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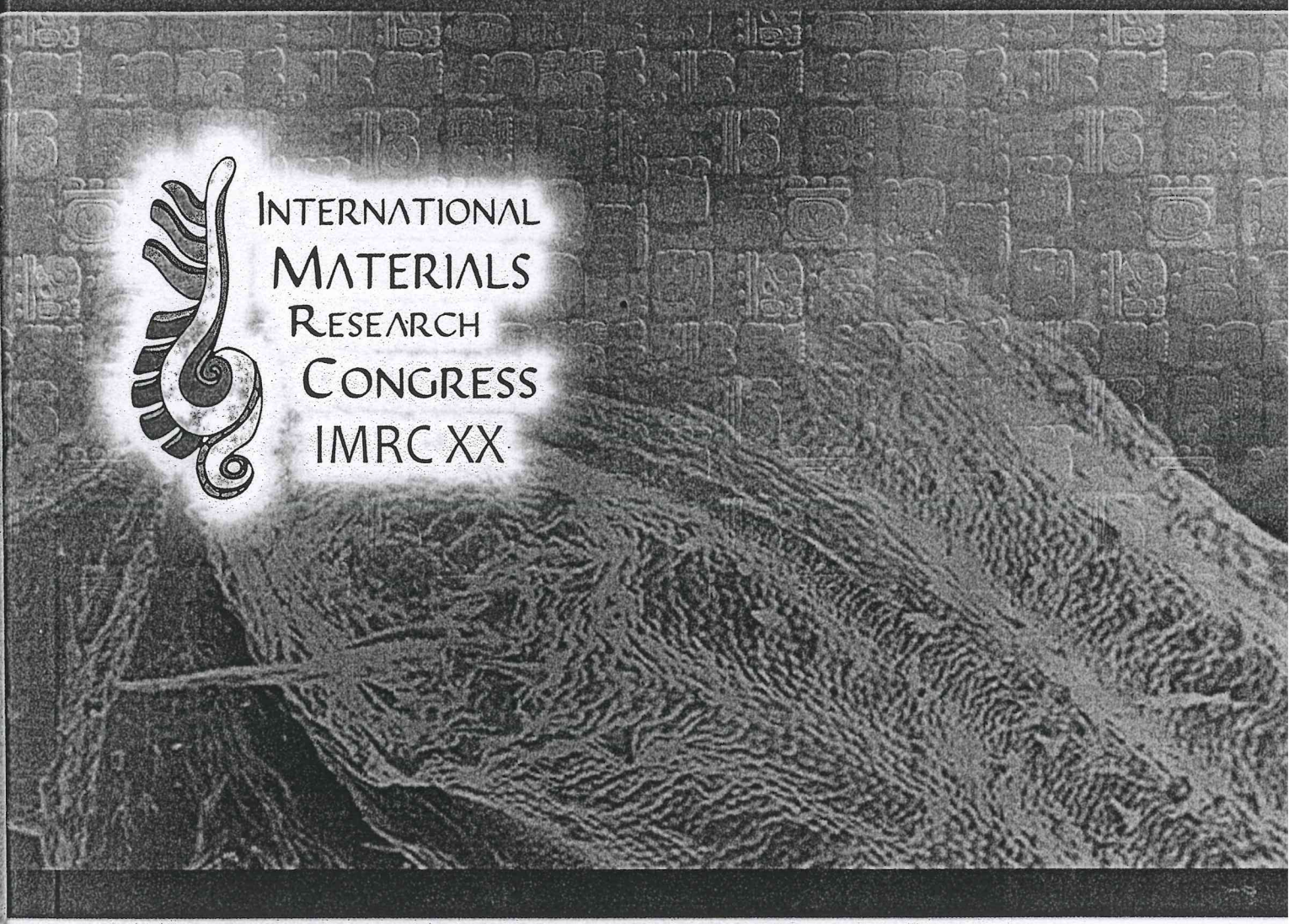

GENERAL PROGRAM

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[NSN-28] GREEN SYNTHESIS OF GOLD NANOPARTICLES USING LATEX OF JATROPHA CURCA

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Nanomaterials are the leading edge of the rapidly field of nanotechnology. The synthesis of nanomaterials over a range of chemical composition and high monodispersity is still a challenging in material science. Most of the techniques for nanoparticles manufacturing are capital intensive, as well as inefficient in material and energy use. Hence, there is an ever-growing need to develop clean, nontoxic and environmentally friendly synthesis procedures. As result researchers in the field of nanoparticles synthesis and assembly have turned to biological systems for inspiration. The use of parts of whole plants is an exciting possibility that is relatively unexplored and under exploited. In this work we reported the formation of nanoparticles of gold using the latex of *jatropha curca* as reducing as well as capping agent. The gold ions when exposed to crude latex are reduced and resulted in the biosynthesis of gold nanoparticles in a size range from 10-20nm. This parameter was obtained by the characterization of the gold nanoparticles by UV-Vis. This eco-friendly approach for the synthesis of nanoparticles is simple and would be suitable for large scale commercial and technical application.

[NSN-30] OPTICAL CHARACTERIZATION OF CdS:Li NANOPARTICLES

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It is well known that the quantum confinement effect modifies the electronic structure of nanoparticles when their diameter is comparable to or smaller than the diameter of the bulk excitón. Spherical CdS:Li nanoparticles were synthetized using cadmium chloride ($CdCl_2$), thiourea (H_2NCSNH_2) and lithium chloride (LiCl) dissolved in a stabilizing agent (oleylamine). This work presents the analysis of the effects on the optical properties produced by incorporation of Li on CdS nanoparticles. This analysis was realized out through photoluminescence and transmission optical techniques. The optical energy band