

Appendix 2

The XRF analysis of the synthesized Bone ash analogue

No	Component	Result	Unit	Statistical error	Detection limit	Quantitation limit
1	CaO	78.5	mass%	0.146	0.0032	0.0095
2	P ₂ O ₅	17.2	mass%	0.0159	0.0214	0.0642
3	Na ₂ O	1.21	mass%	0.0828	0.216	0.647
4	Cl	0.663	mass%	0.001	0.0012	0.0035
5	Zr	0.444	mass%	0.0024	0.001	0.003
6	MgO	0.417	mass%	0.011	0.0229	0.0686
7	SiO ₂	0.404	mass%	0.004	0.0068	0.0203
8	Sr	0.328	mass%	0.0008	0.0013	0.004
9	SO ₃	0.27	mass%	0.0017	0.003	0.009
10	Al ₂ O ₃	0.123	mass%	0.0032	0.007	0.0209
11	Ce	0.101	mass%	0.0023	0.004	0.0119
12	Eu	0.00975	mass%	0.003	0.001	0.0029
13	Sm	0.0662	mass%	0.0029	0.0026	0.0079
14	Fe ₂ O ₃	0.0632	mass%	0.0019	0.0039	0.0116
15	La	0.0452	mass%	0.0016	0.0031	0.0093
16	K ₂ O	0.0221	mass%	0.0019	0.005	0.0149
17	Gd	0.016	mass%	0.0017	0.0037	0.0112
18	Y	0.0083	mass%	0.0001	0.0002	0.0006
19	Cr	0.0076	mass%	0.0004	0.0009	0.0028
20	Th	0.0071	mass%	0.0002	0.0004	0.0011
21	Tm	0.0061	mass%	0.0008	0.0019	0.0058
22	Sn	0.0026	mass%	0.0002	0.0004	0.0011
23	As	0.0017	mass%	0.0001	0.0003	0.0008
24	Pb	0.001	mass%	0.0001	0.0004	0.0012
25	Os	ND	mass%	0.0003	0.0007	0.0022
26	Po	0.0005	mass%	0.0001	0.0003	0.0008
27	Cu	ND	mass%	0.0002	0.0006	0.0018
28	Cd	ND	mass%	0.0001	0.0003	0.0009
29	Hg	ND	mass%	0.0002	0.0005	0.0014
30	V	ND	mass%	0.0008	0.0023	0.007
31	Sc	ND	mass%	0.0049	0.0148	0.0444
32	Pt	ND	mass%	0.0002	0.0006	0.0017
33	Ir	ND	mass%	0.0002	0.0007	0.002
34	Tb	ND	mass%	0.0017	0.0051	0.0153
35	MnO	ND	mass%	0.0016	0.0047	0.0141
36	Ta	ND	mass%	0.0004	0.0011	0.0033
37	Se	ND	mass%	0.0001	0.0002	0.0005
38	Dy	ND	mass%	0.0012	0.0035	0.0106
39	In	ND	mass%	0.0001	0.0004	0.0011
40	Co	ND	mass%			

41	Ni	ND	mass%			
42	Zn	ND	mass%			
43	Ga	ND	mass%			
44	Rb	ND	mass%			
45	Nb	ND	mass%			
46	Ag	ND	mass%			
47	Ba	ND	mass%			
48	Hf	ND	mass%			
49	W	ND	mass%			
50	Au	0	mass%			
51	Bi	ND	mass%			
52	U	ND	mass%			
53	TiO ₂	ND	mass%			
54	F	0	mass%			
55	Mo	ND	mass%			
56	Ru	ND	mass%			
57	Rh	ND	mass%			
58	Pd	ND	mass%			
59	Tc	ND	mass%			
60	Sb	ND	mass%			
61	Pr	ND	mass%			
62	Nd	ND	mass%			
63	Pm	ND	mass%			
64	Ho	ND	mass%			
65	Er	ND	mass%			
66	Tl	ND	mass%			
67	Re	ND	mass%			
68	Cs	ND	mass%			
69	Fr	ND	mass%			
70	Ra	ND	mass%			
71	Te	ND	mass%			
72	Ge	ND	mass%			
73	Br	ND	mass%			
74	I	ND	mass%			