

別紙3 分析対象ピーク一覧(分析対象とする核種及びスペクトルピーク)

No.	核種	ピークエネルギー /keV	半減期 /日	放出比 /%	報告ピーク
1	Pb-210	46.50	5.84035E+05	4.05	○
2	Te-132	49.72	3.25833E+00	14.00	
3	Th-227	50.20	2.57063E+11	7.20	
4	Pb-214	53.23	5.84035E+05	2.20	
5	Ce-143	57.37	1.37500E+00	12.00	
6	Am-241	59.54	1.57788E+05	35.70	○
7	Th-234	63.29	1.63194E+12	3.80	
8	Cs-136	66.91	1.30000E+01	12.50	
9	Pb-Ka1	74.97	3.65250E+12	100.00	○
10	Bi-Ka1	77.11	3.65250E+12	100.00	○
11	Ag-108m	79.40	4.63868E+04	6.60	
12	Th-227	79.80	2.57063E+11	1.70	
13	Ce-144	80.11	2.84500E+02	1.13	
14	I-131	80.18	8.04000E+00	2.60	
15	Th-231	84.21	2.57063E+11	6.50	
16	Th-228	84.37	5.15002E+12	1.21	○
17	Cd-109	88.03	4.62600E+02	3.61	○
18	Th-231	89.95	2.57063E+11	0.94	○
19	Nd-147	91.11	1.09800E+01	27.20	
20	Th-234	92.80	1.63194E+12	5.40	○
21	Th-227	94.00	2.57063E+11	1.20	
22	Ac-228	99.50	5.15002E+12	13.00	
23	Np-239	99.55	2.34600E+00	14.50	
24	Np-239	103.76	2.34600E+00	22.20	
25	Np-239	106.14	2.34600E+00	27.80	○
26	U-235	109.14	2.57063E+11	1.50	
27	Te-132	111.76	3.25833E+00	1.80	
28	Te-132	116.30	3.25833E+00	1.90	
29	Np-239	117.26	2.34600E+00	8.10	
30	Np-239	120.60	2.34600E+00	2.77	
31	Co-57	122.06	2.71790E+02	85.60	○
32	Ac-228	129.10	5.15002E+12	2.60	
33	Ce-144	133.54	2.84500E+02	11.10	○
34	Co-57	136.47	2.71790E+02	10.68	○
35	Ge-75m	139.68	5.52083E-04	39.00	○
36	Tc-99m	140.51	2.50292E-01	89.00	○
37	Fe-59	142.65	4.45600E+01	1.02	
38	U-235	143.76	2.57063E+11	11.00	○
39	Ce-141	145.44	3.25500E+01	48.40	○
40	Cs-136	153.22	1.30000E+01	7.47	
41	Ac-228	154.00	5.15002E+12	0.80	
42	Ba-140	162.61	1.27890E+01	6.11	
43	U-235	163.35	2.57063E+11	4.70	
44	Cs-136	163.89	1.30000E+01	4.62	
45	Ce-139	165.85	1.37640E+02	79.90	○
46	Sb-125	176.29	9.89828E+02	6.80	
47	Cs-136	176.55	1.30000E+01	13.60	
48	I-131	177.21	8.04000E+00	0.26	
49	Mo-99	181.07	2.75083E+00	6.29	
50	U-235	185.72	2.57063E+11	54.00	
51	Ra-226	186.18	5.84035E+05	3.30	○
52	Fe-59	192.34	4.45600E+01	3.08	
53	Ge-75	198.56	5.74861E-02	1.14	
54	Ac-228	209.50	5.15002E+12	4.30	
55	Np-239	209.76	2.34600E+00	3.42	
56	Te-132	228.16	3.25833E+00	88.00	○

57	Np-239	228.20	2.34600E+00	11.40	
58	Ce-143	231.56	1.37500E+00	2.00	
59	Th-227	236.00	2.57063E+11	11.00	○
60	Pb-212	238.63	5.15002E+12	43.00	○
61	Ra-224	240.98	5.15002E+12	3.90	○
62	Pb-214	241.92	5.84035E+05	7.60	
63	Zr-97	254.15	7.04167E-01	1.25	
64	Th-227	256.30	2.57063E+11	6.30	
65	I-132	262.70	9.51917E-02	1.44	
66	Ge-75	264.61	5.74861E-02	11.10	○
67	Y-93	266.90	4.27083E-01	6.80	○
68	Ac-228	270.20	5.15002E+12	3.60	
69	Cs-136	273.65	1.30000E+01	12.70	
70	Nd-147	275.42	1.09800E+01	0.82	
71	Tl-208	277.40	5.15002E+12	2.45	
72	Np-239	277.60	2.34600E+00	14.25	
73	Pa-231	283.56	2.57063E+11	1.70	
74	I-131	284.30	8.04000E+00	6.00	
75	Np-239	285.50	2.34600E+00	0.76	
76	Th-227	286.20	2.57063E+11	1.40	
77	Ce-143	293.26	1.37500E+00	42.00	○
78	Pb-214	295.22	5.84035E+05	18.90	
79	Pa-231	299.94	2.57063E+11	2.50	○
80	Th-227	300.00	2.57063E+11	1.90	
81	Pb-212	300.11	5.15002E+12	3.30	
82	Pa-231	302.52	2.57063E+11	2.50	
83	Ba-140	304.85	1.27890E+01	4.37	
84	Np-239	315.90	2.34600E+00	1.52	
85	Nd-147	319.41	1.09800E+01	2.00	
86	Cr-51	320.08	2.77010E+01	10.20	○
87	Ac-228	328.30	5.15002E+12	3.10	
88	La-140	328.77	1.67792E+00	18.50	
89	Pa-231	329.89	2.57063E+11	1.40	
90	Th-227	329.90	2.57063E+11	2.40	
91	Np-239	334.30	2.34600E+00	1.95	
92	Ac-228	338.70	5.15002E+12	12.00	
93	Cs-136	340.57	1.30000E+01	46.80	
94	Ce-143	350.59	1.37500E+00	3.40	
95	Pb-214	351.99	5.84035E+05	36.70	○
96	Zr-97	355.39	7.04167E-01	2.27	
97	I-131	364.48	8.04000E+00	81.00	○
98	Mo-99	366.45	2.75083E+00	1.35	
99	Sb-125	380.51	9.89828E+02	1.50	
100	Ac-228	409.80	5.15002E+12	2.10	
101	Ba-140	423.72	1.27890E+01	3.07	
102	Sb-125	427.95	9.89828E+02	30.00	○
103	La-140	432.53	1.67792E+00	2.72	
104	Ag-108m	434.00	4.63868E+04	90.50	○
105	Ba-140	437.58	1.27890E+01	2.00	
106	Nd-147	439.85	1.09800E+01	1.10	
107	I-132	446.00	9.51917E-02	0.67	
108	Te-129	459.60	4.82639E-02	7.10	○
109	Ac-228	463.30	5.15002E+12	4.60	
110	Sb-125	463.51	9.89828E+02	11.00	
111	Sb-127	473.00	3.91000E+00	25.00	
112	Cs-134	475.35	7.53146E+02	1.47	
113	Be-7	477.59	5.32900E+01	10.35	○
114	La-140	487.03	1.67792E+00	43.00	
115	Te-129	487.39	4.82639E-02	1.30	

116	Ce-143	490.36	1.37500E+00	2.00	
117	Ga-74	493.00	5.72917E-03	5.02	
118	Ru-103	497.08	3.93500E+01	86.40	○
119	I-132	505.90	9.51917E-02	5.00	
120	Zr-97	507.63	7.04167E-01	5.06	
121	Tl-208	510.72	5.15002E+12	7.78	
122	An-511	511.00	3.65250E+12	200.00	○
123	Ru-106	511.80	3.66500E+02	19.00	
124	I-132	522.65	9.51917E-02	16.10	
125	Nd-147	531.01	1.09800E+01	12.00	○
126	I-132	535.50	9.51917E-02	0.52	
127	Ba-140	537.27	1.27890E+01	23.60	○
128	I-132	547.10	9.51917E-02	1.25	
129	Sr-91	555.57	3.95000E-01	61.00	○
130	Ru-103	557.04	3.93500E+01	0.80	
131	Ac-228	562.60	5.15002E+12	0.86	
132	Cs-134	563.26	7.53146E+02	8.38	
133	Cs-134	569.29	7.53146E+02	15.43	
134	Bi-207	569.65	1.39891E+04	97.74	○
135	Tl-208	583.14	5.15002E+12	30.96	○
136	Ga-74	595.88	5.72917E-03	91.20	○
137	As-74	595.90	1.77900E+01	60.00	
138	Sb-125	600.77	9.89828E+02	18.00	
139	Zr-97	602.41	7.04167E-01	1.39	
140	Sb-124	602.72	6.02000E+01	98.30	
141	Ga-74	604.22	5.72917E-03	2.87	
142	Cs-134	604.66	7.53146E+02	97.56	○
143	Sb-125	606.82	9.89828E+02	4.90	
144	Ga-74	608.40	5.72917E-03	14.60	
145	Bi-214	609.31	5.84035E+05	46.10	○
146	Ru-103	610.33	3.93500E+01	5.44	
147	Ag-108m	614.37	4.63868E+04	89.70	
148	Ag-110m	620.35	2.52200E+02	2.78	
149	I-132	621.00	9.51917E-02	2.00	
150	Ru-106	622.20	3.66500E+02	9.80	○
151	I-132	630.22	9.51917E-02	13.70	
152	As-74	634.80	1.77900E+01	15.12	○
153	Sb-125	636.15	9.89828E+02	12.00	
154	I-131	636.97	8.04000E+00	7.20	
155	Sb-124	645.82	6.02000E+01	7.23	
156	I-132	650.60	9.51917E-02	2.70	
157	Sr-91	652.30	3.95000E-01	2.90	
158	Sr-91	652.90	3.95000E-01	7.60	
159	Sr-91	653.00	3.95000E-01	0.46	
160	Ag-110m	657.75	2.52200E+02	94.40	
161	Nb-97	657.92	5.00694E-02	98.20	○
162	Cs-137	661.64	1.10211E+04	85.00	○
163	Ce-143	664.55	1.37500E+00	5.30	
164	Bi-214	665.45	5.84035E+05	1.56	
165	I-132	667.69	9.51917E-02	98.70	○
166	Zn-63	669.62	2.63889E-02	8.40	
167	I-132	669.80	9.51917E-02	4.90	
168	I-132	671.60	9.51917E-02	5.20	
169	Sb-125	671.66	9.89828E+02	1.70	
170	Ag-110m	677.60	2.52200E+02	10.60	
171	Sb-127	685.70	3.91000E+00	36.00	○
172	Nd-147	685.80	1.09800E+01	0.71	
173	Ag-110m	686.99	2.52200E+02	6.45	
174	Te-129m	695.98	3.35200E+01	2.90	○

175	Ag-110m	706.67	2.52200E+02	16.30	
176	Ce-143	721.96	1.37500E+00	5.10	
177	Sb-124	722.78	6.02000E+01	11.30	
178	I-131	722.89	8.04000E+00	1.80	
179	Ag-108m	722.95	4.63868E+04	89.70	
180	Zr-95	724.18	6.39800E+01	43.10	
181	Ac-228	726.70	5.15002E+12	0.78	
182	I-132	727.10	9.51917E-02	6.50	
183	Bi-212	727.27	5.15002E+12	6.30	○
184	Te-129m	729.62	3.35200E+01	0.69	
185	Mo-99	739.40	2.75083E+00	12.60	○
186	Zr-97	743.36	7.04167E-01	92.80	○
187	Ag-110m	744.26	2.52200E+02	4.65	
188	Sr-91	749.80	3.95000E-01	23.00	
189	La-140	751.83	1.67792E+00	4.20	
190	Ac-228	755.30	5.15002E+12	1.00	
191	Zr-95	756.72	6.39800E+01	54.60	○
192	Tl-208	763.13	5.15002E+12	0.59	
193	Ag-110m	763.93	2.52200E+02	22.30	
194	Nb-95	765.79	3.49700E+01	99.82	○
195	Pa-234m	766.60	1.63194E+12	0.21	
196	Bi-214	768.36	5.84035E+05	4.91	
197	Ac-228	771.80	5.15002E+12	1.60	
198	I-132	772.61	9.51917E-02	76.20	
199	Mo-99	777.80	2.75083E+00	4.40	
200	I-132	780.20	9.51917E-02	1.23	
201	Ac-228	782.00	5.15002E+12	0.51	
202	Sb-127	783.70	3.91000E+00	15.00	
203	Bi-212	785.46	5.15002E+12	1.00	
204	Pb-214	785.95	5.84035E+05	0.86	
205	Ac-228	795.00	5.15002E+12	4.40	
206	Cs-134	795.76	7.53146E+02	85.44	○
207	Cs-134	801.84	7.53146E+02	8.73	
208	Tl-206	803.30	5.84035E+05	0.01	○
209	Zr-97	804.53	7.04167E-01	0.65	
210	Bi-214	806.17	5.84035E+05	1.23	
211	I-132	809.80	9.51917E-02	2.90	
212	Co-58	810.76	7.07800E+01	99.44	○
213	I-132	812.20	9.51917E-02	5.60	
214	La-140	815.85	1.67792E+00	22.40	
215	Ag-110m	818.02	2.52200E+02	7.28	
216	Cs-136	818.50	1.30000E+01	99.70	○
217	Ac-228	830.40	5.15002E+12	0.65	
218	Mn-54	834.83	3.12200E+02	100.00	○
219	Ac-228	835.60	5.15002E+12	1.70	
220	Pb-214	839.20	5.84035E+05	0.59	
221	Ac-228	840.40	5.15002E+12	0.97	
222	Mn-56	846.75	1.07438E-01	98.87	○
223	Tl-208	860.37	5.15002E+12	4.32	
224	I-132	863.30	9.51917E-02	0.59	
225	Ga-74	867.80	5.72917E-03	8.81	
226	La-140	867.82	1.67792E+00	5.30	
227	I-132	876.80	9.51917E-02	1.08	
228	Ce-143	880.39	1.37500E+00	0.92	
229	Ag-110m	884.67	2.52200E+02	72.80	○
230	Y-88	898.04	1.06650E+02	93.68	○
231	Ac-228	904.10	5.15002E+12	0.82	
232	I-132	910.30	9.51917E-02	0.92	
233	Ac-228	911.20	5.15002E+12	27.00	○

234	La-140	919.63	1.67792E+00	2.52	
235	La-140	925.24	1.67792E+00	6.80	
236	Bi-214	934.06	5.84035E+05	3.19	
237	Ag-110m	937.48	2.52200E+02	34.30	
238	Y-93	947.10	4.27083E-01	1.90	
239	La-140	951.40	1.67792E+00	0.53	
240	I-132	954.55	9.51917E-02	18.10	
241	Zn-63	962.06	2.63889E-02	6.60	○
242	Ac-228	964.40	5.15002E+12	4.70	
243	Ac-228	968.80	5.15002E+12	16.00	
244	I-132	984.50	9.51917E-02	0.56	
245	Pa-234m	1001.03	1.63194E+12	0.59	○
246	Zr-97	1021.30	7.04167E-01	1.35	
247	Sr-91	1024.30	3.95000E-01	33.00	
248	Nb-97	1024.53	5.00694E-02	1.10	
249	I-132	1034.70	9.51917E-02	0.57	
250	Cs-134	1038.50	7.53146E+02	1.00	
251	Cs-136	1048.07	1.30000E+01	79.80	
252	Ru-106	1050.47	3.66500E+02	1.60	
253	Bi-207	1063.63	1.39891E+04	73.80	
254	Bi-212	1078.80	5.15002E+12	0.51	
255	Te-129	1083.99	4.82639E-02	0.56	
256	Fe-59	1099.22	4.45600E+01	56.50	○
257	Ga-74	1101.34	5.72917E-03	5.40	
258	Zn-65	1115.52	2.44000E+02	50.75	○
259	Bi-214	1120.29	5.84035E+05	15.00	
260	I-132	1136.03	9.51917E-02	3.00	
261	I-132	1143.40	9.51917E-02	1.40	
262	Zr-97	1147.95	7.04167E-01	2.64	
263	Bi-214	1155.19	5.84035E+05	1.69	
264	Cs-134	1167.86	7.53146E+02	1.81	
265	I-132	1173.20	9.51917E-02	1.10	
266	Co-60	1173.21	1.92556E+03	100.00	○
267	Ga-74	1204.29	5.72917E-03	7.57	
268	Y-91	1208.00	5.85100E+01	0.30	○
269	Cs-136	1235.34	1.30000E+01	19.70	
270	Bi-214	1238.11	5.84035E+05	5.95	
271	Zr-97	1276.09	7.04167E-01	0.97	
272	Bi-214	1280.96	5.84035E+05	1.47	
273	I-132	1290.70	9.51917E-02	1.14	
274	Fe-59	1291.56	4.45600E+01	43.20	○
275	I-132	1295.30	9.51917E-02	2.00	
276	I-132	1298.20	9.51917E-02	0.90	
277	Co-60	1332.47	1.92556E+03	100.00	○
278	Zr-97	1362.66	7.04167E-01	1.35	
279	Cs-134	1365.13	7.53146E+02	3.04	
280	I-132	1372.07	9.51917E-02	2.50	
281	Bi-214	1377.67	5.84035E+05	4.05	
282	Ag-110m	1384.27	2.52200E+02	24.60	
283	Bi-214	1385.31	5.84035E+05	0.78	
284	I-132	1398.57	9.51917E-02	7.10	
285	Bi-214	1401.50	5.84035E+05	1.39	
286	Bi-214	1407.98	5.84035E+05	2.48	
287	I-132	1442.56	9.51917E-02	1.42	
288	Ga-74	1443.38	5.72917E-03	3.69	
289	Ac-228	1459.20	5.15002E+12	0.93	
290	K-40	1460.75	4.66424E+11	10.67	○
291	Ag-110m	1475.76	2.52200E+02	4.04	
292	Ac-228	1496.20	5.15002E+12	0.98	

293	Ac-228	1501.70	5.15002E+12	0.54	
294	Ag-110m	1505.00	2.52200E+02	13.20	
295	Bi-214	1509.23	5.84035E+05	2.19	
296	Ag-110m	1562.27	2.52200E+02	1.19	
297	Bi-214	1583.22	5.84035E+05	0.72	
298	Ac-228	1588.30	5.15002E+12	3.50	
299	La-140	1596.49	1.67792E+00	95.50	○
300	Bi-212	1620.62	5.15002E+12	1.40	
301	Ac-228	1630.70	5.15002E+12	1.50	
302	Bi-214	1661.28	5.84035E+05	1.15	
303	Sb-124	1691.02	6.02000E+01	49.00	○
304	Bi-214	1729.60	5.84035E+05	2.98	
305	Ga-74	1744.82	5.72917E-03	4.80	
306	Zr-97	1750.46	7.04167E-01	1.35	
307	Bi-214	1764.50	5.84035E+05	15.80	
308	Bi-207	1770.22	1.39891E+04	6.79	
309	Mn-56	1810.72	1.07438E-01	27.20	
310	Y-88	1836.06	1.06650E+02	99.24	○
311	Bi-214	1847.42	5.84035E+05	2.10	
312	Y-93	1917.80	4.27083E-01	1.40	
313	I-132	1921.08	9.51917E-02	1.18	
314	Ga-74	1940.64	5.72917E-03	5.45	
315	I-132	2002.30	9.51917E-02	1.10	