

RAPORT DE ANALIZA

OBIECT: Identificare si caracterizare nanoparticule in proba Ag (suspensie coloidala)

TEHNICA EXPERIMENTALA: Microscop electronic prin transmisie, microanaliza de raze X dispersiva in energie (EDAX), difractie de electroni

REZULTATE EXPERIMENTALE

S-au identificat nanoparticule de Ag cu diametrul mediu de 2,5nm .

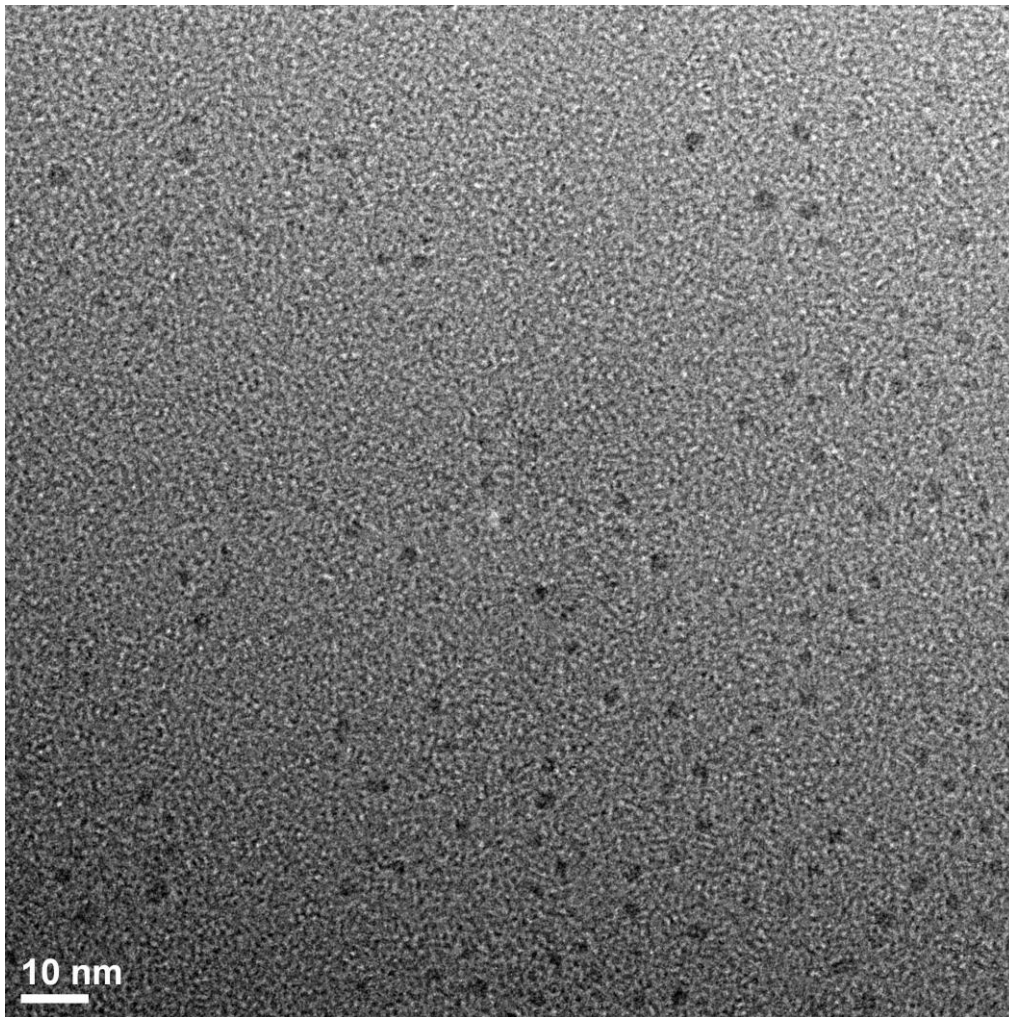


Fig. 1 Imagine de microscopie electronica prin transmisie (TEM) in camp luminos ce pune in evidenta nanoparticule de Ag (formatiunile intunecate din imagine) depuse pe film amorf de carbon.

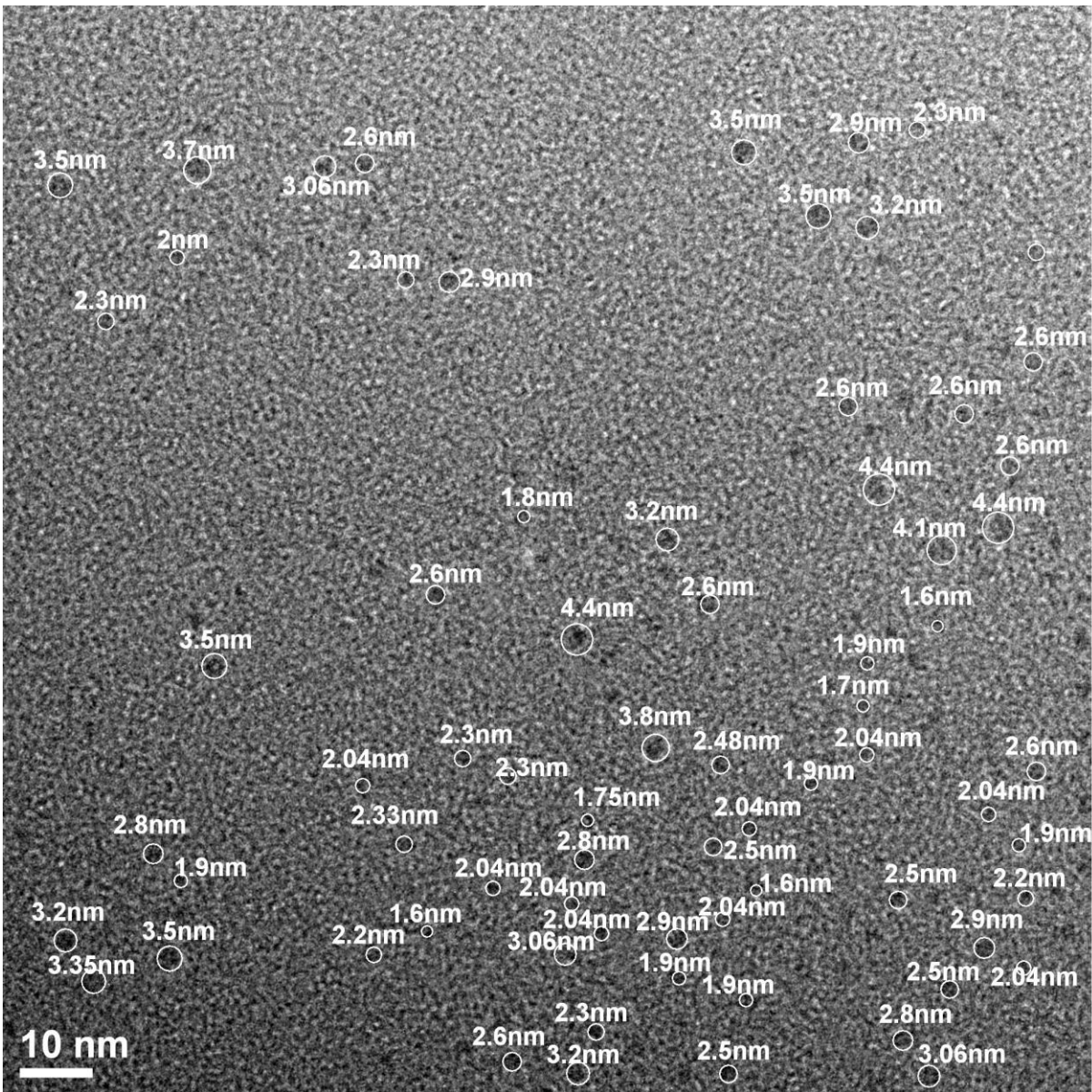


Fig. 2 Masuratori de dimensiuni de nanoparticule din fig. 1

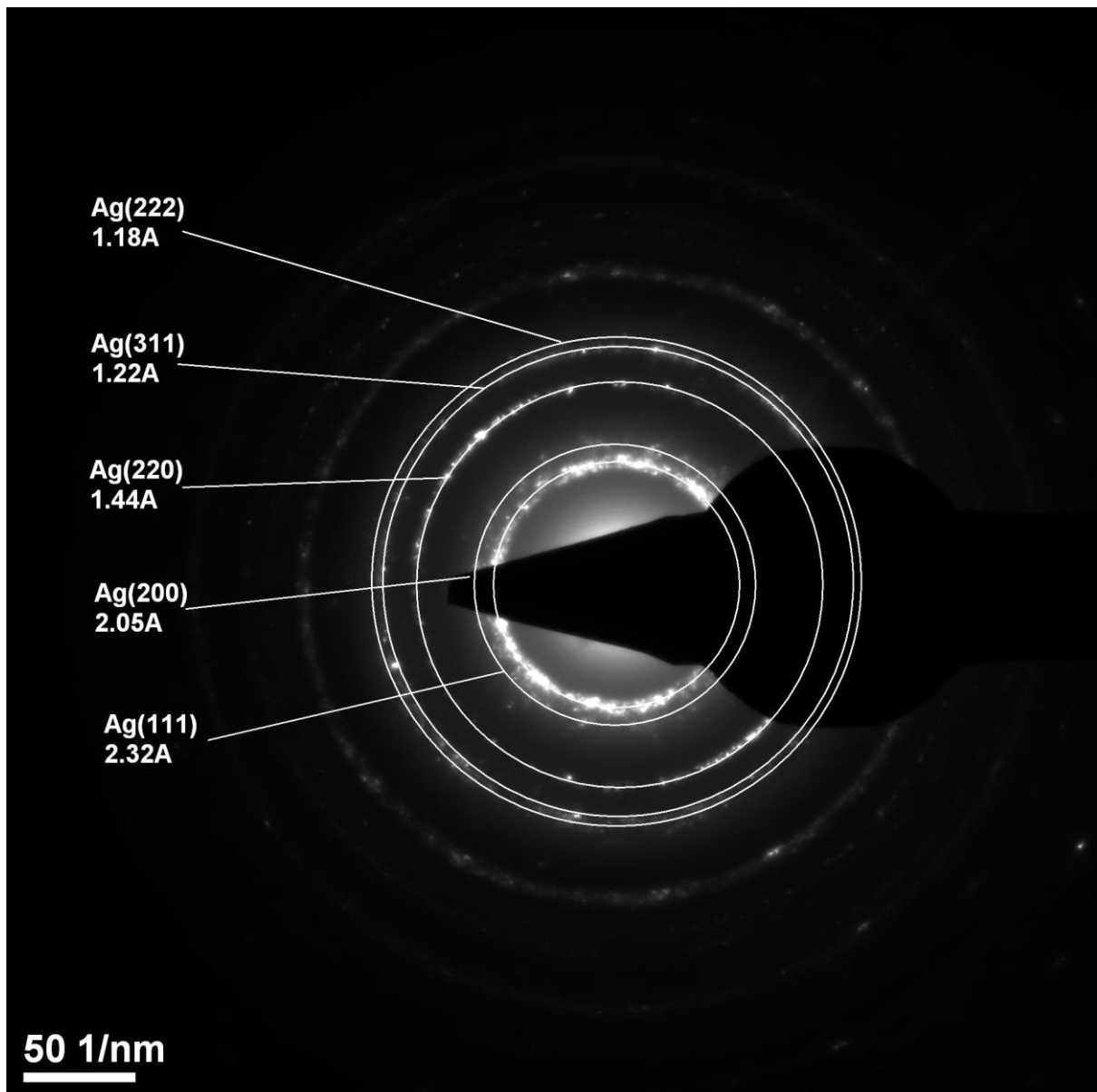
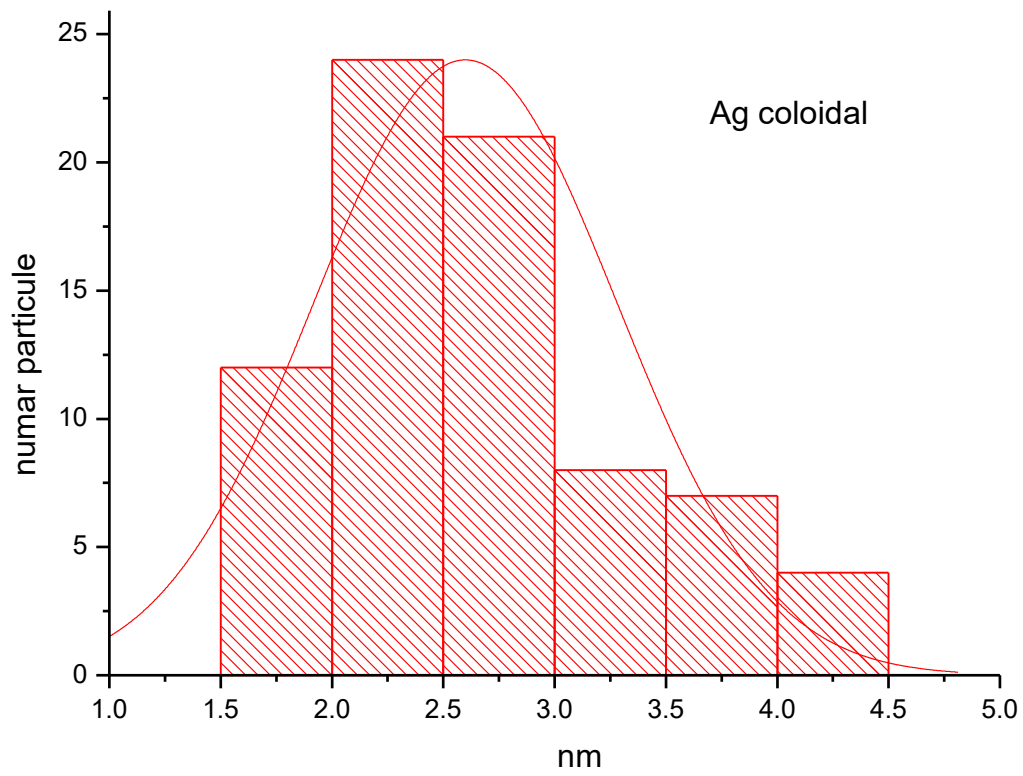


Fig. 3 Imagine de difracție de electroni pe aria din fig.1 care demonstrează faptul că nanoparticulele sunt cristalite de Ag.



| N Total | Diametru mediu (nm) | Deviatia standard (nm) | Diametru minim (nm) | Diametru maxim (nm) |
|------------|---------------------------|------------------------------|---------------------------|---------------------------|
| 59 | 2.49441 | 0.6713 | 1.6 | 4.4 |

Fig. 5 Histograma masuratorilor evidentiate in fig. 2