

## **Fabrication of silver nanoparticles dispersed in palm oil using laser ablation**

### **Abstract**

In this study we used a laser ablation technique for preparation of silver nanoparticles. The fabrication process was carried out by ablation of a silver plate immersed in palm oil. A pulsed Nd:YAG laser at a wavelength of 1064 nm was used for ablation of the plate at different times. The palm oil allowed formation of nanoparticles with very small and uniform particle size, which are dispersed very homogeneously within the solution. The obtained particle sizes for 15 and 30 minute ablation times were 2.5 and 2 nm, respectively. Stability study shows that all of the samples remained stable for a reasonable period of time.

**Keyword:** Silver nanoparticles; Laser ablation; Palm oil