

Supplementary Material

Supplementary Table 1. Chemical composition of raw authentic AMD

Parameter	Raw AMD		
pH	2.3	±	0.2
Acidity (mg/L CaCO ₃)	8133	±	0.5
Alkalinity (mg/L CaCO ₃)	<5,0	±	0
Aluminium (mg/L Al)	280	±	2
Calcium (mg/L Ca)	337	±	1.5
Electrical Conductivity (mS/m)	5470	±	3
Iron (mg/L Fe)	1818	±	4
Magnesium (mg/L Mg)	273	±	0.6
Manganese (mg/L Mn)	75	±	0.9
Potassium (mg/L K)	60	±	0.5
Sodium (mg/L Na)	30	±	0.5
Sulphate (mg/L SO ₄)	80000	±	10
Total Dissolved Solids	135560	±	0.5
Total Hardness (mg/L)	1965	±	0.5

Supplementary Table 2. Elemental composition of aluminium-enriched ferric oxide-hydroxide as determined by XRF

Compound	Aluminium-Enriched Ferric Oxide-Hydroxide
SiO ₂	0.26
TiO ₂	<0.01
Al ₂ O ₃	1.87
Fe ₂ O ₃	95.77
MnO	0.08
MgO	0.37
CaO	0.28
Na ₂ O	0.62
K ₂ O	<0.01
P ₂ O ₅	<0.01
Cr ₂ O ₃	<0.01
NiO	<0.01
ZrO ₂	<0.01
SO ₃	0.62
WO ₃	0.05
CuO	<0.01
Co ₃ O ₄	0.05
SrO	<0.01
Total	99.97