













Table 1 Metal properties of common counterfeit money

Metal Property	Sterling silver	Pure copper	Pure iron	Pure lead	Pure nickel	Stainless steel (430)
Density (g/cm ³)	10.49	8.92	7.8	11.4	8.908	7.7
Fusion point (°C)	961.7	1184	1535	327	1455	1427

Table 2 The silver-coin of Japan dragon measurement result

No. Project	1	2	3
Front			
Back			
Weight (g)	26.90	26.82	26.60
Diameter (mm)	38.20	38.30	39.90
Density (g/cm ³)	10.32	10.00	8.90
Thickness (mm)	2.27	2.32	2.38
Volume (cm ³)	2.61	2.68	2.99
Density Error (%)	0.11	3.02	13.90

No. Project	4	5	6
Front			
Back			
Weight (g)	26.89	26.70	26.87
Diameter (mm)	38.20	38.10	38.80
Density (g/cm ³)	10.21	10.29	10.17
Thickness (mm)	2.29	2.28	2.23
Volume (cm ³)	2.63	2.60	2.64
Density Error (%)	1.10	0.39	1.55





No. Project	7	8
Front		
Back		
Weight (g)	26.75	22.92
Diameter (mm)	38.30	38.30
Density (g/cm ³)	10.18	8.39
Thickness (mm)	2.28	2.36
Volume (cm ³)	2.63	2.73
Density Error (%)	1.46	18.70

Table 3 Calculated results of ingredients of specimen1-8

Specimen	Speciman-3	Speciman-8	Others(true silver coin)
material quality	Alloy of lead and iron	Alloy of copper and nickel	Alloy of silver and copper
contents	Pure lead: 39.1% Pure iron: 60.9%	Pure copper: 73.31% Pure nickel: 26.7%	Pure silver: 89.9-90.36% Pure copper: 9.7-10.1%