

عنوان مقاله:

Preparation of silver colloids by laser ablation technique in water : influence of energy on the ablation efficiency

محل انتشار:

سومین کنفرانس نانوساختارها (سال: 1388)

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خلاصه مقاله:

The interaction of pulse-laser beam with silver target in pure water from 1064nm, Nd:YAG pulsed laser is investigated. Fabrication of silver nanochain suspended in water was accomplished via a laser aablation technique. Photo-induced melting was studied on the formation of nanostructures under both 42mj/pulse and 92mj/pulse laser irradiation energies. The resonance Plasmon wavelengths are 294nm and 483nm for transverse and longitudinal polarizations of nanochain, respectively. As well as, the resonance Plasmon wavelength of nanoparticles was seen at 407nm. We have characterized the silver products by UV-Visible spectrophotometry and Transmission Electron Microscopy .micrographs. The ratio of nanochains to nanoparticles that produced by 42mj/pulse is higher than 92mj/pulse

کلمات کلیدی:

;Nanochain; Plasmon peak; Laser ablation; Silver nano particle

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