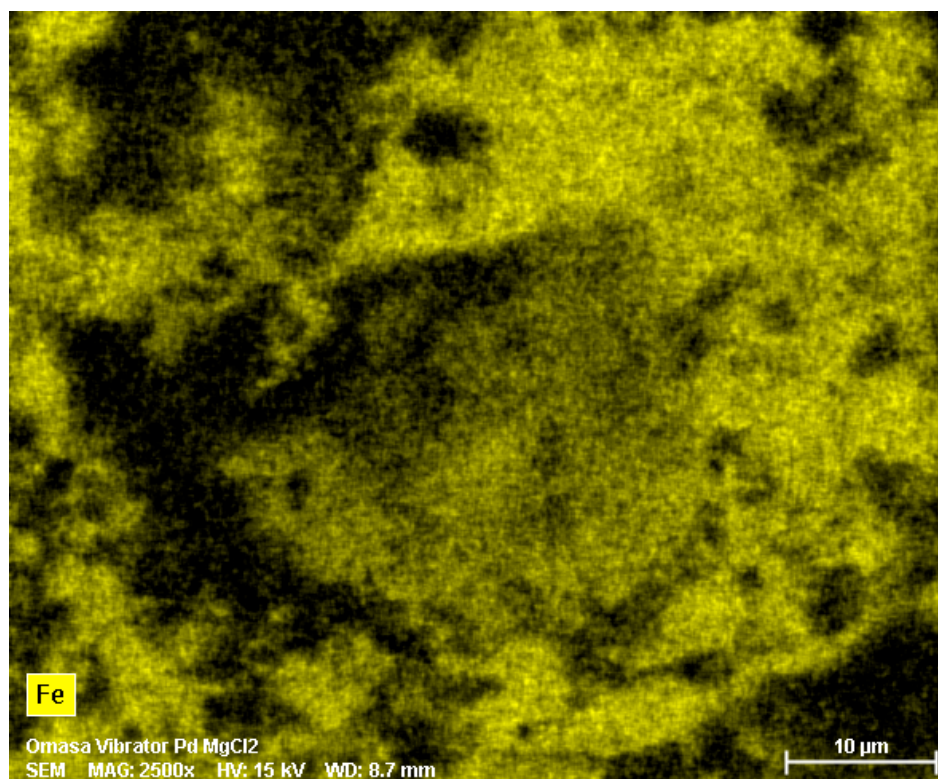




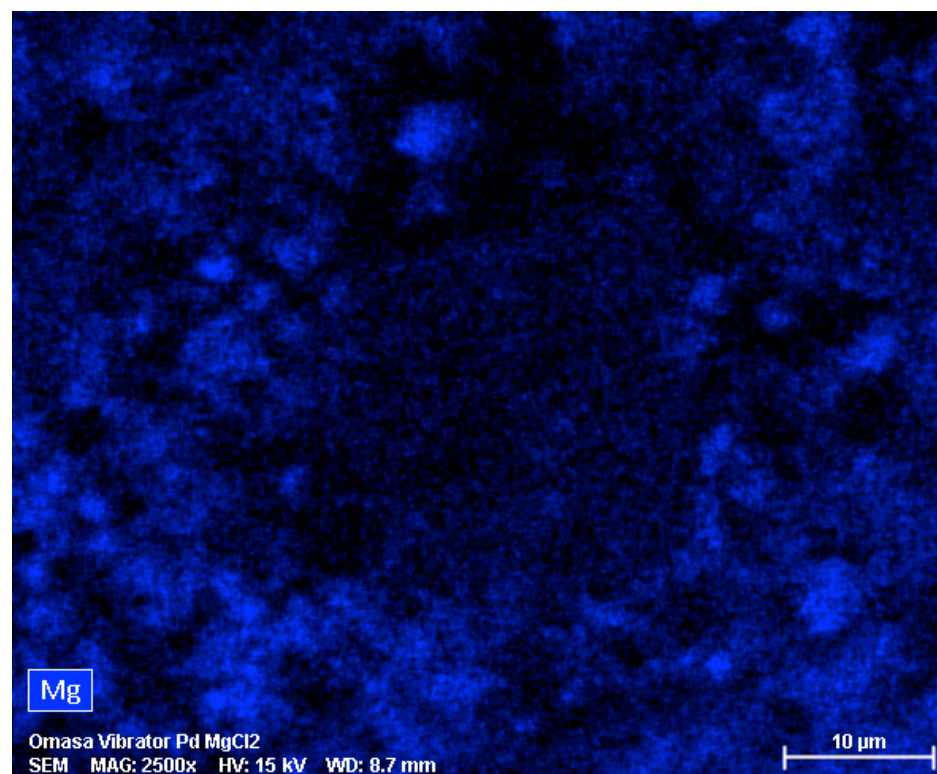
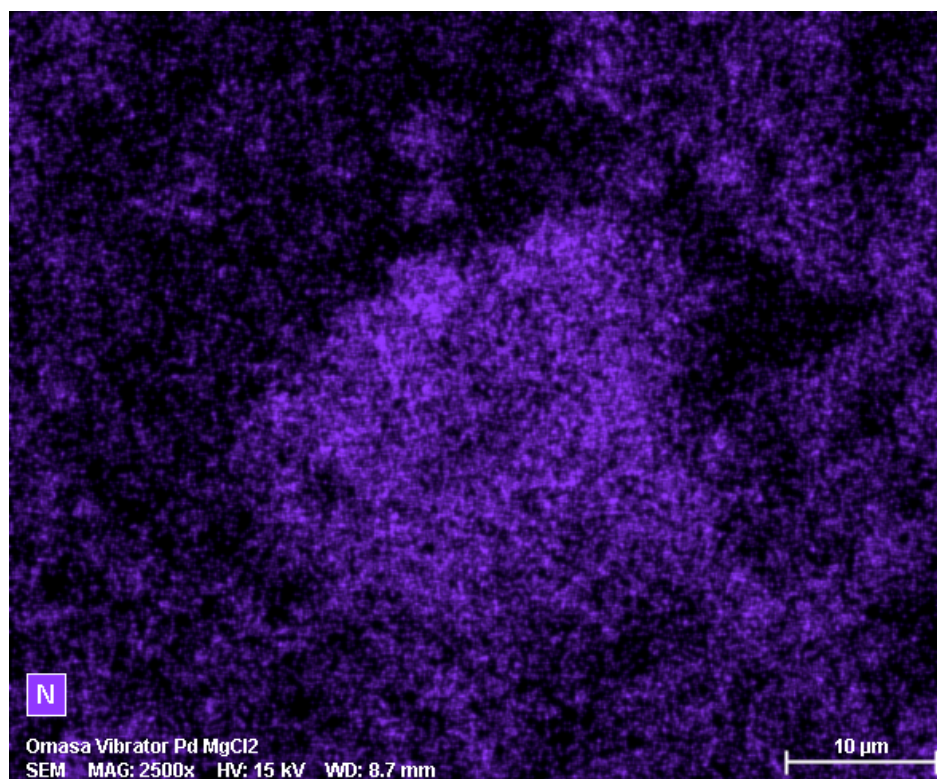




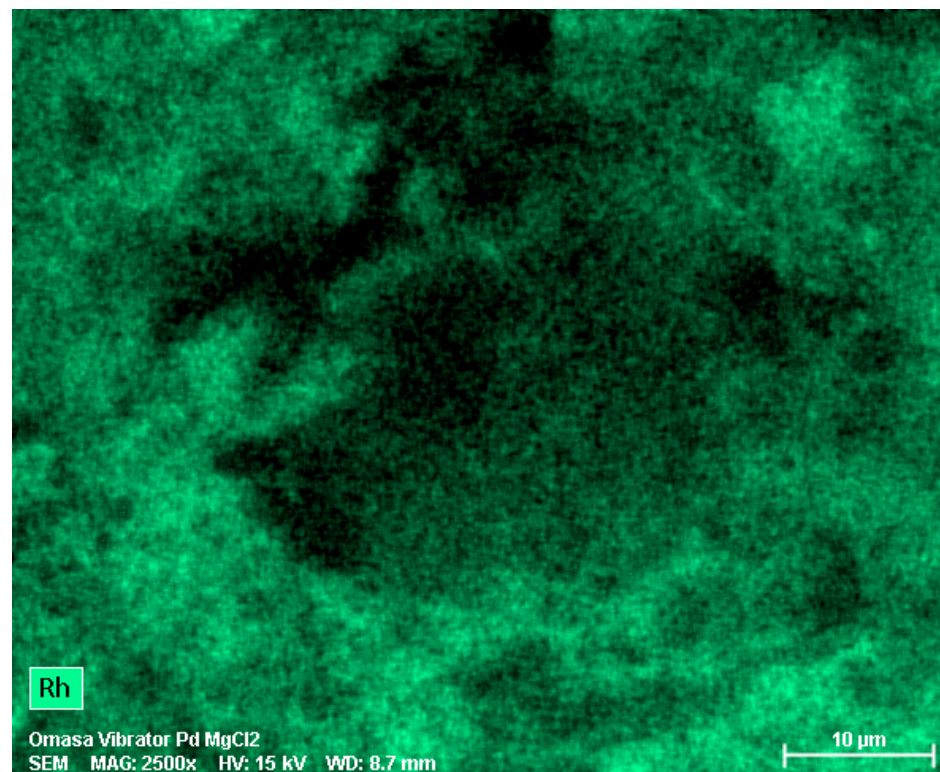
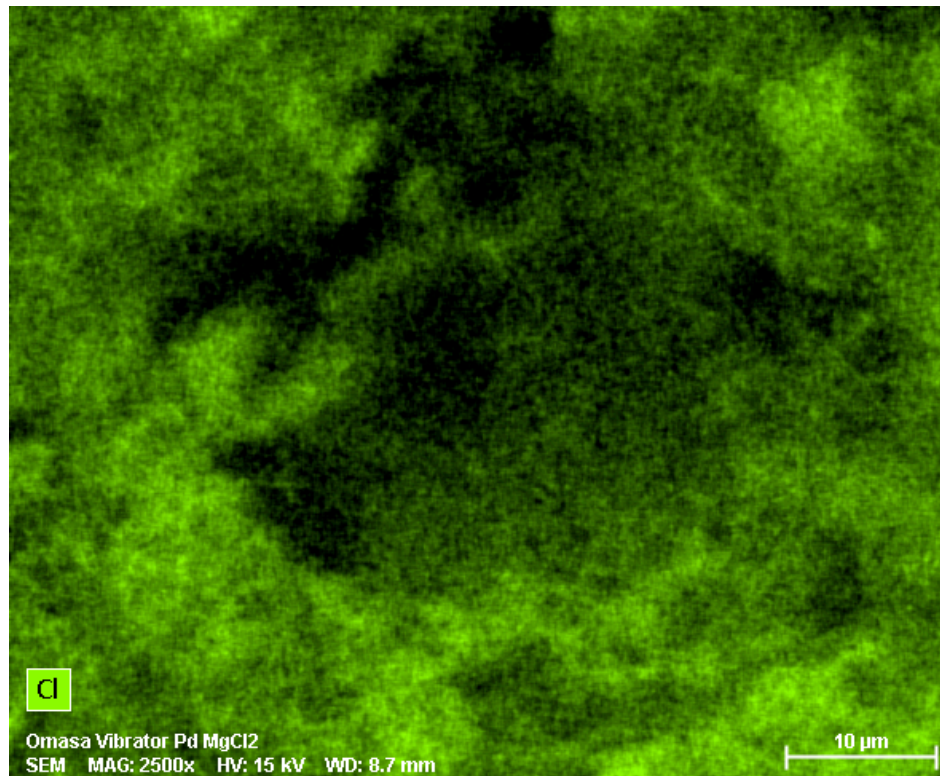


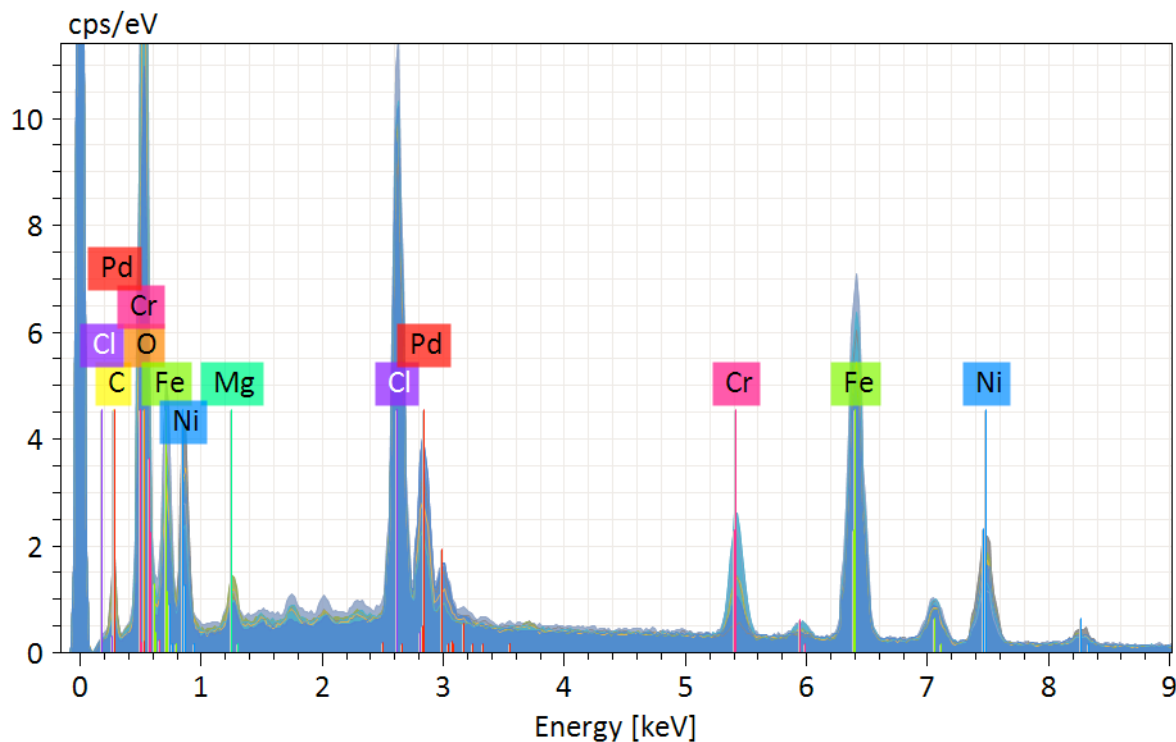
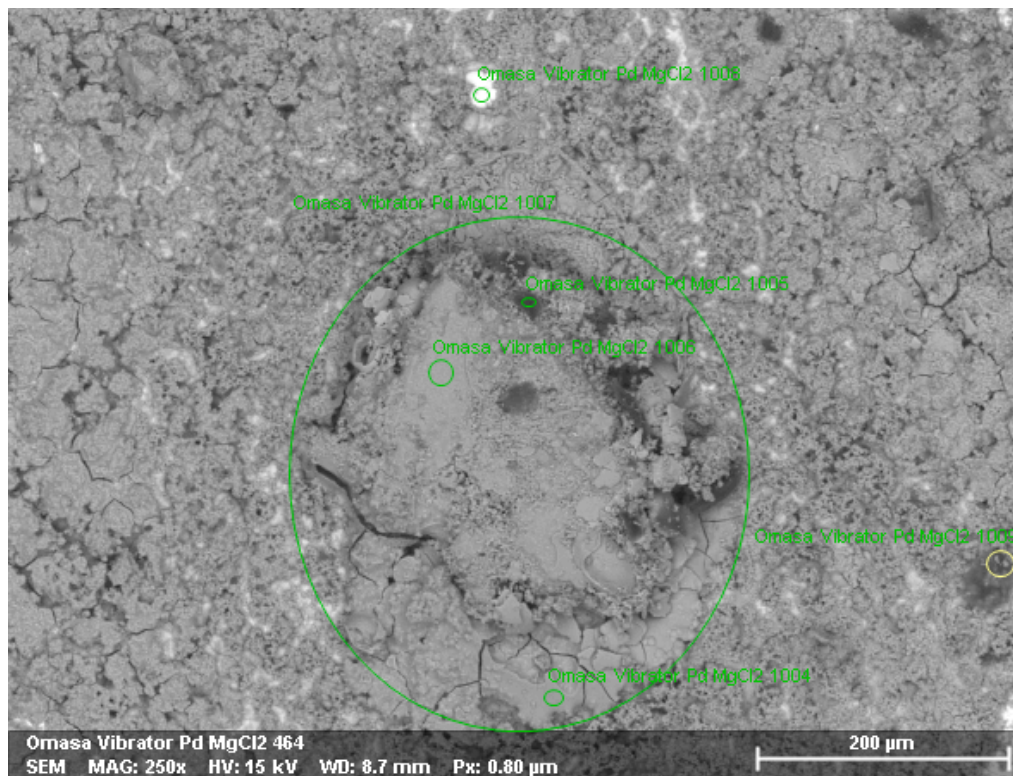












# MFMP Analysis

Madic Sound Lab. CA. US / SEM & EDS

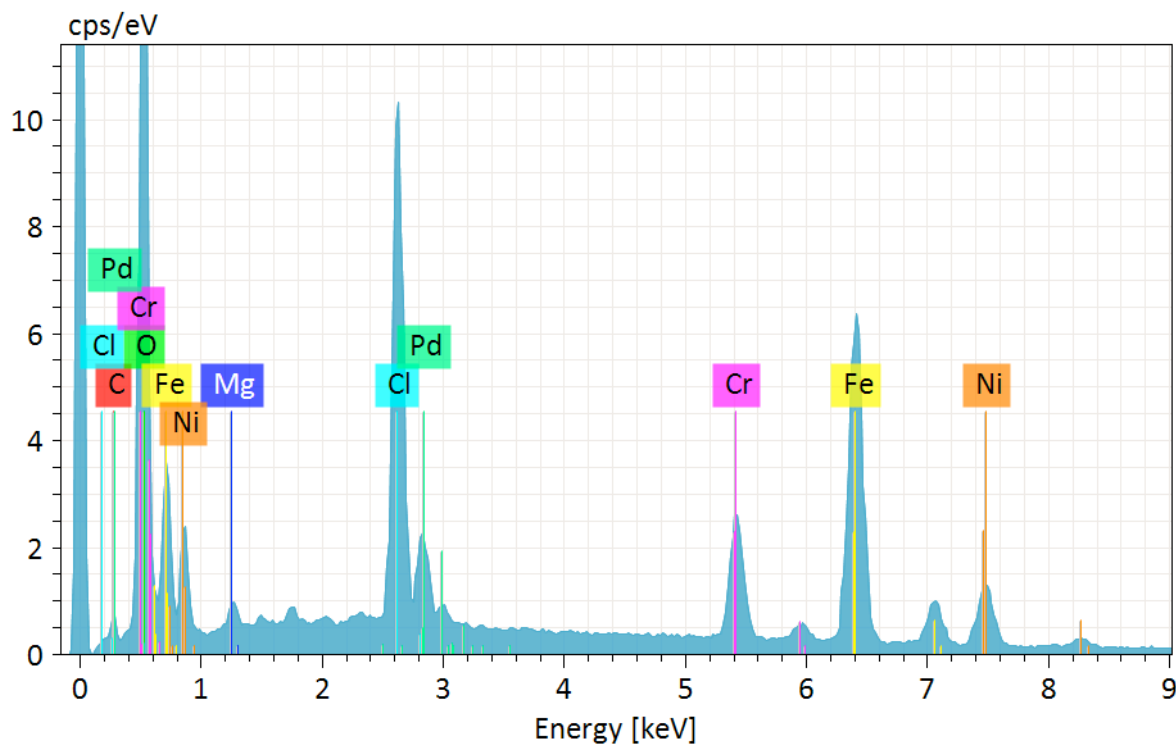


Atomic concentration [%]

Spectrum	C	O	Mg	Cl	Cr	Fe	Ni	Pd
Omasa Vibrator Pd MgCl2 1004	2.13	58.37	0.80	9.25	4.48	18.60	5.54	0.83
Omasa Vibrator Pd MgCl2 1005	8.42	56.75	1.58	8.74	2.13	14.09	7.48	0.83
Omasa Vibrator Pd MgCl2 1006	4.15	61.24	0.70	8.05	3.22	16.99	3.95	1.70
Omasa Vibrator Pd MgCl2 1007	9.08	53.00	1.34	9.26	2.21	15.87	7.76	1.47
Omasa Vibrator Pd MgCl2 1008		54.60	1.23	12.39	1.61	18.09	8.69	3.38
Omasa Vibrator Pd MgCl2 1009	15.37	49.16	0.98	7.48	0.38	15.85	9.10	1.67
Mean	<b>7.83</b>	<b>55.52</b>	<b>1.11</b>	<b>9.19</b>	<b>2.34</b>	<b>16.58</b>	<b>7.08</b>	<b>1.64</b>
Sigma	<b>5.12</b>	<b>4.24</b>	<b>0.34</b>	<b>1.71</b>	<b>1.40</b>	<b>1.66</b>	<b>1.97</b>	<b>0.94</b>
SigmaMean	<b>2.09</b>	<b>1.73</b>	<b>0.14</b>	<b>0.70</b>	<b>0.57</b>	<b>0.68</b>	<b>0.81</b>	<b>0.38</b>

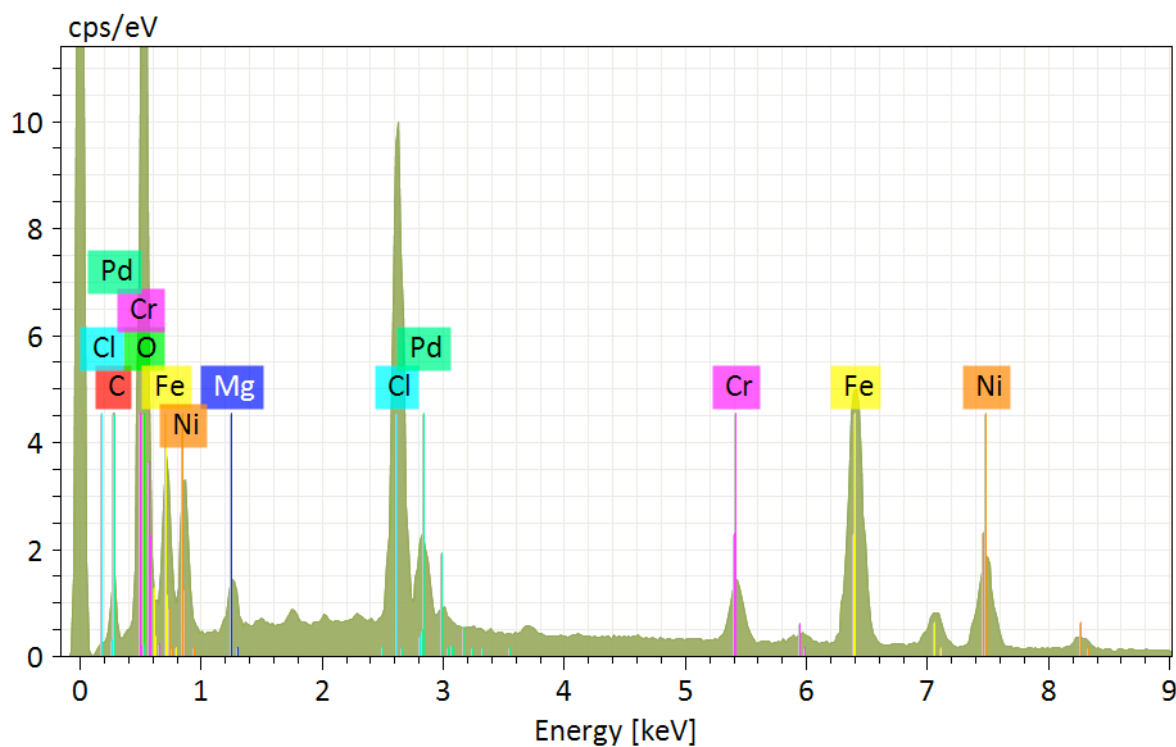
Normalized mass concentration [%]

Spectrum	C	O	Mg	Cl	Cr	Fe	Ni	Pd
Omasa Vibrator Pd MgCl2 1004	0.86	31.22	0.65	10.96	7.78	34.72	10.87	2.94
Omasa Vibrator Pd MgCl2 1005	3.64	32.65	1.38	11.14	3.97	28.29	15.78	3.16
Omasa Vibrator Pd MgCl2 1006	1.74	34.25	0.60	9.97	5.86	33.17	8.10	6.31
Omasa Vibrator Pd MgCl2 1007	3.72	28.93	1.11	11.20	3.92	30.24	15.53	5.35
Omasa Vibrator Pd MgCl2 1008		26.42	0.91	13.28	2.53	30.55	15.42	10.89
Omasa Vibrator Pd MgCl2 1009	6.42	27.34	0.83	9.22	0.69	30.77	18.57	6.16
Mean	<b>3.28</b>	<b>30.13</b>	<b>0.91</b>	<b>10.96</b>	<b>4.13</b>	<b>31.29</b>	<b>14.04</b>	<b>5.80</b>
Sigma	<b>2.14</b>	<b>3.08</b>	<b>0.29</b>	<b>1.38</b>	<b>2.48</b>	<b>2.29</b>	<b>3.82</b>	<b>2.89</b>
SigmaMean	<b>0.88</b>	<b>1.26</b>	<b>0.12</b>	<b>0.56</b>	<b>1.01</b>	<b>0.94</b>	<b>1.56</b>	<b>1.18</b>



Omasa Vibrator Pd MgCl2 1004

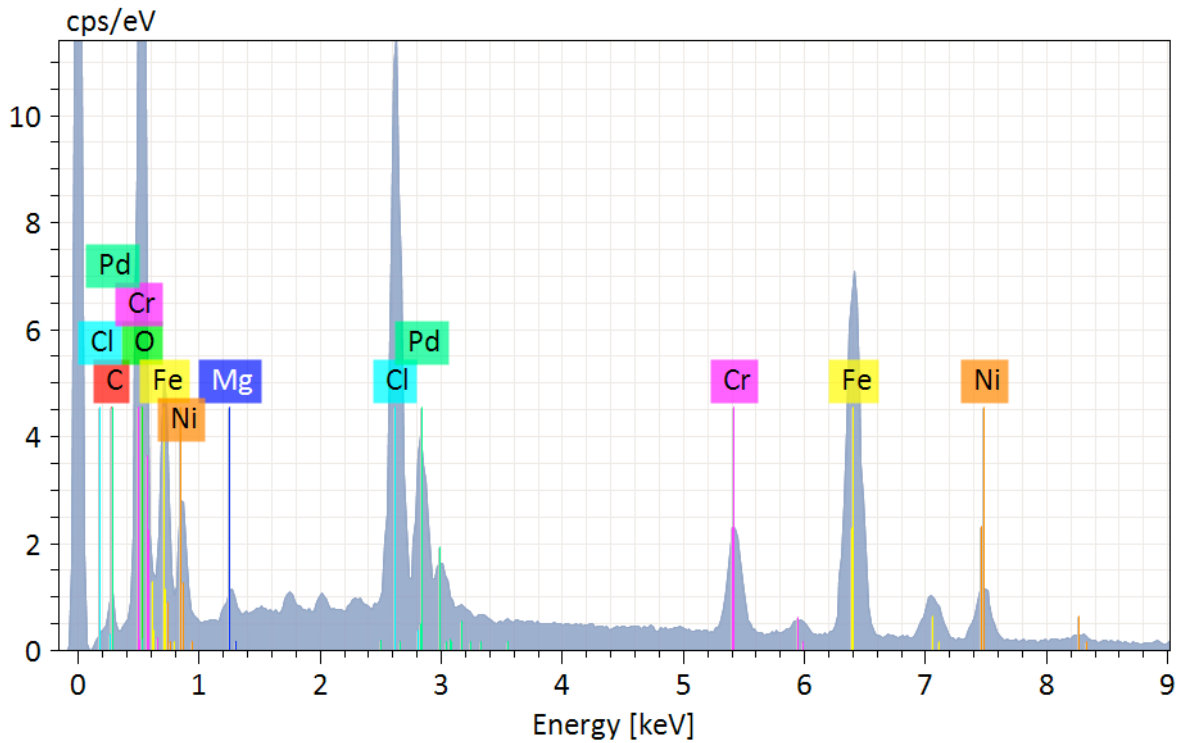
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C		6 K-Series	241	0.77	0.86	2.13	0.30	39.01
O		8 K-Series	32771	27.97	31.22	58.37	3.44	12.30
Mg		12 K-Series	1096	0.59	0.65	0.80	0.07	11.16
Cl		17 K-Series	31703	9.82	10.96	9.25	0.36	3.65
Cr		24 K-Series	10439	6.97	7.78	4.48	0.24	3.45
Fe		26 K-Series	29494	31.10	34.72	18.60	0.96	3.08
Ni		28 K-Series	5952	9.74	10.87	5.54	0.36	3.68
Pd		46 L-Series	5039	2.63	2.94	0.83	0.12	4.57
			<b>Sum</b>	<b>89.58</b>	<b>100.00</b>	<b>100.00</b>		



Omasa Vibrator Pd MgCl2 1005

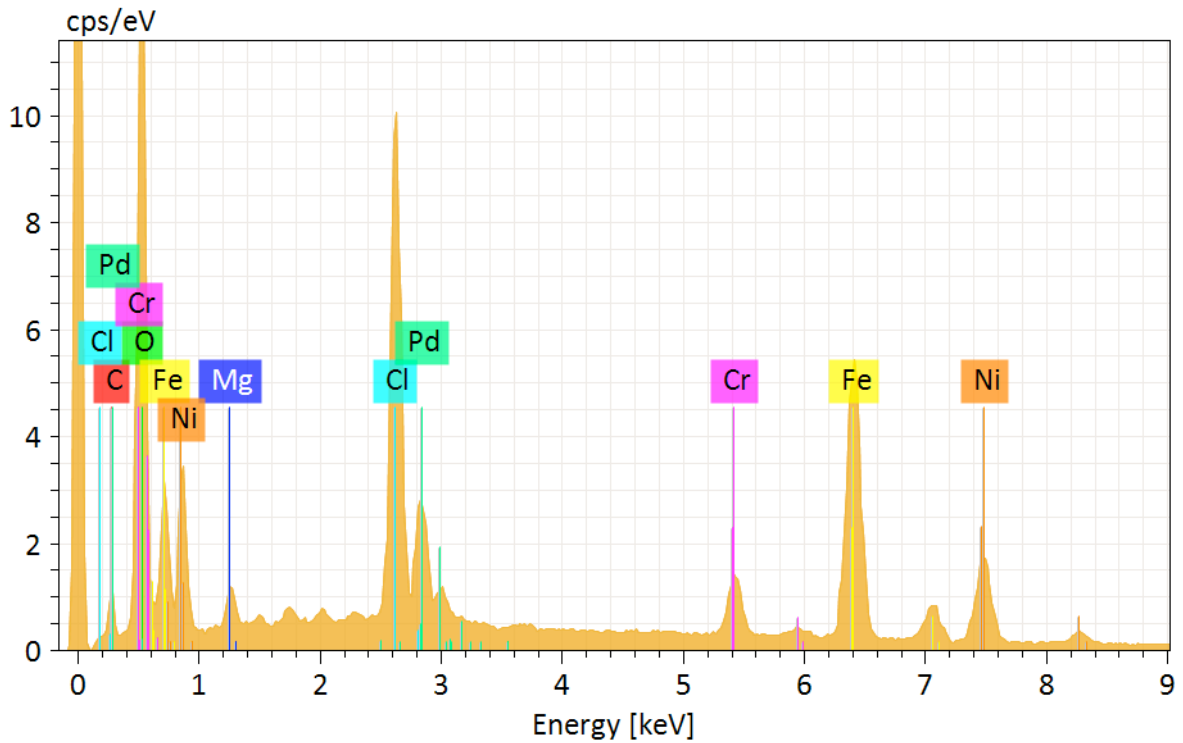
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	1023	3.12	3.64	8.42	0.73	23.31
O	8	K-Series	33191	28.02	32.65	56.75	3.44	12.28
Mg	12	K-Series	2372	1.19	1.38	1.58	0.10	8.24
Cl	17	K-Series	32332	9.56	11.14	8.74	0.35	3.66
Cr	24	K-Series	5391	3.41	3.97	2.13	0.14	4.02
Fe	26	K-Series	25072	24.28	28.29	14.09	0.76	3.12
Ni	28	K-Series	9075	13.54	15.78	7.48	0.47	3.48
Pd	46	L-Series	5428	2.71	3.16	0.83	0.12	4.51
			<b>Sum</b>	<b>85.82</b>	<b>100.00</b>	<b>100.00</b>		





Omasa Vibrator Pd MgCl2 1006

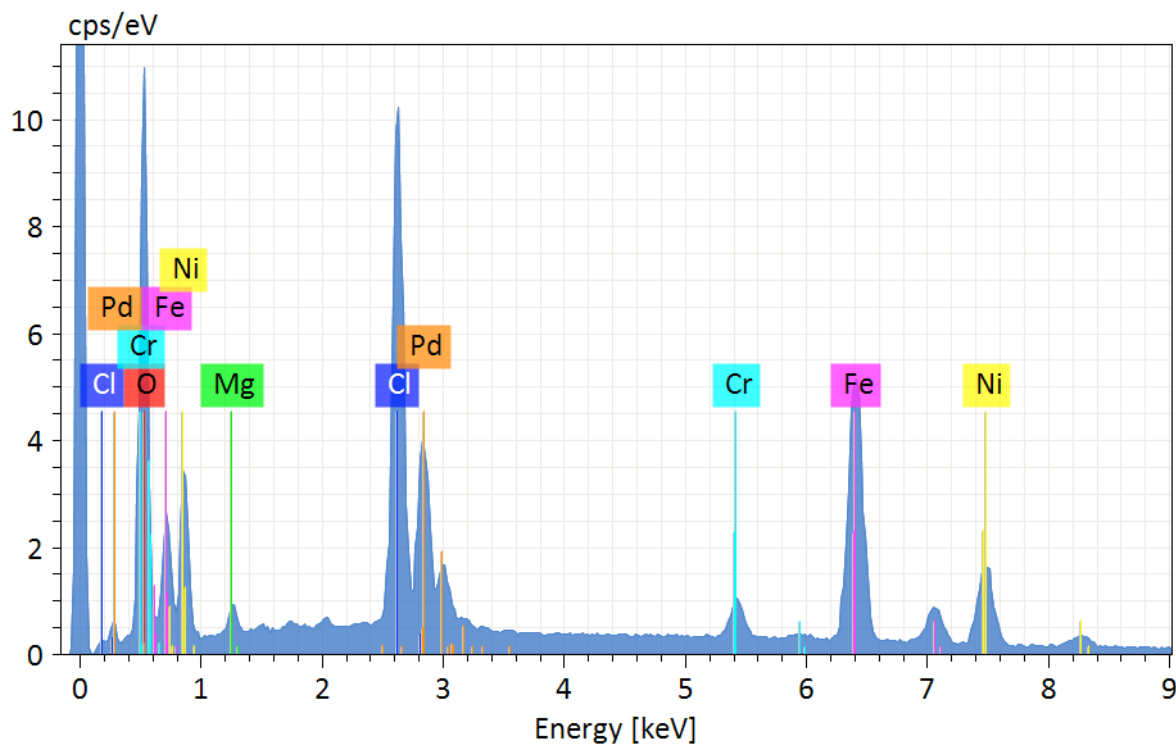
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	530	1.54	1.74	4.15	0.45	28.99
O	8	K-Series	33601	30.32	34.25	61.24	3.72	12.26
Mg	12	K-Series	1027	0.53	0.60	0.70	0.06	11.71
Cl	17	K-Series	28955	8.83	9.97	8.05	0.33	3.69
Cr	24	K-Series	7570	5.19	5.86	3.22	0.19	3.65
Fe	26	K-Series	27543	29.37	33.17	16.99	0.91	3.09
Ni	28	K-Series	4391	7.17	8.10	3.95	0.28	3.89
Pd	46	L-Series	10874	5.58	6.31	1.70	0.21	3.84
			<b>Sum</b>	<b>88.53</b>	<b>100.00</b>	<b>100.00</b>		



Omasa Vibrator Pd MgCl2 1007

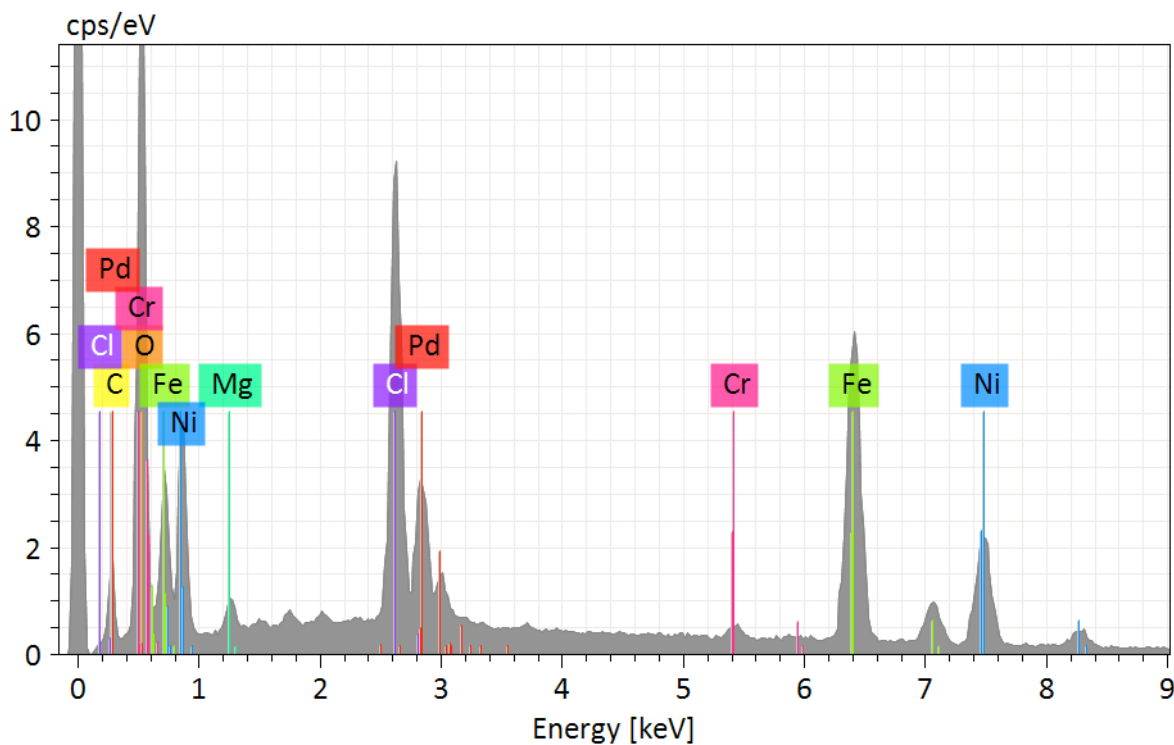
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	1085	3.38	3.72	9.08	0.77	22.88
O	8	K-Series	28072	26.26	28.93	53.00	3.28	12.48
Mg	12	K-Series	1926	1.01	1.11	1.34	0.09	8.78
Cl	17	K-Series	33276	10.17	11.20	9.26	0.37	3.64
Cr	24	K-Series	5553	3.56	3.92	2.21	0.14	3.97
Fe	26	K-Series	27337	27.46	30.24	15.87	0.85	3.10
Ni	28	K-Series	8907	14.10	15.53	7.76	0.49	3.48
Pd	46	L-Series	9392	4.85	5.35	1.47	0.19	3.94
			<b>Sum</b>	<b>90.79</b>	<b>100.00</b>	<b>100.00</b>		





Omasa Vibrator Pd MgCl<sub>2</sub> 1008

Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
O	8	K-Series	22485	22.89	26.42	54.60	2.92	12.78
Mg	12	K-Series	1365	0.79	0.91	1.23	0.08	9.82
Cl	17	K-Series	34579	11.51	13.28	12.39	0.42	3.61
Cr	24	K-Series	3358	2.19	2.53	1.61	0.10	4.64
Fe	26	K-Series	26617	26.47	30.55	18.09	0.82	3.10
Ni	28	K-Series	8668	13.36	15.42	8.69	0.47	3.50
Pd	46	L-Series	16550	9.44	10.89	3.38	0.34	3.59
			<b>Sum</b>	<b>86.63</b>	<b>100.00</b>	<b>100.00</b>		

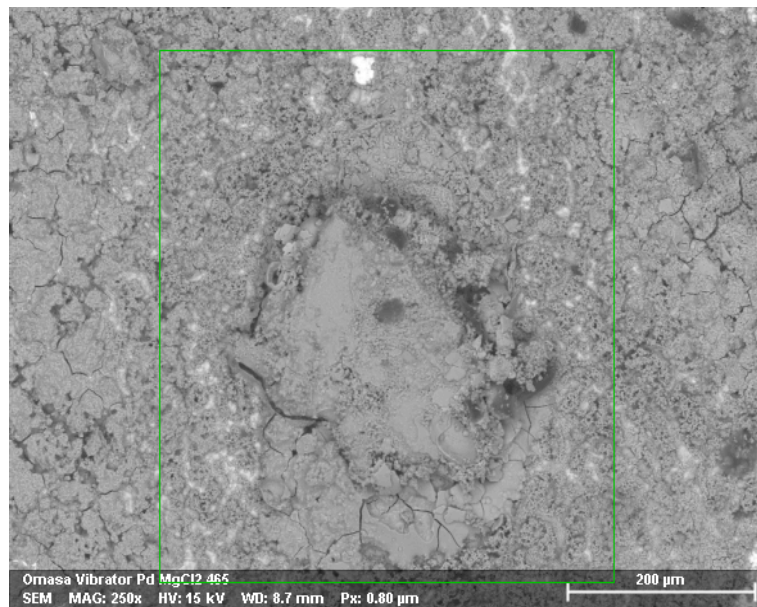


Omasa Vibrator Pd MgCl<sub>2</sub> 1009

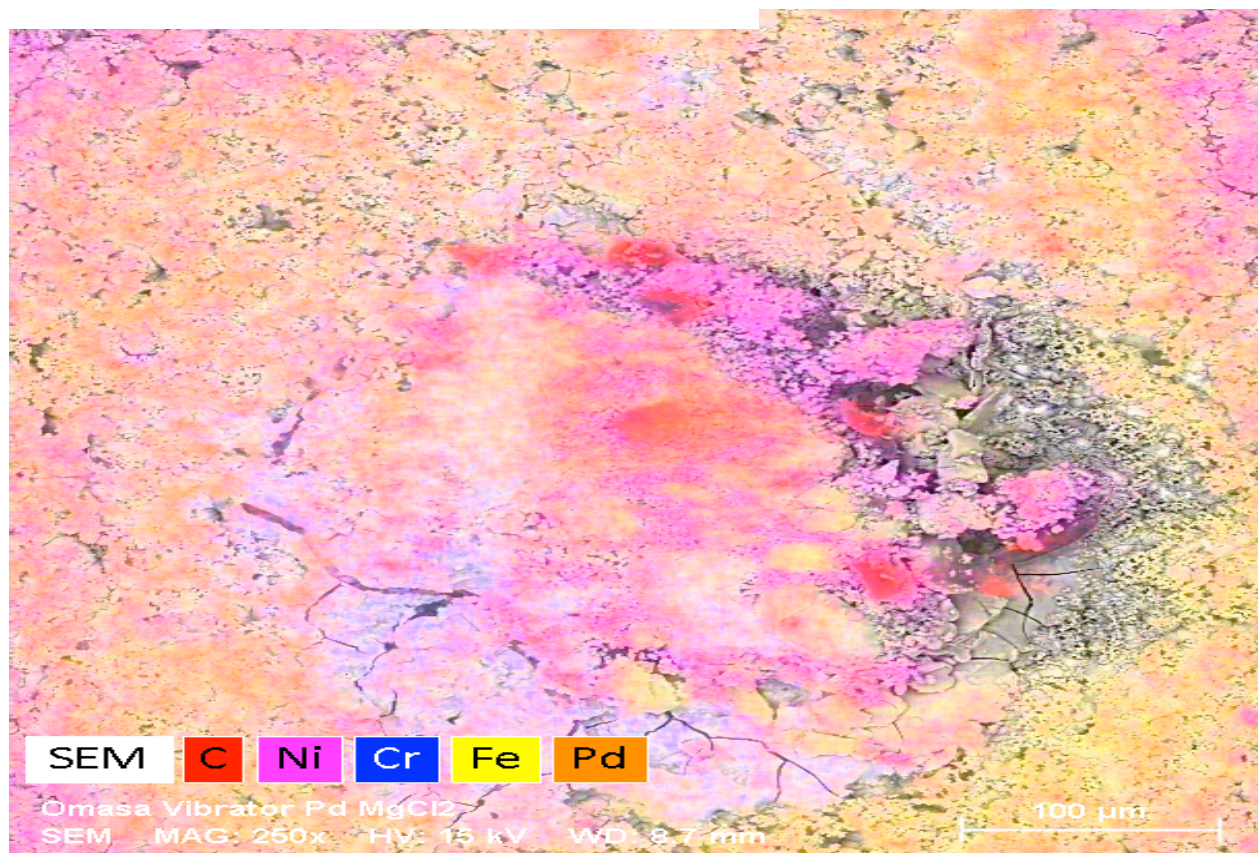
Element	At. No.	Line s.	Netto	Mass [%]	Mass Norm. [%]	Atom [%]	abs. error [%] (1 sigma)	rel. error [%] (1 sigma)
C	6	K-Series	2101	5.80	6.42	15.37	1.11	19.16
O	8	K-Series	26931	24.71	27.34	49.16	3.10	12.54
Mg	12	K-Series	1533	0.75	0.83	0.98	0.07	9.84
Cl	17	K-Series	29484	8.33	9.22	7.48	0.31	3.70
Cr	24	K-Series	1024	0.63	0.69	0.38	0.05	8.57
Fe	26	K-Series	29243	27.81	30.77	15.85	0.86	3.09
Ni	28	K-Series	11181	16.78	18.57	9.10	0.57	3.40
Pd	46	L-Series	11790	5.57	6.16	1.67	0.21	3.83
			<b>Sum</b>	<b>90.37</b>	<b>100.00</b>	<b>100.00</b>		

# MFMP Analysis

Magic Sound Lab. CA. US / SEM & EDS

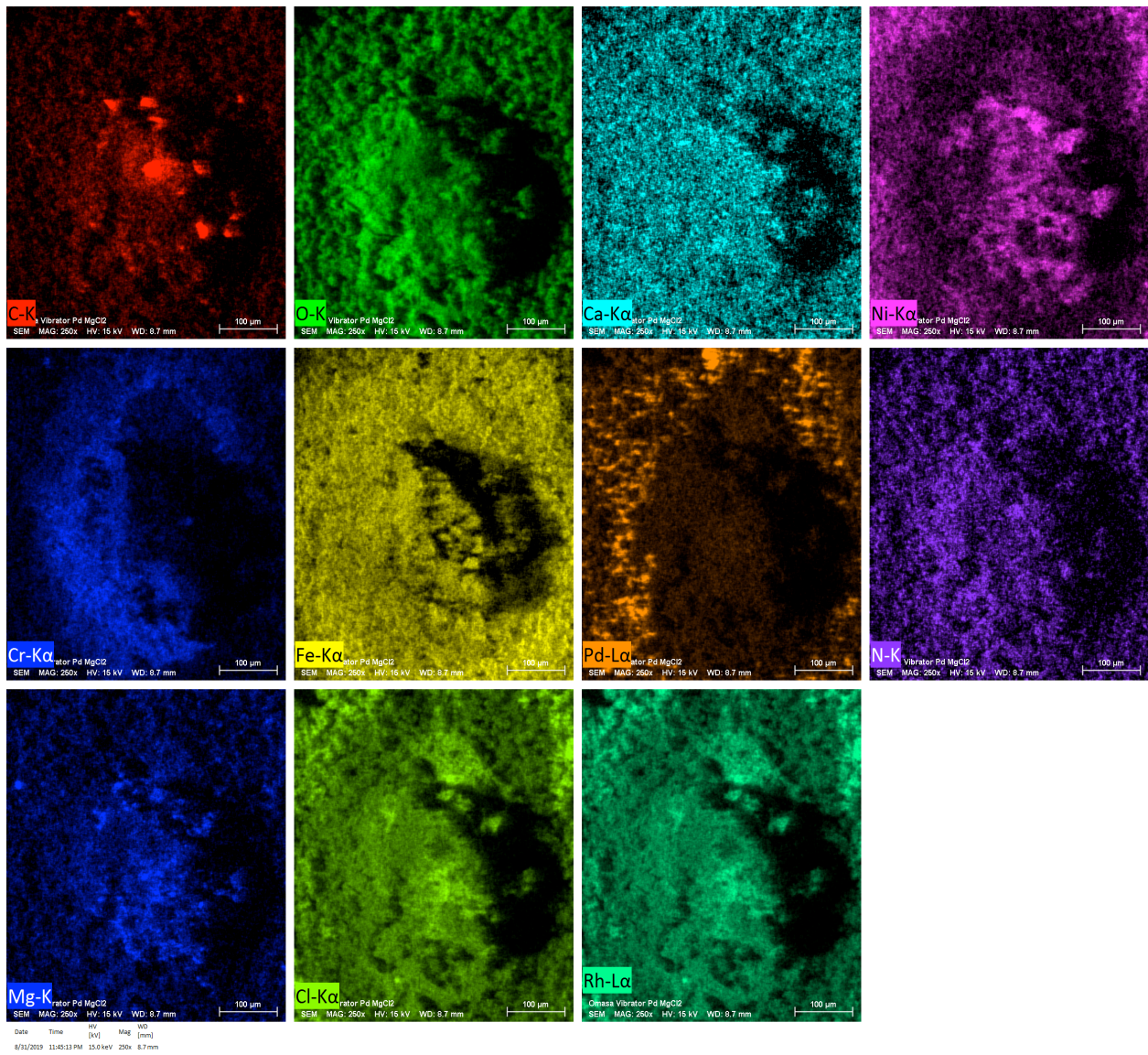


Name	Date	Time	HV [kV]	Mag	WD [mm]
Omasa Vibrator Pd MgCl2 465	8/31/2019	11:12:50 PM	15.0 keV	250x	8.7 mm



Name	Date	Time	HV [kV]	Mag	WD [mm]
Omasa Vibrator Pd MgCl2	8/31/2019	11:14:16 PM	15.0 keV	250x	8.7 mm







# MFMP Analysis

Magic Sound Lab, CA, US / SEM & EDS

