Technoeconomic Assessment of Organic Halide Based Gold Recovery from Waste Electronic and Electrical Equipment

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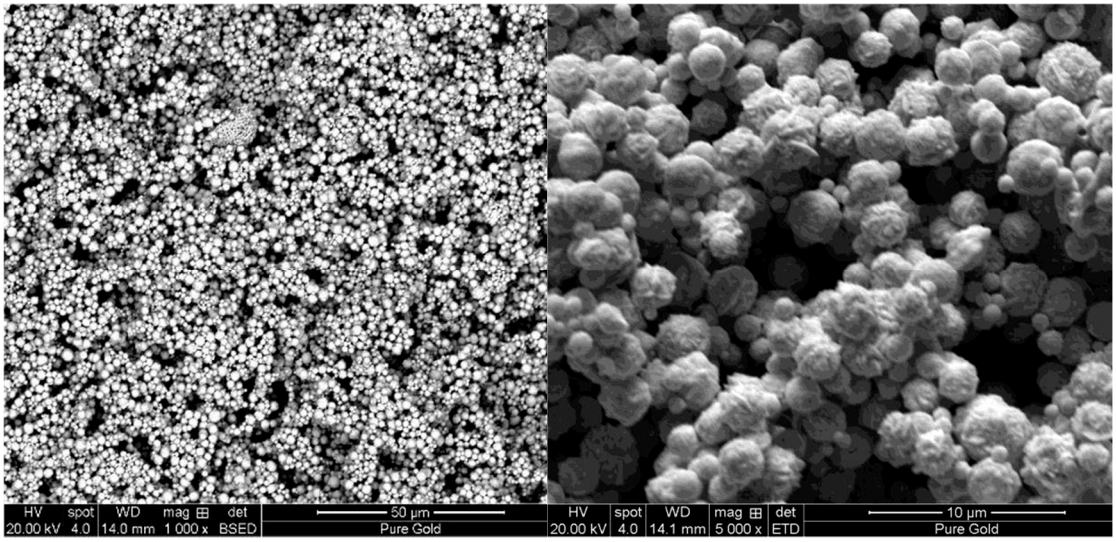
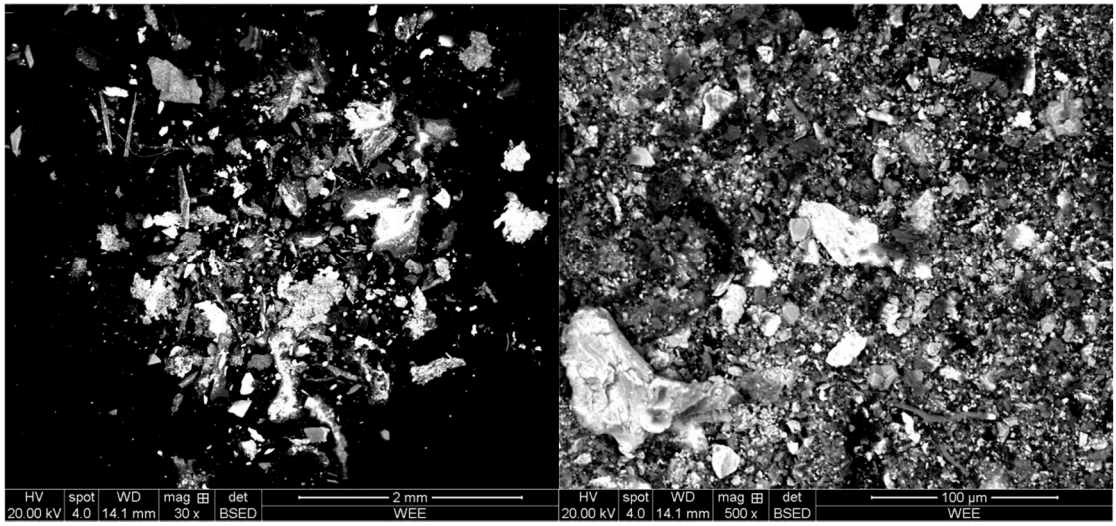
Supplementary Material

1. SEM Imaging



(**a**) (**b**)

Figure S1. SEM Images of the pure gold powder at 1000× (left) and 5000× (right).



(**a**) (**b**)

Figure S2. SEM Images of the WEEE dust at 30× (left) and 500× (right).

2. WEEE Dust Composition

Table S1. WEEE Dust Composition via semi quantitative ICPMS

Element	%w/w	Element	%w/w	Element	%w/w
Lithium	< 0.01	Molybdenum	< 0.01	Hafnium	< 0.01
Beryllium	< 0.01	Ruthenium	< 0.01	Tantalum	< 0.01
Boron	0.014	Rhodium	< 0.01	Tungsten	< 0.01
Sodium	0.008	Palladium	< 0.01	Rhenium	< 0.01
Magnesium	0.119	Silver	0.094	Osmium	< 0.01
Aluminium	2.912	Cadmium	< 0.01	Iridium	< 0.01
Potassium	0.014	Indium	< 0.01	Platinum	< 0.01
Calcium	1.552	Tin	0.766	Gold	0.011
Scandium	< 0.01	Antimony	0.078	Mercury	0.029
Titanium	0.398	Tellurium	< 0.01	Thallium	< 0.01
Vanadium	< 0.01	Iodine	< 0.01	Lead	0.112
Chromium	0.049	Caesium	< 0.01	Bismuth	0.048
Manganese	1.844	Barium	1.987	Thorium	< 0.01
Iron	22.911	Lanthanum	< 0.01	Uranium	< 0.01
Cobalt	0.020	Cerium	< 0.01	-	-
Nickel	0.338	Praseodymium	0.025	-	-
Copper	1.303	Neodymium	0.097	-	-
Zinc	9.902	Samarium	< 0.01	-	-
Gallium	0.516	Europium	< 0.01	-	-
Germanium	< 0.01	Gadolinium	0.012	-	-
Arsenic	< 0.01	Terbium	< 0.01	-	-
Selenium	< 0.01	Dysprosium	0.0131	-	-
Rubidium	< 0.01	Holmium	< 0.01	-	-
Strontium	0.200	Erbium	< 0.01	-	-
Yttrium	0.019	Thulium	< 0.01	-	-
Zirconium	0.063	Ytterbium	< 0.01	-	-
Niobium	< 0.01	Lutetium	< 0.01	-	-