

Figure 1: SEM images for a) SS, b) BB, c) S&S, d) Cons, e) KP, f) PB.

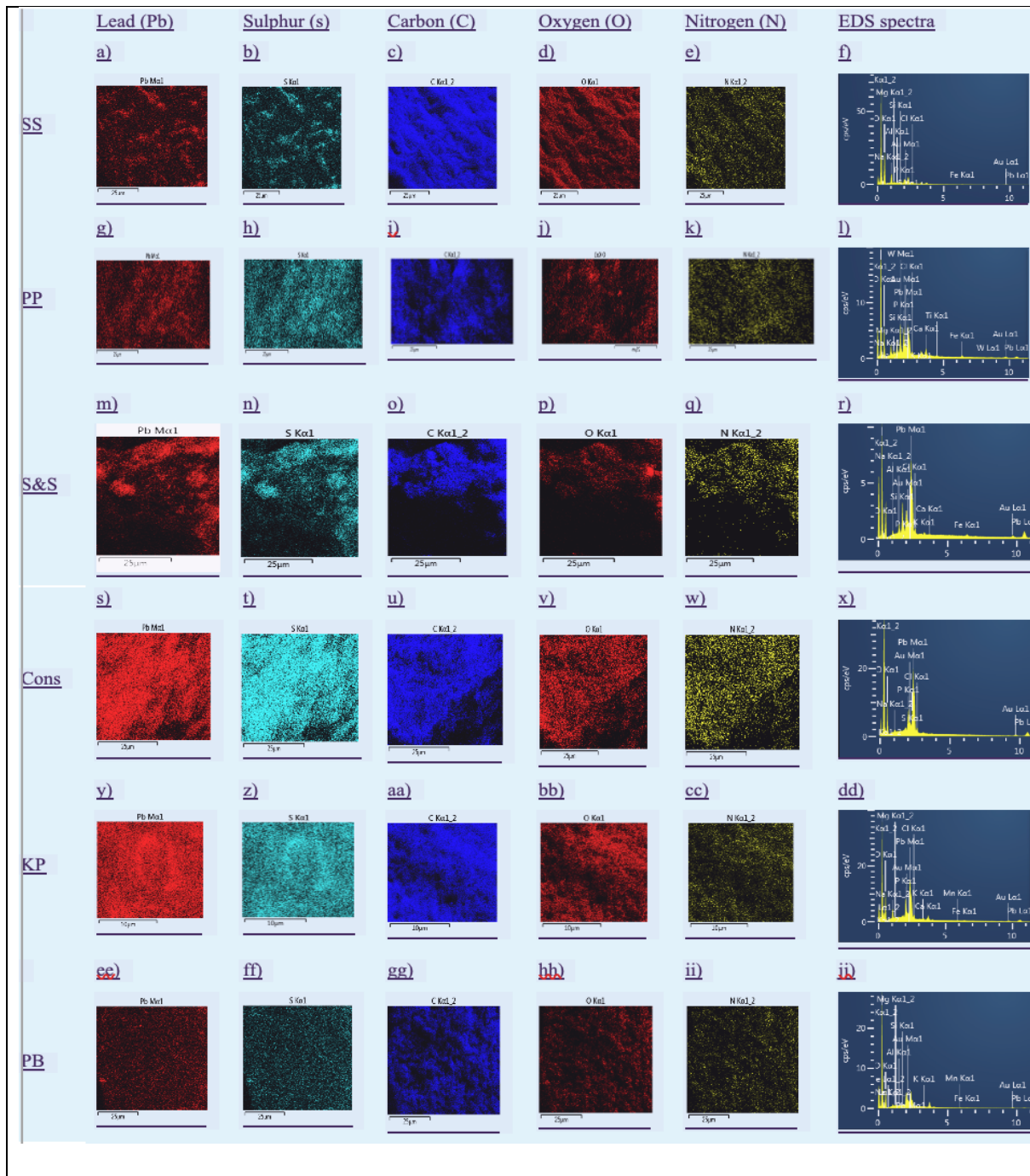


Figure 2: EDS Maps and corresponding EDS spectra on a) – f) SS, g) – l) BB, m) – r) S&S, s) – x) Cons, y) – dd) KP, ee) – jj) PB (indicated on the left). The maps represent Pb, S, C, O, N and the EDS spectra (as indicated at the top).

This section contains the results of the Energy – Dispersive X-ray Spectroscopy (EDS) Analysis for the metabolically inhibited SS, BB, S&S, Cons, PB, and KP.

Table 1: EDS results for Sewage Sludge (SS)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	115.35	1.15351	63.79	0.37
N	K series	9.60	0.01709	6.15	0.51
O	K series	42.78	0.14395	26.63	0.18
Na	K series	6.23	0.02630	1.37	0.02
Mg	K series	0.53	0.00350	0.13	0.01
Al	K series	0.11	0.00080	0.02	0.00
Si	K series	0.59	0.00465	0.11	0.00
P	K series	2.96	0.01658	0.37	0.01
S	K series	3.36	0.02896	0.66	0.01
Cl	K series	1.11	0.00972	0.22	0.01
K	K series	1.42	0.01202	0.26	0.01
Ca	K series	0.84	0.00754	0.16	0.01
Fe	K series	0.25	0.00245	0.05	0.01
Pb	M series	0.37	0.00347	0.08	0.03
Total:				100.00	

Table 2: EDS results for Bran-Based Filler Bacteria (BB)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	43.36	0.43363	59.62	0.64
N	K series	7.52	0.01339	8.29	0.87
O	K series	16.23	0.05461	18.84	0.31
Na	K series	3.13	0.01322	1.19	0.03
Mg	K series	0.53	0.00353	0.22	0.02
Al	K series	2.17	0.01558	0.79	0.02
Si	K series	4.61	0.03651	1.56	0.03
P	K series	7.37	0.04120	1.66	0.03
S	K series	2.68	0.02313	0.96	0.03
Cl	K series	0.36	0.00317	0.14	0.01
K	K series	1.12	0.00952	0.38	0.02
Ca	K series	2.36	0.02111	0.80	0.02
Ti	K series	0.28	0.00283	0.11	0.02
Fe	K series	1.08	0.01076	0.43	0.03
W	L series	0.00	0.00000	0.00	0.00
Pb	M series	12.78	0.11892	5.03	0.12
Total:				100.00	

Table 3: EDS results for Salt-and-Starch Based Filler Bacteria (S&S)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	29.36	0.29360	56.65	0.72
N	K series	4.44	0.00790	6.11	1.01
O	K series	11.76	0.03957	17.27	0.31
Na	K series	0.74	0.00312	0.40	0.03
Al	K series	1.07	0.00772	0.55	0.02
Si	K series	3.30	0.02616	1.53	0.03
P	K series	4.04	0.02262	1.23	0.04
S	K series	1.04	0.00893	0.51	0.05
Cl	K series	0.30	0.00261	0.17	0.03
K	K series	0.48	0.00410	0.24	0.02
Ca	K series	0.17	0.00154	0.08	0.02
Fe	K series	0.89	0.00889	0.48	0.05
Pb	M series	27.22	0.25331	14.78	0.26
Total:				100.00	

Table 4: EDS results for Consortium (Cons)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	37.64	0.37639	53.89	0.37
N	K series	8.43	0.01500	8.83	0.54
O	K series	15.80	0.05316	18.93	0.20
Na	K series	0.51	0.00216	0.23	0.02
P	K series	5.94	0.03321	1.45	0.03
S	K series	0.42	0.00361	0.17	0.04
Cl	K series	0.50	0.00437	0.23	0.02
Pb	M series	36.97	0.34407	16.28	0.16
Total:				100.00	

Table 5: EDS results for *Klebsiella pneumoniae* (KP)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	52.65	0.52652	54.89	0.33
N	K series	15.36	0.02734	13.21	0.46
O	K series	18.12	0.06098	18.72	0.16
Na	K series	2.88	0.01217	1.00	0.02
Mg	K series	0.25	0.00164	0.09	0.01
P	K series	6.34	0.03547	1.23	0.02
S	K series	1.20	0.01033	0.37	0.02
Cl	K series	0.61	0.00536	0.21	0.01
K	K series	0.61	0.00520	0.19	0.01
Ca	K series	1.73	0.01546	0.53	0.01
Mn	K series	0.19	0.00188	0.07	0.01
Fe	K series	0.41	0.00409	0.14	0.01
Pb	M series	27.11	0.25224	9.35	0.09
Total:				100.00	

Table 6: EDS results for *Paraclostridium bifermentans* (PB)

Element	Line Type	Apparent Concentration	k Ratio	Wt%	Wt% Sigma
C	K series	79.86	0.79865	64.12	0.55
N	K series	13.37	0.02381	12.23	0.71
O	K series	17.19	0.05786	17.53	0.22
Na	K series	0.72	0.00305	0.22	0.02
Mg	K series	0.27	0.00179	0.09	0.01
Al	K series	0.12	0.00087	0.03	0.01
Si	K series	0.21	0.00165	0.06	0.01
P	K series	6.39	0.03576	1.12	0.02
S	K series	2.96	0.02547	0.82	0.02
K	K series	0.25	0.00213	0.07	0.01
Ca	K series	2.76	0.02469	0.73	0.02
Mn	K series	0.26	0.00263	0.08	0.02
Fe	K series	0.17	0.00174	0.05	0.02
Pb	M series	9.31	0.08667	2.85	0.08
Total:				100.00	