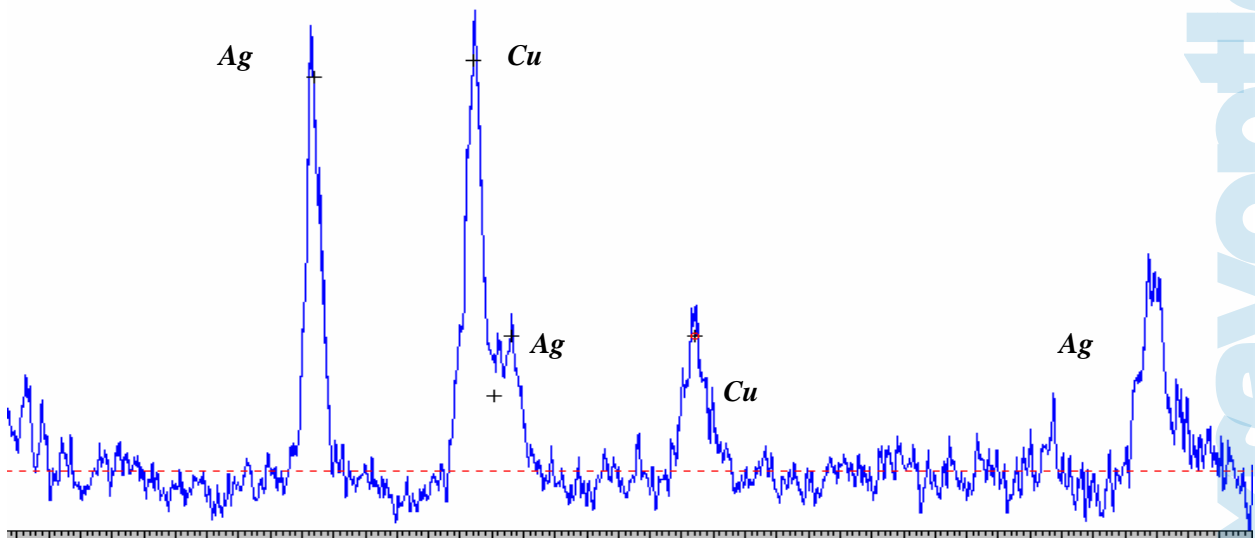


# Expertise of Coins

## (1) Mexican silver peso of 1961

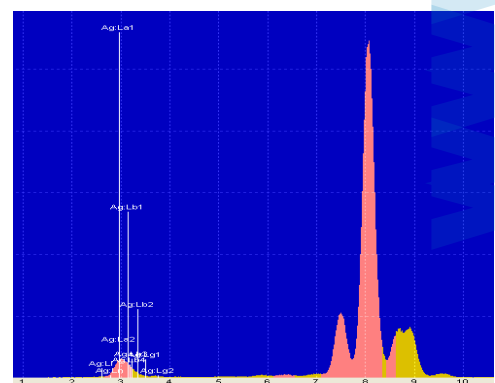


Diffractogram indicates presence of two phases: one on the basis of solid copper solution in silver (indicated as Ag), and the second on the basis of solid silver solution in copper (indicated as Cu)

X-ray fluorescent analysis evidences low content of silver (not more than 20%) and significant admixture of nickel.

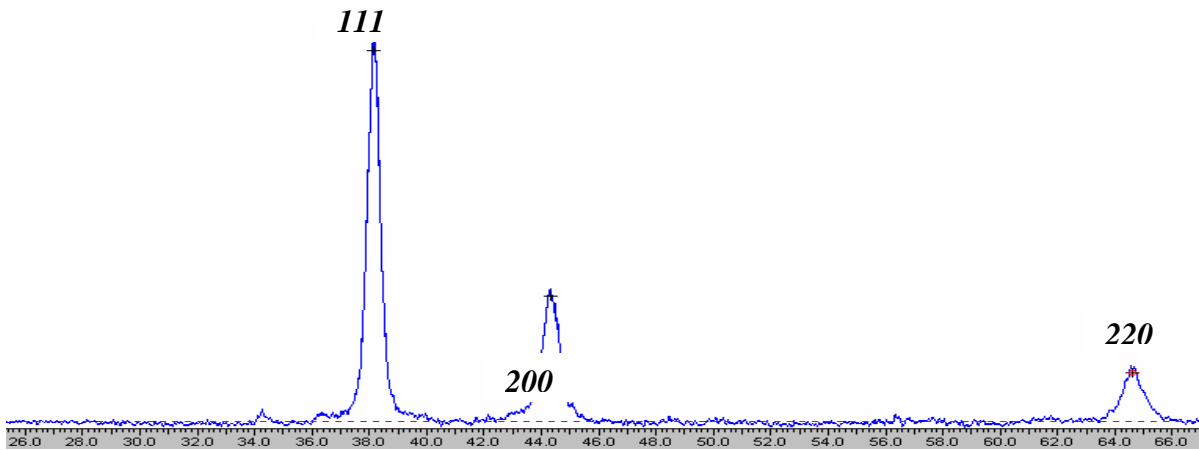
Composition: Ni – 9.8  
Cu – 69  
Fe – 0.3  
Ag – 20.22

Based on phase and spectral analysis, peso consists of copper-nickel alloy covered with silver.



## (2) Soviet silver coins

A 15 kopecks coin of 1928 (the USSR). Coin composition: billon alloy (50% Ag and 50% Cu) with surface coating with a layer of pure silver.



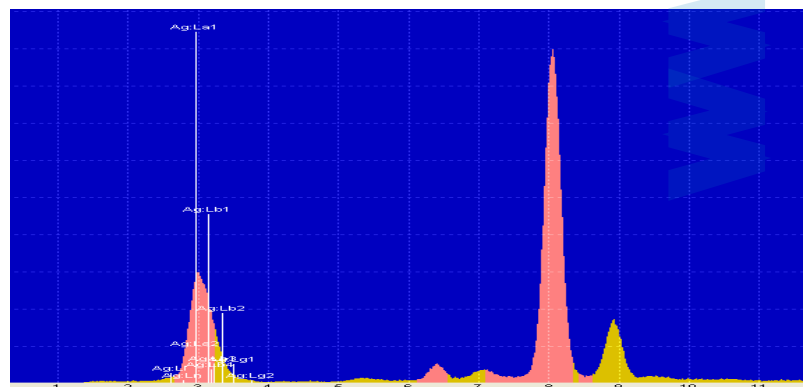
Diffractogram of the coin surface indicates high purity of silver (> 98%).

In case of x-ray fluorescent analysis, interaction of x-rays (Mo) with deeper layers than those in case of diffraction analysis takes place. Energy-dispersion analysis shows significant content of copper evidencing copper base and a rather thick silver coating of the coin.

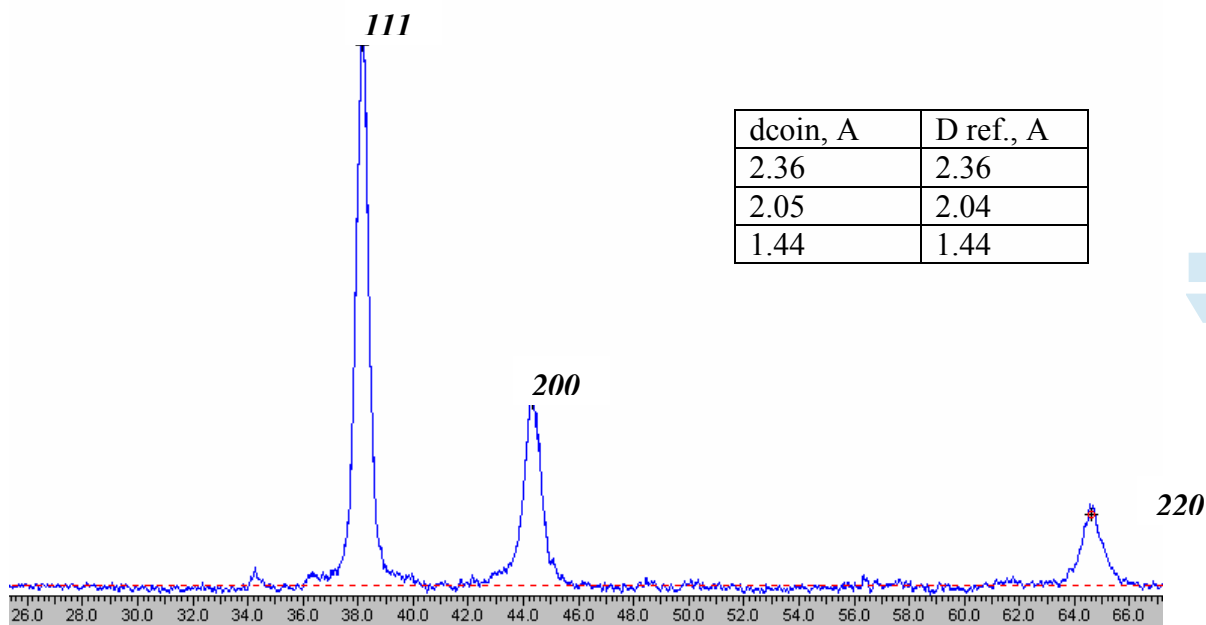
Composition: Cu – 38  
 Fe – 1,25  
 Ag --61

Inter-planar spacing  
 For lattice of Ag coating  
 Of the coin and of the reference sample

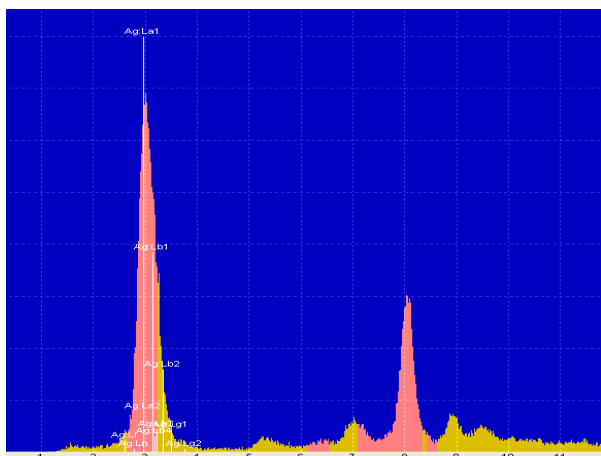
д <sub>МОП</sub> , А	д <sub>ЭТАЛ</sub> , А
2.36	2.36
2.04	2.04
1.44	1.44



**(3) 50 kopecks coin of 1924 (medallist Peter Patianov, minted in the Leningrad Mint, composition: Ag- 900 standard)**



Diffractogram shows Ag of high purity without admixtures in the top layer.  
X-ray fluorescent analysis of the surface layer confirmed high standard of silver.



Composition: Cu – 7,6  
Fe – 0,4  
Ag – 91