

Table 1s. Relative Standard Deviation (%RSD) for emission signal obtained for Au for first pulse (n = 5) in the 5 emission lines evaluated.

Sample	Emission lines (nm)				
	208.20	242.79	267.59	280.20	479.25
G1	9.6	6.3	7.5	21.3	8.6
G2	14.2	14.2	15.1	7.7	32.2
G3	8.7	10.6	10.8	11.9	16.1
G4	4.5	5.0	5.6	44.7	11.4
G5	10.9	5.2	3.1	12.0	15.2
G6	11.3	7.5	8.7	19.8	14.6
G7	9.4	9.4	9.3	16.6	14.7
G8	47.7	32.2	19.8	10.2	14.5
G9	58.7	27.0	35.7	19.5	15.4
G10	25.9	24.5	25.4	6.8	24.3
G11	69.3	34.9	33.1	27.2	48.7
G12	11.2	12.0	10.2	24.7	26.6
G13	16.2	34.5	30.8	90.7	54.5
G14	76.4	46.0	32.4	32.6	20.1
G15	54.6	47.5	44.8	46.9	53.3
G16	35.1	31.8	32.3	29.3	50.0
G17	39.2	16.6	15.3	41.8	18.9
G18	43.7	19.8	37.8	38.3	29.5
G19	36.5	7.4	13.1	42.9	22.0
G20	54.6	43.9	84.1	77.7	101.5
G21	25.2	8.6	9.4	9.3	30.8
G22	41.3	30.0	32.4	46.9	52.4
G23	27.1	13.6	13.9	32.6	25.3
G24	18.7	17.7	19.9	9.4	64.5
G25	9.8	11.6	12.5	8.0	20.4
G26	19.3	9.5	3.6	16.5	14.4
G27	11.7	10.6	7.8	15.4	26.2
G28	21.7	19.6	18.5	16.9	36.5
G29	13.8	12.0	11.4	15.7	15.3
G30	14.8	18.5	15.2	37.4	15.7
G31	6.0	6.1	4.9	39.2	6.7
G32	16.2	11.7	12.8	8.7	8.2
G33	20.8	11.2	11.2	33.1	9.4
G34	55.3	43.7	41.8	35.6	28.5
G35	8.3	5.6	6.2	20.6	8.6
G36	46.1	40.1	21.3	9.0	4.0
Average	27.6	19.6	19.9	27.1	26.6
min	4.5	5.0	3.1	6.8	4.0
max	76.4	47.5	84.1	90.7	101.5

Table 2s. Relative Standard Deviation (RSD%) for emission signal obtained for Ag for first pulse (n = 5) and for the 6 emission lines evaluated.

Samples	Emission lines (nm)					
	243.78	328.06	338.28	520.9	546.54	547.15
S1	36.3	40.1	69.2	14.8	12.3	16.7
S2	34.3	31.6	27.3	10.4	10.9	20.0
S3	13.8	31.6	23.7	10.8	10.8	21.2
S4	20.7	32.9	34.7	18.7	20.8	23.2
S5	16.7	47.2	52.7	7.3	5.3	17.6
S6	20.0	17.1	12.9	16.9	17.0	34.4
S7	18.7	50.4	49.7	25.2	33.4	23.5
S8	19.7	38.1	41.4	11.2	11.1	15.6
S9	6.1	31.1	41.9	12.1	20.2	17.5
S10	15.1	25.0	29.1	11.8	12.6	20.3
S11	43.5	43.2	9.9	31.2	25.5	15.2
S12	11.8	32.1	47.0	13.3	15.2	13.3
S13	21.3	26.0	20.1	30.0	30.0	15.8
Average	21.4	34.3	35.4	16.4	17.3	19.6
min	6.1	17.1	9.9	7.3	5.3	13.3
max	43.5	50.4	69.2	31.2	33.4	34.4

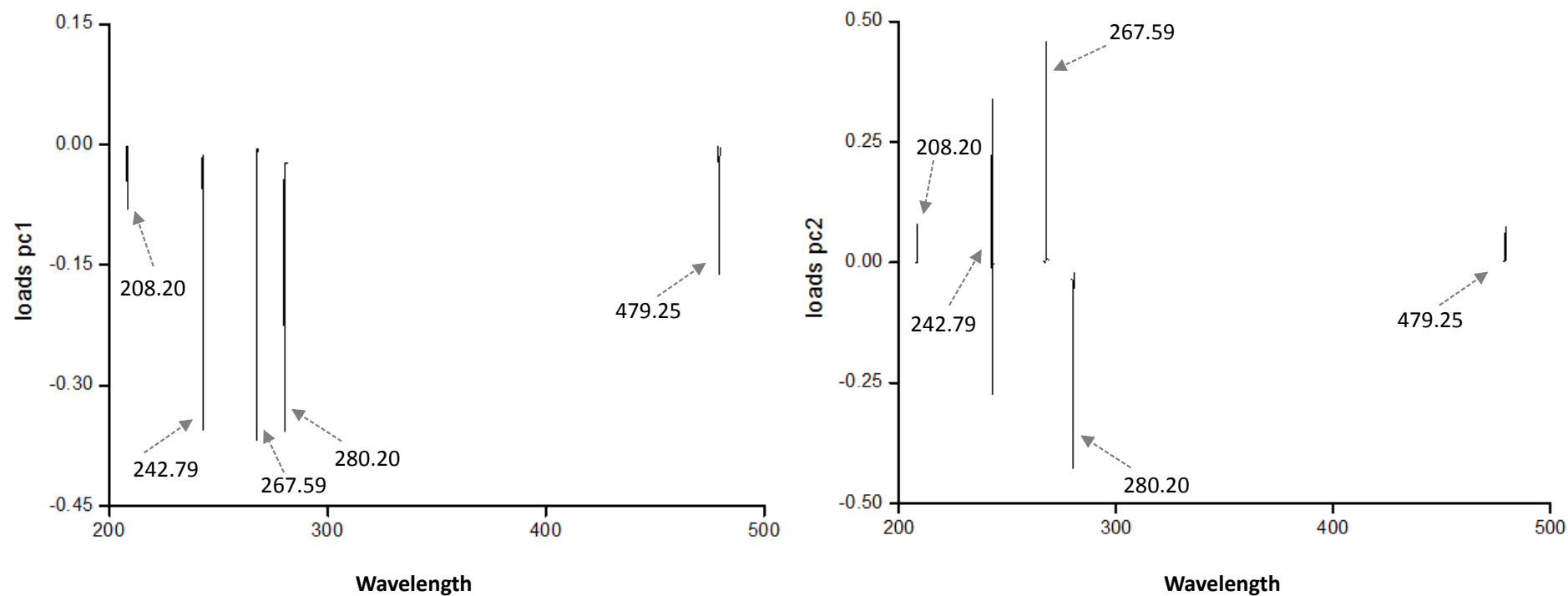


Figure S1. Loadings for PC1 and PC2 from PCA of the golden samples considering the average spectra obtained from the first through the tenth pulse.

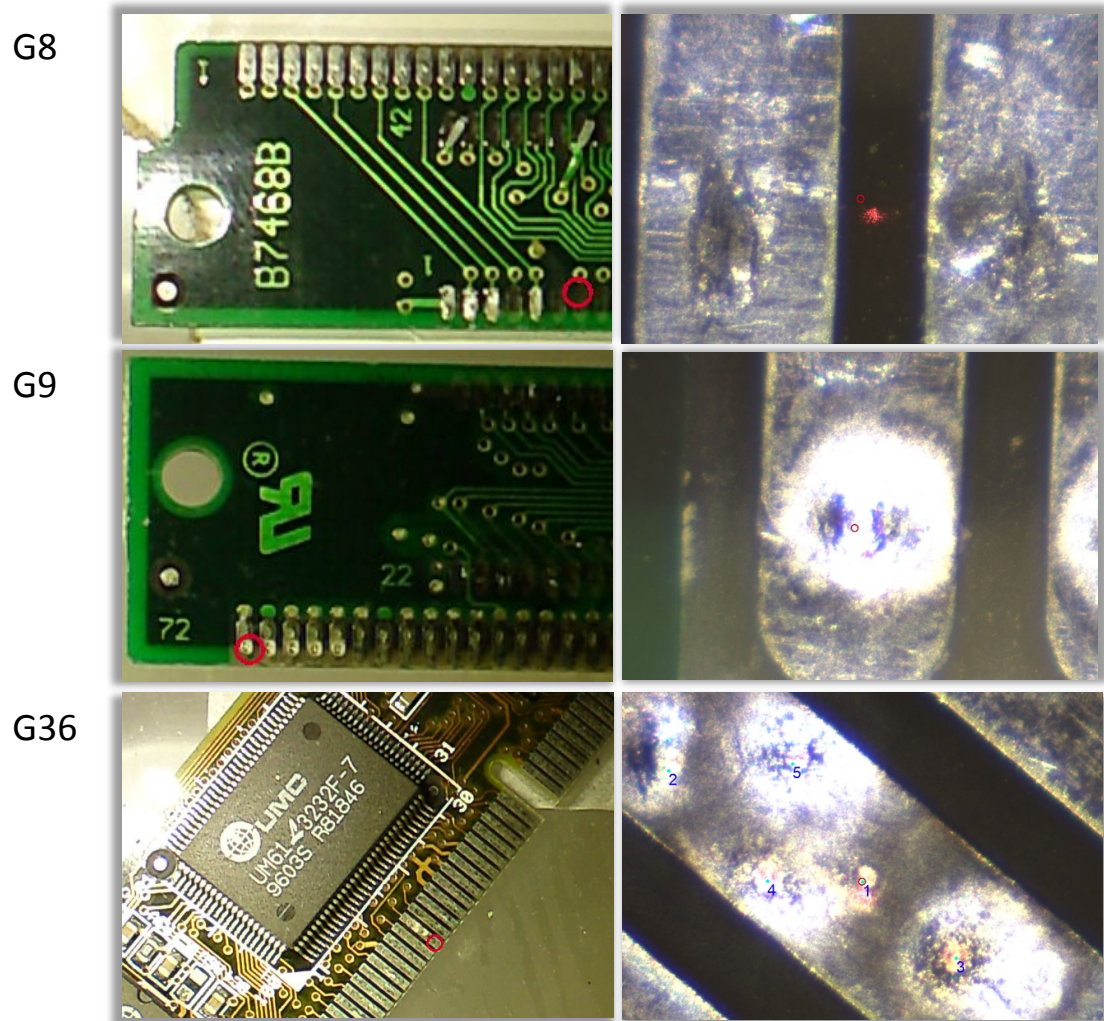


Figure S2. General view and ablation points of samples G8, G9 and G36.



Fig 3a. Sample G12, dimensions under the minimum required for EDXRF analysis at the used equipment (Shimadzu model EDX 700).

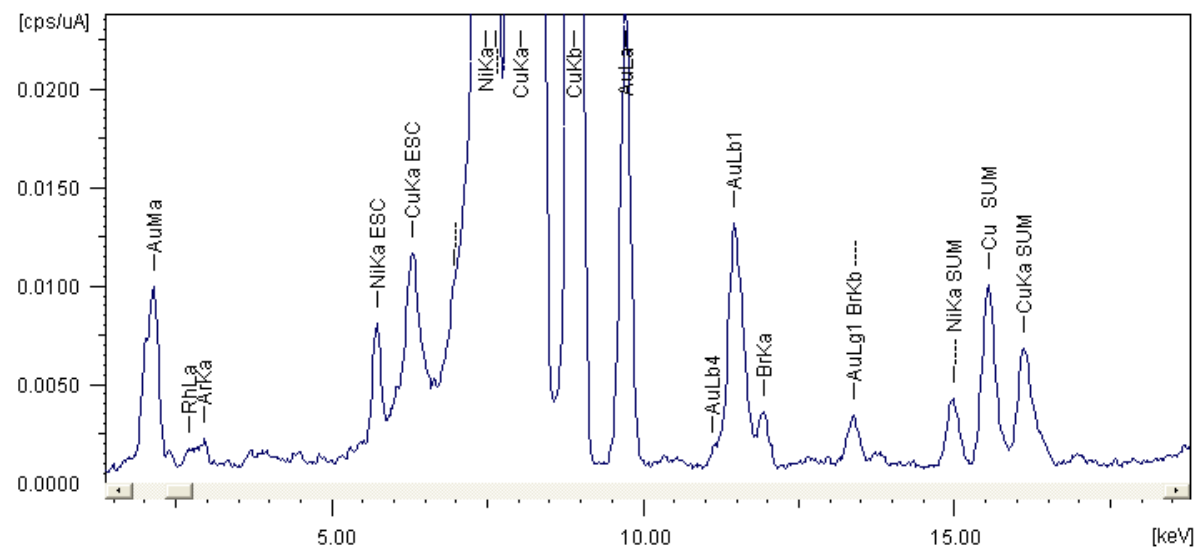


Fig 3b. EDXRF spectrum of sample G3.

Figure S3. General view of sample G12 in the analysis chamber of the EDXRF spectrometer (3a) and the EDXRF spectrum obtained for sample G3 (3b).

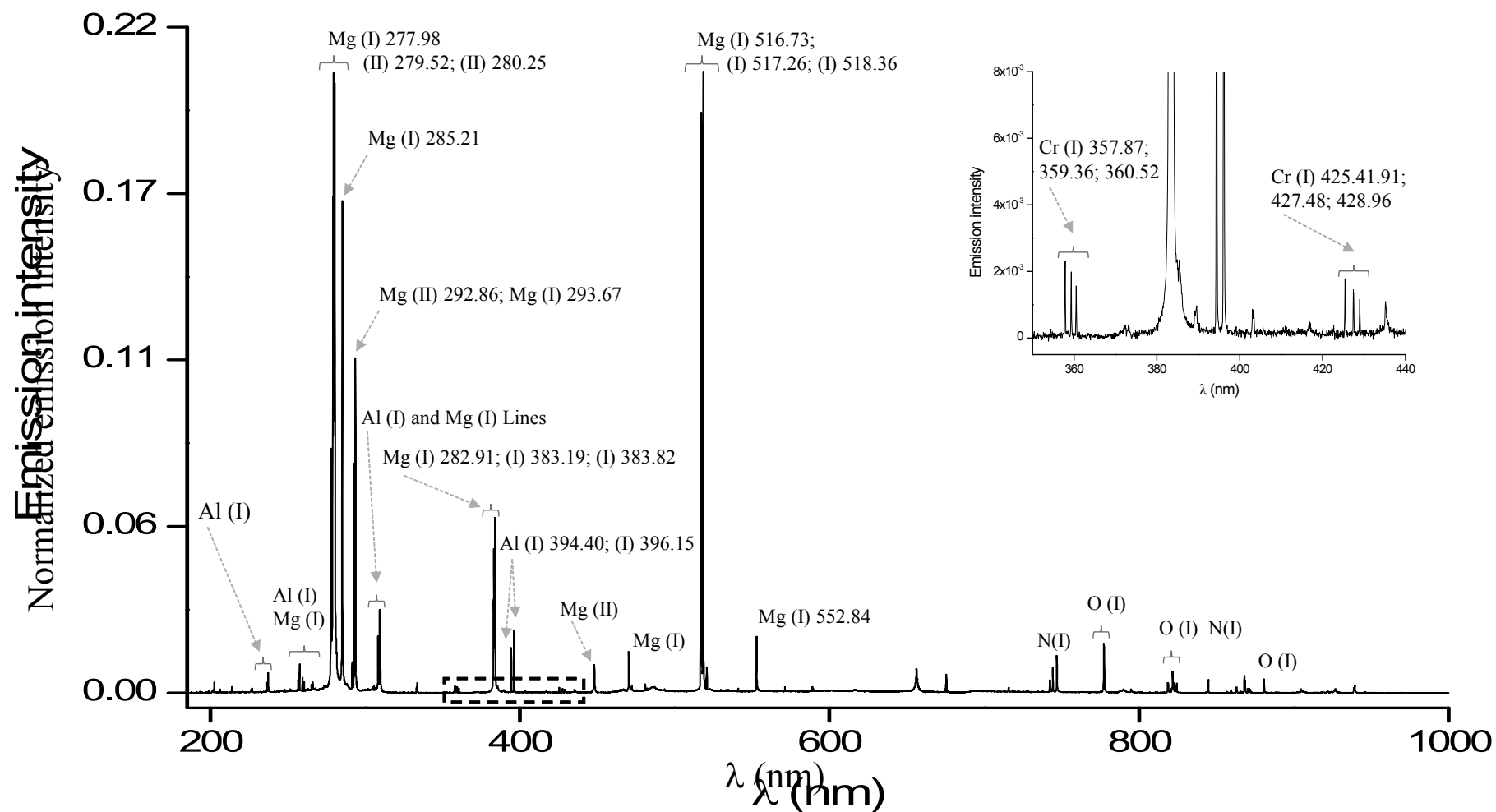
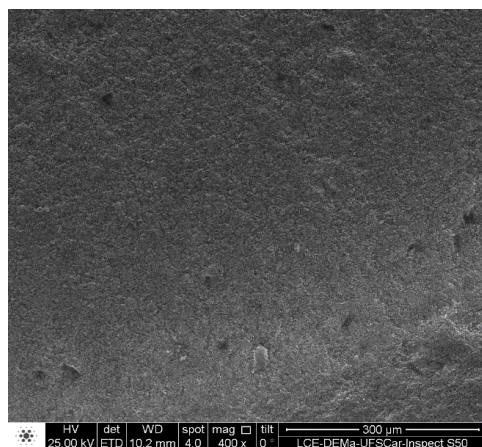
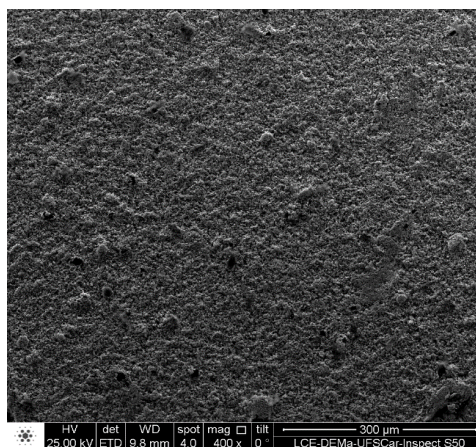


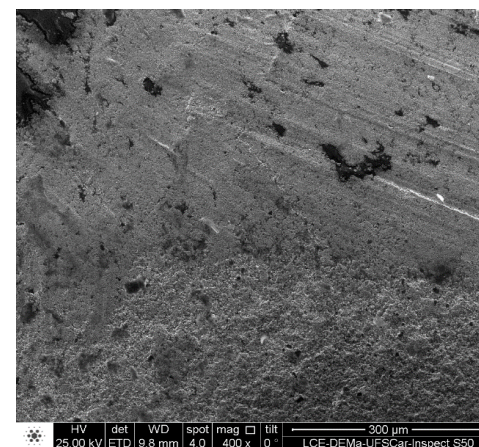
Figure S4. LIBS spectrum obtained from the thirtieth pulse for sample S12.



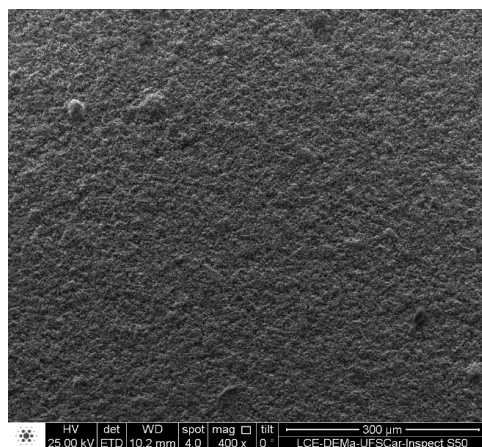
S1



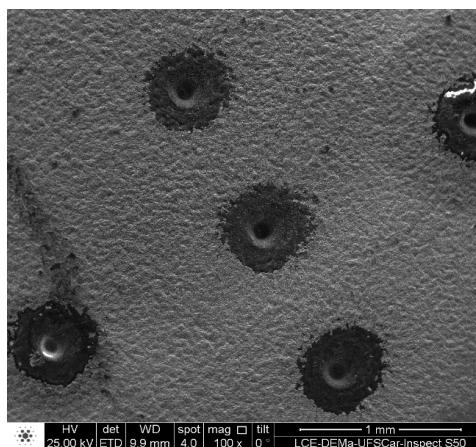
S4



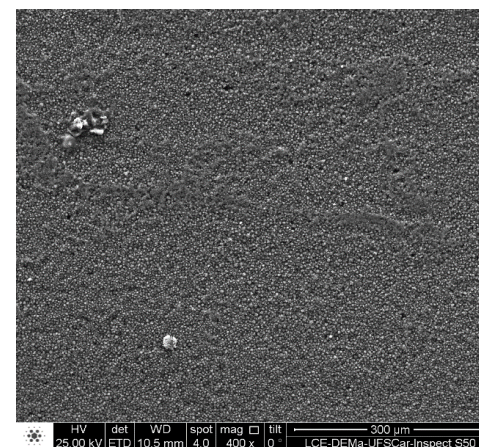
S8



S9



S10



S12

Figure S5. Micrographs showing the distinct aspects of the surfaces where the presence of Ag was investigated.