Tytuł i streszczenie rozprawy w jęz. angielskim (max 1400 znaków	The aim of my work was to check the possibility of using silver and gold nanoparticles on dyeing glass, to determine the mechanisms of colour formation and to determine the influence, shape and size of nanoparticles on the course of their crystallization in glass. I used chemical and physicochemical methods to obtain silver nanoparticles with a defined morphology, and then melted the glasses and crystallized them. Then I subjected the glasses to UV-VIS spectrophotometric tests in order to determine the influence of the shape and size of nanoparticles on the glass colour. I performed the synthesis of silver nanoparticles with the use of spark erosion and chemical reduction. The spark erosion method made it possible to obtain round nanoparticles of various sizes. The chemical method made it possible to obtain elongated nanoparticles with a variable ratio of nanoparticle diameter to length. I performed the chemical synthesis of gold nanoparticles with variable morphology. I characterized the synthesized nanoparticles with the techniques of UV-VIS, TEM, IR and XPS. The aim of the study was also to investigate the effect of the morphology of gold and silver nanoparticles on the resonant frequency of surface plasmons generated both in water suspension and in glass. For comparison, I also conducted research with the use of commercial silver and gold nanoparticles with defined geometric parameters.
Streszczenie w języku, w którym rozprawa jest napisana	