

PREPARATION OF METAL NANOPARTICLES FOR SURFACE ENHANCED RAMAN SCATTERING

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TÓM TẮT:

Gold, silver and copper nanoparticles were prepared in clean and biologically-friendly liquids by laser ablation. The average size of nanoparticles ranges from 3 to 30nm. These nanoparticles were used to fabricate nanostructured substrates for surface enhanced Raman scattering (SERS) measurement. Raman spectra were measured by a Micro-Raman spectrophotometer. The results show that gold, silver and copper nanoparticle substrates fabricated by our method are effective for SERS studies. SERS was also obtained when using gold, silver and copper nanoparticle colloid prepared by laser ablation