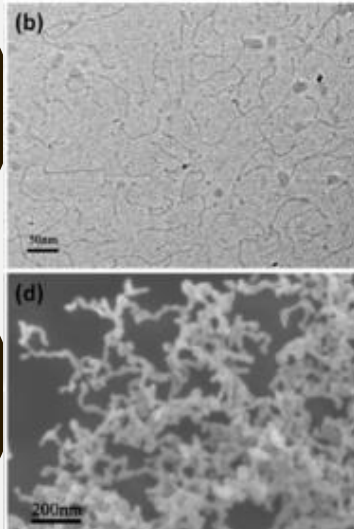


- **Facile synthesis of gold and gold-based alloy nanowire networks using wormlike micelles as soft templates.**

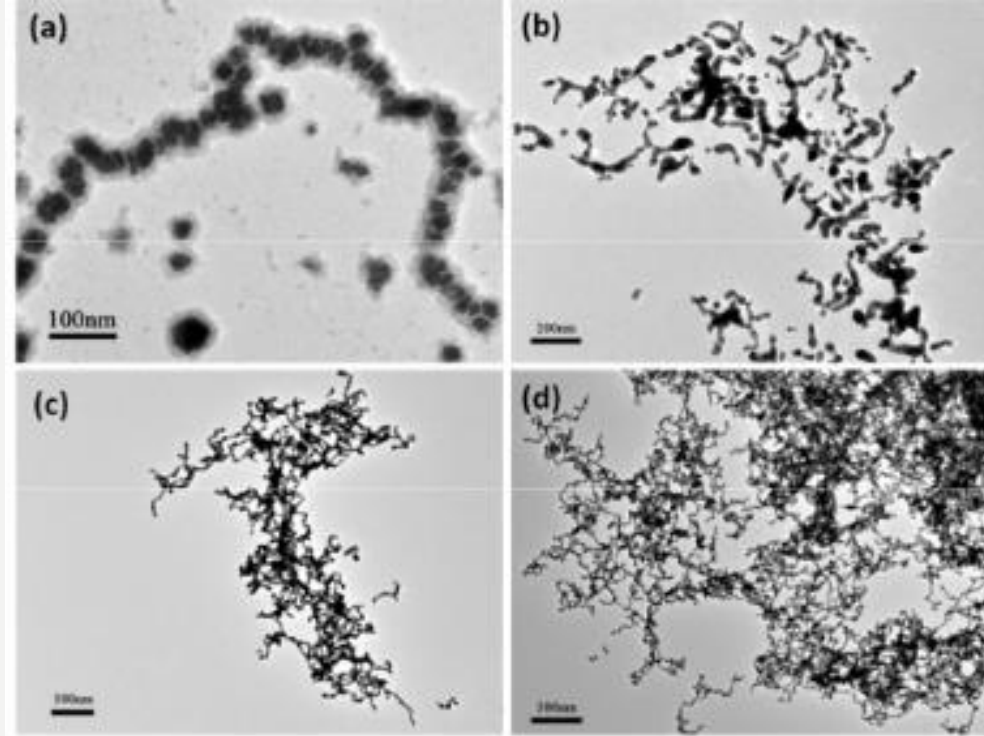
doi:10.1039/c4cc08549c

- Polymer worm-like micelles with auric precursors were mixed with different reductants to obtain gold nanowires and gold based alloys. Sample preparation is not specified for HR-TEM nor for Cryo-TEM.

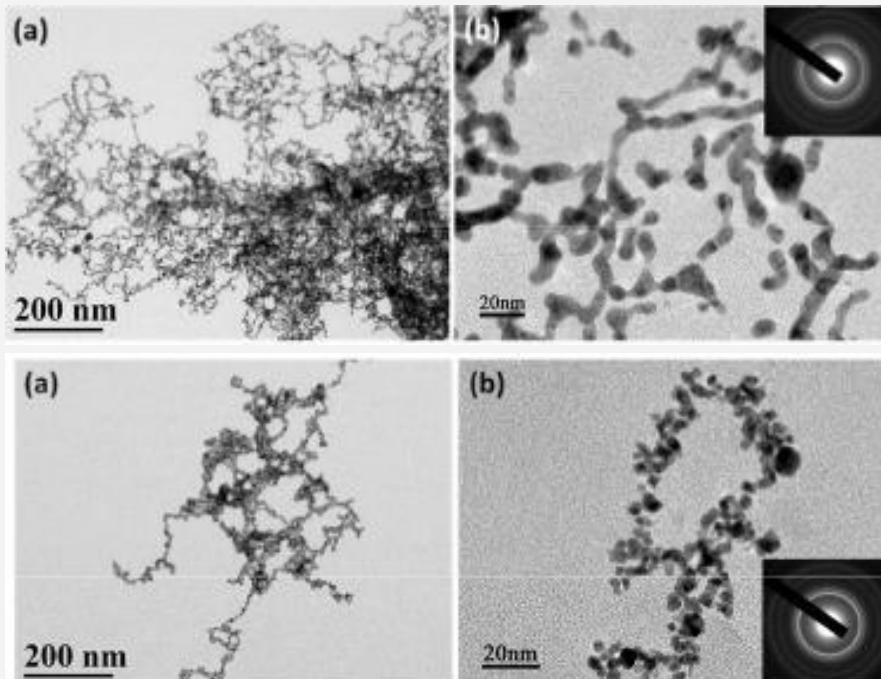


SEM (b) and TEM (d) images of the worm-like micelle system were obtained prior reduction to analyze possible wire morphology.

Héctor Martínez



Gold wire reduction and structure formation was followed after addition of NaBH_4 reduction complex. A) shows the embryo form of the wire, it's composed of several nanoparticles trapped inside de soft structure of the micelle. Shortly after reduction(b, c, d) , the wire is formed by the addition of newly reduced particles onto the Surface of other particles linking them together.



Gold-Silver (upper images) and Gold-Platinum wire were obtained through reduction of mixed precursors, further analysis with EDX showed that alloy wire were obtained and the second component can influence on the morphology of the obtained wire being Ag the best option to obtain more homogeneous wire with smaller diameters.