

## Biocide effects of f nanoparticles of ZnO and ZnO-doped-Ag application in polymeric blend of HMSPP/SEBS

Reference	Presenter	Authors (Institution)	Abstract
02-033	Camila Bassetti	PARRA, D.F. (INSTITUTO DE PESQUISAS ENERGETICAS E NUCLEARES); Bassetti, C. (IPEN); Komatsu, L.G. (Instituto de Pesquisas Energéticas e Nucleares);	In this study, the nanoparticles of Zinc oxide (ZnO) and Zinc oxide doped with Silver (ZnO/Ag) were synthesized in laboratory. The incorporation of these nanoparticles in the blend of High Melt Strength Polypropylene (HMSPP) and Styrene-Ethylene/Butadiene-Styrene (SEBS) was carried by melting process. The obtained materials were evaluated by X-ray diffraction (XRD), Raman Spectroscopy, Differential Scanning Calorimetry (DSC), biocidal tests against the bacteria E.coli and S.aureus following the JIZ 2801 standard. The nanoparticles sized between 100-200nm have spherical form. HMSPP / SEBS / films incorporated with the nanoparticles AgNPs / ZnO showed biocidal effect against the bacteria E.coli and S.aureus. CNPQ, CNEN

<< Back