STUDY OF LUMINESCENT PROPERTIES OF FILMS OF RARE EARTHS DOPED INTO POLYCARBONATE MATRIX

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Due to advantages in photoluminescent (PL) properties to potential applications, rare earths ions (RE^{3+}) are being studied in the last years. Rare earths complexes have unique spectroscopic characteristics as very narrow emission lines, high fluorescence emission efficiency due of absorption coefficient of ligands, and energy transfer to the central ion, making them potencial candidates to new several applications. In this present work, we obtained films of rare earths $Tb(acac)_3\ 2H_2O$ (acac= acetylacetonate and films with $Eu(tta)_3\ 3H_2O$ (tta= 2-tristhenoyltrifluoroacetone) and $Tb(acac)_3\ 2H_2O$ doped into polycarbonate (PC) matrix. The photoluminescence (PL) properties of the luminescent films are reported. Effects of introduction of the rare earth complexes on the film were also verified.